Isabel
Neighborhood Plan

FINAL ENVIRONMENTAL IMPACT REPORT

April 27, 2018

SCH #2016042039

LIVERMORE
CALIFORNIA

Isabel
Neighborhood Plan

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Prepared for

City of Livermore

by

DYETT & BHATIA
Urban and Regional Planners

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1 Introduction

This Program Final Environmental Impact Report (EIR) has been prepared by the City of Livermore in accordance with the California Environmental Quality Act (CEQA). The City of Livermore is the lead agency responsible for ensuring that the proposed Isabel Neighborhood Specific Plan (proposed Plan) complies with CEQA.

1.1 Purpose

The EIR is intended to disclose to City of Livermore decision makers, responsible agencies, organizations, and the general public the potential impacts of implementing the proposed Plan. This program level analysis addresses potential impacts of activities associated with implementation of the proposed Plan, which is described in Chapter 2: Project Description, of the Draft EIR published January 12, 2018.

The primary purpose of the Final EIR is to revise and refine the environmental analysis in the Draft EIR in response to comments received during the public review period. The review period for the Draft EIR (State Clearinghouse No. 2016042039) ran for 45 days, from Friday, January 12, 2018 to Monday, February 26, 2018.

This document, combined with the Draft EIR, constitutes the Final EIR on the proposed Plan. This Final EIR amends and incorporates by reference the Draft EIR, which is available at http://www.cityoflivermore.net/citygov/cdd/bart/inp_deir.htm.

1.2 CEQA Process

Upon publication of the Final EIR, the City will hold public hearings to certify the EIR and to consider adoption of the proposed Plan. First, Planning Commission will make a recommendation, then the City Council, as the decision-making body of the Lead Agency, will take final action. Before the City Council may approve the various discretionary actions needed on the proposed Plan, it must certify that the Final EIR adequately evaluates and discloses the environmental effects of the proposed Plan and that the Final EIR has been completed in conformance with CEQA, based on its independent review and consideration of the information contained in the Final EIR.

For impacts identified in the EIR that cannot be reduced to a level that is less than significant, the City must make findings and prepare a Statement of Overriding Considerations for approval of the proposed Plan. The statement must include the specific social, economic, or other factors that justify the proposed Plan's unavoidable adverse environmental effects.

If the City decides to approve the proposed Plan, it will file a Notice of Determination with the State and Alameda County.

The City of Livermore has prepared this document pursuant to CEQA Guidelines Section 15132, which specifies that the Final EIR shall consist of:

- The Draft EIR or a revision of the Draft;
- Comments and recommendations received on the Draft EIR, either verbatim or in summary;
- A list of persons, organizations, and public agencies commenting on the Draft EIR;
- The responses of the Lead Agency to significant environmental points raised in the review and consultation process; and
- Any other information added by the Lead Agency.

This Final EIR incorporates comments from public agencies, organizations, and the general public. It also contains the Lead Agency's responses to those comments. Copies of the Final EIR have been provided to agencies and other parties that commented on the Draft EIR or have requested the Final EIR.

1.3 New Information in the Final EIR

If *significant new information* is added to an EIR after notice of public review has been given, but before final certification of the EIR, the Lead Agency must issue a new notice and recirculate the EIR for further comments and consultation. Pursuant to Section 15088.5 of the CEQA Guidelines, significant new information is that which discloses:

- A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented;
- A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance;
- A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it; or
- The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

Corrections or clarifications to the Draft EIR identified in this document do not constitute *significant new information*; the new information in this Final EIR merely clarifies and makes insignificant changes to an adequate EIR. Information presented in the Draft EIR and this document support this determination.

1.4 Organization

This document contains the following components:

- **Chapter 2: Comments on the Draft EIR** lists the agencies, organizations, and individuals that submitted written comments on the Draft EIR; reproduces all comments; and provides a unique number for each comment in the page margin.
- **Chapter 3: Responses to Comments** provides responses to all submitted comments.
- **Chapter 4: Revisions to the Draft EIR** lists revisions to the Draft EIR by chapter and page, in the same order as the revisions would appear in the Draft EIR.

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2 Comments on the Draft EIR

This chapter contains copies of the comment letters received on the Draft EIR during the public comment period, which began on January 12, 2018 and ended on February 26, 2018.

2.1 Comments Received

A total of 23 comment letters and emails were received during the comment period, including one comment letter received after the comment period, on March 21, 2018. On February 6, 2018, a City of Livermore Planning Commission public hearing was held to receive oral comments on the Draft EIR from members of the public. A total of 10 members of the public provided comments at this meeting. This chapter also includes a letter from the State Clearinghouse acknowledging the City's compliance with State Clearinghouse review requirements pursuant to CEQA and stating which comments were submitted by State agencies.

Comments and responses to comments are organized by Public Agency comments and responses (section A), Organization comments and responses (section B), and Individual comments and responses (section C).

Each comment letter is identified by a designator (e.g. "Letter A1" for agency letters). Specific comments within each letter are denoted in the margin by a vertical line and number. For example, "A1-1" corresponds to the first comment in Letter A1.

Responses to comments are found in Chapter 3 of this Final EIR. Responses focus on comments that raise important environmental issues or pertain to the adequacy of analysis in the Draft EIR or to other aspects pertinent to identifying the potential effects of the proposed Plan on the environment pursuant to CEQA. Comments that address policy issues, opinions, or other topics beyond the purview of the Draft EIR or CEQA are noted as such for the public record. Comments on the merits of the proposed Plan rather than on the Draft EIR are also noted as such in the responses. Where appropriate, the information and/or revisions suggested in the comment letters have been incorporated into the Final EIR. These revisions are included in Chapter 4, EIR revisions, of this Final EIR.

Comments received are summarized in Table 2-1.

Table 2-1 Comments Received on the Draft EIR

Comment #	*Date*	*Commenter*	*Agency/Organization*

Agencies (Federal, State, Regional, Local) (A)			
A1	February 26, 2018	Elke Rank	Zone 7 Water Agency
A2	February 26, 2018	Timothy J. Barry	Livermore Area Recreation and Park District
A3	February 7, 2018	Joni Pattillo	Alameda County Local Agency Formation Commission
A4	February 26, 2018	Patricia Maurice	California Department of Transportation
A5	February 26, 2018	Val Menotti	San Francisco Bay Area Rapid Transit District
A6	March 21, 2018	Karen Whitestone	East Bay California Native Plant Society
Organizations (B)			
B1	February 2, 2018	Tom Siewert	Terrence J. Rose, Inc. Real Estate
B2	February 26, 2018	Gordon D. Jacoby	Livermore Venture Partners
B3	February 1, 2018	Janet Laurain	Livermore Residents for Responsible Development
B4	February 26, 2018	Richard J. Grant	Livermore Condor Fund LLC
B5	January 22, 2018	Ronald C. Nahas	Interstate Storage
B6	January 24, 2018	Doug Giffin	Chamberlin Associates
B7	February 26, 2018	Mark Pleis, Chris Stockhaus, and Miriam Chu	Cornerstone Fellowship of Livermore and Chu Family
B8	February 11, 2018	Amara L. Morrison	Wendel, Rosen, Black & Dean LLP
B9	February 26, 2018	Alexander L. Merritt	Sheppard, Mullin, Richter & Hampton LLP
B10	January 29, 2018	Linda C. Klein	Cox Castle Nicholson
Individuals (C)			
C1	February 12, 2018	John Stein	
C2	February 26, 2018	William Smith	
C3	January 12, 2018	Mike Kujacich	

C4	January 12, 2018	Susan Junk	
C5	February 23, 2018	John and Diane Gandolfo	
C6	February 26, 2018	Steven Dunbar	
C7	February 25, 2018	Eugene Wheeler	

CALIFORNIA
NATIVE PLANT SOCIETY
East Bay Chapter, www.ebcnps.org
PO Box 5597, Elmwood Station, Berkeley, CA 94705

March 21, 2018

Lori Parks, Associate Planner
City of Livermore, Planning Division
1052 South Livermore Ave
Livermore CA 94550

Submitted by email to *laparks@cityoflivermore.net*

RE: Draft Environmental Impact Report for the proposed Isabel Neighborhood Plan in City of Livermore

Dear Associate Planner Lori Parks,

The following are the comments of the California Native Plant Society, East Bay Chapter (EBCNPS) on the Draft Environmental Impact Report (EIR) for the proposed Isabel Neighborhood Plan submitted in consideration of a timely manner given an extension to March 21, 2018.

The California Native Plant Society (CNPS) is a non-profit organization of laypersons and professional botanists organized into 34 chapters throughout California. The Society's mission is to increase the understanding and appreciation of California's native plants and to preserve them in their natural habitat through scientific activities, education, and conservation. The East Bay Chapter members are from Alameda and Contra Costa counties.

We recommend the following be addressed in the Final EIR to adequately avoids and mitigate for impacts to rare native plants.

1. Conduct plant surveys using CDFW protocols

A6-1

Many planning contingencies rest on the documentation of special-status species as well as agency consultation, as is acknowledged in the Draft EIR. We recommend providing a reference to the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities State of California* (CDFW, 2009). It describes methods for "(conducting) field surveys in a manner which maximizes the likelihood of locating" species or communities present. This document plays a key role in emphasizing the importance of

A6-1 performing comprehensive biological surveys early on because this forms the foundation for adequate impacts analysis. The Draft EIR could simply add this citation alongside guidance already provided on biological surveying and reporting requirements.

A6-2 In the Draft EIR, the phrase, "if present in the Planning Area" (p 3.7-27) could unintentionally allow for a lack of detection of special-status plant species due to the possibility of false negative surveys. The above protocols (CDFW, 2009) mentions this is an important possibility to avoid in survey methodology. We recommend the Draft EIR revise this phrase and any other similar reference to accommodate the fact that special-status plant species require protection even in locations where previously documented but perhaps not detected in that same year or during a single survey visit.

2. Avoid and/ or Mitigate Where Special-Status Species Are Detected

a) Compliance with EACCS' Recommendations for Focal Plant Species

We recommend the Draft EIR describe compliance with EACSS at the species level. In the "Proposed Plan Policies that Would Reduce the Impact" (P-ENV), one of the proposed policies states adherence to a local conservation strategy is required for projects (p 3.7-29):

> "*P-ENV-23* Require project proponents to comply with the East Alameda County Conservation Strategy (EACCS)."

A6-3 The Draft EIR continues with a description of EACCS habitat mitigation. However, EACCS not only recommends compensatory habitat mitigation ratios, but also compensatory mitigation ratios for specific special-status species that are also especially rare and threatened in our area. We recommend the Draft EIR name and describe the EACCS Focal Plant Species and the ratios referenced for their preservation (as one example, Congdon's tarplant has a mitigation ratio of 5:1) with the potential to occur in the Isabel Neighborhood Plan project area.

The discussion of Impact 3.7-1 indicates that construction would disturb or "could affect" (and thus significantly impact) three named special-status plant species (p 3.7-26). However, big-scale balsamroot (*Balsamorhiza macrolepis var. macrolepis*, 1B.2), Congdon's tarplant (*Hemizonia parryi ssp. congdonii*, 1B.1), and prostrate vernal pool navarretia (*Navarretia prostrata*, 1B.1) are not subsequently described in terms of guidance for avoidance or mitigation ratio provisions. At least one of these rare plants is also discussed in EACSS. Several general provisions in the Draft EIR could ultimately result in protections for these species, however, we recommend the Draft EIR describe avoidance and mitigation specifically for these species for the sake of consistency in this section because they are already identified.

b) Prioritize Avoidance for Plant Species

A6-4

We recommend revision of *Mitigation Measure BIO-1 (MM-BIO-1)* to include avoidance of rare native plant species where possible and compensatory mitigation where avoidance is not possible. Conspicuously, the headline of MM-BIO-1 is one of the only biological mitigation measures that does not specify "avoid where feasible" or "no net loss" as a first priority for the resource (p 3.7-30):

> "MM-BIO-1: Prepare and implement a salvage, relocation, or propagation and monitoring plan for special-status plant species."

The description for this mitigation also does not include avoidance of special-status plant species. In some cases, complete avoidance of project impacts to some very rare plant species is the best practice for survival. We strongly recommend the Draft EIR prioritize avoidance of impacts for all potentially significant impacts to sensitive biological resources.

3. Include Avoidance in Planning

A6-5

The Draft EIR impacts analysis for biological resources mostly discusses avoiding impacts to special-status species during the construction process. We recommend that the Draft EIR include guidance for avoiding significant impacts to the most sensitive biological resources during initial project design.

4. Recommendations on other Biological Resources

A6-6

P-ENV-25 describes exclusion fencing installed "within 50 feet of wetlands and vernal pools to be avoided by construction" (p 3.7-30). These high-value natural resources are sensitive even to temporary impacts on nearby soil movement and hydrological disturbance, both of which would likely occur with construction activity. Vernal pools are a CDFW-protected sensitive natural community. We recommend increasing this buffer distance. For example, P-ENV-18 describes protecting biological resources with a 100- foot buffer or more.

A6-7

Our comment letter on the Notice of Preparation for this project listed many rare and locally rare native plant species we consider have potential to occur on the project site. We request that the Draft EIR address the potential for these species and other locally rare plant species in the planning area, as well as address their protection.

A6-8

Our previous comment letter noted that alkaline or sandy soils may be likely to be present in the project planning area. These soils would provide suitable habitat for special-status species, and

A6-8

thus these species would have potential occur in the project area. We recommend including soil surveys and recommended conservation measures especially for these rare soils types in the Draft EIR.

We look forward to continued involvement as a local organization and interested stakeholder for this project. Please include our contact information for all project notifications. If you have any questions, please contact me at conservation@ebcnps.org or at 510-734-0335.

Sincerely,

Karen Whitestone
Conservation Analyst
East Bay California Native Plant Society

SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT
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February 26, 2016

Ashley McBride
Assistant Planner
City of Livermore, Planning Division
1052 S. Livermore Ave.
Livermore, CA 94550

RE: Isabel Neighborhood Plan and Draft Environmental Impact Report

Dear Ms. McBride:

On behalf of the San Francisco Bay Area Rapid Transit District (BART), we appreciate the opportunity to provide comments on the Isabel Neighborhood Plan (INP) Public Review Draft and the Draft Environmental Impact Report (DEIR). BART appreciates the City of Livermore's willingness to incorporate the BART Board-adopted policies and performance measures for Transit-Oriented Development (2016), Station Access (2016), and Affordable Housing (2016), as well as consideration of the Transit-Oriented Development (TOD) guidelines, and Multimodal Access Design Guidelines (MADG) for the development of the plan.

Considering the potential BART to Livermore extension and BART's position as a primary landowner in the core of the INP, the region has a strong interest in seeing the Isabel Neighborhood become a vibrant transit-oriented development around the BART Station with rich multimodal access options. The vision of the Isabel area as a dynamic new neighborhood of Livermore, offering jobs, housing, retail and community spaces and parks with extensive pedestrian/bike trails and placemaking features, is closely tied to BART's interests and policy goals.

A5-1

BART looks forward to collaborating with the City to make the INP vision a reality. Thank you for your thoughtful review and consideration of the comments below. If you have any questions, please contact Tim Chan at (510) 287-4705 or at TChan1@bart.gov.

Regards,

Val Menotti
Chief Planning and Development Officer
San Francisco Bay Area Rapid Transit

Draft Isabel Neighborhood Comments

General comments

Parking. BART acknowledges the City's efforts to minimize parking and enhance other multimodal access opportunities. However, BART believes that the INP parking plans and policies can still be improved.

Despite the BART parking garage south of I-580 being sized appropriately for the projected 2040 ridership/parking demand based on the BART to Livermore Extension analysis, the INP plans for additional parking in the neighborhood commercial center. Parking options include a surface, rooftop or underground lot initially to service the retail center. The neighborhood commercial center will be designed to accommodate a future multi-level parking structure for shared commercial and BART parking if the City determines one is necessary in the future. As stated in the INP, any future commuter structure on this site adjacent to BART station area will need to be further analyzed depending on future demand.

BART appreciates the decision not to include a parking structure adjacent to the station entrance from the outset of the plan implementation since demand for parking may decrease in the future if other multimodal access options are successful and/or autonomous vehicle services become prevalent. A parking lot can more feasibly be redeveloped than a garage, if no longer needed for parking.

A5-2

That said, BART is concerned that the location of the additional parking capacity (as a surface, rooftop or underground lot) in such close proximity to the BART station entrance at a key point of pedestrian and bicycle access to the station will diminish the placemaking features of the development and discourage active and shared-ride modes of transit access, as well as diminish the overall quality of the transit-oriented development. Research indicates that distance from the station, and the quality of the built environment, both influence the use of rail transit and the willingness of a patron to walk to a station, especially for commercial destinations (see attached). This raises another concern that additional parking at a central location could stand between BART and the Innovation Hub, discouraging workers from taking BART to work and encouraging them to drive to work, particularly if parking is free or minimally priced. This would reduce the likelihood that the Isabel Station will contribute to BART's access mode share targets from BART's 2016 *Station Access Policy Performance Measures and Targets*. If the City were to include additional parking, BART would recommend locating it further north, outside the core area but still providing a connection to the retail proposed on Main Street. If a structured garage were eventually deemed necessary, BART suggests that other nearby parking supplies might serve the purpose sufficiently. The Airway Business Park District supplies an abundance of parking just west of and partially within a half-mile radius of the proposed Isabel BART station.

In general, the neighborhood is still over-parked and is not entirely consistent with BART's TOD policy and guidelines which recommend against parking minimums and recommend lower parking maximums (1 space per unit for residential and 2.5 spaces/1,000 square feet for non-residential). All land uses should have parking maximums, and there is currently no maximum for the Business Park designation. Eliminating parking minimums and reducing parking maximums can help reduce the cost of housing, consume less valuable land near transit and reduce associated environmental costs, such as water pollution from increased impervious surfaces.

Station area land use and densities.

BART is pleased with the INP land use plan. The diversity of the residential and non-residential uses has great potential to achieve a vibrant TOD environment. Additionally, land uses are well distributed, minimizing exposure of future residents to Toxic Air Contaminants (TACs) by concentrating office uses along the north side of I-580, near the BART station, while most new residential uses would be located at least 500 feet away from I-580 to meet the Bay Area Quality Management District's (BAAQMDs) regulations.

BART acknowledges the City's efforts to plan for higher densities in the INP area and that the plan will meet the current Plan Bay Area Priority Development Area (PDA) goals and BART's TOD Performance Targets, if the plan is implemented as currently envisioned. However, where possible, it is important to have a more compact footprint within the ¼- (most important) and ½-mile radius of the station to:

1) Generate the highest level of ridership commensurate with a regional transit investment;
2) Address our regional housing crisis; and
3) Achieve regional greenhouse gas reduction targets.

BART would like to see higher densities as suggested in the detailed comments below.

Pedestrian and bicycle infrastructure. BART acknowledges and supports the multiple pedestrian and bicycle features proposed in the INP, meeting many of BART's Multimodal Access Design Guidelines (MADG) recommendations, including: pedestrian-scale wayfinding, 6' minimum clear sidewalk for all the street types, extensive bike lanes and minimizing lane widths for several street types to enable safer, more inviting space for pedestrians and cyclists.

A5-2

The plan emphasizes a connected bicycle and pedestrian network to access the BART station, which is consistent with BART's own 2016 Station Access Policy. However, the plan's approach focuses on potentially costly underpasses and overpasses. BART is concerned about ability to create high-quality walking and biking station access for BART riders from the neighborhood, given the high-level of investment needed for grade-separated pedestrian crossings. Nevertheless, these improvements are still less expensive than providing additional structured parking, and BART urges the City to prioritize bicycle and pedestrian infrastructure and conditions over additional parking and to make that priority clear in this plan.

Specifically, BART is concerned about the Isabel Avenue (Isabel Path) undercrossing. Due to increasing incidence of homelessness and drug use in the Bay Area, we are sensitive to potential personal safety and security issues often associated with pedestrian grade-separated crossings. Because of these concerns and higher comfort levels for users, BART recommends an at-grade crossing at this location. If the City does move forward with the Isabel Path however, a full funding plan will be critical, since it serves as the main pedestrian corridor to the station. Additionally, BART urges the City to consider the operating and maintenance costs associated with this type of infrastructure. If the space is not well-maintained and does not provide a high-level of safety and security, it could lead to detrimental effects on BART patron access and usage.

Detailed Isabel Neighborhood Plan comments

Chapter 2: Land Use

1. Figure 2-1: The transition and village uses east of the BART parking structure south of I-580 should be higher density -- this is the area shown as agricultural in the existing uses map, so it can be intensified, and is within the 1/4-mile radius of the station. Suggest all residential within 1/4-mile be designated "Core" and the remainder be designated "Village," except for the parcels backing up on Stetson Way. There doesn't need to be "Transition" up against the park/highway, and Sutter Street should provide enough buffer to densify higher than "Transition."
2. Table 2-2:
    - BART TOD Guidelines calls for a minimum net density 75 du/ac minimum for development on BART parcels (See Section 2.1). The BART parcels within a ¼ do meet the 75 du/ac. However, we recommend that all parcels within ¼ mile also aspire to this requirement.
    - We recommend increasing Village minimum stories to 3
    - We recommend increasing Center minimum stories to 4
    - We recommend increasing Core minimum stories to 4 and maximum to 7 stories
3. Figure 2-5: This figure shows narrow bike facilities and sidewalks, while parking is overabundant (assuming the curb here is meant for parking). Would suggest refining the rendering.
4. Page 2-38: Section 2-5 Airway Business Park Zoning District which is partially within the ½ mile buffer is concerning for the following reasons:
    - Auto-oriented uses (gas stations, auto dealerships, etc.) are allowed
    - Lot coverage is minimal (max 45%), creating a scale of community more amenable to driving than walking, biking, or riding transit
    - The zone is highly parked for any TOD, especially a TOD at least partially within 1/2 mile of the BART station

A5-2

Chapter 3: Transportation

5. Page 3-7: For Bike Streets, bicycle wayfinding is important, especially since Isabel Ave bisects the area, making BART less visible in the core.
6. Figure 3-8 and Figure 3-9:
    - Elsewhere utility zone is called out as 4-6'. Assuming that is also the case here, the sidewalk is very narrow, especially given the overly generous travel lane width. These measurements would make for a less than ideal pedestrian environment.
    - Given more intense traffic on these streets, Class I bike lanes would be more appropriate.
7. Figure 3-10: Specify Bike Lane typology.
8. Figure 3-12
    - Recommend scaling back the number of undercrossings and pedestrian bridges in the planning area. In particular, BART recommends enhancing an at-grade crossing of the Isabel Path as an alternative to undercrossing C12.
    - Recommend ensure that underpass alignment C2 stays close to trail network so that there aren't any conflicts with the BART access road.
9. Page 3-14: In reference to text "While the Plan envisions the Isabel Path as an under-crossing running beneath Isabel Avenue," part of the sentence appears to be missing.

10. Figure 3-14: Add crosswalk on Portola Avenue east of Isabel Ave.
11. Table 3-3
    - See discussion in general comments and BART TOD Guidelines
12. Page 3-30: Under P-TRA-22, consider including pricing strategies.
13. Page 3-32: Under P-TRA-29, consider removing parking minimums.

Chapter 5: Urban Design

14. Figure 5-4
    - Assuming these retail spaces are quieter at certain parts of the day, this undercrossing could be daunting to pedestrians, particularly if the retail isn't busy at night.
    - Highly recommend a high-quality, at-grade crossing for pedestrians and bicyclists that facilitates access between the community and the BART station while also enhancing the livability of the neighborhood.

A5-2

15. Figure 5-7:
    - The Figure indicates a parking garage north of the station directly across from the bus station on BART property within an area designated as office core. BART assumes this is an error since is not identified as part of the parking overlay in the land use maps. Please clarify.
    - Has office/retail delivery/garbage been considered? Driveways? How will deliveries/pick up happen in relation to on-street parking, bus needs, off street parking accesses, etc.
16. Figures 5-8 and 5-9
    - Please confirm clearance height of undercrossing as it appears very shallow which can enhance the perception of decreased personal safety and security.
17. Page 5-42: In reference to "Design Guidelines," In general, this section would benefit from a parking map/diagram or table to demonstration total parking.

<u>Draft Environmental Impact Report Comments</u>

Chapter 4: Analysis of Alternatives

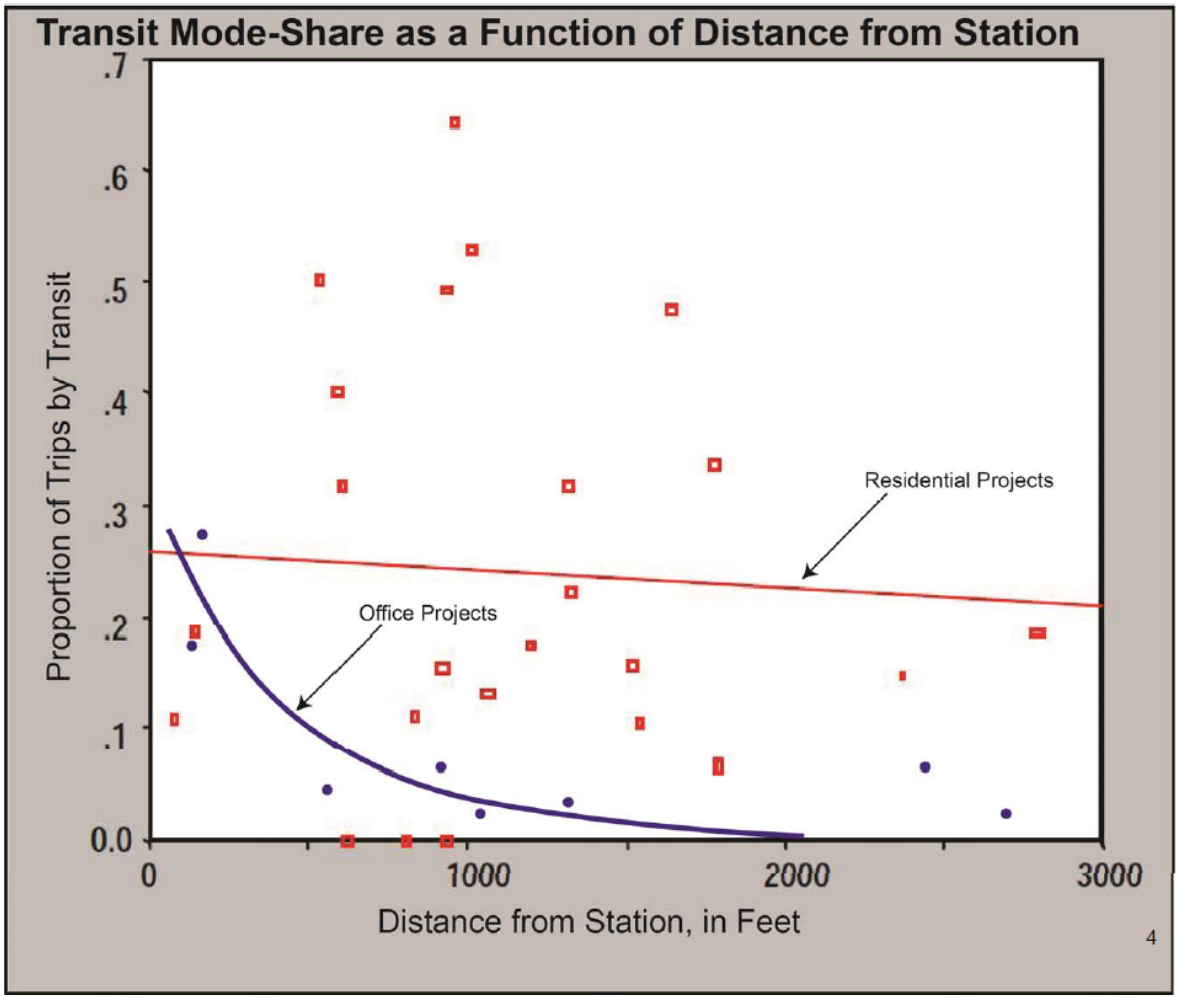
A5-3

1. Page 4-4: In reference to the Enhanced Parking Alternative, see parking comments from the INP above.

A5-4

2. Table 4.2-2: Car-Light Alternative Vehicular and Parking Ratios are more aligned with BART TOD Guidelines.

Sensitivity to Distance from Station



Travel Characteristics of Transit-Oriented Development in California. Lund, Cervero, Willson, January 2004.
https://www.bart.gov/sites/default/files/docs/Travel_of_TOD.pdf

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Making Conservation a California Way of Life

February 26, 2018

SCH # 2016042039
GTS # 04-ALA-2018-00238
GTS I.D. 9208
ALA-580- VAR

Ashley McBride
Planning Division
City of Livermore
1052 South Livermore Avenue
Livermore, CA 94550

Isabel Neighborhood Plan –Draft Environmental Impact Report

Dear Ms. McBride:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. In tandem with the Metropolitan Transportation Commission's (MTC) Sustainable Communities Strategy (SCS), the Caltrans *Strategic Management Plan 2015-2020* includes targets to reduce Vehicle Miles Travelled (VMT), in part, by tripling bicycle and doubling both pedestrian and transit travel by 2020. Our comments are based on the Draft Environmental Impact Report (DEIR).

Project Understanding

A4-1 The City of Livermore is preparing the Isabel Neighborhood Plan (INP) to guide private and public development in the area surrounding the proposed Bay Area Rapid Transit (BART) station in the median of Interstate (I)-580 at Isabel Avenue. The INP will complement BART station planning and would legally function as a Specific Plan. The planning area is within the City's adopted Urban Growth Boundary. The project proposes annexation of one unincorporated property. The vision for the INP is to create a vibrant, walkable neighborhood with a mix of residential, office, retail, and recreational uses. The preliminary development levels would generate about 4,000 new households and up to 10,000 jobs. The INP will include: new land use regulation, design standards, and improvements to the transportation network and other public infrastructure/services. Two interchanges provide regional access to the Plan Area: I-580/Airway Boulevard and I-580/ State Route 84 (Isabel Avenue). The proposed Plan Area is transected by I-580 and State Route 84. Modifications to freeway interchanges or Isabel Avenue would require Caltrans review and approval.

Multimodal Planning

A4-2 Please plan neighborhood and commercial cores on the same side of Isabel Avenue. This diverse land use development pattern would optimize home-to-retail trips made by active modes of

A4-2 transportation and avoid crossing Isabel Avenue.

Vehicle Trip Reduction

The project is located in the Isabel Avenue/BART Station Planning Area (Livermore) Priority Development Area (PDA). PDAs are places identified by the Association of Bay Area Governments as areas for investment, new homes and job growth within existing communities. They are the foundation for MTC's Plan Bay Area *2040* and sustainable regional growth. Additionally, the project site is best identified as **Place Type 4: Suburban Communities** in Caltrans' *Smart Mobility 2010: A Call to Action for the New Decade*. As such, location efficiency factors, such as community design are weak and regional accessibility varies.

Given the project's intensification of use, the low transportation efficiency factors of its place type and its characterization as a PDA, the project should consider all the measures listed below in the project's Transportation Demand Management (TDM) Program to reduce VMT and greenhouse gas emissions. Such measures will be critical in order to facilitate efficient transportation access to and from the project location, reduce transportation impacts associated with the project, and promote smart mobility

- Project design to encourage walking, bicycling and transit access;
- Incorporate the BART connecting Livermore Amador Valley Transit Authority's Wheel Bus 30R bus service to the project (i.e. evaluate transit needs through at each phase of the project) A4-3
- Transit fare incentives such as such as free or discounted transit passes on a continuing basis;
- Bundled annual transit passes;
- Real-time transit information system;
- Bus stop furniture improvements such as shelters, trees and porticos;
- Conveniently located bus stops near building entrances;
- Transit, bicycle and trip planning resources such as a commute information kiosk;
- Secured bicycle storage facilities located conveniently near entrances to minimize determent of bicycle use due to weather conditions;
- Fix-it bicycle repair station(s);
- Showers, changing rooms and clothing lockers for employees that commute via active transportation;
- Ten percent vehicle parking reductions;
- Parking cash out programs for the commercial uses;
- Unbundled parking for the residential uses;
- Charging stations and designated parking spaces for electric vehicles;
- Carpool and clean-fuel parking spaces;
- Designated parking spaces for a car share program;
- Incorporate affordable housing into the project;
- Outdoor areas with patios, furniture, pedestrian pathways, picnic and recreational areas;
- Emergency Ride Home program;
- Transportation Demand Management coordinator;

- Participation/Formation in/of a Transportation Management Association (TMA) in partnership with other developments in the area; and
- Aggressive trip reduction targets with Lead Agency monitoring and enforcement.

A4-3

Transportation Demand Management programs should be documented with annual monitoring reports by an onsite TDM coordinator to demonstrate effectiveness. If the project does not achieve the VMT reduction goals, the reports should also include next steps to take in order to achieve those targets. Also, reducing parking supply can encourage active forms of transportation, reduce regional VMT, and lessen future transportation impacts on I-580 and other nearby State facilities. These smart growth approaches are consistent with the MTC's Regional Transportation Plan/SCS goals and would meet Caltrans Strategic Management Plan sustainability goals.

For additional TDM options, please refer to the Federal Highway Administration's *Integrating Demand Management into the Transportation Planning Process: A Desk Reference* (Chapter 8). The reference is available online at:

http://www.ops.fhwa.dot.gov/publications/fhwahop12035/fhwahop12035.pdf.

Transportation Impact Fees

A4-4

The Lead Agency should identify project-generated travel demand and estimate the costs of transit and active transportation improvements necessitated by the INP; viable funding sources such as development and/or transportation impact fees should also be identified. We encourage a sufficient allocation of fair share contributions toward multimodal and regional transit improvements to fully mitigate cumulative impacts to regional transportation. We also strongly support measures to increase sustainable mode shares, thereby reducing VMT. The Lead Agency should also consider fair share fees for shuttles that use the public curb space.

The Lead Agency should also ensure that a capital improvement plan identifying the cost of needed improvements, funding sources, and a scheduled plan for implementation is prepared for adoption along with the environmental document. Caltrans welcomes the opportunity to work with the Lead Agency and local partners to secure the funding for needed mitigation. Traffic mitigation- or cooperative agreements are examples of such measures.

Lead Agency

A4-5

As the Lead Agency, the City of Livermore is responsible for all project mitigation, including any needed improvements to the STN. The project's fair share contribution, financing, scheduling, implementation responsibilities and Lead Agency monitoring should be fully discussed for all proposed mitigation measures. Furthermore, this project meets the criteria to be deemed of statewide, regional, or areawide significance per CEQA Guidelines §15206. The DEIR should be submitted to both MTC, ABAG and the Alameda County Transportation Commission for review and comment.

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Jannette Ramirez at (510) 286-5535 or jannette.ramirez@dot.ca.gov.

Sincerely,

PATRICIA MAURICE
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse

bc: PMaurice/JRamirez/ZXu/FSchermer

loc: P:\Plan\TranComm\LD-IGR\Alameda County\GTS\Livermore\ALAVAR042 - Isabel Neighborhood Plan\04-ALA-2018-00237-Isabel Neighborhood Plan-DEIR-2017FEB26.docx

file: 04-ALA-2018-00237-Isabel Neighborhood Plan-DEIR-2017FEB26.docx

Alameda
LAFCO

ALAMEDA LOCAL AGENCY FORMATION COMMISSION
1221 OAK STREET, SUITE 555 * OAKLAND, CA 94612
(510) 271-5142 FAX (510) 272-3784
WWW.ACGOV.ORG/LAFCO

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Interim Executive Officer
Joni Pattillo

February 7, 2018

Ashley McBride, Assistant Planner
City of Livermore, Planning Division
1052 South Livermore Avenue
Livermore, CA 94550

Sent via U. S. Mail and email to:
asmcbride@cityoflivermore.net

SUBJECT: Isabel Neighborhood Plan Draft EIR

Dear Ms. McBride:

A3-1

Thank you for the email of January 25, 2018 providing the Alameda Local Agency Formation Commission (LAFCo) with a Notice of Availability (NOA) regarding the Isabel Neighborhood Plan Draft EIR. We did not receive any prior notice about this project including a copy of the Notice of Preparation (NOP) which should have been provided to us in a timely manner, providing this agency with an opportunity to provide input earlier in the process. We regret this oversight and encourage City staff to be certain to include the Alameda LAFCo on all future public notices involving matters that could possibly require subsequent action by our Commission. Notwithstanding this oversight, we recognize and appreciate that the Isabel Neighborhood Plan (INP) and release of the Draft EIR represent major milestones in the City's planning effort aimed at maximizing the opportunities presented by the extension of BART to Livermore which will become a major transit hub.

As we understand it, the INP proposes a number of changes within the 1,138 –acre plan area that would amend the City's General Plan and zoning, taking advantage of and expanding upon the proposed extension of BART to the Isabel Avenue interchange with I-580. Taken together, full buildout of the INP is expected to result in up to 4,095 new dwelling units, 1.65 million square feet of office space, 240,800 square feet of R &D Business Park space, 324,300 square feet of neighborhood commercial space and 296,300 square feet of general commercial space and a reduction of 413,100 square feet of existing general industrial space. Development of the Plan Area is estimated to generate 9,100 new jobs and result in approximately 9,800 new residents to the City's population.

A3-1

From our reading of the EIR we notice that the INP calls for annexation of the 21-acre Gandolfo property, an unincorporated island that is currently in agricultural use and that is categorized as having prime agricultural soils. Annexation of this property will require approval by LAFCo which would occur following certification of the EIR

In response to the NOA, we offer general and specific comments below.

General Comments

As a Responsible Agency pursuant to the California Environmental Quality Act (CEQA), LAFCo will need to rely on the City's EIR for this project in consideration of the associated boundary change mentioned above. LAFCo is an independent, regulatory agency with discretion to disapprove or approve with or without conditions, boundary changes. LAFCo is required to consider a variety of factors when evaluating a proposed boundary change including, but not limited to, the project's potential impacts on agricultural land and open space, the provision of municipal services and infrastructure to the project site, the extent to which the proposal will affect a city or cities and the County in achieving their respective fair shares of the regional housing needs, the timely and available supply of water, etc.

A3-2

The factors relating to boundary changes are contained in the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 ("CKH" - Government Code §56000 et seq.) and include §56668. (Note: all references in this letter are to the California Government Code). We encourage City staff and consultants to consider and reference the factors set forth in §56668 and other relevant sections of the CKH when preparing the Final EIR for this project and in all future environmental documents for projects that require subsequent approvals by LAFCo, as doing so will facilitate the LAFCo application and review process. Failure to do so may result in the need for additional CEQA compliance work on the part of the City before LAFCo can take action.

In reviewing this project, LAFCo will be asked to rely on the City's environmental document for the required annexation. Therefore, the Final EIR for this project should:

A3-3

1) Specifically reference the LAFCo action(s) in the Project Description;

2) List Alameda LAFCo as a Public Agency Whose Approval is Required; and,

A3-4

3) Include within the EIR an evaluation of the LAFCo action(s) and provide an assessment of all relevant CKH factors on which the LAFCo decision would be based, as discussed below.

Specific Comments/Questions

A3-5

1. **Agricultural Resources**. In Section 3.14, the Draft EIR recites the various elements of federal, state and local policies and regulations that relate to the consideration of impacts to agricultural resources. However, the DEIR completely fails to reference CKH and the

A3-5

importance placed on the preservation of prime agricultural lands by the wording of the legislature's intent as set forth in the preamble to CKH (Section 56001). The Draft EIR should recognize LAFCo's role as a governmental agency whose approval is required for this project, and should give due reference to policies that guide LAFCo's decision-making, both in terms of the provisions set forth in the CKH but also the policies adopted by Alameda LAFCo. Doing so would add strength to the conclusion in the Draft EIR regarding the Gandolfo property that buildout of the proposed Plan would result in the conversion and loss of this Prime Farmland which the DEIR properly concludes would be a significant and unavoidable environmental impact.

Preservation of agricultural resources and prime agricultural soils for on-going agricultural use of land in Alameda County is an important policy priority for LAFCo as expressed in the CKH statute and as adopted within the Alameda LAFCo policy document. The information provided in the DEIR will be helpful to LAFCo in its consideration of the proposed annexation and the need to make determinations required under CKH §56668 in which the loss of agricultural lands is an important concern.

A3-6

We are pleased to see that the Plan includes policy P-LU-24 that requires the acquisition of farmland at a 1:1 ratio of compensatory mitigation under permanent easement or participation in the City's TDC program. However, compliance with this policy is not called out as a mandatory mitigation measure. The DEIR should include compliance with and implementation of this policy as a mitigation measure even though the impact to agricultural resources would remain significant and unavoidable.

A3-7

2. **Regional Housing Needs**. Another factor of concern to LAFCo in considering the proposed annexation is the extent to which the project would affect the City's ability to achieve its share of regional housing needs. We are pleased to note that the EIR includes consideration of this issue in relation to the provisions of CHK Section 56668(l).

A3-8

3. **Sustainable Communities Strategy**. The CKH contains two factors relating to regional growth goals and policies [§§56668(g) and 56668.5]. We are pleased to note that the EIR includes a discussion of the relationship of the proposed project to the regional growth goals and policies and related sustainable communities strategies identified in the Plan Bay Area document.

Thank you for your consideration of our comments and questions. Please contact the LAFCo office if you have any questions.

Sincerely,

Joni Pattillo

Joni Pattillo
Interim Executive Officer

c: LAFCo Planner

Livermore Area
Recreation & Park District
An independent special district

4444 East Ave., Livermore, CA 94550-5053
(925) 373-5700 www.larpd.org

General Manager
Timothy J. Barry

February 26, 2018

Mr. Stephen Riley
Principal Planner, AICP
Community Development
City of Livermore

Stephen,

Thank you for the opportunity to review the Isabel Neighborhood Plan, Draft EIR Report, published January 23, 2018. We also appreciate the opportunity to meet with you and City staff on several occasions, prior to the publication of the draft EIR. Livermore Area Recreation and Park District (LARPD) Facilities Committee reviewed the preliminary plans for INP at their November 30, 2017 meeting. Our LARPD Master Plan outlines our Park Standards as follows: Neighborhood Park Type – 4-10 acres: includes open play fields, small picnic areas, tot lots, and Special Use – No minimum size. Even though requested, we understand the City is not willing to expand the size of these park sites.

The proposed park along Collier Canyon Creek does not meet our Park Standards for a Neighborhood Park. However, we can support the Isabel Neighborhood Plan proposed park sites with the following conditions:

A2-1

- The 2.4 acres along Collier Canyon Creek includes a Special Use sports field. While too small for a neighborhood park, we have a demand for a cricket field in the Livermore area. LARPD recommends making this park site a focal point for cricket and compatible uses, to include: restroom, picnic tables with shade, on street parking, and trail amenities (protected from the cricket play area). Cricket requires approximately 500 feet diameter for minimum playing area of 150 yards and a special pitch installed. On street parking is essential at this site.
- The 3 acres along the proposed Main Street designed to accommodate community events should be oriented in such a way that local residents can view the park, on-street parking is available, and adequate lighting is provided for safety.
- The 2 acres south of the freeway, east of Stealth Street that honors the history of the site and agricultural heritage of the Planning Area. This site is acceptable as a special use park, possibly with opportunities for events, community gardening and educational tours for school-age children. Off-street parking should be accommodated.

We are available to further discuss the proposed park options.

Sincerely,

Timothy J. Barry
General Manager

Board of Directors
Maryalice Faltings David Furst Jan Palajac Philip Pierpont Beth Wilson

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7
100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551-9486 • PHONE (925) 454-5000

February 26, 2018

Ashley McBride, Assistant Planner
City of Livermore, Planning Division
1052 South Livermore Avenue
Livermore, CA 94550
Sent by e-mail to: asmcbride@cityoflivermore.net

Re: *Comments on Isabel Neighborhood Plan Draft EIR*

Dear Ms. McBride,

Zone 7 Water Agency (Zone 7, or Zone 7 of the Alameda County Flood Control and Water Conservation District) has reviewed the referenced document in the context of Zone 7's mission to provide water supply, flood protection, and groundwater and stream management within the Livermore-Amador Valley. Following are our comments for your consideration:

1. Page 3.9-1, last paragraph

A1-1 There is a reference to LLNL draining wastewater to the Arroyo Seco. Zone 7's line facility designation is "Line P" (along southwestern side of LLNL), not Line P-1, unless it was meant to say it drains to the relocated Arroyo las Positas, Line P-1, located along the northern portion of LLNL. Please confirm and correct accordingly.

2. Page 3.9-2, first paragraph

A1-2 The Draft EIR states that the Alameda County Flood Control and Water Conservation District is responsible for sections of Arroyo las Positas; please update to read Zone 7 Water Agency. Further, Zone 7 does have some capital improvement plans to modify drainage within the Arroyo las Positas in the Planning Area, which were originally identified in the 2006 Stream Management Master Plan (SMMP). An amendment to the SMMP is nearly complete, which will propose improvements to the reach of Arroyo las Positas north of I-580 and west of the Portola Ave overcrossing, as well as the reach of Arroyo las Positas between Isabel Ave and Airway Blvd. For additional information, contact Jeff Tang at (925) 454-5075.

3. Page 3.9-14, Local Regulations

Several Zone 7 programs and ordinances should be included here:

A1-3
- **Development Impact Fee.** New development and the expansion of existing development may impose a burden on the existing flood protection and storm drainage infrastructure within the Zone 7 service area. Developments creating new impervious areas within the Livermore-Amador Valley are subject to the assessment of the Development Impact Fee for Flood Protection and Storm Water Drainage. These fees are

collected for Zone 7 by the local governing agency: 1) upon approval of final map for public improvements creating new impervious areas; and/or 2) upon issuance of a building or use permit required for site improvements creating new impervious areas. Fees are dependent on whether post-project impervious area conditions are greater than pre-project conditions and/or whether fees have previously been paid. Please refer to Zone 7's Flood Protection & Storm Water Drainage Development Impact Fee Ordinance and additional information at: http://www.zone7water.com/permits-a-fees .

- **Stream Management Master Plan (SMMP).** Zone 7's SMMP was first completed in 2006, and it identified projects in the Planning Area. These projects are currently planned to be superseded with a new project in the SMMP Amendment to be released in the near term, which will address regional flooding issues. For additional information, contact Jeff Tang at (925) 454-5075.

A1-3

- **Groundwater Management.** The project area lies over a groundwater basin (Livermore Valley Groundwater Basin) that is used for municipal, industrial, and domestic and irrigation water supply. To support protection of groundwater quality, the project should be consistent with or comply with appropriate plans and regulations such as Zone 7's Salt and Nutrient Management Plan and the Sustainable Groundwater Management Ordinance, the State's Water Recycling Policy (and associated orders), the State's storm water protection measures, and the County's Water Wells Ordinance.

  Our records indicate that there are 30 water wells in the project area (see attached table and maps). Five wells (3S1E1F2, 3S1E1H3, 3S1E1L1, 3S1E1P2, 3S1E2J3) are Zone 7 monitoring program wells owned by Zone 7 Water Agency and will need to be protected. Well 3S1E1P3 is not owned by Zone 7 but is part of Zone 7's monitoring program. This well and the remaining wells need to be protected or decommissioned. The approximate locations are shown on the enclosed Well Location maps. Please immediately notify Zone 7 if any other wells exist in the project area. All well locations should be field verified and noted on the plans.

  Any planned new well, well repair or modification, well decommissioning or destruction, or exploratory soil boring that may intersect groundwater within Zone 7's jurisdiction must by permitted by Zone 7 before starting the work. In addition, a Zone 7 drilling permit is required to dig, drill, bore, drive, advance by direct push any exploratory soil boring 10 feet or greater in depth within the groundwater basins of Zone 7 regardless of groundwater depth. Find more information at: http://www.zone7water.com/permits-a-fees/36-public/content/64-well-drilling-and-destruction-permits, or contact Michelle Parent at (925) 454-5077.

4. Page 3.10-2, Potable and Non-Potable Water, second paragraph

A1-4

Please add the word "planned" to the sentence as follows: Based on the adopted UWMPs and updated projections, Zone 7 has indicated that there is sufficient ***planned*** water supply at this time to serve the City's General Plan anticipated growth, which accounts for development under the Isabel Neighborhood Plan. This should also be reflected in the Isabel Neighborhood Plan on page 4-21.

5. Land Use Plan Needs Addition of Zone 7 Flood Easement

A1-5

Per the 2011 El Charro Specific Plan Agreement between the City and Zone 7, the parcel shown circled in blue in the image at right is an easement from the City of Livermore to Zone 7 for flood protection purposes, and therefore should not be zoned for commercial development in the Plan.

6. Relation to BART

A1-6 BART was proposing to extend their system to a corporation yard north of Portola Ave, yet the Draft EIR only shows where the proposed station ends and does not indicate any additional track extension to the northeast that may be required.

7. Zone 7 Pipeline and Other Infrastructure

A1-7 Zone 7 has two pipelines/easements within the Plan area. The Altamont Pipeline runs easterly along E. Airway Blvd., from Isabel Ave. to beyond Portola Ave. The Cross-Valley Pipeline runs easterly along Kittyhawk Rd. to a pump station located at the corner of E. Airway & Isabel Ave., then southerly along Isabel Ave. Other water supply facilities are also located within the Planning Area, and need to be protected. Any work within Zone 7's easements will require an encroachment permit. Contact John Koltz, 925-454-5067.

8. Water Supply Assessment

A1-8 Incorporated here by reference is Zone 7's comment letter to the City of Livermore regarding the Water Supply Assessment for the Isabel Neighborhood Plan. Please review and incorporate as appropriate.

9. Additional Information

Included here for additional information is Zone 7's October 2017 comment letter on the Notice of Availability of Draft Environmental Impact Report for the BART to Livermore Extension, as well as letters to the City of Livermore dated June 2017 and November 2017 regarding the Isabel Plan.

We appreciate the opportunity to comment on this project. If you have any questions on this letter, please feel free to contact me at (925) 454-5005 or via email at erank@zone7water.com .

Sincerely,

Elke Rank

cc: Carol Mahoney, Amparo Flores, file

Attachment 1. Zone 7 comment letter on BART to Livermore Extension Draft EIR, October 2017
Attachment 2a/b. List and maps of known wells in the plan area
Attachment 3. Zone 7 comment letter to Livermore regarding water supply for Isabel Plan, June 2017
Attachment 4. Zone 7 comment letter to Livermore regarding Isabel Plan, November 2017

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7
100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551-9486 • PHONE (925) 454-5000

October 16, 2017

BART to Livermore Extension Project
21st Floor, 300 Lakeside Drive
Oakland, CA 94612.

Sent via e-mail to barttolivermore@bart.gov

Re: Notice of Availability of Draft Environmental Impact Report for the BART to Livermore Extension Project and Public Meetings

Zone 7 Water Agency (Zone 7, or Zone 7 of the Alameda County Flood Control and Water Conservation District) has reviewed the referenced Draft EIR in the context of Zone 7's mission to provide water supply, flood protection, and groundwater and stream management within the Livermore-Amador Valley. We have the following comments for your consideration:

1. **New Development / Impervious Surfaces.** New development and the expansion of existing development may impose a burden on the existing flood protection and storm drainage infrastructure within the Zone 7 service area. Developments creating new impervious areas within the Livermore-Amador Valley are subject to the assessment of the Development Impact Fee for Flood Protection and Storm Water Drainage. These fees are collected for Zone 7 by the local governing agency: 1) upon approval of final map for public improvements creating new impervious areas; and/or 2) upon issuance of a building or use permit required for site improvements creating new impervious areas. Fees are dependent on whether post-project impervious area conditions are greater than pre-project conditions and/or whether fees have previously been paid. Please refer to Zone 7's Flood Protection & Storm Water Drainage Development Impact Fee Ordinance and additional information at: http://www.zone7water.com/permits-a-fees .

2. **Section HYD-9 / Mitigation Measure HYD-5, Impacts to Hydrology.** As noted in the Draft EIR, we expect BART to continue to consult with Zone 7 staff on plans for maintaining the existing hydraulic capacity and velocities for storm flows at channel crossing locations.

3. **Zone 7 Stream Management Master Plan (SMMP) Project R5-2.** Sediment management is a key component for overall regional flood protection. In the 2006 SMMP (which is currently being updated), Zone 7 identified a potential location for a new sedimentation basin along Arroyo Las Positas near Portola Avenue and Interstate 580 (see the Project R5-2 description, attached). The BART project includes facilities near that proposed location. Please contact Jeff Tang, 925-454-5075 or jtang@zone7water.com to discuss potential compatibility of these facilities.

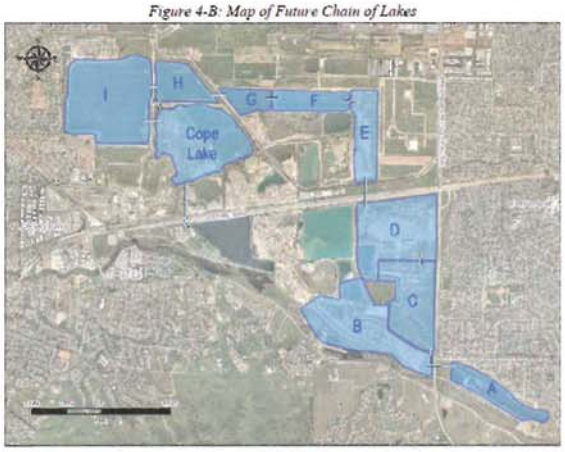
4. **Table 1-1, and page 782:** Zone 7 is the permitting agency for drilling and well permits. Any drilling (well destruction, well construction, geotechnical borings, etc.) must be permitted by Zone 7 before starting work. Find more information at: http://www.zone7water.com/permits-a-fees/36-public/content/64-well-drilling-and-destruction-permits

5. **Existing wells.** Several wells within Zone 7's groundwater monitoring network are within the project limits and have the potential to be impacted. Wells may need to be properly destroyed and a replacement well constructed. BART should consult with Zone 7 for specific rules and practices; contact Matt Katen, 925-454-5071 or mkaten@zone7water.com.

6. **Page 748, last paragraph:** The EIR states that Arroyo Mocho is perennial due to mining discharges. This information is out of date, as the mining companies have not discharged to the Mocho since December 2013. Note also that Zone 7 releases water, when available from the State Water Project, to Arroyo Mocho for groundwater recharge.

7. **Figure 3.H-2:** The depiction of the lakes within the mining area is inaccurate. Lakes F, G, H, and I are not shown but a lake is shown south of where Lake I is. In addition to the image below for reference, included here as an attachment is a pdf with the current pond outlines. Note that due to active mining at some of these lakes, the outline of the lakes can change somewhat from year to year.

Figure 4-B: Map of Future Chain of Lakes



This figure depicts the future Chain of Lakes.

Source: Groundwater Management Program Annual Report 2016 (available at http://www.zone7water.com/36-public/content/76-groundwater-management-program-annual-report)

8. **Zone 7 Existing Facilities.** Water transmission and pumping facilities are located in the Southwest corner of the proposed development at Isabel & East Airway. See Figures 1 and 2, below. We would request that our facility not be within the confines of the BART facilities (including parking areas) to ensure our ability for access during maintenance or emergency activities. Additionally, the Zone 7 facilities could be impacted by construction as it runs along the frontage road of East Airway Ave. Any work with Zone 7's easements will require an encroachment permit; Contact John Koltz, 925-454-5067.

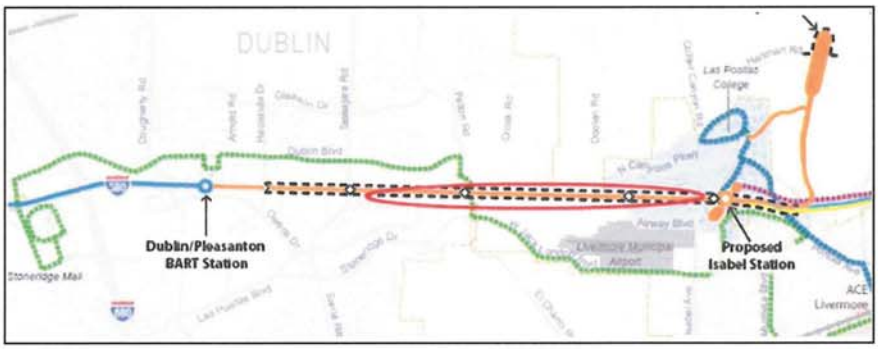


Figure 1. *The red oval indicates the location of a Zone 7 pipeline along the south side of 580 between Santa Rita and Isabel Ave.; this could be impacted by the BART project dependent on how far to the south 580 would be widened to accommodate the BART tracks.*

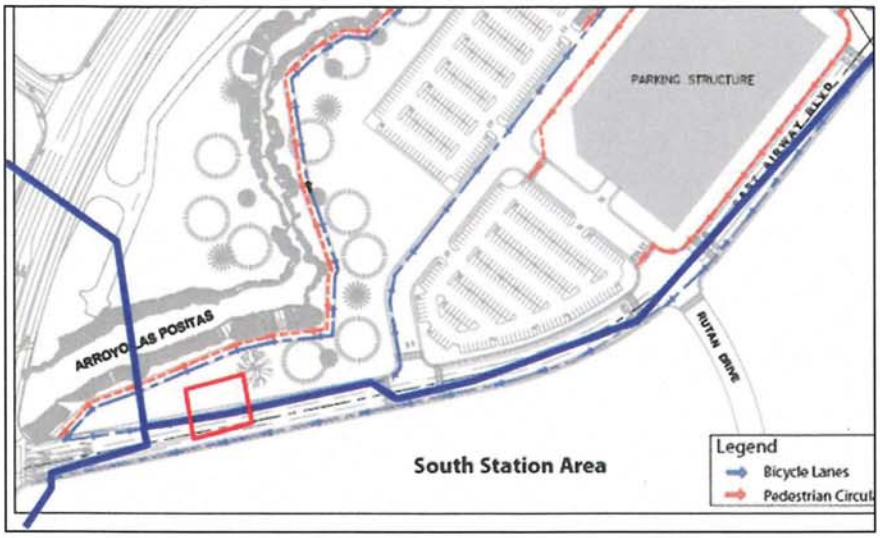


Figure 2. *The blue line denotes a Zone 7 pipeline and the red rectangle denotes a pumping facility.*

9. **Water Supply Evaluation.** Note that Zone 7 provided comments to the City of Livermore on their Draft Water Supply Assessment for the Isabel Neighborhood Plan, which may be relevant to BART's analysis.

On behalf of Zone 7, I appreciate the opportunity to comment on this project. If you have any questions on this letter, please feel free to contact me at (925) 454-5005 or via email at erank@zone7water.com.

Sincerely,

Elke Rank

Elke Rank

cc: Carol Mahoney, Amparo Flores, Matt Katen, Rhett Alzona, Jeff Tang, Joe Seto, file

Attachments (2)

Isabel Neighborhood Plan Well List

Well Number	Use	Address	City	Location	Basin	Status	ComplDate	PermitNum	Driller	Category	SubCategory	GS_Elev	GElevFromDem
2S/2E 31N 1	unknown	<Null>	<Null>	<Null>	<Null>	unknown	<Null>	0	<Null>	well-static	unknown	473.4	473.3633
2S/2E 31N 2	unknown	<Null>	<Null>	<Null>	<Null>	unknown	<Null>	0	<Null>	well-static	unknown	474.5	474.4546
2S/2E 31N 3	unknown	<Null>	<Null>	<Null>	<Null>	unknown	<Null>	0	<Null>	well-static	unknown	474.4	474.4123
2S/2E 31N 4	unknown	<Null>	<Null>	<Null>	<Null>	unknown	<Null>	0	<Null>	well-static	unknown	474.3	474.2333
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3S/1E 1H 4	supply	2740 COLLIER CANYON RD	Livermore	<Null>	Mocho II	unknown	<Null>	0	<Null>	well-supply	supply	425	425.0229
3S/1E 1J 3	irrigation	Collier Canyon Rd & Constitution Dr	Livermore	<Null>	Mocho II	unknown	4/14/2000	20028	GLENN MARTELL	well-supply	irrigation	420.9	420.8683
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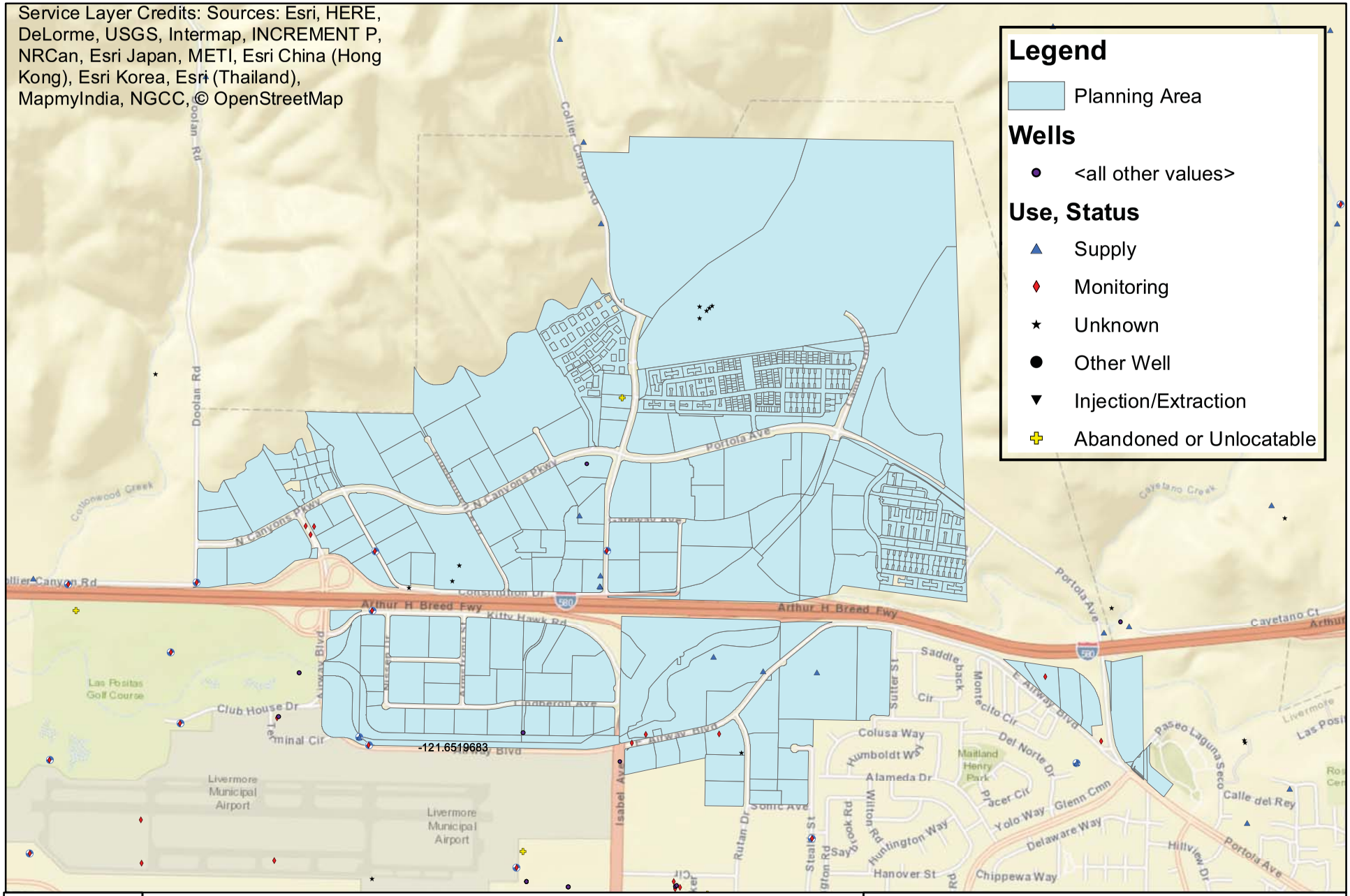
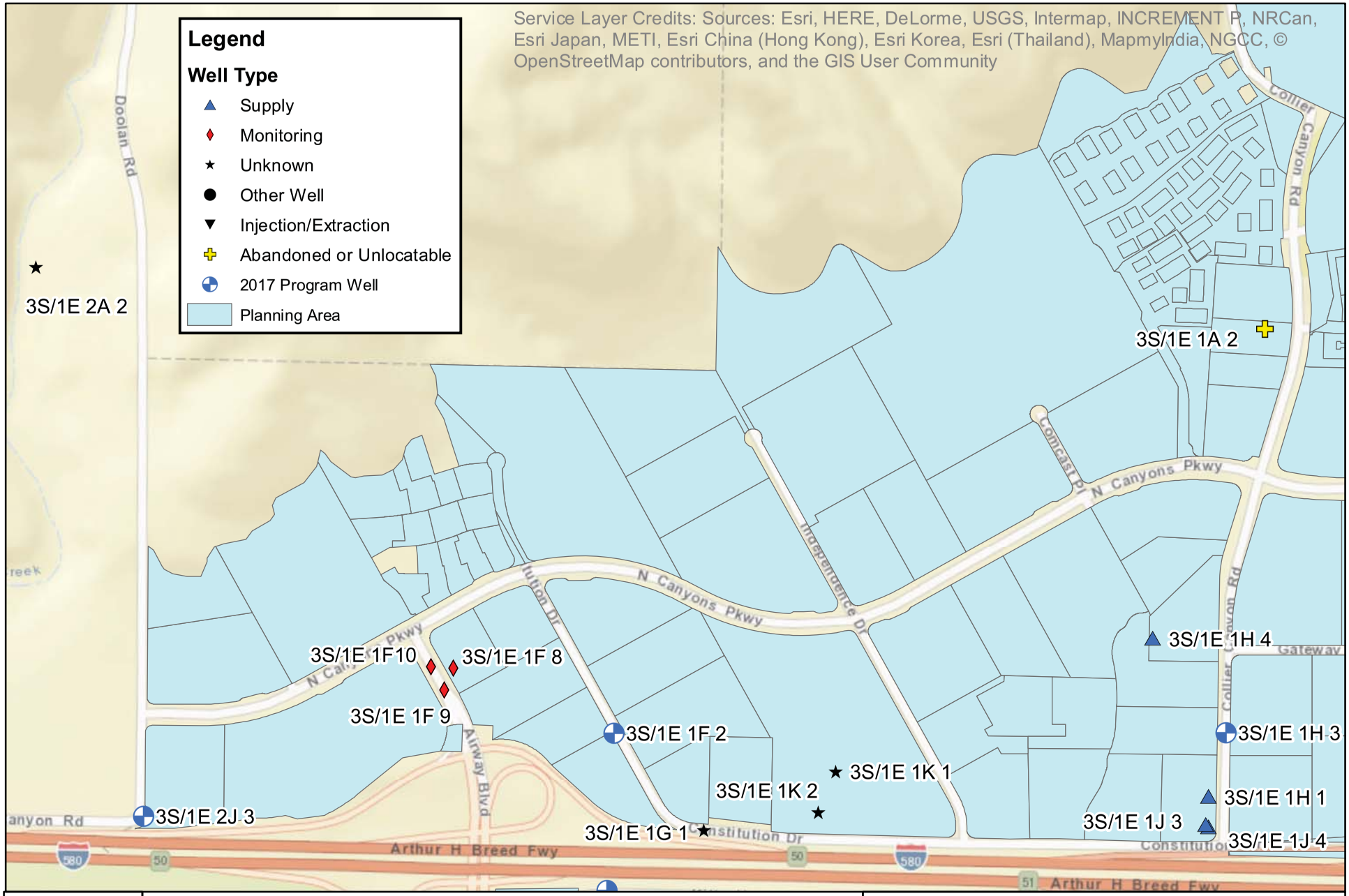
* Zone 7 Program wells are highlighted in red



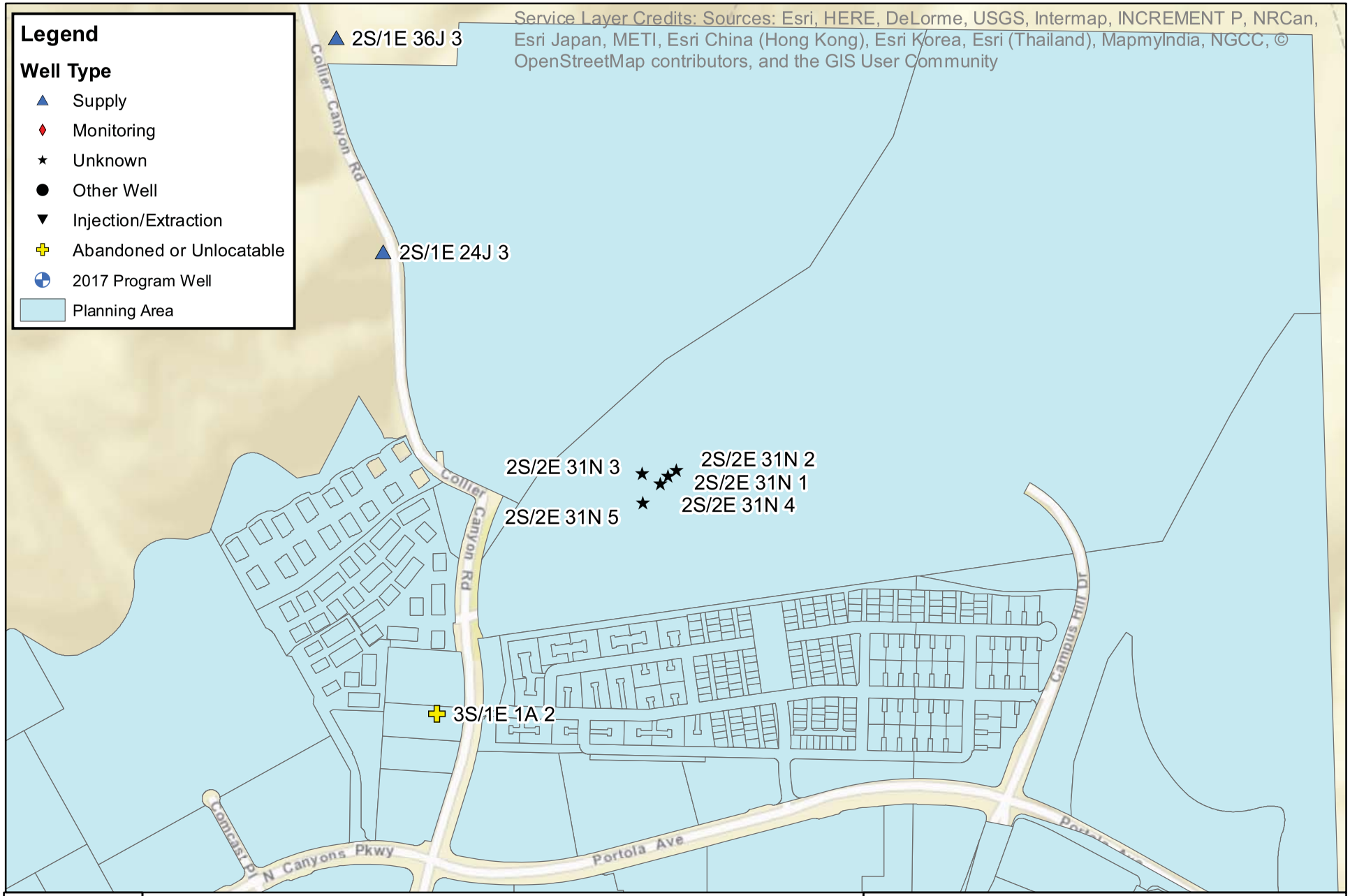
ZONE 7 WATER AGENCY
100 North Canyons Parkway, Livermore, CA

Isabel Neighborhood Plan
Planning Area



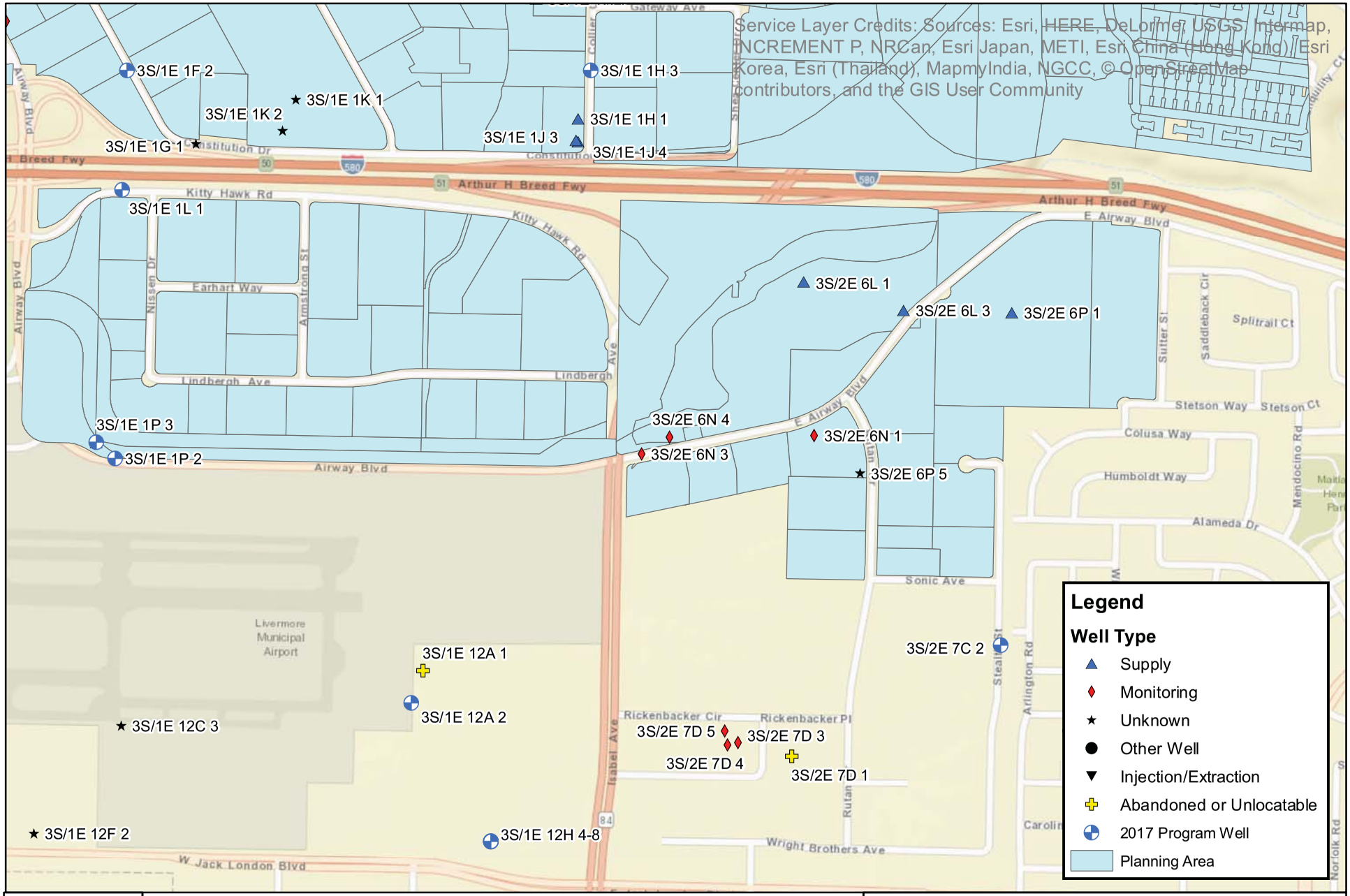
ZONE 7 WATER AGENCY
100 North Canyons Parkway, Livermore, CA

Isabel Neighborhood Plan
Well Location Map 1



ZONE 7 WATER AGENCY
100 North Canyons Parkway, Livermore, CA

Isabel Neighborhood Plan
Well Location Map 2



ZONE 7 WATER AGENCY

100 North Canyons Parkway, Livermore, CA

Isabel Neighborhood Plan
Well Location Map 3

ZONE 7 WATER AGENCY
100 North Canyons Parkway, Livermore, CA

Isabel Neighborhood Plan
Well Location Map 4

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7
100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551-9486 • PHONE (925) 454-5000

ATTACHMENT 3

June 15, 2017

Helen Ling
Water Resources Division Manager
Livermore Water Resources/Public Works Division
101 West Jack London Boulevard.
Livermore, CA 94551

Subject: ***Response to Request for Input on WSA – Isabel Neighborhood Plan***

Dear Ms. Ling: Helen

This letter responds to your letter dated May 15, 2017 regarding *"Request for Input on Water Supply Assessment for Isabel Neighborhood Plan."*

We would like to respond to two separate issues raised in your letter:

1. ***Updated Demand Projections*** - The City of Livermore is currently completing a Draft Water Master Plan that includes updated demand projections based on Livermore's current General Plan. Based on Zone 7's understanding, the analysis indicates that the projected buildout demand will increase from the 6,966 acre-feet annually (AFA) of demand presented in Livermore's 2015 Urban Water Management Plan (UWMP) (Livermore, 2016) to 8,225 AFA, or an increase of 1,259 AFA.

   The UWMP, which is prepared every five years, documents analyses conducted to determine available water supplies for the following twenty years and is the formal document used by Zone 7 and other water agencies to communicate water supply conditions to the public; any updated demand projections provided by Livermore, and other retailers, will therefore be formally analyzed and incorporated, as appropriate, into the 2020 UWMP. Note, however, that Zone 7's projected water supplies as shown in Tables 7-12, 7-13, and 7-14 of Zone 7's 2015 UWMP show excess supplies available under normal and dry conditions. This is intended to include some conservatism for planning purposes, including accounting for extreme conditions and uncertainty in the demand projections. The additional demand estimated by Livermore could likely be served by these planned excess supplies. The requested increase in demand amounts to about 20% of the projected excess supply in 2035, the latest projection in Zone 7's 2015 UMWP (buildout is expected to be nearly complete at this time).

2. ***Isabel Neighborhood Plan*** – According to Livermore's analysis, incorporating the Isabel Neighborhood Plan (INP), a proposed development, into Livermore's General Plan would increase Livermore's total demand by 140 acre feet annually/AFA (67 AFA in the area served by Livermore and 73 AFA in the area served by Cal Water). For the area

served by Livermore, potable water will only be used to meet indoor demands and recycled water will be used provide landscape irrigation. Should the Livermore City Council approve this development, this demand increase is less than 1% of demands for Livermore and Cal Water combined and is therefore not considered a significant increase requiring any interim analysis since it is well within the margin of error for Zone 7's projected water demands and planned future water supplies.

As you know, Zone 7 strongly supports the use of recycled water for landscaping and encourages incorporation of water use efficiency in any future developments such as this one. If you have any questions, please contact either Amparo Flores or me.

Sincerely,

G.F. Duerig
General Manager

cc: Dan McIntyre, DSRSD
Kathleen Yurchak, Pleasanton
Frank Vallejo, Cal Water
Carol Mahoney
Amparo Flores

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7
100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551-9486 • PHONE (925) 454-5000

ATTACHMENT 4

November 6, 2017

Ashley McBride, Assistant Planner
Livermore Community Development Department
1052 South Livermore Avenue
Livermore, CA 94550

Subject: ***Comments on Draft Sections for Isabel Neighborhood Plan***

Dear Ms. McBride:

Thank you for the opportunity to comment on the preliminary draft sections that are in preparation (introduction and utilities) for the Draft Isabel Neighborhood Plan. In addition to comments previously provided on the draft Water Supply Assessment (attached), Zone 7 has the following comments for your consideration:

INTRODUCTION

- Zone 7's 2006 Stream Management Master Plan should be referenced: "In August 2006, the Zone 7 Board adopted a new flood control master plan, the Stream Management Master Plan (SMMP). The SMMP included 45 individual multi-benefit projects throughout the Livermore-Amador Valley while focusing mainly on regional storage of flood and storm waters within the Chain of Lakes to limit peak flows downstream. The SMMP also focuses on achieving project goals by incorporating multi-benefit and environmentally-friendly objectives, while forming partnerships with related agencies." For more details about flood control project(s) that may be implemented in the area, see Zone 7's comment letter to BART dated October 16, 2017, attached.

SECTION 4.1 UTILITIES

- Under 'Water Supply and Infrastructure,' third paragraph, last sentence, please add the word "planned" to the sentence as follows: *Based on the adopted UWMPs and updated projections, Zone 7 has indicated that there is sufficient **planned** water supply at this time to serve the City's General Plan anticipated growth, which accounts for development under the Isabel Neighborhood Plan.* Please also see (attached) Zone 7's letter to Helen Ling, City of Livermore's Water Resources Division Manager, dated June 15, 2017, regarding the Water Supply Assessment for the Isabel Neighborhood Plan.

- Water Supply and Infrastructure: Also note that there are Zone 7 facilities (pump stations, turnouts, and pipelines) in the area as follows:

a. The Zone 7 Kittyhawk Pump Station and related facilities (including underground electrical facilities and a discharge structure) as well as a portion of the Altamont Pipeline are in the area of the Southwest corner of Isabel & East Airway.
b. The Zone 7 Liv. #5 Turnout is north of Arroyo Las Positas along Kittyhawk Ave, within the City's Wastewater Pump Station fence line.
c. The Cross Valley Pipeline runs East/West on the south side of I-580 between Santa Rita and Isabel.
d. South of East Airway, the Cross Valley Pipeline runs North/South, on the east side of Isabel (Hwy 84).
e. North of East Airway, the Cross Valley Pipeline runs along Kittyhawk Ave., typically along the south edge.
f. All of the above facilities could be impacted by the Plan. An encroachment permit will be required for any modifications or crossings of the facilities. Please also see attached Zone 7's comment letter to BART dated October 16, 2017.

- Under 'Stormwater,' first paragraph, fifth sentence, please add "and maintains" to the sentence as follows: *Zone 7 only owns **and maintains** the north side of Arroyo Las Positas (Line H) from Isabel to the crossing under Airway Boulevard.*

- Stormwater facilities: Zone 7 owns the portion of Collier Canyon Creek (aka Line M) that runs through Zone 7's North Canyons Office parcel, since Zone 7 purchased the property at 100 North Canyons Parkway earlier this year.

If you have any questions, please contact either Elke Rank or me at (925) 454-5000.

Sincerely,

G.F. Duerig
General Manager

cc: Amparo Flores
Carol Mahoney
Elke Rank

Attachment

■ Livermore Venture Partners, L.P. ■

6114 LaSalle Avenue, #348
Oakland CA 94661
510-339-6367
Fax 510-339-1951
E-mail: jacoby@aol.com

February 26, 2018

Ms. Ashley McBride
Assistant Planner
City of Livermore, Planning Division
1052 South Livermore Avenue
Livermore CA 94550

Subject: Responses to the Draft EIR for the Isabel Neighborhood Area Plan–(also a Specific Plan and PDA Plan under the MTC/ABAG Plan Bay Area); sent by email to asmcbride@cityoflivermore.net

Dear Ms McBride:

The following comments, with attachments, are by Livermore Venture Partners (LVP), the owner of property adjacent to the area contained within the Isabel Neighborhood Area Plan (Isabel Plan). The LVP area is immediately north of Las Positas College and has been described in at least one public hearing as the "notch area", presumably because the "notch" is surrounded on two sides of its three sides by the Livermore City Limits and the City's Urban Growth Boundary (UGB)(the northern side is undevelopable hillside). It is contiguous to urban development and urban services on two sides (west/south). There are two LVP Alameda County Assessor Parcels (APNs): 903-10-1 (97.17 acres) and 903-3-3-4 (7.5 acres).

Background for LVP Isabel Plan DEIR Comments:

B2-1

LVP purchased and has owned the property for 29 years because of its nearby proximity to both a) Las Positas College and the (then) Triad Business Park and b) the likely extension of BART into the Livermore Valley and a first BART Livermore station. As such, the LVP property has always been distinctly different from other non-annexed properties in North Livermore. Unlike those North Livermore sites, LVP has had immediate neighbors (the College and mixed-use projects) it assisted and helped resolve/enable their now successful development needs. From the first years of ownership, LVP particularly worked with Las Positas College on a variety of the College efforts (list provided in Attachment A).

Three times during the LVP-ownership period, the property has been considered uniquely for annexation into the City: 1) 1995 - the request was made by the three neighboring properties (see Attachments B, C and D) as part of program to resolve a College infrastructure program impasse with the State – the City suggested delay in the annexation because it was to be included soon in the North Livermore Plan; 2) about 2.5

acres of LVP property was annexed in 1996/1997 after conveying the area, for only the transaction costs (no profit), to Triad Business Park/Ryland Homes because they agreed to complete public improvements needed by both the College and the Ryland Homes development along Collier Canyon Road and 3) during the unannounced UGB proposal to the Council, the Council initially included the LVP parcel within the UGB Initiative boundary based on the College reliance on LVP to provide the land/construction of a northern access to the campus. At a subsequent Council meeting (January 13, 2003), the Council amended its position and excluded the LVP property because they felt the additional College-access could be provided from the south via property within the City Limits (Shea property).

B2-1

In 2001-2002, and prior to the City-UGB discussion, the College leadership and LVP were exploring additional College-related improvements on LVP parcels including affordable housing, a site for an early learning center near the affordable housing; and an additional northern access to the campus (Correspondence and planning documents can be provided to verify these efforts). Part of the affordable housing and early education center were to be on a 7.5-acre parcel that LVP still owns but as was willing to grant to the College. Those discussions were done with the participation of EAH Housing, one of the Bay Area's most successful non-profit housing organizations. (LVP advisors had success with EAH elsewhere in the Bay Area on a very-low income family rental and day care facility). Discussions on the affordable housing and other elements were discontinued with the enactment of the UGB.

Lastly in 2007, LVP assisted the College in their search for required habitat mitigation property (Attachment E). The College was successful in that effort and there is now a large habitat conservation easement owned by the College that serves as a permanent barrier between the LVP parcels and those parcels to the east that were earlier proposed for development under the North Livermore Plan.

Combined Requested Project Changes and DEIR Comments

The following sections of this letter combine both requested changes to the Isabel Plan and comments on the DEIR substance. Each of the following sections provides the context for those requested Plan changes or DEIR comments.

LVP Fundamental Request - The most fundamental LVP request is for the inclusion of about 18 acres (out of the 97-acre parcel – APN 903-10-1) in the Isabel Plan for a residential project.

B2-2

The Request is to designate the development area for Village or Transition Residential (See Attachment F for site – project area not to scale – oversized for clarity). This LVP request is subject to the affordable housing conditions in the UGB Ordinance, including the 35% in very low, low and moderate housing. A 35% affordable requirement is significantly greater than the Isabel Plan requirement of 20%. The remainder of the LVP parcel (about 79 acres) would be in dedicated to open space and a potential road/trail link to the northern portion of the College (depending if still needed). The Isabel Plan appears to already locate a trail on the LVP property (see Plan Figures 3-12, 3-13, 4-1) (Attachment G).

The LVP housing project would be a mixture of for-sale market (including moderate income housing units in an amount per the Isabel Plan) and affordable rental housing at

the appropriate density ranges. Some of the market housing would be aimed at moderate-income College staff/faulty. The affordable housing (very-low, low) would be under the direction and management of EAH Housing, whose specific housing experience and financing qualifications include student housing on public California universities. In making this request LVP is being both a) consistent with its past effort for affordable housing to benefit the Las Positas community and b) fulfilling the Isabel Plan affordable housing Goals and Policies with a specific project for Rental (G-LU 4) and to help to the College (G-LU-3 and P-LU-28). The currently proposed Isabel Plan does not have such a similar commitment from any other land owner. EAH Housing has also constructed and is now managing affordable housing at the Dublin BART station and understands well BART affordable housing considerations.

B2-2

If the above described housing site is included in the Isabel Plan, LVP will discuss with Las Positas College the potential College use of LVP's 7.5 acre parcel (APN 903-3-3-4), which is located directly between the campus and the College's habitat easement parcels.

LVP sent an Isabel Plan NOP comment letter requesting that the site be evaluated, at minimum, as a DEIR alternative. Such an alternative would be helpful if, based on the analysis using the ABAG.MTC PDA Affordable Housing Guidelines and other considerations; it appeared the City of Livermore was unable to achieve the State Housing requirements. Under the UGB Ordinance and the Housing Element 2015, the City can consider a site outside of the UGB to fulfill its State Housing needs goals. The Isabel Area DEIR response to the LVP NOP comment was both incomplete and inaccurate.

DEIR Comment #1 - Explain why the Isabel Plan or DEIR work program did not include use of the ABAG/MTC PDA Guidelines on affordable housing. Those Guidelines were included in the LVP NOP letter (see DEIR Appendix, digital copy pages 697-705) which would have helped in defining how the Isabel Plan's housing component is needed, in combination with other projects/sites, to achieve the City's 2015-2022 Housing Element Inventory and reach the 2014-2022 Residential Housing Needs Assessment (RHNA).

The DEIR Response for the exclusion of the LVP site from the Plan/PDA area is inaccurate The DEIR states the site did not "correspond to an Association of Bay Area Governments Priority Development Area and expansion of this boundary is considered outside of the scope of the EIR" (DEIR 1-8, 9). That response implies ABAG has some regulatory authority that limits the boundary of a PDA. To the contrary, the ABAG Plan Bay Area web site Frequently Asked Questions on the Plan Bay Area states

B2-3

> "Priority Development Areas (PDAs) are locally designated areas within existing communities that have been identified and approved by local cities or counties for future growth. These areas are typically accessible to transit, jobs, shopping and other services. Over 70 local governments have voluntarily designated some 170 PDAs, which are proposed to absorb about 80 percent of new housing and over 60 percent of new jobs on less than five percent of the Bay Area's land. The result is a locally supported, compact and efficient growth pattern that meets CARB's GHG reduction targets and provides adequate housing for the Bay Area's growing population."

B2-3 The Isabel Plan, on page 109, provides a more accurate PDA interpretation, similar to the ABAG FAQ, and thereby contradicts the NOP response

B2-4 DEIR Comment #2 - Explain why the Isabel Plan cannot amend the boundary given the ABAG definition of PDAs. Is there a legal reason, implied in the DEIR response, which restricts the City to the current boundary? Please provide the reference. Cannot the boundary be adjusted for such factors as a) continual problem meeting RHNA needs or b) problems with availability due to "realistic development capacity" (see below for other questions on the Housing Element Inventory?

State and Regional Requirements Set Higher Standard for EIR Information

B2-5 The DEIR explains but does not sufficiently differentiate the special nature of the Isabel Plan as a PDA plan. The Isabel Plan needs to be more specific than traditional City of Livermore Specific Plans or Neighborhood Plans. The DEIR Summary, Introduction, Project Description and Land Use Sections and the Isabel Plan housing recommendations need to place greater emphasis on the purpose of the Isabel Plan in implementing State laws concerning global warning and greenhouse gases. The Isabel Plan, as a PDA Plan, is to help implement the California Global Warming Solutions Act of 2006 or Assembly Bill (AB) 32 which is a State law that fights warming by establishing a comprehensive program to reduce greenhouse gas emissions from all sources. Further, the Sustainable Communities and Climate Protection Act of 2008 (SB 375) helps the State's climate action goals to reduce greenhouse gas (GHG) emission through coordinated transportation and land use planning. SB375, including new modifications, create new State requirements for the preparation and administration of city-directed land use and housing regulatory programs Both AB 32 and SB375 have very specific links to the importance of planning for and building affordable housing as GHG reduction and travel reduction. Such emphasis is missing in the above mentioned DEIR Sections.

The MTC/BAG Plan Bay Area, amended in 2017, is a required component of SB375 to channel about 80% of the Bay Area's future growth, including affordable housing, to PDAs in order to reduce GHG emission. The State/region SB375 intent is for the Isabel Plan Goals, Policies and Specific Plan "specifics", as well as the City achievements in fulfilling RHNAs (also part of SB375) , to be periodically evaluated and judged in the allocation of state/state transportation funds as part of California's emission reduction program. Further, California's unique "cap-and –trade" funds, also part of the AB32 emphasis, are to be used expressly to reduce GHGs via State and local transit, affordable housing, open space purchases, and other emission reduction programs. The DEIR does mention a project Objective #9 to "Position the BART to Livermore Extension to Qualify and complete for regional transportation funds" (page ES 3) but does not elaborate or provide analyses elsewhere in the document on how such an Objective will be achieved.. This is a major short-coming of the DEIR.

B2-6 DEIR Comment #3 – Explain why, or add a FEIR response, concerning the importance of MTC in the Project and include MTC as a Responsible Agency if appropriate.

B2-7 DEIR Comment #4 – Explain the importance of AB 32 in the PDA planning process and the legal nexus created between affordable housing in PDAs and the use of cap-and - trade funds.

B2-8 DEIR Comment #5 – Explain in the DEIR Land Use Chapter the importance between the RNHA requirement in Plan Bay Area and General Plan Housing Elements per SB375. The Land Use section does include a section on the BART Affordable Housing Policy but that reference needs the context of the PDA Plan and RHNA needs requirements.

B2-9 DEIR Comment #5 – Explain why the DEIR does not discuss the 2017 changes to the Plan Bay Area including their greater attention to the role of affordable housing. In specific, the 2017 amendments made clear that MTC has yet to conduct a Project Performance Assessment on the BART to Livermore Extension in order for the project to qualify for regional/State or federal transportation funds. The 2017 Update adopted a Regional Housing Action Plan that contains a Performance Assessment Report - Final Supplement Report which included specific Performance Targets and an "Evaluation Methodology. Performance Target #5 concerns Equitable Access (affordability) and Target #6 (Equitable Access) have new affordable housing implications. The Final EIR could benefit the project by preparing a preliminary Performance Assessment to assist both BART and the City in making adjustments to the Isabel Plan affordable section.

B2-10 DEIR Comment #6 – Explain why both CEQA and CEQA Guidelines regarding the need to place less emphasis on economic and social effects may not/do not apply in the Isabel Plan DEIR. Explain why various financial/economic analyses are CEQA-appropriate in this DEIR or Isabel Plan to validate the adequacy of the Plan in implementing the affordable housing component. Affordable housing within a PDA has been determined to have a direct impact or nexus in reducing "physical impacts" of greenhouse emissions, air quality, energy use, and transportation/vehicle miles traveled (VMT).

B2-11 DEIR Comment #7 – Explain why the MTC/ABAG Guidelines on affordable housing sections of PDAs were not used in the preparation of the Isabel Plan or DEIR. Given the importance of those agencies in transit fund allocations; in Project Performance Assessments and RHNA monitoring; is not use some or all of their Guidelines helpful? Of greatest importance seem to be their Guidelines on a) assessment of Isabel sites and site obstacles (including property owner involvement/clear commitment to construction of the affordable units on their property), b) ability to achieve specific units goals per income and RHNA allocation; c) feasibility analysis on public and private burden given the goals; and d) identification of "gap" between realistic sources and costs.

B2-12 DEIR Comment #8 – Explain why or whether the items listed in the letter from the East Bay Housing Organization (EBHO) (August 15, 2016) were used in the Isabel Plan and DEIR (Attachment I). Particularly explain why the critical elements listed under #8 of the letter were not included.

UGB Ordinance; City's Housing Element 2015 and Isabel Plan; and possible benefit of including LVP site/request including experienced affordable housing team and benefit to the College

The UGB Ordinance Section 5 and the current Housing Element both verify that "to the maximum extent practicable, the City shall meet any State legal requirements with the City's Urban Growth Boundary". The ordinance goes further however to describe five conditions under which sites outside of the UGB could be considered. Perhaps the key condition is that there is not enough land within the Boundary (on vacant land or via redevelopment) to meet the State requirement. As highlighted in the EBHO letter, Livermore has had a hard time over the last three RHNA periods in making any appreciable dent in its low or very low income needs categories.

As apparent in the City of Livermore 2017 Housing progress report to the State Housing and Community Development Department and ABAG, that despite a variety of helpful housing programs for current/future low/very income households, the City has underperformed on these income categories for the early part of the 2014-2022 RHNA period. There are a couple of housing projects in progress with a non-profit housing organization, with significant help from the City that will reach only about a quarter of the very –low income needs during this RNHA period.

B2-13

All important recent City documents concerning affordable housing (The Housing Element 2015; the 2013 Inclusionary fee nexus study/analysis, and the 2017/2018 Annual Action Plan) state the importance of affordable rental versus for-sale inclusionary housing in attempting to meet the housing needs of very-low and low income households. Nevertheless, the DEIR lists the City's inclusionary ordinance as a source of for-sale housing for low income households in the Land Use section. The DEIR inclusion misses the point made in the other reports that affordable rental housing is the only viable solution for the very-low and low income categories...

The City's Inclusionary Ordinance excludes all market rental projects from compliance except for the possibility of such rental units being discussed in a Neighborhood Plan. It is not apparent that the Neighborhood Plans have done such or if any very low or low income rental units are being included in market-rate rental projects. Will such projects be completed by the end of the RHNA period?

The Housing Element 2015 indicates that no affordable units from the Isabel Plan were accounted for the 2014-2022 RHNA because the Element's Inventory had identified an ample supply of viable sites for each category. Nevertheless, the Isabel Plan Phasing discussion seems to also imply the Isabel area has the ability to help during the current RHNA period.

The Housing Element 2015 Inventory appears to overstate the supply of at least the very low income category and did not appear to have followed the State law Governmental Code Section 65583.2(c) in selecting the sites for the very low income category. That law states that the sites identified in the Housing Elements must have realistic development capacity and the HCD web page explains the type of analysis to

determine "realistic". Attachments J, K and L indicate the sites identified for the majority of very low income and presumably rental housing. Two are active downtown shopping malls with close to 100% tenant occupancy. The other is a vacant property on Bennett Drive with a reported asking price in excess of $1 million dollars per acre and with part of the property occupied by a power transmission line and adjacent to a transformer station. Given the high land value and environmental issues this Bennett Drive property is mostly likely an "unrealistic candidate" for very-low income housing even if its current permitted density meets a presumed affordable levels. Additionally it is not apparent that a rental project at this site must comply with the City's inclusionary requirement. Furthermore, at least the two shopping center sites might be suspect under the new AB 1397 law requiring a stricter standard for "realistic".

B2-13

Based on the above, it does not appear that the City Housing Element Inventory demonstrates a realistic ability to meet the State (SB375) RHNA requirements for the very low income housing needs. Based on this condition and the current underperformance of RHNA needs, it appears that there is not sufficient land within the City's UGB to meet State requirements.

B2-14

DEIR Comment # 9 - Update the Housing Element Inventory with affordable housing projects that are not included but are likely to be completed within the current RHNA period

B2-15

DEIR Comment #10 – Provide information as to whether any market rate rental projects have provided, or will provide, any low or very-low income rental units. Please list the project and number/type of affordable rental units.

B2-16

DEIR Comment #11 - Reconsider and update the RHNA Inventory for at minimum Very Low Income and Low Income household needs based on the HCD guidance on demonstrating realistic development capacity. Explain the possibility of having to comply with AB 1397, particularly during an annual RHNA review.

B2-17

DEIR Comment #12 - In light of the above, the DEIR should at minimum consider and analyze the LVP property in a Project Alternative.

The LVP requested mixed residential project of market-rate for sale and affordable rental project would not negatively impact the environmental concerns implied in the UGB.

Both the Isabel Plan DEIR and the BART to Livermore DEIR indicate the absence of 1) prime agriculture lands, and 2) species of special concern on or near the LVP property.

B2-18

The proposed LVP development site is adjacent to public utilities located in Collier Canyon road, in part because LVP provided that site for those utilities in the late 1990s.

The LVP property is approximately the same distance to the proposed Isabel BART station as other vacant parcels proposed for residential uses in the Isabel Plan.

The BART to Livermore project and project alternatives all provide for a feeder bus route, to the Isabel Station and other parts of Livermore. That proposed bus route is immediately adjacent to the LVP property (Attachment M).

Recent BART studies on rider travel distances to comparable suburban-BART stations indicate median trips of two miles or more. The Dublin/Pleasanton station has a median trip of 3.7 miles, which is 4 times greater than the travel distance from the LVP parcel to the Isabel station (Attachment N). That median distance of the Isabel Station might be longer due to the relative scarcity of current homes to the station; the topography that limits nearby homes, and the presence of the Livermore Airport. The combination of both the site proximity and the adjacency to a proposed bus feeder route will significantly reduce LVP residents' VMT and emissions,

The UGB boundaries are irregular by excluding the LVP property when compared to adjacent parcels to the east and the west. Normal planning efforts try to apply uniform city limit line treatment of like properties. There is no apparent planning reason for the "notch".

The Isabel Plan trail system would make more topographic logical if it is located on the LVP property.

B2-18

LVP has amply demonstrated a long history of working with the College and its neighbors with land, easements, and financial support for needed plans to construct nearby improvements.

The LVP property is isolated from the other North Livermore properties to the east, which were the primary focus of the UGB. It is not apparent the UGB contemplated the regional and local planning need for the Isabel Station or the BART extension.

LVP and EAH Housing, its designated affordable housing partner, have demonstrated experience and supportive advocacy for affordable housing. As of this point, the planners for the Isabel Plan have not presented that there is similar clear support from other Isabel Area property owners. Such outward support is needed to help qualify the BART to Livermore extension with regional and state agencies.

DEIR Comment #13 - Other than general popular support for the UGB in Livermore, what are specific negative environmental impacts, as identified in the DEIR, for including the proposed LVP development site - particularly when compared against tangible efforts of the LVP property to help in the reduction of GHG, air quality, energy and transportation impacts as contemplated in the State legislation.

Thank you for this opportunity to make our request for the LVP parcel/project to be included in the Isabel Plan. We have waited a long time for such an opportunity. We believe it could help the environment and the College/other households/individuals in need of conveniently located affordable homes near regional transit.

Sincerely,

Gordon D. Jacoby, Project Manager

Chronology of Mutual Efforts between Las Positas College and Livermore Venture Partners (LVP)

1991	Joint traffic study prepared by Livermore Venture Partners, Las Positas College, Shea Business Properties, and Triad Systems Corporation (now Tri-Valley Business Park) to determine road needs.
1993	College requests LVP to grant College the right to place temporary storm pipe drain on LVP property
1994	Joint infrastructure planning efforts between the College and its neighbors, LVP, Shea Business Properties, and Triad Systems Corporation. Infrastructure improvements include roads, entrances, sewer lines, domestic and recycled waterlines, water tank, and storm drains. College indicates that the State of California will not fund any infrastructure that is not located on College property, even though those improvements provide substantial benefit to the College. Those costs will have to be borne by the neighbors' development projects.
1995	College and the three neighbors meet with City Council and City staff of confirm joint efforts (see jointly signed January letter to the City Council). This effort helps the College get City and State acceptance of its Infrastructure Master Plan. LVP and Shea Business Properties pay for engineering studies used by College in its Infrastructure Master Plan.
1996	College and LVP reach agreement regarding storm drain line, roadway, realignment of Collier Canyon Road, water connections, and construction easement. During State Legislature effort to reallocate Community College improvement funds, LVP helps College's efforts to lobby for full funding of the College's infrastructure Plan.
1997-98	LVP helps College during construction of infrastructure. Grants encroachment agreements. . Permits work to proceed on LVP property in order to facilitate the College's schedule.
1997-99	LVP provides about 4 acres to land to enable realignment construction of Collier Canyon Road and drainage that benefits both College projects and Triad Business Park.
2007	LVP helps College (Jeff Kingston) with purchase of habitat mitigation property (Murray Ranch) via the Murray's family attorney.

Attachment B - LVP Comment

CITY OF LIVERMORE

RECEIVED
OCT 18 1994

'Wine Country Since 1849'

Administration Building
1052 So. Livermore Avenue
Livermore, CA 94550-4899
(510) 373-5100
Fax (510) 373-5135

Mayor / Council
(510) 373-5149

City Manager
(510) 373-5140

City Attorney
(510) 373-5120
Fax (510) 373-5125

City Clerk
(510) 373- 5130

Finance Department
(510) 373-5150

Fire Department
4550 East Avenue
(510) 373-5450
Fax (510) 373-5414

Library
1000 So. Livermore Avenue
(510) 373-5500

Personnel
(510) 373-5110
Fax (510) 373-5035

Planning
(510) 373-5200

Police Department
1050 So. Livermore Avenue
(510) 373-5303
Fax (510) 373-5355

Public Works
(510) 373-5270

October 17, 1994

Mr. Gordon Jacoby
Vice President of Development
Venture Corporation
P.O. Box 847
Mill Valley, CA 94942

Dear Mr. Jacoby:

At the meeting on September 21 attended by representatives from Las Positas Community College, the City of Livermore, and property owners adjacent to the College, there was discussion about the possibility of pursuing special legislation to help with the funding of off-site infrastructure improvements needed by the College. If funds could be obtained from State resources that would cover the College's share of infrastructure improvement costs, it would reduce or eliminate the need for other owners/developers to have to pick up these costs.

In order to pursue special legislation , which will not be easy, someone will have to guide and be responsible for pursuing this with the legislators and Governor in Sacramento. The services of a legislative advocate should be pursued.

I have enclosed the resume of one legislative advocate who I am familiar with. Michael (Mike) Arnold is well known in Sacramento and is considered to have an excellent reputation among the legislators. The fee for his work would be $3,000 per month (plus nominal expenses) over a one-year contract period. Mr. Arnold has expressed to me that his work can probably be accomplished in less than a year's time. It will not take him a year to determine whether or not it is worth pursuing other available funds--regardless of source.

I am willing to recommend to my City Council that the City pay for 25% of the consultant's cost (approximately $9,000). This would be contingent upon the three major developers in the area around Las Positas College (Venture Corporation; Shea Homes; Triad Corporation) each pay 25% of the consultant's cost.

I would appreciate you letting me know your thoughts about this type of an arrangement.

Sincerely,

LEE HORNER
City Manager

LH/cm
Enclosure

Attachment C - LVP Comment

January 3, 1995

Honorable Cathie Brown, Mayor
Livermore City Councilmembers
1052 South Livermore Boulevard
Livermore CA 94550

Dear Mayor Brown and Councilmembers:

Over the past 20 years, Las Positas Community College, located on Collier Canyon Road, has served well the citizens of Livermore. The Chabot-Las Positas Community College District purchased the College site in 1967 and began a positive working relationship with the City staff toward developing the College. This cooperative working relationship continues to date.

In 1980, the District completed its last District-financed construction project on the Las Positas College site. All construction projects that have been completed on the campus site since 1980 as well as those which are to follow in the future are now totally dependent upon State funding because there are no District funds available for capital outlay projects. Competition for State funding is fierce; however, the College has fared well by receiving State funds to build a new Learning Resource Center, in receiving funds to complete a total on-campus infrastructure project, and to build a science-technology center. With the completion of the Learning Resource Center, the most critical of these projects which needs to be completed is the on-campus infrastructure project.

In order to address the State-funded, on-campus infrastructure project, District representatives have met with City staff members and with the College's neighboring land owners/developers. These meetings have occurred over the past several months and have been facilitated through City Manager Lee Horner's office. All of us are appreciative of Mr. Horner and his staff's assistance.

The developers where properties are adjacent to the campus -- Shea Business Properties (south), Venture Corporation (north) and Triad Systems Corporation (west) -- and Chabot-Las Positas Community College District, propose a process by which we can all work together in addressing a cost effective infrastructure plan for the College and its adjacent property owners.

Further, all parties recognize that conceptually we are co-dependent upon one another's resources to provide the appropriate critical mass needed to finance the needed infrastructure for this area.

Through the help of City staff and the developers, Las Positas College will be able to meet State-dictated deadlines for project approval.

In order to realize a positive outcome to this proposal, the District recognizes that several unresolved issues remain:

- the need to address the planning of the college area separate from that of the larger North Livermore Plan;
- the litigation between Shea and the City of Livermore and between the City of Livermore and Alameda County;
- the city annexation of Venture Corporation properties.

We appreciate that the above issues are difficult, but with time and reason, they can be resolved. What remains is an unprecedented opportunity to develop and to enact a unique cooperative college-city model that will benefit the total community.

Given our common goals, the District and adjoining property owners have recognized the following specific reasons why we must mutually and creatively work together. Further, we believe that this joint effort transcends our individual needs and is in the best interest of the City of Livermore. The specific reasons include:

1. Las Positas College is in line to receive significant development funding from the State. The College, in order to assure success in receiving and retaining this funding, must resolve major access and public utilities needs that affect its development.

2. While receiving significant funding for on-site improvements and buildings the College cannot get funding for necessary off-site infrastructure. The College's fair share of those off-site costs can likely be absorbed by the development projects adjoining the College.

3. Las Positas College, Triad Business Park, Shea and Venture properties are located in a common topographical and drainage area that both enables and requires the joint planning of public improvements.

4. The regional commercial and industrial markets have been and will continue to be unpredictable for the next several years. Therefore, it is essential to include a sufficient mix of housing in this area to provide the economic base on which to finance the public improvements.

5. Joint planning of these four properties also can result in a creative, synergistic relationship for the development designated for this area. As examples, a new fire station needed for the area can be located on the College campus and be

used as a regional fire fighting and paramedic education facility. Child care and retail food service needs of students and campus staff can be provided on the adjacent Triad or Shea commercial areas. Additionally, the child care facility can also serve as an education facility for the College. The new housing on the Triad, Venture and Shea properties can become an experimental testing ground for the College's planned courses or information services via fiber optic cable hook-ups. Furthermore, housing on the Triad, Shea and Venture properties is needed to provide the critical mass necessary to stimulate retail development within the Triad and Shea properties.

6. The City of Livermore Public Works and Engineering staff have defined, on a preliminary basis, public facilities and cost necessary for the development of the Las Positas College Area. They have also facilitated discussion on how the College's on-site utilities can be designed to integrate with likely utility improvements on the surrounding properties.

7. From preliminary financial analysis, it appears that a phased program of public facilities (e.g. roadways, utilities, fire station, school) can be financed by new housing and commercial development on the Shea, Venture and Triad properties.

8. The financing and construction of the public facilities, via development, can occur if the City of Livermore provides for timely approval of the various entitlement stages required by each of the properties. Those entitlement approvals include annexation and zoning of the Venture property and a General Plan amendment to permit high density housing on the Shea property near the college. Subsequently, approvals will need to include HIP allocations and design review and subdivision maps for the properties.

9. There is now a need to move to a refined level of detail concerning: a) the public improvements, b) the schedule of their construction and c) the method of financing. The infrastructure and financing plan should provide the foundation on which subsequent entitlement applications can be evaluated.

The District and the property owners/developers are now at a point in this process where we need assurance that the Livermore City Council acknowledges and supports the joint infrastructure planning and financing approach. We stand ready to initiate the further, more detailed studies that can help clarify the exact nature and cost of the public improvements and facilities as well as the means for achieving the required General Plan changes for the Shea property and annexation of the Venture property. We understand all of those matters require careful consideration before they can be presented to the City Council.

To help this process move forward, we would request the City Council take the following three actions.

1. Acknowledge and define the Las Positas College Area as a priority development zone contingent on an infrastructure plan being prepared that defines the type, schedule and method of financing needed public improvements. A priority development zone implies that development in this area should proceed in advance of other sections of the North Livermore GPA.

2. Encourage the four properties - Las Positas College, Triad Business Park, Shea, and Venture -- to continue to work together to prepare, with the participation of the Livermore staff, the infrastructure and financing plan. It is anticipated that such a plan can be prepared and presented within three to four months.

3. Encourage the four properties to continue to define means by which the different educational, recreational, employment, retail and residential uses planned for these properties can create unique and futuristic interrelationships contemplated in the City's "Village Concept" for North Livermore.

We collectively appreciate your thoughtful consideration of this request.

Sincerely,

Dr. Barbara Mertes, Vice Chancellor Institutional Planning
Chabot-Las Positas Community College District

Mr. Larry McReynolds, Manager of Property
Triad Corporation

Mr. Gordon Jacoby, Vice President
Venture Corporation

Mr. Kevin Peters, Project Director
Shea Homes

Attachment D - LVP Comment

REGULAR MEETING OF JANUARY 23, 1995

CLOSED SESSION

None.

CALL TO ORDER

The regular meeting of the City Council was called to order by Mayor Brown at 7 p.m. in the Council Chambers, 3575 Pacific Avenue, Livermore.

ROLL CALL

Present: Vice Mayor Stein, Council Members Vargas, Wieskamp, and Reitter, and Mayor Brown.

Staff Members Present: City Manager Lee Horner, City Attorney Tom Curry, Assistant City Manager Jerry Peeler, Planning Director Bob Brown, Public Works Director John Hines, Assistant to City Manager Ellyn Axelrod, Police Chief Ron Scott, Fire Chief Stewart Gary, and City Clerk Carol Greany.

PLEDGE OF ALLEGIANCE

Mayor Brown led the audience in the Pledge of Allegiance.

MINUTES APPROVAL

ON THE MOTION OF CM WIESKAMP, SECONDED BY CM VARGAS, AND BY A 5-0 VOTE, THE MINUTES OF THE REGULAR MEETING OF JANUARY 9, 1995 WERE APPROVED.

PROCLAMATIONS

None.

CITIZENS FORUM

Clarence Hoenig, 588 Tyler Avenue, expressed his appreciation to the Mayor, City Council Members, and staff for their hard work.

Darryl West, 2356 Harewood Drive, urged action by the Council to counteract the Board of Supervisors' attempts to put a cap on agriculture fees for the Ruby Hill project. He said the Board is attempting to undermine the historic tradition of open space and agriculture in the South Livermore Valley.

Mayor Brown assured Mr. West that the Board of Supervisors cannot, alone, change the fees because it is a part of the settlement agreement.

Gary Moore, LaGrange Avenue, described what he believes to be a dangerous intersection at Concannon and Holmes. He requested that staff investigate programming the light to allow for left

REZONING GPA 82-94 FROM RG-14 DISTRICT TO RD DISTRICT
EAST SIDE OF NORTH VASCO ROAD. (Z-467)

4.5 REZONING SIGNATURE PROPERTIES/Z-469) - Introduction by first reading, title only, ordinance rezoning property located at the southeast corner of Isabel and Vineyard Avenues from a PD-AG District (Planned Development-Agriculture) to a PD District (Planned Development) (Signature Properties/Z-469).

ON THE MOTION OF CM WIESKAMP, SECONDED BY VM STEIN, AND BY A 5-0 VOTE, THE FOLLOWING ORDINANCE WAS INTRODUCED:

REZONING Z-469 FROM PD-AG DISTRICT TO PD DISTRICT
ISABEL AND VINEYARD AVENUES

4.6 AMENDING SECTIONS 19.50.050 - Introduction by first reading, title only, zoning ordinance amending Section 19.50.050 relating to PD-AG District (Planned Development/Agriculture) (T-257).

ON THE MOTION OF CM WIESKAMP, SECONDED BY VM STEIN, AND BY A 5-0 VOTE, THE FOLLOWING ORDINANCE WAS INTRODUCED:

AMENDING SECTIONS 19.50.050 (T-257)

4.7 AMENDING SECTIONS 21.51 AND 31.25 - Introduction by first reading, title only, ordinance amending Sections 21.51 and 31.25, relating to gasoline service stations and convenience markets (T-259).

ON THE MOTION OF CM WIESKAMP, SECONDED BY VM STEIN, AND BY A 5-0 VOTE, THE FOLLOWING ORDINANCE WAS INTRODUCED:

AMENDING SECTIONS 21.51 AND 31.25 (T-259)

WRITTEN COMMUNICATIONS - None

NEW BUSINESS

6.1 INFRASTRUCTURE NEEDS - Request from Chabot/Las Positas College District and adjoining property owners to prioritize development and infrastructure needs in their area.

Dr. Barbara Mertes, Vice Chancellor Institutional Planning for Chabot-Las Positas Community College District, thanked Mr. Horner and staff for their participation in this process. Dr. Mertes explained the issues and common goals as set forth in her letter dated January 3, 1995. She emphasized that while the College will receive substantial funds for on-site improvements and buildings, they cannot secure funding for off-site infrastructure. Therefore, it requires joint planning of public improvements with the City, the College, Triad Business Park, Shea Properties, and Venture properties.

Dr. Mertes said the College District and the property owners/ developers are at a point where they need assurance that the City Council acknowledges and supports the joint infrastructure planning and financing approach. She also requested that Council acknowledge and define the Las Positas College area as a "priority development zone", meaning that the area should proceed in advance of other sections of the North Livermore General Plan area. She believes this is a unique opportunity to create a symbiotic relationship between an institution of higher learning, a provider of public services, and an area which will grow and be a credit to the community.

Gordon Jacoby, representing Venture Corporation, placed his property on the south side of the college, west of Triad. He said they understand the complexity of this project, and are eager to work to make it a reality. He acknowledged that their property is not within the City limits at this time. However, Livermore's General Plan places roadway on their property.

Kevin Peters, representing Shea Homes Properties, described their participation in this project and emphasized the importance of looking at this entire area as a project. He believes it will provide a lot of information down road for surrounding areas.

Mayor Brown told Mr. Peters that she has a real problem discussing this issue with Shea Homes considering they currently have a lawsuit against the City.

Mr. Peters noted that the property being discussed lies within the City limits. The property at issue in the lawsuit relates to the North Livermore Valley.

Larry McReynolds, representing Triad Corporation, pointed out the significance of timing. He urged the Council to lend staff support in proceeding with the plan.

Mayor Brown said she thinks this is a reasonable request and she agrees the timing is important. The City will have a tough time with the priority part of this request because of the lawsuit issues. She said she has a problem asking staff to move ahead on something where the City's "hands are tied" in part because it is in North Livermore. She said she is pleased to see everyone working so well together.

VM Stein said he hopes the college can be symbiotic because he is disappointed in the State's position of somewhat asking the College to be a parasite on the local development community. However, he can see the College contributing a lot in terms of child care, fiber optics, and providing a source of customers for a lot of the other uses. His concerns are infrastructure expenses for roads, any public right-of-ways built in this area should be conditioned to remain public, and densities should not be increased.

CM Vargas supported the request and believes it is a unique opportunity for the City, College, and public sector to benefit in a partnership to meet the needs of an area. He noted that two of the private properties are annexed and the Venture property is not.

CM Reitter questioned the outcome should Venture Properties not annex to the City.

Bob Brown pointed out that annexation would occur at the appropriate time in order to proceed. A priority development zone means that the City would set this area out as a priority area in the overall planning program for the North Livermore plan. Staff is being asked to support the concept at this time and continue to work with them toward the goal for future development. Mr. Brown emphasized that this means a different approach will be used than will be for the North Livermore study area.

Mayor Brown and CM Wieskamp confirmed with staff that the current request is to participate in the study to see if this plan can be pulled together. CM Wieskamp said she thinks it would be in Shea's interest to bring their lawsuit against the City to a conclusion.

Dr. Mertes urged the Council's cooperation, noting that the College has only 18 months to finalize their plans or lose the 15 million dollars. She said decisions must be made because their plans cannot show "fake" roads or "fake" hookups. The study costs will be paid for by the private properties involved in this effort.

Mayor Brown said she wants to be very clear about what the City may be committing to. She said she knows the staff is being pushed to resolve the South Livermore Valley issues. The staff is being pushed to get the North Livermore issues resolved both with Shea and the County which are enormous tasks.

Dr. Mertes asked Mr. Jacoby to respond regarding the need for City support.

Mr. Jacoby said over the last four months they have been meeting with the City Public Works staff to go over what public improvements are needed. They now need to take the next step to go from "ballpark figures" to realistic figures to see if it is possible for the three private properties to finance the public improvements. At the private properties expense, they will hire an infrastructure finance consultant to take a look at that and see if that is possible. This would be done with staff participation within a four-month period.

Jerry Peeler, Assistant City Manager, said it is important to emphasize that once we complete the study process, and it appears they can finance infrastructure, developers will have a reasonable expectation that they will, in turn, be able to develop in that area within a reasonable time frame. They understand there is a process that includes General Plan amendments, densities to implement that plan and the usual permit process. Mr. Peeler restated that the bottom line is that if the developers pull this together, the Council will enable them to go through the necessary processes to construct their development.

Mayor Brown said she thinks that is fine, and the Council would have that understanding, but the developers must realize that there are no promises that their applications will be approved.

Mr. Jacoby said they understand that the risk is on their side in that regard. They hope, as they are resolving some of the infrastructure design and improvements, there will be other things that get resolved and the natural applications for approvals can start.

VM Stein reiterated his concern that the current densities not be exceeded.

Kevin Peters, Shea Homes, said he wanted to be up front in that Shea will be proposing some housing below the college and above the airport zone which is different from the current General Plan designation. That is what will help accomplish the financing and allow the improvements to come in an expedited manner. On the litigation he said he wanted to make it clear that they have no "breakthrough" announcement, they hope to resolve the differences.

Clarence Hoenig, 588 Tyler Avenue, questioned proceeding when one property is not annexed. Mayor Brown assured Mr. Hoenig that the property will be annexed at the appropriate time.

Mayor Brown, with consensus, said the Council is willing to support the work as proposed by the College/private developers. Staff will stay involved regarding infrastructure requirements, and Council will be kept up to date on the progress.

6.2 CTV APPOINTMENT - Appointment to Tri-Valley Community Television Corporation (CTV) Board of Directors.

The Council received a report from the City Manager's office recommending that Council appoint only one representative to the CTV Board when the current City appointee's term expires in September. If all four cities agree, each city would appoint only one representative, thus reducing the board from 11 to seven members. Ellyn Axelrod, Assistant to City Manager, explained the

Attachment E - LVP Comment

Livermore Venture Partners, L.P.

6114 La Salle Avenue, #348
Oakland CA 94611
510-339-6367
Fax 550-339-1951
E-mail gdjacoby@aol.com

February 25, 2007

Mr.Jeffrey M. Kingston,
Vice Chancellor, Facilities Planning & Management
Chabot Las Positas
Pleasanton, CA 94588

Sent via fax to: 925-485-5294

Dear Jeff:

Attached are two documents prepared for us by Mick Lamb. The first document (2 pages) is the Record of Survey that identifies the location of our 6.63-acre narrow parcel that was located between the College and the Murray parcel. Mick set our southeast corner with what I believe is an iron pipe and brass marker. It is on the north/south fenceline about 176 feet south of the new fence. We share this corner with the College.

The second document is a Boundary Line Adjustment that was prepared in 2005 to enable a connection between our two parcels, which were previously unconnected. We resolved this matter by swapping slivers of land with the Murrays to create the connection. Following the Boundary Line Adjustment, the Murrays constructed a new fence on the new alignment, about 176 feet north of our southwest corner.

As I mentioned in last Friday's voicemail, I do not have, as requested, the attached documents in digital form. Mick indicates that one needs Autocad to read and review this digital file. I can arrange for Mick to release our file to your architect/engineer should that seem helpful in reviewing your plans.

On another matter, I did have the opportunity to speak to Bill Thomson, an attorney who has been representing the Murray Family for many years. I told Bill that the College might have an interest in acquiring some mitigation property. I understand that a ReMax realtor is representing the Murrays but we have found Bill to be extremely helpful, particularly because there are about 20 Murray members who have differing shares of interest in that property. He is also on the South Livermore Land Trust board and has great knowledge and experience in creating land conservation easements. Bill is located in Livermore and his telephone number is 925-606-6725.

Finally, I see in the local news that the City is hoping to acquire property in Doolan Canyon (several miles west of the College) in order to create a permanent open space separation between the City of Dublin and Livermore. The City may be willing to play some role in simplifying your

effort – if that is possible. Perhaps the City could obtain and maintain the property as some mitigation bank.

Let me know if you need any further information.

Sincerely,

Gordon D. Jacoby
Project Manager, Livermore Venture Partners

Attachments (3 pages)

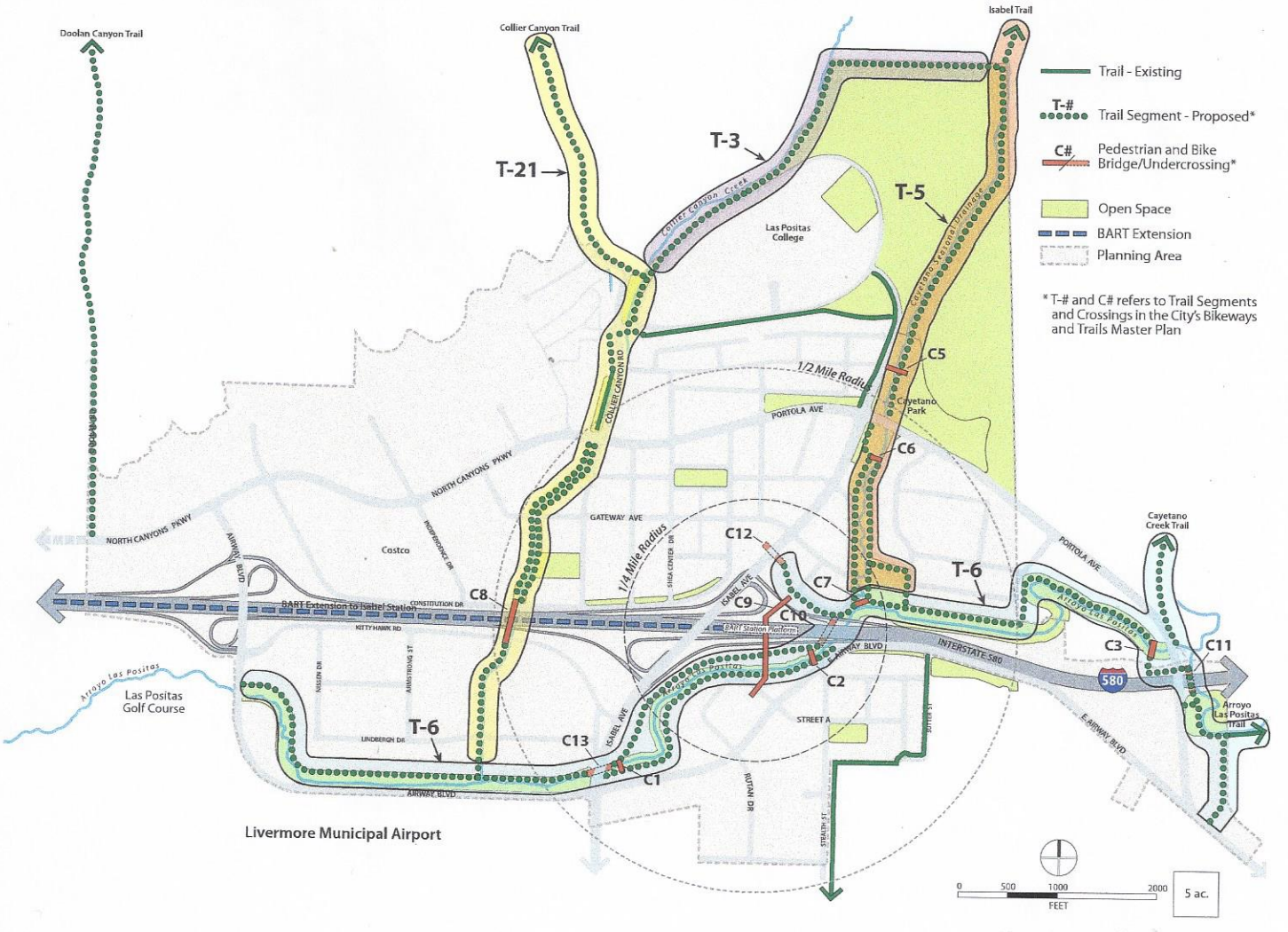
Attachment F - LVP Comment

DATE: DEC. 5, 2002
FILE: 4035\EXHIBITS\PICTURE OVERVIEW-SMALL.DWG

JMH WEISS, INC,
SAN JOSE (408) 286-4555
PLEASANTON (925) 226-2119

LIVERMORE VENTURE PARTNERS (LVP)

FIGURE 3-12: TRAIL NETWORK



Appendix 1
PDA Planning Elements
Description & Guidance

The following pages document each of the PDA planning elements, including the goal the element should aim to achieve, a description, examples or suggestions about what to include in the development of the element and what the deliverable should include. This information provides PDA planning grantees with an expectation of the scope for each element and what MTC/ABAG will be looking for in submitted deliverables.

Priority Development Area (PDA) Profile

Goal: Brief initial report providing an overview of demographic and socio-economic characteristics of the planning area, transit/travel patterns and use, physical aspects of the planning area, as well as any known issues that will need to be considered or addressed in the planning process. Context for the relationship between the planning area and the jurisdiction's surrounding area should be provided.

Data sources should include the US Census, as well as other planning efforts.

Results from the PDA Profile should inform subsequent planning elements.

Measures to be included or described in the PDA Profile

- Population
- Age
- Ethnicity
- Language
- Place of birth and residence
- Disability
- Households
- Employment
- Income and poverty status
- Household tenure and costs
- Place of work
- Travel mode to work
- Vehicle availability
- Travel time to work
- Physical landscape (inventory of housing, jobs, parks, neighborhood amenities/retail, social services, schools/playgrounds, activity nodes, etc.)
- Known issues or concerns to be included in the planning process

Deliverable: Report containing the above-referenced measures describing the planning area. The information contained in this report should be referenced throughout the planning process in the development of subsequent planning elements.

Affordable Housing and Anti-Displacement Strategy

Goal: Develop a strategy to provide existing and future plan area residents with a range of housing options that are affordable to households at all income levels. The strategy should describe the existing demographic and housing profile of the area, quantify the need for affordable housing, identify specific affordable housing goals for the plan, assess the financial feasibility of meeting the need for affordable housing, and identify strategies needed to meet the affordable housing goals.

To limit or prevent displacement in the area, the strategy should identify how non-subsidized affordable housing units in or neighboring the plan area may be impacted by the plan build-out. The plan should describe existing preservation policies to maintain neighborhood affordability and additional zoning changes or policies needed. The anti-displacement strategy may also include the maintenance and enhancement of small businesses, services and community centers that serve lower-income residents.

Elements to include in Affordable Housing and Anti-Displacement Strategy:

Assessment of Existing Conditions

- Describe the demographic characteristics of the existing population in the plan area, including factors such as income levels, ethnic/racial composition, and presence of low-income renters (who are at greatest risk of displacement)
- Describe the housing characteristics in the plan area, including factors such as housing tenure, household size, and housing affordability for both deed-restricted and market-rate units
- Describe market conditions that affect the provision of affordable housing, such as land availability and value, obstacles to development in the plan area, and existing affordable housing policies (e.g., inclusionary zoning, rent control or stabilization policies, housing preservation programs, etc.)

Quantification of Affordable Housing Need

- Quantify the expected need for affordable housing, by income level, in the plan area based on the characteristics of the existing and expected future population
- The statement of need should not be limited by estimates of what seems feasible

Identification of Goals

- Consider goals such as:
    - No net loss of affordability in the plan area
    - Total number of affordable units, by income level, that will be accommodated in the plan area
    - Target for percentage of total units that are affordable
- Demonstrate consistency with the jurisdiction's Regional Housing Need Allocation and the sites and policies identified in the Housing Element

Feasibility Analysis

- Assess the amount of affordable housing, by income level, that is likely to be produced by the market
- Estimate the public financial burden and the private costs required to meet the identified housing need
- Identify potential funding sources available to develop affordable housing
- Identify the "gap" between the dollar amount needed for affordable housing and the potential sources available

Implementation Strategy

- Identify specific strategies to retain existing affordable units
- Specify the location and type of units (size, tenure, etc.) to be developed in the plan area
- Identify funding sources that will be used to preserve or add affordable housing
    - Local sources (bonds, impact fees, housing trust fund, etc.)
    - State and Federal sources (HOME, CDBG, tax credits, grants, etc.)
    - Other

August 15, 2016

Lori Parks, Associate Planner
City of Livermore, Planning Division
1052 South Livermore Avenue
Livermore, CA 94550

Dear Ms. Parks:

On behalf of East Bay Housing Organizations (EBHO), I'd like to thank you for the opportunity to comment on the Draft Preferred Plan for the Isabel Neighborhood area.

EBHO is a nonprofit organization with over 500 organizational and individual members. We support the protection, preservation and creation of affordable housing opportunities in the East Bay through education, advocacy, organizing and coalition-building. Our members include a number of nonprofit developers who have experience developing housing in Alameda County including the Tri-Valley area. We have participated in the development of Specific, Neighborhood and Station Area plans in a number of East Bay cities, and offer the following comments based on our experience and expertise in the development of affordable housing.

The BART to Livermore extension and the redevelopment of the area surrounding the planned station present a unique opportunity to meet both local and regional goals for sustainable and equitable development. The Isabel Neighborhood Plan can serve the dual objective of securing and planning for the long-awaited BART service to Livermore and designing a neighborhood that can also contribute to the achievement of the visionary goals contained in the region's Sustainable Communities Strategy ("Plan Bay Area"). EBHO has been an active participant in the development of Plan Bay Area, and we work to ensure that local development consistent with that plan provides opportunities for affordable housing for low and moderate income households in all parts of the region.

We recognize that Plan Bay Area does not supersede local General Plans or development regulations, and that the successful implementation of sustainable development relies on local planning decisions. As the region expends considerable resources – particularly in the form of transportation funding – to implement Plan Bay Area, we hope that local planning and development that takes advantage of this funding will proceed in a fashion that furthers regional as well as local goals.

In furtherance of those goals, we offer the following comments on the Draft Preferred Plan.

1. The Isabel Neighborhood is a Priority Development Area and a future transit-oriented development neighborhood. As such, it's a prime location for affordable housing. Consistent with both regional priorities and local needs, siting of affordable housing should be a high priority for this area.

2. Sites close to transit are also particularly competitive for tax credits, funding under the State's Affordable Housing and Sustainable Communities program, and other financing. This presents a critical opportunity for Livermore to leverage outside resources and ensure that affordable housing can be produced there.

3. Livermore has consistently failed to meet its affordable housing goals in the past, and has produced market-rate housing for above-moderate income households at disproportionate rates. While both the 1999-2006 and 2007-2014 Housing Elements identified potential sites for affordable housing, actual accomplishments fell far short of the City's Regional Housing Needs Allocation (RHNA) for very low and low income.

   In the 1999-2006 period, Livermore produced just 34% of its combined very-low and low-income need, compared to 112% of its need for above-moderate income housing. Lower income units accounted for just 12% of all building permits, while lower income housing represented 27% of Livermore's total RHNA.

   Similarly, in the 2007-2014 period, Livermore produced just 7% of its combined very-low and low-income need, compared to 55% of its need for above-moderate income housing. Lower income units accounted for just 14% of all building permits, while lower income housing represented 50% of Livermore's total RHNA.

4. For the 2014-2022 period, Livermore's RHNA allocation specifies 48.1% of all housing units for very low and low income, and an additional 18.2% for moderate income households.

5. As the Draft Preferred Plan indicates, the proposed residential categories for the Isabel Neighborhood allow for and encourage a range of attached housing types, which are better suited for affordable housing than more costly detached single-family homes. Areas like the Isabel Neighborhood should be expected to accommodate a substantial share of the City's affordable housing production.

6. Livermore's Inclusionary Housing requirements are insufficient to meet the City's RHNA needs. For ownership housing, the requirement is 15% of all units, with at least half affordable to low income and the remaining units affordable to moderate income. For rental housing, the requirement is 15% affordable to low income, of which half must be affordable to very low income. These requirements fall far short of the City's RHNA allocation, indicating that other strategies must be adopted and

implemented in order for the City to meet its housing needs.

7. While the Draft Preferred Plan contains a summary of broad housing goals and strategies contained in the City's Housing Element, there is little to no discussion of how these strategies will be used specifically within the Plan area to ensure that sufficient affordable housing is actually developed.

8. Accordingly, we urge the City to include far more specific policies, strategies and actions in the Plan that establish concrete steps by which the City will ensure that affordable housing is actually developed as a significant part of the 4,290 units called for in the Plan. These include the following:

   - Identification of specific sites that should accommodate affordable housing, with an estimate of the number and affordability level of units to be developed.
   - Zoning that provides for adequate density to ensure that affordable housing is feasible on the site. This may require that the City perform economic feasibility studies or consult carefully with experienced developers of affordable housing. It is likely that this will require going beyond the minimum requirements for zoning established in the Housing Element, and consideration of zoning designations with higher densities more suitable in this market for successful development of affordable units.
   - If the City intends to utilize tools such as density bonuses, it should ensure that the base level zoning is such that when additional density is provided under a density bonus system, it does not require a change in construction type from less costly Type V or modified Type III to more expensive Type I construction, as this would make use of the density bonus infeasible.
   - If the City permits developers to make use of alternative compliance options for the inclusionary requirement, it should require than any land dedication be within the Isabel Neighborhood, and should ensure that fees are used to acquire and develop sites within the Plan area.
   - The City should pursue a land banking or site acquisition strategy to ensure that sites within the Plan area are dedicated for affordable housing. Developers of affordable housing are at a distinct disadvantage in this market when competing for sites against market-rate developers who can close escrow and pay for sites in a much shorter time frame. If the City were to acquire specific sites (using City housing trust funds or developer land dedications) or make funding available to affordable housing developers for site acquisition, it would help to facilitate affordable housing development in the area.
   - Because the inclusionary requirement and in-lieu and impact fee programs will not in themselves produce adequate housing, the City should explore and develop new and innovative financing sources to augment these requirements, including new local revenue measures that could provide additional affordable housing resources.

- The extension of BART to Livermore and the development of the Isabel station, made possible by very large investments of public funds, will result in a substantial increase in land values in the surrounding area. The City should implement mechanisms to ensure that a portion of this increased value accrues to the community in the form of community benefits such as affordable housing, rather than simply providing additional windfall profit to private land owners. For example, the City could increase the inclusionary and fee requirements in the Plan area as a form of land value capture. EBHO has published an extensive white paper on the theory and practice of land value capture or public benefit zoning and would be happy to share our knowledge and expertise with the City.
- If it is not possible to accommodate adequate affordable housing on sites within the Plan area, then the City should also explore alternative sites immediately adjacent to the Plan area. That work should proceed as part of the development of the Plan, to ensure that Plan goals can be fully met.

We thank you for the opportunity to comment on this Draft Preferred Plan. EBHO and its members would welcome the opportunity to discuss these comments further and we hope we can be a resource for the City as it continues to develop the affordable housing strategy component of the Plan.

Please feel free to contact me by email at jeff@ebho.org or by phone at (510) 663-3830, extension 316.

Sincerely,

Jeffrey P. Levin
Policy Director

2015 Housing Element Inventory (RHNA 2014-2022)

Downtown Specific Plan Area

Residential Redevelopment Site

Inventory: 389 Units - Extremely Low/Very Low

(47% of RHNA Need 830 units)

Reality: Active Shopping Center – 95%+ occupied

2015 Housing Element Inventory (RHNA 2014-2022)

Downtown Specific Plan Area

Residential Redevelopment Site

Inventory: 227Units - Extremely Low/Very Low

(27% of RHNA Need 830 units)

Reality: Active Shopping Center – 95% occupied

2015 Housing Element Inventory (RHNA 2014-2022)

General Plan Areas

Vacant Sites: 12+ acres across street from newly proposed home project

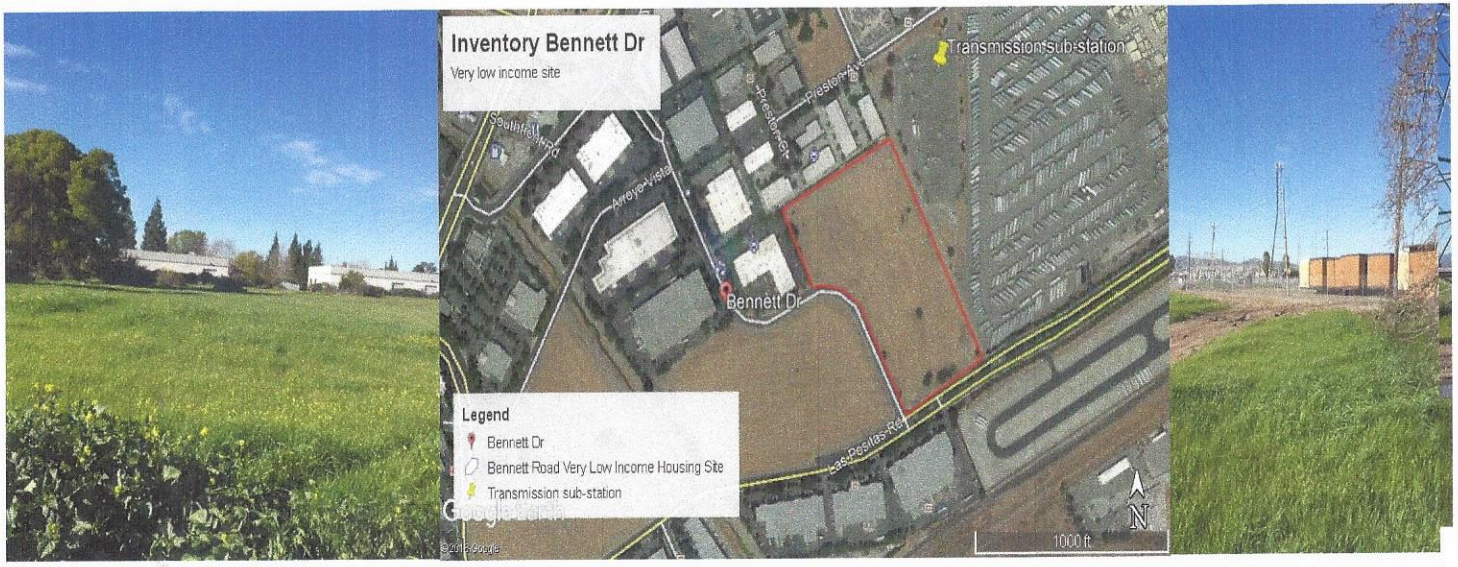
Inventory: 482 Units - Extremely Low/Very Low

(58% of RHNA Need 830 units)

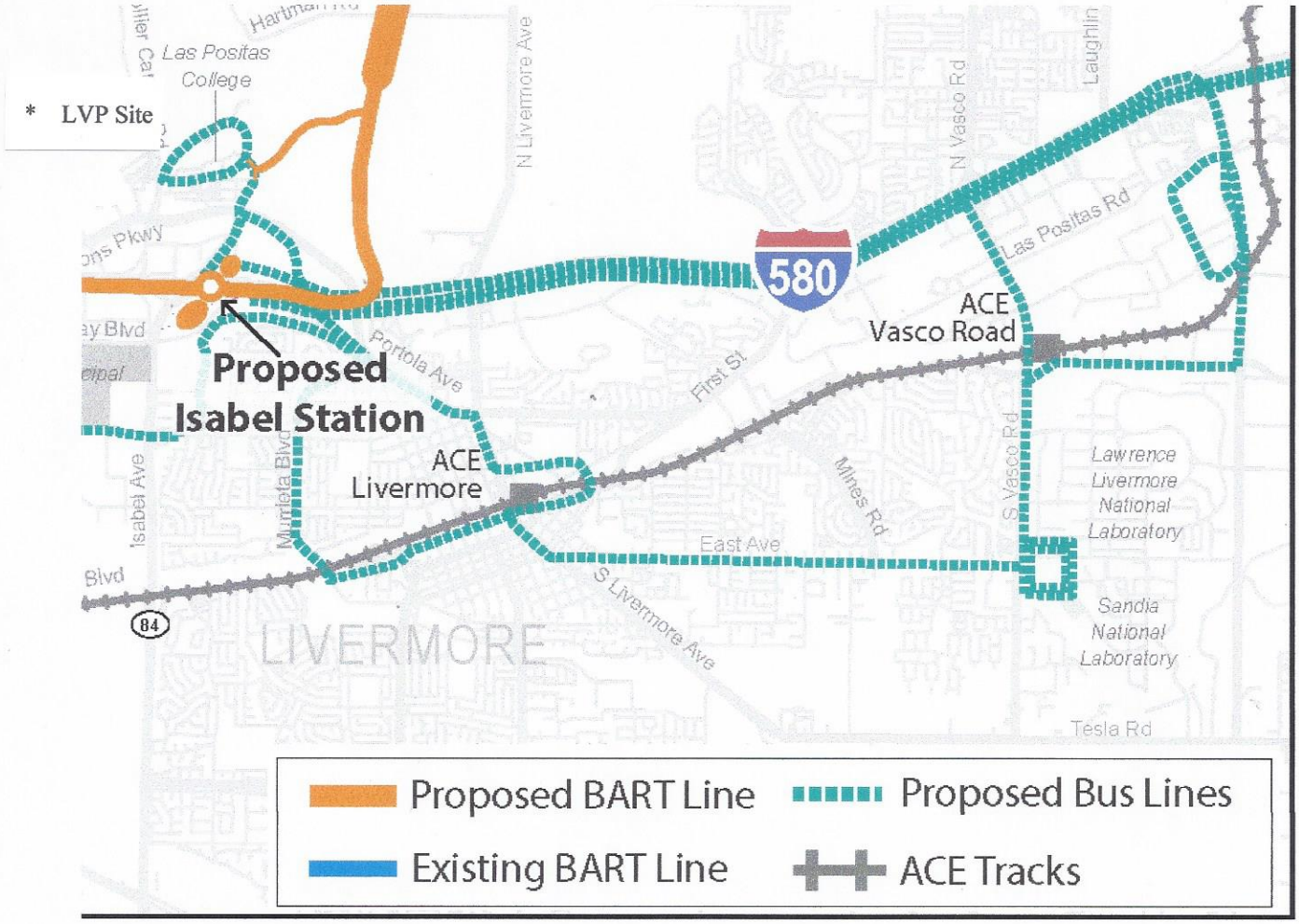
Reality: If Rental – No Inclusionary requirement;

Estimate land value - $1.5 million per acre land value (too high for very low income rental;

Transmission lines/nearby transformer sub-station possible safely concerns and design issue



Attachment M - LVP Comment



2015 BART Station Profile Study (weekdays only)
(revised 8/28/17)

Median Distance to Station from Home Origin by Mode (in miles)
Base: Home origins
Weight: Geocode weight

	MEDIAN DISTANCE TO STATION BY MODE (IN MILES)				
HOME ORIGIN STATIONS	Median Distance (All Modes)	Median Walk Distance	Median Transit Distance	Median Drive Alone / Carpool Distance	Median Drop-off / Taxi / Other Distance
12th St. Oakland City Center	0.52	0.34			
16th St. Mission	0.45	0.36			
19th St. / Oakland	0.74	0.47			
24th St. Mission	0.42	0.33			
Ashby	0.60	0.42		1.01	
Balboa Park	0.69	0.52	1.15		0.92
Bay Fair	1.24	0.70		1.87	1.34
Castro Valley	1.14	0.76		1.54	1.25
Civic Center/UN Plaza	0.63	0.40			
Coliseum	1.40	0.55		1.98	1.53
Colma	1.25	0.51		2.11	1.27
Concord	1.96	0.64		2.74	2.02
Daly City	1.21	0.51		2.56	1.55
Downtown Berkeley	0.64	0.55			
Dublin/Pleasanton	3.70			6.11	3.14
El Cerrito del Norte	1.34	0.52	11.55	2.92	1.39
El Cerrito Plaza	0.88	0.52		1.41	1.03
Embarcadero	1.06				
Fremont	2.35			3.64	2.17
Fruitvale	1.23	0.55		1.92	1.51
Glen Park	0.65	0.44			1.00
Hayward	1.23	0.46		1.76	1.71
Lafayette	1.81	0.47		3.45	2.10
Lake Merritt	1.02	0.60			
MacArthur	0.81	0.51			1.12
Millbrae	4.35			7.19	
Montgomery St.	0.85				
North Berkeley	0.72	0.51		1.37	
North Concord/Martinez	6.67			8.48	5.05
Orinda	2.25	0.44		3.42	2.15
Pittsburg/Bay Point	4.35		8.23	6.46	4.33
Pleasant Hill/Contra Costa Centre	1.80	0.40		2.30	2.03
Powell St.	0.59	0.44			
Richmond	0.95	0.49		1.49	1.12
Rockridge	1.04	0.48		2.18	
San Bruno	1.37	0.69		1.82	
San Leandro	1.02	0.64		1.79	1.33
South Hayward	1.65	0.48		2.38	1.94
South San Francisco	1.34	0.42		1.94	1.59
Union City	1.73	0.50		2.77	2.05
Walnut Creek	2.09			3.44	2.21
West Dublin/Pleasanton	3.04			4.17	2.31
West Oakland	0.76	0.45		3.22	1.92

Systemwide Data
Base: Home origins
Weight: Geocode weight

	SYSTEMWIDE: MEDIAN DISTANCE TO STATION BY MODE (IN MILES)					
	Median Distance (All Modes)	Median Walk Distance	Median Transit Distance	Median Drive Alone / Carpool Distance	Median Drop-off / Taxi / Other Distance	Median Bicycle Distance
n	*23,984*	*7,909*	*1,801*	*7,429*	*5,254*	*1,519*
Systemwide (all stations)	1.08	0.47	2.11	2.59	1.63	0.94

Data not shown above when sample size is below 100, as indicated by shaded cells. Data are derived from origin location information provided by passengers. Survey responses are weighted using an origin geocode weight. All distance calculations are based on shortest walk distance along the road network from origin point to BART entry station (closest entrance).

TERRENCE J. ROSE, INC.
REAL ESTATE
INVESTMENT & DEVELOPMENT

February 2, 2018

Ms. Ashley McBride
Assistant Planner, Planning Division
CITY OF LIVERMORE
1052 South Livermore Avenue
Livermore, CA 94550

Mr. Stephen Riley
Principal Planner, Community Development
CITY OF LIVERMORE
1052 South Livermore Avenue
Livermore, CA 94550

VIA EMAIL AND U.S. MAIL DELIVERY

Re: Isabel Neighborhood Plan

Dear Ms. McBride and Mr. Riley:

Terrence J. Rose, Inc. is the developer and owner of the Livermore Airway Business Park (Park), a 68 acre business park development located at the southeast quadrant of Interstate 580 and Airway Boulevard. The Park was has been in existence since 1980, and currently comprises of 750,000 sq. ft. of multi-tenant office, industrial, R&D, hospitality, recreational, fitness, restaurant, and other commercial uses, including 100 businesses employing over 1,000 people.

B1-1

The inclusion of the Park within the Planning Area of the Isabel Neighborhood Plan (INP) raises several concerns. The Park was created as the "Livermore Airway Business Park Planned Development District." Its permitted land uses and development standards have been governed under a permit known as "Planned Development 17 (PD-17)". PD-17 is still in force today and has been instrumental to the Park's success.

Notwithstanding the fact that the Park is outside the half mile BART Station Buffer, the Plan states that the area within the Park will no longer be governed by PD-17. Instead, a new zoning district will be created, to be known as the "Airway Business Park Zoning District." The new zoning district, as presently constituted, purports to maintain the existing PD-17 standards within the Park. A close review of the Plan confirms that, with few exceptions, the existing standards have been left intact. However, in the proposed Off-Street Parking and Loading Section C, the office parking ratio has increased from one

2600 Kitty Hawk Road Suite 100 Livermore, CA 94551 Tel: 925.455.1234 Fax: 925.455.1546 www.tjrinc.com
Corporate Office: 3375 Scott Boulevard Suite 308 Santa Clara, CA 95054 Tel: 408.496.1234 Fax: 408.988.4768

stall per 400 sq. ft. in current PD-17 to one stall per 300 sq. ft. in the proposed district. We do not support the change. At a time when civic planners are working to reduce parking ratios and encourage public transportation – hence the proposed BART station - it is counterintuitive to increase the minimum parking standards in the Park. The parking we've developed in the Park is sufficient for all of our uses, and we request that you do not make the change. Further, and for clarification purposes, please delete the reference to that certain yard area as indicated on the attachment. That yard area is specific to Boomers (Site Plan Approval 101-91), and it is appropriately exempted as highlighted in the section above.

In addition to permitted land uses and development standards, the Plan generally discusses certain infrastructure costs and funding mechanisms to be used for implementation of the Plan. We acknowledge that the intensification of certain land uses within the Plan area will require certain public facilities and infrastructure. Those facilities will not confer any benefit to the properties within the Park. Consequently, we should have no obligation to fund them. The same goes for various other components of the Plan which require funding, such as TDM, TMA, on-street parking, design standards, diversion programs, water restrictions, arroyo bike path maintenance or setbacks, new fees, in-lieu or otherwise, buffer zones, and other regulations. While all of these will contribute to the overall success of the Plan, the Park derives no benefit from them. They simply add new burdens and increase our cost of doing business in the community. Consequently, we should have no obligation to fund them.

B1-1

Moving forward, we would support the City's proposed new zoning district, the Airway Business Park Zoning District, as drafted, PROVIDED the parking ratio and yard areas are corrected as described above and the Park shall not be bound by nor have any obligation for additional costs, funding mechanisms, or regulatory constraints, restrictions or burdens associated with the Plan.

We appreciate your efforts in formulating the Plan, and wish you much success. We have operated our Park successfully for many years, however, and do not wish to be burdened with additional regulatory and cost requirements that will compromise our investment.

Thank you for your consideration. If you have any questions, please do not hesitate to contact me.

Sincerely,

Tom Siewert
Partner

CONDITIONAL USES

The following uses are conditionally permitted subject to Conditional Use Permit approval in addition to any other prerequisite permits and conformance to all applicable regulations set forth in the Isabel Neighborhood Plan or in the Development Code.

1. Any facility distributing, manufacturing, or utilizing in the industrial or commercial process any chemical material deemed hazardous by the City Hazardous Materials Ordinance shall meet the requirements of that ordinance. Upon adoption, all regulations shall apply to all future uses in this District and shall not be retroactive unless a change in intensity of use, location, or nature of the business occurs.
2. Motels including accessory restaurant uses.
3. Public and quasi-public uses (other than office).
4. Child care centers.

ACCESSORY USES

The following are the accessory uses permitted in this District:

1. Accessory uses and buildings customarily appurtenant to a permitted use.
2. Any uses determined by the Community Development Director to be similar to or ancillary to those listed in the permitted or conditional uses sections of this document.

OTHER DEVELOPMENT REGULATIONS

Height Regulations

The height is limited to forty feet except that the Planning Department may approve an increase in height to forty-eight feet for the batting cage subject to review and approval by the Airport Land Use Commission (ALUC). The height is also governed by the General Plan Scenic Corridor Policies and may be more restrictive than the height limit listed above.

Area, Width, and Yard Requirements

The following minimum requirements shall be observed, except where increased for conditional uses and Site Plan Approval 101-91 (Currently Boomers Commercial Recreation use):

a. Lot Area: 20,000 square feet.

b. Width: 100 feet.

c. Yards:

- Kitty Hawk Road Frontage: 35 feet. ~~15 feet of landscaping, 20 feet for structures except for a six foot fence, which can be located 25 feet from the face of curb or 15 feet from property line.~~
- Other Streets: 25 feet.
- Rear and Side Yards: 12.5 feet. For buildings more than 40 feet high, the yard requirements shall increase one foot for every three feet above 40 feet.

d. Lot Coverage: The lot coverage maximum shall be 45 percent, except where changed by conditional uses.

Use of Yard Areas

The following uses only shall be made of yard areas, and then only if such uses are otherwise permissible pursuant to the provisions of this District.

a. Landscaping: All required yards adjacent to streets shall be landscaped except for driveways and sidewalks which are found to be necessary for the efficient use of the property. A landscaped strip of land at least 25 feet wide shall be maintained along any property line fronting Kitty Hawk Road and at least 15 feet on other street frontages. All landscaping shall be carried out in accordance with the landscaping plan approved by the City, and such landscaping shall be installed in such a manner so as to screen the viewing of outdoor storage, parking, and loading areas from the street insofar as is practicable.

b. Driveways, Sidewalks, and Steps.

Richard J. Grant, APC
2235 Encinitas Boulevard, Suite 210
Encinitas, California 92024
760 807-1169
rjgrant57@icloud.com

February 26, 2018

Mr. Steven Riley
Senior Planner
City of Livermore
1052 South Livermore Avenue
Livermore, California 94550

Re: ***COMMENTS TO DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE ISABEL NEIGHBORHOOD PLAN ON BEHALF OF THE CONDOR FUND PARCELS AT COMCAST COURT AND NORTH CANYONS PARKWAY, LIVERMORE***

Dear Mr. Riley:

On behalf of Livermore Condor Fund LLC (LCF), we want to take this opportunity to comment on the Draft Environmental Impact Report for the Isabel Neighborhood Plan. Below we identify the Impact and Policy Number and make our comments next to that number.

IMPACT	PROPOSED GOALS AND POLICIES THAT REDUCE THE IMPACT	
3.1 Land Use, Population and Housing		
3.1-2	P-LU-41	The current inclusionary requirement in Livermore of 15%, with one-half at moderate and one-half at low income, is a reasonable goal for development of residential today. Increasing the inclusionary requirement to 20% with variations of very low, low and moderate units will create economic hardships on most subdivisions. The better way to accommodate an increase in the BMR is to find affordable developers who can creatively finance 100% below-market-rate units within the INP area and allowing market rate projects to support such 100% BMR projects thru in-lieu fees.

B4-1

3.1-4	P-LU-29	The concept of creating three product types on parcels greater than 3 acres is an undue burden on properties that have the lower densities of Transition and Village within this Plan. In the higher density areas, the infrastructure and street network proposed creates small parcels that can accommodate more creative higher density projects. These higher density projects create architectural diversity within INP. Imposing such strict product diversification requirements on what are relatively small lower density parcels, along with the higher BMR requirements, will be an economic deterrent to residential development within this Plan.
	P-LU-34	The inclusionary ordinance comments per the paragraph in 3.1-2 above apply here also.
	P-LU-38	For clarification, the provision requiring onsite management should be further defined as necessary on "for rent' projects only.
3.7 Biological Resources		
3.7-1	P-ENV-23	The East Alameda County Conservation strategy ("EACCS") was developed for mitigation on agricultural lands outside of the city limits of the Cities in the Tri-Valley and was meant to provide mitigation that would deter development within the agricultural areas controlled under "Measure D". The mitigation measures under the EACCS are extremely burdensome and should not be implemented within the city limits of any of these cities, as those properties have already gone through major CEQA review when they were developed and additional mitigation is not warranted. Therefore, this provision should be stricken from the EIR.
3.11 Public Services and Recreation		
3.11-1	P-PF-15	This policy designates a 50 foot buffer along each side of the natural creeks, whereas Section 3.7 (Biological Resources), Item 3.7-1, Policy P-ENV-18, creates a 100 foot buffer from the top of bank. It is our opinion that a 100 foot buffer on both sides of the creek is excessive, and therefore, the 50 foot buffer referenced in this section is more appropriate for a project as dense as the Isabel Neighborhood Plan.
3.11-2	P-ENV-18	Same comment as above. Policy should be modified to create a 50' setback, given the density of the INP.

B4-2
B4-3
B4-4
B4-5
B4-6

Thank you for your attention to these comments. If there are any questions or concerns, please do not hesitate to contact me or our local representative, John Steinbuch,

at Colliers International (925-227-6212).

Yours,

Richard J. Grant

RJG:jz
cc: J. Steinbuch
Client

ADAMS BROADWELL JOSEPH & CARDOZO
A PROFESSIONAL CORPORATION
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601 GATEWAY BOULEVARD, SUITE 1000
SOUTH SAN FRANCISCO, CA 94080-7037
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DANIEL L. CARDOZO
CHRISTINA M. CARO
THOMAS A. ENSLOW
TANYA A. GULESSERIAN
MARC D. JOSEPH
RACHAEL E. KOSS
COLLIN S. McCARTHY
LINDA T. SOBCZYNSKI

SACRAMENTO OFFICE
520 CAPITOL MALL, SUITE 350
SACRAMENTO, CA 95814-4721
TEL: (916) 444-6201
FAX: (916) 444-6209

February 1, 2018

Via Email and U.S. Mail

Susan Neer, City Clerk
City of Livermore
City Hall
1052 S. Livermore Ave.
Livermore, CA 94550
smneer@cityoflivermore.net

Steve Stewart
Planning Manager
City of Livermore
1052 S. Livermore Avenue
Livermore, CA 94550
planning@cityoflivermore.net

Via Email Only

Ashley McBride, Assistant Planner, asmcbride@cityoflivermore.net

Re: Request for Mailed Notice of CEQA Actions and Hearings – Isabel Neighborhood Specific Plan

Dear Ms. Neer, Mr. Stewart and Ms. McBride:

We are writing on behalf of Livermore Residents for Responsible Development ("Livermore Residents") to request mailed notice of the availability of any environmental review document, prepared pursuant to the California Environmental Quality Act, related to the Isabel Neighborhood Specific Plan ("Project"), as well as a copy of the environmental review document when it is made available for public review. *This request excludes the Draft Environmental Impact Report ("DEIR"), which was just released for public comment.*

B3-1

We also request mailed notice of any and all hearings and/or actions related to the Project. These requests are made pursuant to Public Resources Code Sections 21092.2, 21080.4, 21083.9, 21092, 21108 and 21152 and Government Code Section 65092, which require local agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

3567-001acp

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B3-1

Livermore Residents is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential public impacts associated with Project development. Livermore Residents includes: the International Brotherhood of Electrical Workers Local 595, Plumbers & Steamfitters Local 342, Sheet Metal Workers Local 104, Sprinkler Fitters Local 483 and their members and their families; and other individuals that live and/or work in the City of Livermore and Alameda County. Residents have a strong interest in enforcing the State's environmental laws that encourage sustainable development and ensure a safe working environment for its members.

Please send the above requested items by email and U.S. Mail to our South San Francisco Office as follows:

U.S. Mail

Janet Laurain
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Email

jlaurain@adamsbroadwell.com

Please call me at (650) 589-1660 if you have any questions. Thank you for your assistance with this matter.

Sincerely,

Janet Laurain
Paralegal

JML:acp

3567-001acp

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2/25/2018

Ashley McBride, Assistant Planner
City of Livermore, Planning Division
1052 South Livermore Avenue
Livermore, Ca 94550

RECEIVED
FEB 28 2018
PLANNING DIVISION

From: Eugene Wheeler
2986 Bresso Dr
Livermore, CA 94550
Subject: Livermore Airport Safety Issues-Bart Isabel Resident Demands

Thanks for the opportunity to comment again (see my comments, April 24,2016) on the Airport SAFETY Compromises associated with the MTC demands for the extension of Bart to Isabel Ave. I am a Livermore resident, Pilot, Aircraft Owner and Hangar tenant for over 40 years. I was also Chairman of the Airport Commission for 6 years.

LOST SAFETY-ARRIVAL TO RWY 25R- MOST ACTIVE RUNWAY

It's clear that the EIR proposal will reduce the Safety Environment of the Airport, with the primary concern being the arrival traffic pattern for Runway 25R. The traffic pattern requires starting a 500 ft. decent/min. parallel to the Runway threshold. At the 45 degree mark, a 90degree turn is initiated still descending at a rate of ~500ft./min over the homes and business structures. The descent continues with another 90 degrees turn on the centerline of the runway. After the turn to the Base leg the altitude over many of the new structures will be 300-500ft. Attached is an NTSB Safety Alert for aircraft operating low and slow (as in operating in a traffic pattern) to avoid the often fatal stall/spin accident. Cited in the Alert are two accidents leading to the deaths of pilots and passengers. Also attached is the NTSB accident report of a GA aircraft at Montgomery Airport near San Diego that led to 2 passengers dying after a collision with a home following an emergency landing. The aircraft experienced an engine failure followed by an emergency landing in a short field and subsequent crash into a home. The aircraft was at 700 ft. when the failure occurred and approximately 2 miles from the Montgomery Airport**. Clearly adding all the proposed structures within the current Livermore Protection Area will reduce our safety margin.**

C7-1

I've created a plot showing the standard arrival to RWY 25R which includes decent rates and turns to complete landing. I am available to meet with Planning Commission staff to discuss this concern and review the key issues. It's clear that the Traffic Pattern operations at Livermore are somewhat confusing.

No other GA Airport in the Bay Area has been experience compromised Aviation Safety by the MTC

I have reviewed the Safety zones at Norman Mineta Y San Jose Airport International Airport. First the airport has eliminated the GA runway 29. It has been converted to primarily Airline

Traffic WITH straight-In approach to landing (charts attached). They have terminal radar for complete coverage (Livermore has only coverage above 1800 MSL-therefore, does not cover traffic pattern operations.). San Jose has few GA operations therefore low-level traffic pattern flying is minimum. Again, the Livermore Airport has the ONLY Bay Area GA Airport Safety Area that will be negatively impacted with the MTC edict demanding high density structures in the operating traffic area, including parking garages, homes and business.

RECOMMENDATIONS:

1) I recommend that the Planning Commission develop a chart that clearly illustrates the Arrival Pattern to RWY 25R and the true proximity to the tallest structures.

C7-1

2) I also recommend that the Livermore City Council conduct a "Risk Assessment" on the possibility and cost that if the project goes forward as planned and there is an "Traffic Pattern" accident which results in fatalities on the ground and in the aircraft. There has already been emergency landings and accidents in the current Livermore Airport Protection Area.
3) I recommend that the planning commission discuss/observe the operations of the Livermore Control Tower-the FAA staff charged with the safe operation at LIVERMORE when open (7AM-9PM). Aircraft safety/separation is their responsibility. When closed aircraft depend on radio position reports to ensure safety.

I am available to discuss the Livermore Operations that present Safety Concerns for the current Bart to Isabel EIR. Thanks for the opportunity to provide input on these critical safety issues,

Sincerely,

Eugene Wheeler
925-785-2209
2986 Bresso Dr.
Livermore, CA
Email-planesrus@pacbell.net

Attachments:

1. NTSB Safety Alert-Low altitude GA Traffic Pattern accidents- several fatalities
2. GA Accident-San Diego-12/2017 -2 fatalities
3. Map- Arrival to Livermore RWY 25 R. Through current Airport Protection Area.
4. Map- arrival to RWY 25R over homes and proposed deletion of the Airport Protection Area.
5. San Jose International Airport-approach diagrams-

CC. Stephen Riley, AICP-Livermore Planning Commission

ATTACHMENT 1

NTSB SAFETY ALERT

National Transportation Safety Board

★ Prevent Aerodynamic Stalls at Low Altitude ★

Avoid this often deadly scenario through timely recognition and appropriate responses

The problem

- While maneuvering an airplane at low altitude in visual meteorological conditions (VMC), many pilots fail to:
  - avoid conditions that lead to an aerodynamic stall,
  - recognize the warning signs of a stall onset, and
  - apply appropriate recovery techniques.
- Many stall accidents that occur in VMC result when a pilot is momentarily distracted from the primary task of flying, such as while maneuvering in the airport traffic pattern, during an emergency, or when fixating on ground objects.[1]
- Aerodynamic stall accidents fall into the "loss of control in flight" category, which is the most common defining event for fatal accidents in the personal flying sector of general aviation (GA).[2]

Related accidents

Sadly, the circumstances of each new accident are often remarkably similar to those of previous accidents. This suggests that some pilots are not taking advantage of the lessons learned from such tragedies that could help them avoid making the same mistakes. The following accident summaries[3] illustrate some common—and preventable—accident scenarios related to aerodynamic stalls:

---

[1] See FAA Advisory Circular 61-67C, "Stall and Spin Awareness Training," the link to which is provided in the "Interested in More Information?" section of this safety alert.

[2] Each year, the NTSB investigates about 1,500 GA accidents in which about 475 people are killed. See the NTSB data for Review of U.S. Civil Aviation Accidents, Calendar Year 2011. The defining events information is derived from the NTSB's Review of U.S. Civil Aviation Accidents, 2007-2009. Both data sources are available from the NTSB's Aviation Statistics web page at http://www.ntsb.gov/investigations/data/Pages/aviation_stats.aspx.

[3] The accident reports for each accident referenced in this safety alert are accessible by NTSB accident number from the NTSB's Aviation Accident Database & Synopses web page at http://www.ntsb.gov/_layouts/ntsb.aviation/index.aspx. (The NTSB accident numbers are CEN12FA271,

- A commercial pilot and a flight instructor were killed after executing a very steep, left, base-to-final turn in the airport traffic pattern in a Beech S35 airplane. The airplane subsequently descended to the ground in a manner consistent with a stall. Evidence indicates that the pilot likely overshot the extended runway centerline when turning to the final approach leg then applied excessive bank angle to correct the course.
- A commercial pilot was killed after his Piper PA-12 airplane lost engine power during takeoff. When the airplane was about 200 to 300 feet above the ground, it turned to the left as if the pilot were attempting to return to the airstrip, then it pitched down abruptly and descended in a steep, nose-down attitude, consistent with a stall. The accident site was adjacent to a road and about 300 yards from a clear field, both of which were suitable potential landing areas.
- The pilot of an RV-6 experimental airplane was flying over a beach area while a friend watched from the ground. The pilot was on his third low-altitude pass when he initiated a "tight left turn" then felt what he described as a "bump/drop" as if the airplane's "left wing lost lift." The left wing dropped, and the airplane descended to the water below, consistent with a stall. The pilot, who sustained serious injuries, had about 15 hours total time in RV-6 airplanes.

What can pilots do?

- Be honest with yourself about your knowledge of stalls and your preparedness to recognize and handle a stall situation in your airplane. Seek training to ensure that you fully understand the stall phenomenon, including angle-of attack (AOA) concepts and how elements such as weight, center of gravity, turbulence, maneuvering loads, and other factors affect an airplane's stall characteristics.
- Remember that an aerodynamic stall can occur at any airspeed, at any attitude, and with any engine power setting.
- Remember that the stall airspeeds marked on the airspeed indicator (for example, the bottom of the green arc and the bottom of the white arc) typically represent *steady flight speeds at 1G* at the airplane's maximum gross weight in the specified configuration. Maneuvering loads and other factors can increase the airspeed at which the airplane will stall. For example, increasing bank angle can increase stall speed exponentially. Check your airplane's handbook for information.
- Reducing AOA by lowering the airplane's nose at the first indication of a stall is the most important immediate response for stall avoidance and stall recovery.
- Manage distractions when maneuvering at low altitude so that they do not interfere with the primary task of flying.
- Resist the temptation to perform maneuvers in an effort to impress people, including passengers, other pilots, persons on the ground, or others via an onboard camera.

ANC11FA065, and CEN12CA294, respectively.) Each accident's public docket is accessible from the NTSB's Docket Management System web page at http://www.ntsb.gov/investigations/SitePages/dms.aspx.

"Showing off" can be a deadly distraction because it diverts your attention away from the primary task of safe flying.

- Understand that the stall characteristics of an unfamiliar airplane may differ substantially from those of airplanes with which you have more flight experience.

Interested in more information?

Education and training are essential to improving GA safety. The Federal Aviation Administration (FAA) Safety Team (FAASTeam) provides access to online training courses, seminars, and webinars as part of the FAA's "WINGS—Pilot Proficiency Program." The program includes targeted flight training designed to help pilots develop the knowledge and skills (including flight by reference to instruments) needed to achieve flight proficiency and to assess and mitigate the risks associated with the most common causes of accidents. The courses listed below and others (many of which were developed by the Aircraft Owners and Pilots Association [AOPA] Air Safety Institute, a division of AOPA Foundation), as well as seminar and webinar information, can be accessed from the FAASTeam website at www.faasafety.gov. (Course access requires login through an existing or creation of a free FAASTeam account.)

- Essential Aerodynamics: Stalls, Spins, and Safety
- Avoiding Loss of Control
- Maneuvering: Approach and Landing
- Positive Aircraft Control

Other resources:

- The AOPA Air Safety Institute offers several interactive courses, presentations, publications, and other safety resources that can be accessed from its website at www.aopa.org/asf/. (Course access requires creation of a free account.)

- *Airplane Flying Handbook* (FAA-H-8083-3A) provides guidance about stalls and spins (including accelerated maneuver stalls) in chapter 4 and discusses stalls in the airport traffic pattern in chapter 8. The handbook can be accessed from the FAA's website at www.faa.gov.

- "Stall and Spin Awareness Training" (FAA Advisory Circular [AC] 61-67C) and "Airmen Transition to Experimental or Unfamiliar Airplanes" (FAA AC 90-109) can be accessed from the FAA's Regulatory and Guidance Library web page at rgl.faa.gov.

- *Pilot's Handbook of Aeronautical Knowledge* (FAA-H-8083-25A) discusses aeronautical decision making and risk management in chapter 17. It provides basic risk management tools (including the "IMSAFE" health checklist, the "DECIDE" process for aeronautical decision making, the "PAVE" risk assessment checklist, and other tools). The handbook can be accessed from the FAA's website at www.faa.gov.

- A Personal Minimums Checklist can be accessed from the FAA's Guidance and Documents website at www.faa.gov/training_testing/training/fits/guidance/.

Attachment 2

National Transportation Safety Board
Aviation Accident Preliminary Report

Location:	San Diego, CA	**Accident Number:**	WPR18FA046
Date & Time:	12/09/2017, 1633 PST	**Registration:**	N248SB
Aircraft:	BEECH A36	**Injuries:**	2 Fatal, 2 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

On December 9, 2017 about 1633 Pacific standard time, a Beech A36, N248SB, was destroyed when it impacted a residential house following an emergency landing near Montgomery - Gibbs Executive Airport (MYF), San Diego, California. The pilot and one passenger sustained serious injuries. Two other passengers were fatally injured. The airplane was registered to Altitude Aviation Inc. and operated by the pilot under the provisions of 14 *Code of Federal Regulations* Part 91 as a personal flight. Visual meteorological conditions prevailed for the flight, and a visual flight rules plan was filed for the cross-country flight to Los Angeles, California. The flight originated from MYF about 1630.

The pilot reported that about 1.5 miles west of the airport, at 700 ft above ground level, the engine experienced a complete loss of power. He executed a steep 180° turn to the right and performed the emergency procedure for loss of engine power. Engine power was not regained and he executed a forced landing to a nearby field. During landing, the pilot applied brakes, but due to an insufficient stopping distance, the airplane impacted and traveled through a fence before colliding with the residence. A post-crash fire ensued.

A witness located about 0.15 miles from the accident site recorded a video that showed the airplane in a steep right bank. The landing gear was extended and visible. The airplane briefly disappeared from the line of sight and a second later, it touched down in the middle of a school yard.

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	BEECH	**Registration:**	N248SB
Model/Series:	A36 UNDESIGNAT	**Aircraft Category:**	Airplane
Amateur Built:	No		
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	**Condition of Light:**	Day
Observation Facility, Elevation:	KMYF, 417 ft msl	**Observation Time:**	0053 UTC
Distance from Accident Site:	2 Nautical Miles	**Temperature/Dew Point:**	26°C / -8°C
Lowest Cloud Condition:	Clear	**Wind Speed/Gusts, Direction:**	3 knots, 50°
Lowest Ceiling:	None	**Visibility**	10 Miles
Altimeter Setting:	30.12 inches Hg	**Type of Flight Plan Filed:**	VFR
Departure Point:	SAN DIEGO, CA (MYF)	**Destination:**	Los Angeles, CA

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Destroyed
Passenger Injuries:	2 Fatal, 1 Serious	**Aircraft Fire:**	On-Ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Fatal, 2 Serious	**Latitude, Longitude:**	32.825000, -117.170556 (est)

Administrative Information

Investigator In Charge (IIC): Maja Smith

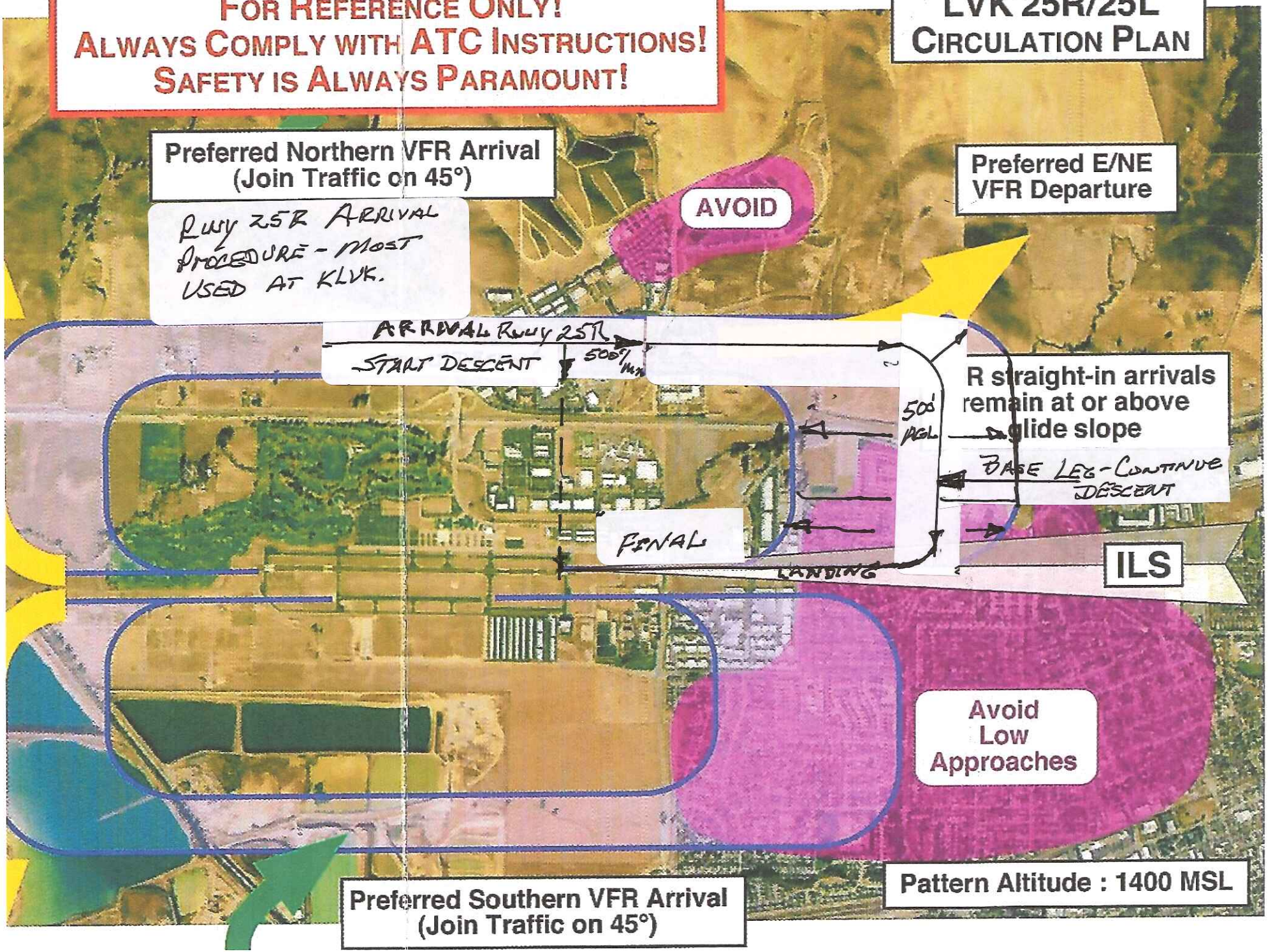
Additional Participating Persons:

Note: The NTSB traveled to the scene of this accident.

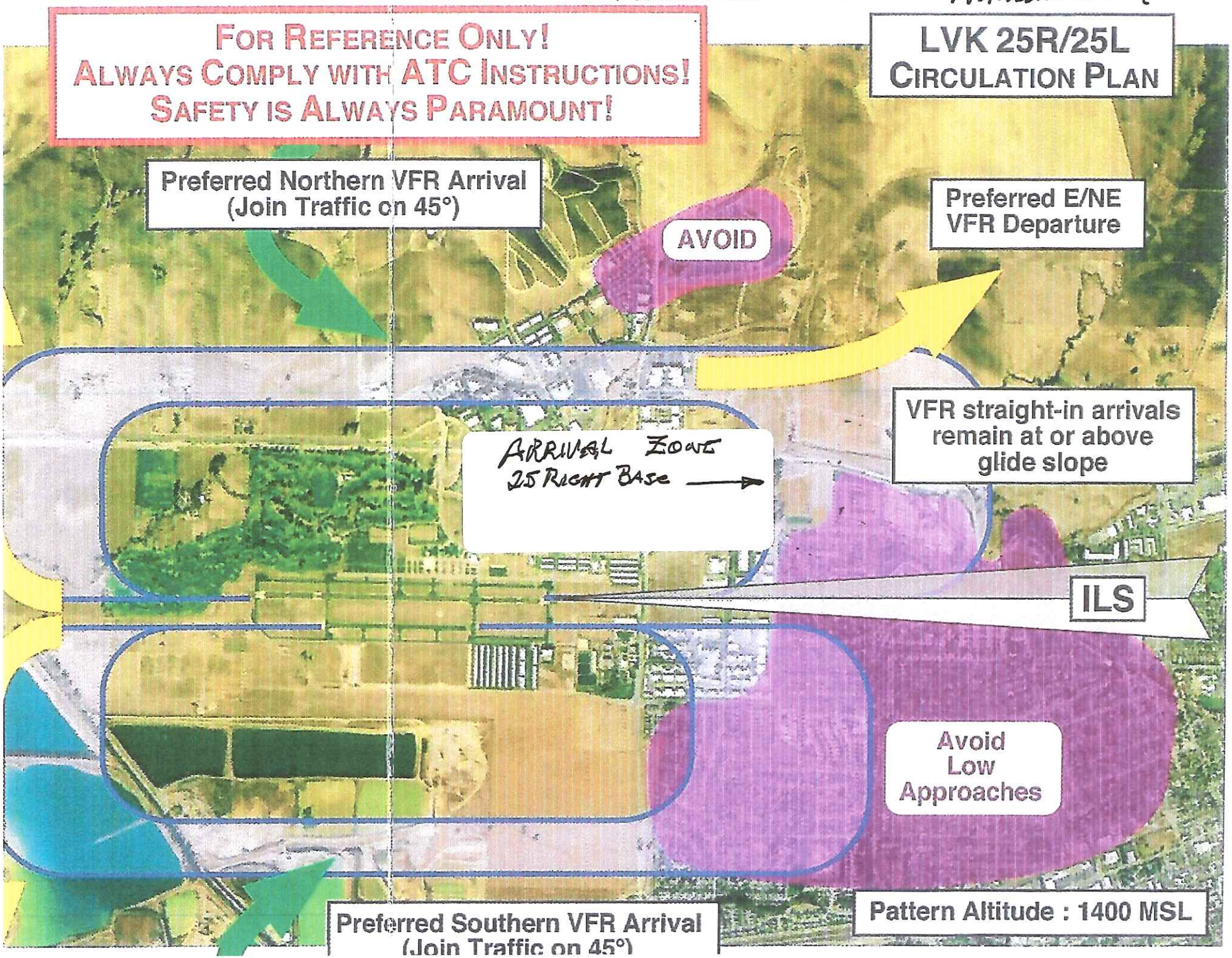
ATTACHMENT 3

LVK 25R/25L CIRCULATION PLAN

FOR REFERENCE ONLY!
ALWAYS COMPLY WITH ATC INSTRUCTIONS!
SAFETY IS ALWAYS PARAMOUNT!



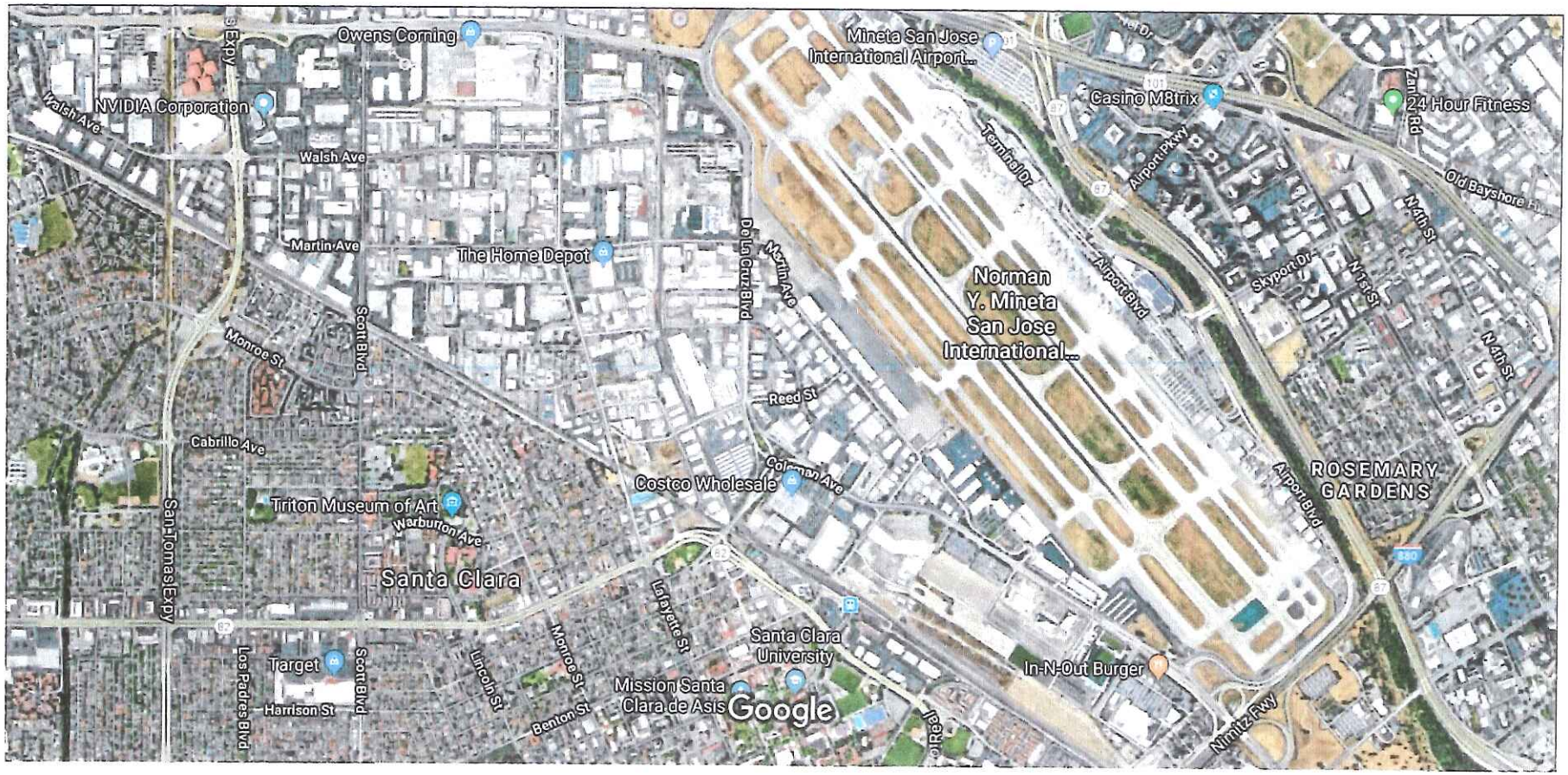
ATTACHMENT 4



ATTACHMENT 5A

SAN JOSE INTL. AIRPORT

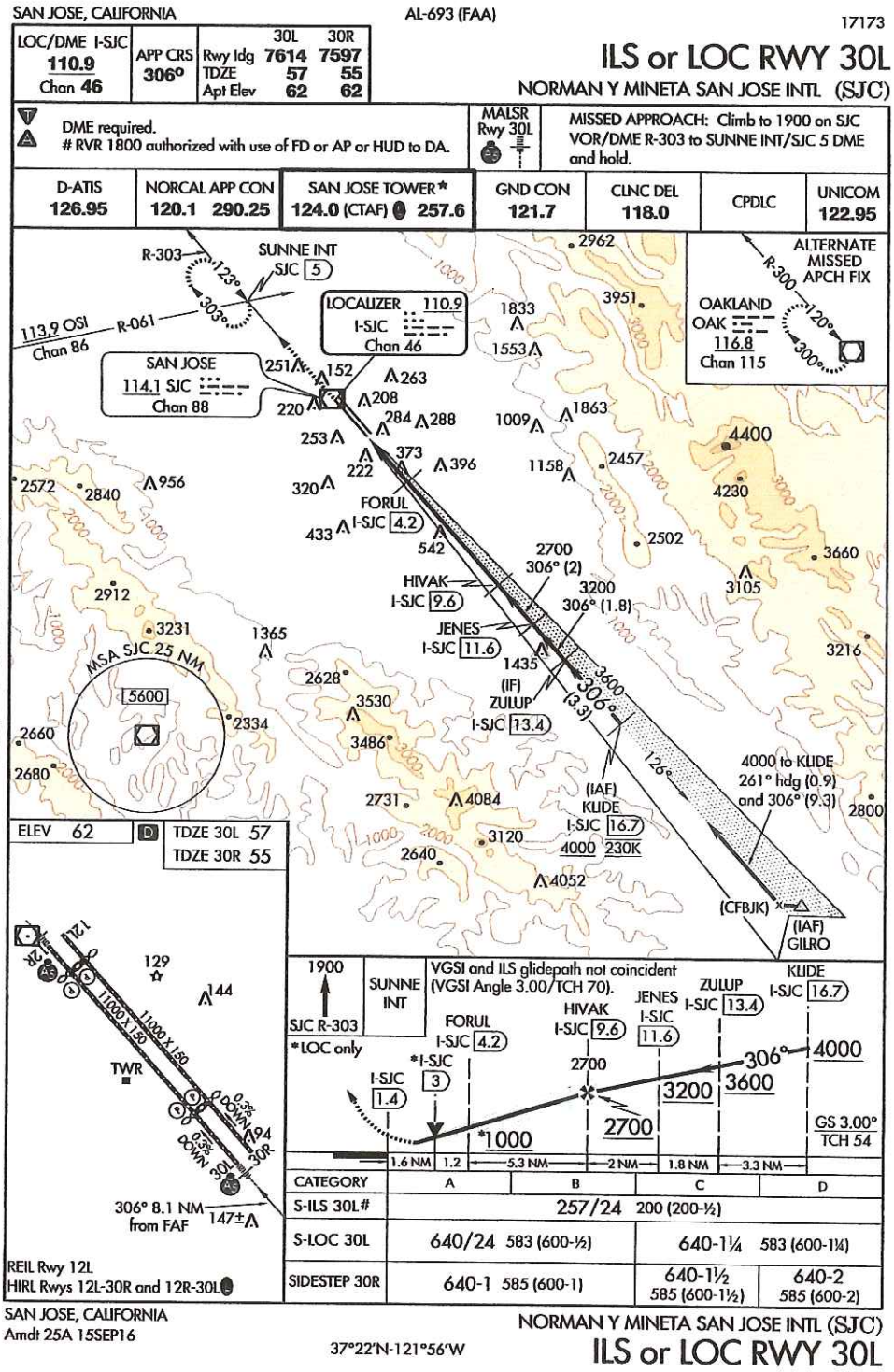
Google Maps



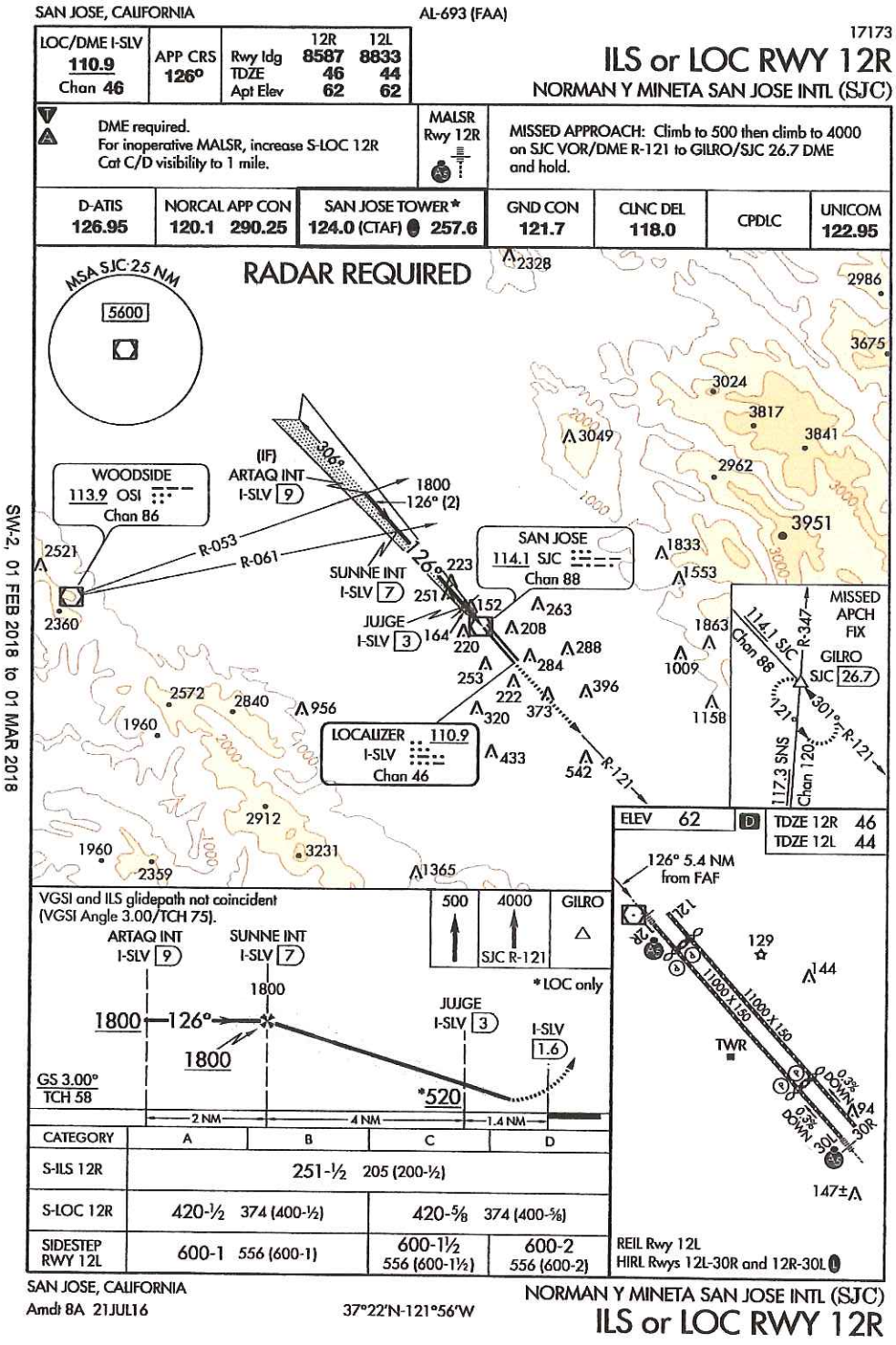
Imagery ©2018 Google, Map data ©2018 Google 1000 ft

ATTACHMENT 5B

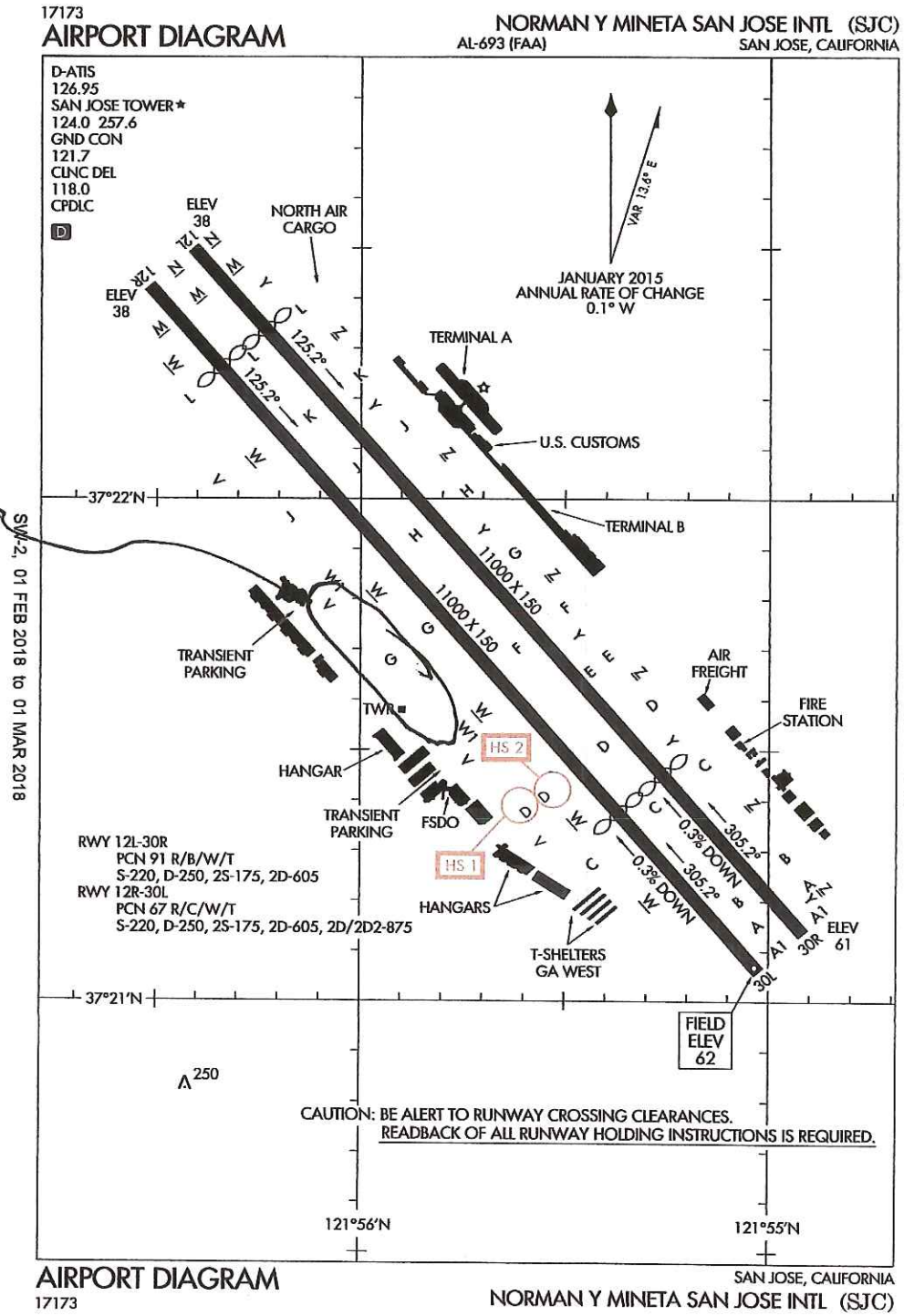
SOUTH APPROACH TO SAN JOSE - AIRLINE TRAFFIC



ATTACHMENT 5C
NORTH APPROACH to
SAN JOSE



ATTACHMENT 5D



NOTE: G.A. RUNWAY ELIMINATED

From:	Steven Dunbar
To:	McBride, Ashley
Cc:	BoardofDirectors@bart.gov; Susie Hufstader; Dave Campbell; rene@bikeeastbay.org; Spedowfski, Steven
Subject:	Isabel Neighborhood Plan Comments
Date:	Monday, February 26, 2018 1:08:28 PM

To the City of Livermore Isabel Neighborhood Planning Group:

Please consider the following comments regarding the draft plan.

1) Regarding development potential, I am disappointed that the plan phasing calls for all the office to be built before the residential. We cannot continue to add to the housing crisis throughout the bay, and planning for double the amount of jobs relative to housing will continue this trend.

2) Requiring a 25% affordability requirement in the plan seems unsustainable without significant building cost analysis. I find the analysis around section 7 for affordability to be lacking in the context of the changes to HUD at the national level. Please provide a stronger analysis to ensure the development is actually built. Please consider how the city will enforce this value capture on current landowners, without delaying housing until market-rate housing is obscenely expensive.

3) The TDM is lacking

a. The TDM requirements should require more from new development to be of the highest quality: carpool/vanpool matching and guaranteed ride home systems are far too easy to avoid the bigger systems such as parking cash out and transit passes.

C6-1

b. Forget “considering” charging for parking along main street – actually charge for parking.

c. Put teeth into policy P-TRA-37. Require the payment of parking cash-out to be based on the actual amortized cost of the parking structure provided over the life of the project. All too often this is left up to developers who then charge only $10 or similar because they are overparked. Force developers to truly think about their estimate (yes, this involves risk cost to those developers).

d. Parking minimums and maximums are set far too high. Bullet point c should address this issue provided adequate cost of on-street parking and/or parking permits.

4) The bike environment is lacking.

a. There needs to be a clear and defined path for cyclists using the underpass from Isabel into the main residential area. Shooting out into a plaza is insufficient, and will cause disruption with pedestrians. Provide a clearly labeled and appropriately paved path from the undercrossing through the immediate development to the street.

b. Bikeway design guidelines that do not follow the "All Ages and Abilities" NACTO guidelines are unacceptable on all streets, but particularly any newly built street in 2018.

c. "Bike streets" should have protected bike lanes, bar none. The idea that the bike buffer is what is left undefined in a bike street guideline is unacceptable – the number of car lanes and the width of those lanes should be what changes first.

d. The bicycle streets are scattered and inconsistent. "Bicycle streets" just end.

e. Improvements to existing bike lanes are left too undefined – Constitution Drive, for example, is not an "all ages and abilities" bike lane. All large major streets should be improved to contain class IV lanes, not class II. Class II is unacceptable on almost every street in the plan area. This is important because most destinations in the plan are bikeable from the BART station – even my current office is almost a mile outside of the BART station area and would still be easily bikeable – IF the bikeways on existing streets are improved to make it safe.

C6-1

f. In general, the lack of Class IV on-street bikeways throughout the project is extremely disappointing.

g. "Painted or raised bike lane buffer" on Isabel Avenue is another example of bad design. In no case whatsoever should that buffer be paint-only. Even with new design, the speed of Isabel will be far too high.

h. East Airway Boulevard should not have 13' travel lanes if it has 5' unprotected bike lanes. 11.5' travel lanes should be the norm and all other space should be dedicated to pedestrians and cyclists.

i. In general, trails are no substitute for on-street bikeways, as almost every destination will require street riding at some point.

j. Traffic lanes should not increase to 11ft when they are Class III bike routes. Traffic calming should eliminate all need for cars to pass cyclists on Class III in the context of this plan.

5) Pedestrian design is lacking.

a. I do not see mention of better pedestrian signaling. Automatic pedestrian phases, pedestrian recall, pedestrian scale lighting at crosswalks and throughout the plan, and multi-modal LOS should be included as metrics with defined goals.

b. 6' sidewalks are insufficient even with a flexible buffer space.

6) Transit design is lacking.

a. There are too few policies regarding improvement of bus service with the plan. Define improvements to Wheels routes to coordinate with the city, such

as bus lanes, bus priority signals on the routes and at the entry to the bus loop, bus spacing requirements to keep buses moving, etc.

b. There seems to be a DropOff/Pickup area close to the plaza on the north side. This should be specifically designated to be bus or handicapped only. Very long walks to bus stop stations increase transfer time and decrease ridership. Bus pickups should be as close and as convenient as possible for riders. Consider reconfiguring the large plaza to bring the buses closer to the station exit.

c. Consider the best possible routing to speed buses entering the waiting area. Long entry and exit routes like at Dublin/Pleasanton station add far too much delay to the bus system. The Gateway/Isabel intersection should absolutely have a bus priority treatment for all directional movements (left, right, and straight).

C6-1

d. The fact that the "Transit" section of the plan is only 3 pages is essentially laughable. Everything is ill-defined and just talks about partnerships. Take concrete steps in the plan now, please.

I hope the city will consider improving on all of the above design elements to incentivize a truly transit-oriented development, not merely a transit-adjacent one. I also suspect it will increase the chance of the BART board approving the development.

Thank you for your consideration.

Best,

Steven Dunbar

Livermore Resident, Transit Industry Professional, and BikeEastBay Local Leader

Cc'd: BART Board of Directors, BikeEastBay

February 23, 2018

Mr. Stephen Riley
Senior Planner
City of Livermore
1052 So. Livermore Avenue
Livermore, CA 94550

RE: DRAFT ENVIRONMENTAL IMPACT REPORT COMMENTS – ISABEL NEIGHBORHOOD PLAN

Dear Mr. Riley,

We are the owners of the Gandolfo property, as reference in the Isabel Neighborhood Plan ("INP") and the accompanying Draft Environmental Impact Report ("DEIR") that has been prepared on behalf of the City of Livermore in accordance with the California Environmental Quality Act ("CEQA"). We have the following comments regarding the DEIR as it pertains to both the 20-acre Gandolfo property and the adjacent Interstate Storage self-storage project, of which our family is a partner.

As you know, our family has owned this property, and other properties now developed as both industrial and residential in the vicinity of the Livermore Airport, since the early 1900's. The home ranch, which you refer to as the "Gandolfo property" in the DEIR and accompanying INP, is not presently within the city limits of Livermore and is used as a personal residence of several members of our family. These residences have been there for more than 70 years.

C5-1

When the INP was in conceptual form, we met with the City and consented to participating in the planning process. We do not, however, have any near term plans to see development on any portion of this 20-acre property, as it is our home, and we intend to remain there for the foreseeable future. As such we would intend to occupy the land as we have for decades in its present state, which includes residences, barns, a seasonal pumpkin patch operation (which is well known throughout the city of Livermore during the month of October), and other related uses.

In addition, we are joint venture owners with the Managing Partner, Ron Nahas, of the Interstate Storage self-storage project. This property was once part of our ranch, similar to the Kaufman & Broad subdivision immediately east of Sutter Street and the various industrial buildings south of our home ranch, which were developed by Mike Callahan. All those properties, including much of the clear zone for the Livermore Airport are properties that our family sold to the ultimate developer or City.

Our concern with the DEIR and INP are the way they treat our remaining property with respect to a potential historical registration, a need for mitigation land for "prime farm land" if and when developed, and the fact that the INP ignores the existence of the Interstate Storage project and anticipates residential development and streets will take its place.

C5-2

Addressing the last issue first, Interstate Storage was built in 2007 and is a very successful self-storage project. It is also one of the nicest looking facilities of its type anywhere in the Tri-Valley. There are no plans on either the General Partner or us in changing that operation. In fact, more residential in the area will only create more demand for this project. We would not anticipate any land use change here for decades and want to make sure that our ability to operate the facility as a conforming land use remains intact. If there is an overlay district for residential, which does not hamper our ability to use the facility, including obtaining building permits for maintenance, repair or casualty issues, that would be acceptable. If we were to become a non-conforming use, that is unacceptable, and we would prefer to be left out of INP.

As to our 20-acre home ranch, multiple issues in the EIR and the INP are of concern:

C5-3

1) Section 3.13, Cultural and Tribal Resources – DEIR Comment 3.13-1: The "Proposed Goals and Policies" section suggest our ranch may have historical status. While some of the facilities here are old, we are not interested in having historical analysts and citizens concerned with historical buildings touring our property and making decisions about how we can use our properties today or in the future. Over the years we have regularly maintained our buildings, including modifications to modernize them from their original status. The prospects of rehabilitating and/or saving buildings that may, from the outside, look to be old, but have maintained and modernized over the years is not something we wish to participate in.

C5-4

2) Item P-PF-19 and P-PF-20: We are not certain as to what all these acronyms, building surveys and land surveys refer to, however, they smack of bureaucracy and the ability of laymen with non-economic interest in the property making decisions for us as property owners which is something we have substantial problems with.

C5-5

3) Item P-LU-24: The requirement that our property is designated as prime farm land and must be mitigated at a one to one ratio is not fair, nor acceptable. There have been hundreds, if not thousands of acres of similar land developed over the past 20 to 30 years in and about Livermore and the balance of the Tri-Valley without such mitigation measures. This property has been fully surrounded by the City of Livermore for decades and while an island of non-annexed land, it is no different from the BART property across the street or any of their other undeveloped land also a part of the INP, which do not require mitigations. We feel our property should be treated in the same manner, and that any mitigation be eliminated. As a point of clarification, very little of this land is used as farm land. As you note in the document, there are more than a dozen buildings on the site which are used as residences, barns, storage buildings, etc., and thus, those areas are not, and have not been, used as prime farm land for decades, if ever.

We appreciate your attention to these DEIR comments.

Sincerely,

John and Diane Gandolfo

From: Susan J.
To: McBride, Ashley
Subject: Re: Draft Isabel Neighborhood Plan and Draft EIR
Date: Friday, January 12, 2018 7:15:35 PM

Dear Ashley McBride,

C4-1 Are there any plans to save G & M Farms, the 100 + year house and the eucalyptus trees?

Susan Junk

On Fri, Jan 12, 2018 at 5:37 PM, McBride, Ashley <asmcbride@cityoflivermore.net> wrote:

> The City is pleased to present the Isabel Neighborhood Plan (INP) and the associated Draft Environmental Impact Report (EIR) for public review. The INP is a Specific Plan that proposes development of a complete transit oriented neighborhood that includes 4,095 new multi-family housing units, approximately 2.1 million square feet of net new office, business park, and commercial development (including a neighborhood commercial center), three new neighborhood parks, pedestrian and bike trails, and enhanced pedestrian connectivity to the future BART station in the median of I-580, just east of Isabel Avenue (refer to Figure 2-1, Land Use Diagram, attached). The proposed Plan includes amendments to the existing General Plan Scenic Corridor and Airport Protection Area policies among other required amendments. In addition, the Plan includes a Phasing Plan that is tied to the progress of the BART to Livermore Extension Project.
>
> **Public Review and Written Comments**
>
> The Draft EIR will be available for public comment beginning today, **Friday, January 12, 2018 through Monday, February 26, 2018**. During the comment period, City staff will hold community outreach events, including outreach to neighborhoods around the INP and landowners within the Planning Area.
>
> The Planning Commission will review and receive public comments on the Draft EIR on Tuesday, February 6, 2018 at 7:30 p.m. Tentatively, the INP will be reviewed by the Alameda County Airport Land Use Commission (ALUC) on January 31, 2018; the Livermore Airport Commission on February 12, 2018; and the Livermore Historic Preservation Commission on March 1, 2018. The INP is scheduled for final Livermore Planning Commission and City Council review in April/May of this year. The BART Board is scheduled to take final action on the BART to Livermore extension in May/June of this year. Please contact the City of Livermore Planning Division at (925) 960-4450 to confirm meeting dates and times.
>
> Comments on this Draft EIR can be submitted in writing or via email to:

Ashley McBride, Assistant Planner

asmcbride@cityoflivermore.net

(925) 960-4479

City of Livermore, Planning Division

1052 South Livermore Avenue

Livermore, CA 94550

All comments received or postmarked by **Monday, February 26, 2018** will be accepted.

Document Availability

Copies of the Draft EIR and Specific Plan are now available for public review online at the web link listed below or in printed form at the City of Livermore City Hall at 1052 South Livermore Avenue, Livermore, CA 94550 and Civic Center Library, 1188 South Livermore Avenue, Livermore, CA 94550.

http://www.cityoflivermore.net/citygov/cdd/bart/isabel_neighborhood_plan.htm

Thanks,

Ashley McBride

Assistant Planner

Community Development Department

City of Livermore

(925) 960-4479

www.cityoflivermore.net

From: mike
To: McBride, Ashley
Subject: Isabel
Date: Friday, January 12, 2018 7:28:26 PM

C3-1

Thanks for the info...I'm a life long bay area resident..last 17 yrs in Livermore which has been nice. As I commented to the BART board...BART needs to complete San Jose first before livermore. There are only 85k people here vs well over a million there. Thus no Isabel project which is fine with me too. We complain about dublin...why do we want to become them?.. We want to lessen traffic on 580....how does 4500 housing units do that?..thank you..mike kujacich

Sent via the Samsung Galaxy S® 5 ACTIVE™, an AT&T 4G LTE smartphone

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February 26, 2018

Ashley McBride, Assistant Planner
City of Livermore, Planning Division
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Subject: Personal Comments of William J. Smith on the Isabel Neighborhood Plan Draft EIR (Environmental Impact Report)

Dear Ms. McBride:

The Draft EIR (Environmental Impact Report) for the Isabel Neighborhood Plan describes a development plan that will benefit those with higher incomes for a few years and then contribute to growing economic pain for everyone. The plan provides too little subsidized housing to counteract the additional demand for affordable housing created by the market rate housing proposed. As soon as the new businesses open in Phase I, the plan will increase the cost of unsubsidized housing, especially lower priced housing, and make it harder to both attract young world-class talent to the Lawrence Livermore and Sandia national laboratories, to the innovation hub in the plan area and to staff the majority of businesses that are necessary for the region's general well being.

C2-1

I base these comments on my experience as a former member and chair of the County of Alameda Planning Commission in the late 1990s, a housing activist in the Sierra Club and City of Alameda since the early 1990s, and an employee of LLNL (Lawrence Livermore National Laboratory) for 14 years until 2016. I remain active in LLNL affairs as a state-wide officer in UPTE-CWA 9119, a union that represents hundreds of employees at LLNL and LBNL (Lawrence Berkeley National Laboratory) and thousands more throughout California at all nine University of California campuses.

The analysis in the Draft EIR occasionally acknowledges, but mostly glosses over, predictable differences in the demographics of new residents of the Isabel Neighborhood and those of existing residents. This mismatch in demographics was described in a letter to you dated August 15, 2015, from Mr. Jeff Levine of the East Bay Housing Organization.

The City of Livermore did attempt to address his demographic concerns by increasing the required inclusionary percentage from the 15% in current zoning to 20% with a voluntary goal of 25% affordable housing, and provided additional discussion of broad housing goals and strategies. Yet the discussion of these strategies remains woefully inadequate to explain how they will ensure that affordable housing in the plan area will help successfully meet MTC-ABAG's minimum RHNA (Regional Housing Needs Allocation) for the City of Livermore.

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The Draft EIR for the Isabel Neighborhood Plan focused primarily on regional impacts of the project on housing cost and availability and on the abstract total population. Of the many housing elements and environmental impact reports I have reviewed, this Draft EIR provided one of the least detailed assessments of the adverse impacts of the project by development phase, income group and locality.

My comments highlight those adverse impacts that were glossed over, rather than transparently acknowledged. If you forthrightly address these comments, the Final EIR will better inform those authorities responsible for approving this project and others developing regional and statewide development policies and funding mechanisms. I acknowledge that until regional and statewide policies change, many adverse impacts on lower and middle income citizens I document in these comments are difficult to avoid, even for projects like this that develop transit friendly and lower environmental impact neighborhoods like the planned Isabel Neighborhood.

C2-1

As the adverse impacts of new developments like this continue to accumulate, the pressure to choose no new development will mount. Businesses who can't pay enough for workers to afford housing will flee and growing numbers of multiple working families crammed into single family housing units, living in vans and cars, or living in tents or sleeping bags under roadway underpasses will insist that new market rate housing be permitted only if the majority, not a small percentage, of new housing built is affordable.

Problems with Meeting Goals and Objectives

The project as planned envisions a future Isabel Neighborhood consisting primarily of households of two holders of living wage and high-paying jobs in commercial and office developments that support local businesses and neighborhood-serving uses. (Objective 7 of the Executive Summary). These new residents, at least 75% and more likely 80% of the total, will pay the mortgages and rents on new market rate housing with a sprinkling of affordable housing for less affluent young adults, families and seniors.

C2-2

As in most California cities, the City of Livermore appears to favor creating opportunities for jobs over housing. Regrettably several impacts of this common bias, which guides the development and phasing of the Isabel Neighborhood Specific Plan, if mentioned at all, are inadequately discussed in the Draft EIR. These adverse impacts include:

Impact-1. At buildout, the plan will increase, rather than decrease the imbalance between jobs and housing in the Bay Area.

Impact-2. Initially the plan will spike the price of affordable and moderate housing.

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Increased Shortage of Regional Housing After Plan Buildout

C2-3

At buildout, the Draft EIR predicts that the Isabel Neighborhood will have 9,100 jobs and 4,095 housing units, or more than 2 jobs per housing unit. I estimate that in 2010 Livermore had less than 1.4 jobs per housing unit.[1] Applying this ratio for existing housing to the Isabel Neighborhood Plan means the region surrounding the new neighborhood will have to house a net increase of 3,000 of workers. Thus at buildout the master plan increases, rather than reduces, the regional housing shortage.

Years Long Increased Spike in Local Housing Prices Throughout Buildout

Before it increases the shortage of regional housing after plan buildout, the plan will disproportionately increase the regional shortage during buildout. The plan proposes to build more than half of the housing during the last phase and over 60% of the non-residential development, which provides jobs, and less than 15% of the housing units that house workers in the first phase. Construction of almost 60% of the housing units would occur in the last phase, nearly 20 years after most of the non-residential space is built.

Additional Mitigation Measures for Adverse Impacts on Housing

C2-4

The EIR should analyze at least two changes in the Isabel Master Plan that would reduce the adverse impacts on housing. First, one alternative should increase by at least 2,500 the number and density of housing units throughout the plan area, especially the core and center within a half-mile of the new BART station. Second, to reduce the likelihood of a spike in housing prices, the 595 residential units in the first phase and the 1,185 units in the second phase, should be built *before,* or at least concurrently with, the 2,566,000 square feet of non-residential space planned for Phase I. Construction of the housing first will also help attract businesses to the non-residential development. The City of Alameda built out all planned residential housing first during its decades old, and still ongoing, development of Harbor Bay Isle. Similarly, Alameda plans to build much of the new housing at its old Naval Air Station before constructing new office parks.

C2-5

Besides neglecting to analyze the potentially adverse impacts on regional housing supply in both the long and short terms, the Draft EIR failed to identify or adequately discuss how the plan fails to fully and equitably meet several objectives set forth in the Executive Summary. The plan fails to meet these objectives for middle and lower income citizens at the local level but meets more of them at the regional level.

[1] There were 38,230 employed residents in Livermore in 2010, compared to a local employment base of 38,450 jobs, which equates to a balanced ratio of 1.01 jobs per employed resident. Households in Livermore in 2010: 29,134, or less than 1.4 employed residents per household.

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Concerns With Meeting the Isabel Neighborhood Plan Objectives

The plan at best partially satisfies the following three objectives listed in the Executive Summary of the Draft EIR. The Final EIR must either discuss mitigation measures for the objectives the plan fails to fully meet or document its failures for decision makers to weigh. The three objectives are:

4. Increase the diversity of housing stock to serve all economic segments of the community.

5. Increase the stock of rental and ownership housing in Livermore to address demand and reduce displacement due to lack of affordable housing options and congestion due to the regional jobs-housing imbalance.

11. Meet or exceed the minimum housing threshold for MTC policy.

C2-5

Objective 4: Plan would increase, but not equitably, the diversity of housing stock that serves all economic segments of the community
The diversity of housing stock serving all economic segments increases, but in inverse proportion to the need. Livermore has typically come closer to meeting its RHNA allocation for market rate housing than for the other lower income economic segments. Mr. Jeff Levine noted in his letter that in the 2007-2014 period, Livermore produced just 34% of its combined very-low and low-income housing RNHA goal while meeting 55% of its need for above-moderate income housing.

To finance a number of affordable housing primarily through inclusionary zoning, the City must permit, and presumably build, at least four times that number of market rate homes. Yet the Isabel Neighborhood plan notes that in 2010, 42 percent of households in Livermore were paying more than 30 percent of their income on housing, which is commonly considered the threshold of "housing affordability." This indicates that the ratio of market rate to affordable housing should be closer to 2 to 1 than the plan's 4 to 1 to equitably benefit all economic segments.

Objective 5: While the plan would increase the stock of rental and ownership housing in Livermore, it would also increase the number of future Livermore workers who would prefer to live in neighborhoods near their jobs but can't, thus resulting in a net increase in the congestion due to the regional jobs-housing imbalance.

C2-6

At buildout, the Draft EIR predicts that the Isabel Neighborhood will have 9,100 jobs and 4,095 housing units, or more than 2 jobs per housing unit. I estimated in a footnote above that in 2010 Livermore had less than 1.4 jobs per housing unit. Applying this ratio for existing housing to the Isabel Neighborhood Plan means the region surrounding the new neighborhood will house a net increase of 3,000 of workers. Thus at buildout the master plan increases, rather than reduces, the number of workers commuting into Livermore. For example, an ever increasing and higher

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percentage of LLNL's skilled trades workers, who are paid less than science and engineering professionals, live east of Livermore rather than in, or west of, Livermore.

C2-6

Before it increases the shortage of regional housing after plan buildout, the plan will disproportionately increase the regional shortage during buildout, as it proposes to build more than half of the housing during the last phase. This will lead to a sharp increase in the number of workers commuting into Livermore beginning in the first phase, and only be partially offset by residential construction in later phases. The plan proposes to build over 60% of the non-residential development, which provides jobs, and less than 15% of the housing units, which house workers, in the first phase. Construction of almost 60% of the housing units would occur 20 years later in the last phase.

Objective 11: The proposed Isabel Neighborhood will make it more difficult for the City to meet or exceed the minimum housing threshold for MTC policy with future projects

The City's reliance on inclusionary zoning, which makes developers the primary financing source for affordable housing, will mean that either the City has to permit developers to continue building four times that number of market rate units or the City has to find or facilitate financing to make a higher percentage of housing units in future projects affordable. The most direct approach to financing the affordable housing would be for the City to raise the needed money from bond measures or various fees. The Draft EIR fails to adequately detail its approach to securing alternate funding sources, such as housing bonds, general fees, and strategies for obtaining highly competitive funding for affordable housing to consider these viable funding options for this plan.

Building four times the number of affordable units required by RHNA may not be feasible. I estimate that in 20 years, the plan for the Isabel Neighborhood would produce approximately 20% of the City of Livermore's RHNA goal for very low, low and moderate income housing. The 2003 general plan projects a mid-range increase of 420 (140 - 700) housing units per year, or 8,400 housing units between 2020 and 2040, the period when during which the Isabel Neighborhood buildout is planned. The 4,095 housing units in the Isabel Plan could account for nearly half of these units. Thus if other housing projects built in Livermore over the next 20 years also total to 4,095 units with 20% inclusionary, Livermore will only meet about 40% of its RHNA goal.

C2-7

If Livermore permits four times the number of market rate units to be built during this 20-year period, then it would need to build about 32,000 market rate units to finance my estimated number of 8,000 for the number of moderate, very low and low income units that the State, through its RHNA process, will require be built before the Isabel Neighborhood is built out around 2040.[2] As RHNA numbers will probably increase in future years, coupled with increasing enforcement by the State to relieve California's housing crisis, even more than

[2] I arrived at the estimate of 8,000 units by multiplying the number of affordable housing units required in the 2015-2022 RHNA requirements, 2,729, by three to include two additional assumed 8-year housing elements, 2023-2030 and 2031-2039.

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32,000 market rate housing units could be required should Livermore continue to rely on a 20% inclusionary requirement to fund its future affordable housing obligations.

C2-7

Thus the Draft EIR leads one to conclude that the City of Livermore, like many cities, has yet to identify a feasible option for financing its affordable housing obligation assigned by MTC. The developers will be unlikely to finance the affordable housing as the City is unlikely to permit 32,000 additional market rate units by 2040, essentially doubling its current number of housing units.

C2-8

Justification - Phasing: Indeed, the City's approach to phasing indicates that rather than maximize housing units, affordability and density to perform high against criteria and rank well against other projects to compete for funding, the City may be unnecessarily delaying construction of the affordable and dense housing units. For instance, the City of Livermore provides no compelling reasons for building the bulk of the non-residential development years before the bulk of the residential development. Nor does it offer a reason as to why the residential development, but not the non-residential development, should be tied to the beginning of construction on the BART station. In fact, with enhanced bus service, neither need be linked to the construction of the BART station. In light of the adverse impacts of the plan phasing on regional housing and commuting, the City must clarify the basis for the phasing plan in the Final EIR.

The Final EIR must mitigate or document all adverse impacts described above.

Yours in Sustainable and Just Planning,

William (Bill) Smith, Ph.D., P.E.

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Cc: Bill Goldstein, Director Lawrence Livermore National Lab
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Jeffrey P. Levin, Policy Director, East Bay Housing Organization
Igor Tregub, Chair, San Francisco Bay Chapter, Sierra Club
Matt Williams, Chair, San Francisco Bay Chapter Transportation and Compact Growth Committee
Cesar Zepada, Chair, San Francisco Bay Chapter Environmental Justice Committee
Janis Kate-Turner, Chair Tri-Valley Group, Sierra Club
Dick Schneider, Tri-Valley Group Executive Committee
Joan Seppela, Publisher Livermore Independent
Janet Armantrout, Editor
Doyle Saylor, Renewed Hope Housing Advocates
Laura Thomas, Renewed Hope Housing Advocates

Comments on the Isabel Neighborhood Plan

My name is John Stein and 25 years ago I was on the committee that helped to develop the Airport Protection Area (APA) for the Livermore Airport. The motivation for the APA was a series of fatal accidents around General Aviation airports in California. We visited a number of local airports like Ried-Hillview and Hayward and looked at safety concerns and limits on operations caused by noise complaints. Then we began to negotiate with local landowners, the Cities of Pleasanton and Dublin and the County of Alameda to limit residential and high population density development around the Livermore Airport. Previously the only City policy was to prohibit residential development west of Arlington Road. After about 18 months of intense give and take the current Airport Protection Area was established by the City and Alameda County Airport land Use Commission in 1992 and has protected the operation of the Livermore Airport from major accidents and noise complaints.

You are now being asked to amend the APA to allow approximately 4,000 units of residential development east and north of the airport under the airport landing pattern and approach. The proposed exemption area will reduce the safety of both flyers and the new residents as well as increased noise complaints. It also created a precedent for Pleasanton and Dublin to further intrude into the APA.

C1-1

The construction of homes in the APA will limit future airport operations. There will be increased noise complaints particularly by the new residents east of the airport. There will also be pressure to change flight patterns and hours of operation, limit training and touch and go landings and restrict use by experimental and legacy aircraft. Any airport improvements or expansion of operation will face increased opposition. In the low probability event of a major accident such one of the larger business aircraft flying into the side of one of the six story residential tower there will be intense pressure to close the airport.

Avigation easements are only informational and not in fact a legal easement.

The Airport Commission's responsibility is to insure the safe long term operation of the Livermore Airport and insure that it will not have to be closed or relocated like the Livermore Flying Ranch because of pressure from nearby residential development. It is not your responsibility to bring BART to Livermore, provide affordable housing, agree with staff or provide cover for the City Council. **I urge you to strongly support the security the existing Airport Protection Area provides for Livermore's Airport's future and strongly oppose any reduction in the Airport Protection Area**. Thank you.

John Stein 2/12/2018

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File No. 74603

January 29, 2018

VIA E-MAIL CINDY.HORVATH@ACGOV.ORG

Alameda County Airport Land Use Commission
c/o Ms. Cindy Horvath
Senior Transportation Planner
Alameda County Offices
224 West Winton Avenue
Hayward, CA 94544

Re: Consideration of Isabel Neighborhood Plan

Dear Commissioners:

We write on behalf of a property owner with property located in the proposed Isabel Neighborhood Plan ("INP") planning area in the City of Livermore (the "City"). The INP proposes to modify the City's General Plan, particularly the Airport Planning Area ("APA") Policy, to allow residential uses in the northeast corner of the APA.

The City established the APA in 1991 to provide protection beyond the minimum required by the Federal Aviation Act ("FAA") and Caltrans. The APA, extends 5,000-feet beyond the runways to the north, south, and east, and 7,100-feet to the west (the typical take-off direction). The APA currently prohibits the construction of new, or expansion of existing, residential areas within its boundaries.

B10-1

The Commission amended the Livermore Airport Land Use Compatibility Plan ("ALUCP") in 1993 to add a policy that tracts the City's APA policy. (Commission Resolution 93-01.) In 2012, the Commission reaffirmed the policy with minor amendments. According to the ALUCP, if the City modifies its APA policy, the Commission will "acknowledge the modification of the APA for purposes of transit-oriented residential development around the future Isabel/I-580 BART station in subsequent land use reviews, and shall revise [the APA] policy at the earliest possible date as provided by state law." (ALUCP § 3.3.2.6.)

As noted above, the City now plans to modify the APA to allow residential uses around the proposed Isabel/I-580 BART station. Because this is a change to the City's General Plan that proposes new land uses in the Airport Influence Area, the City must seek your determination of whether the APA amendment is consistent with the ALUCP. (City General Plan, Land Use Policy P3.) In addition, the Commission must modify the ALUCP's APA policy. (ALUCP § 3.3.2.6.)

In the past, the Commission has been able to rely on the City's CEQA document when making consistency determinations and ALUCP amendments to address new City policies. Here, however, the INP's draft environmental impact report ("EIR") does not study the potential environmental impacts of altering the APA even though the modification is part of the INP project. The EIR assumes that air traffic patterns will not change (EIR, p. 3.2-64) and glosses over the potential for conflicts between residential and airport land uses (see *id.*, p. 3.8-20 [incorrectly stating the APA policy addresses only noise and not also safety issues]).[1] Given that the City's Pilot Information Guide counsels pilots to "[a]void overflying residential areas," it is reasonably foreseeable that flight patterns will change to avoid new residences in the APA and that those changes could increase hazards. The EIR needs to analyze the environmental impacts of changes in air traffic patterns for the Commission to be able to rely on it when making a consistency determination or amending its APA policy.

B10-1

For the reasons stated above, we suggest that the Commission seek additional information from the City about the potential environmental and planning impacts of the proposed APA amendment before making a consistency determination or taking action to amend its APA policy.

Respectfully submitted,

Linda C. Klein

LXK

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[1] The goal of the City's APA policy is to "[m]inimize risks associated with aircraft operations at the Livermore Municipal Airport." (City General Plan, Goal PS-5, p. 10-30.) The ALUCP's corresponding APA policy is in the Safety subsection (section 3.3.2) of the Compatibility section (section 3.3) of the ALUCP, indicating that the policy addresses safety in addition to noise issues.

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February 26, 2018

File Number: 60ZX-269341

VIA E-MAIL AND FEDEX

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Re: Comments on Isabel Neighborhood Plan and Draft Environmental Impact Report

Dear Ms. McBride:

We write on behalf of Chamberlin Associates ("Chamberlin") to submit comments on the on the Public Review Draft of the Isabel Neighborhood Plan ("INP") and associated Draft Environmental Impact Report ("DEIR"), both dated January 2018.

Chamberlin is the owner of the vacant, 11.3-acre infill site, bounded by North Canyons Parkway to the north, Airway Boulevard to the east, Interstate 580 to the south, and existing commercial development to the west (APN 905 00901303) (the "Airway Property"), located within the proposed INP.

B9-1

Chamberlin supports the INP's objectives of facilitating development within the Isabel Neighborhood and supporting the extension of BART to Livermore, but it has concerns about certain details of the INP. As explained below, these concerns include the INP's factual mischaracterizations of the Airway Property and its unnecessarily restrictive development standards and policies. Without changes, the INP would eliminate the economic viability of

future development on the site and make the site unattractive to potential end users.

Chamberlin is similarly concerned that the DEIR is flawed and contains incorrect and misleading information, which undermines the ability of decisionmakers and the public to understand the INP's environmental impacts. As detailed below, the DEIR must be revised and recirculated to address these deficiencies.

B9-1

Chamberlin urges the City to resolve these issues before the INP and DEIR are adopted and certified. If not corrected, these documents will be vulnerable to legal challenge, and this will be a problem for all stakeholders, including both Chamberlin and the City.

I. COMMENTS ON THE INP

Chamberlin appreciated the opportunity to meet with staff on February 15, 2018 to discuss the INP. As summarized at the meeting and further detailed below, Chamberlin requests that the City make certain revisions to the INP as it relates to the Airway Property. Chamberlin appreciates staff's commitment to further study and respond to these comments, and to make appropriate revisions to the INP.

LAND USE

B9-2

Relax the Scenic Corridor Standards for the Airway Property. The INP does not modify the Scenic Corridor standards for the Airway Property, even though most of the site is not visible using the standards. The existing standards will unnecessarily impose $1,400,000 to $1,750,000 in grading costs on the site, and the proposed 14 to 16 foot minimum ceiling heights will unnecessarily impose an additional $1,800,000 to $3,200,000 in grading costs, all without any scenic benefits to the public or travelers on I-580. This is not fair and does not make sense. The City should revise the INP to relax the Scenic Corridor standards on the Airway Property. (INP, p. 2-27 to 2-33; Figures 2-3 to 2-6.)

Remove the "Change Area" Designation From the Airway Property And Ensure Fair Financing Obligations. The INP designates the Airway Property as a "Change Area," which suggests that it will be responsible for a greater share of the INP's financing obligations. (INP, Figure 2-2; pp. 2-4, 7-7.) Yet, unlike the other designated Change Areas, the Airway Property is not being upzoned or receiving other development benefits under the INP in exchange. Similar undeveloped properties to the south of I-580 are not considered Change Areas under the current INP. Because the Airway Property will continue to be subject to burdensome development restrictions, it should not be responsible for financing the INP. The City should remove the Change Area designation from the Airway Property. It should also revise the INP's financing strategy to ensure that financing obligations are fairly distributed and imposed solely on the parcels located within a half-mile of the BART station (i.e., those parcels that actually benefit from the INP).

Clarify the Proposed Development Standards. The City should clarify the proposed Development Standards in Table 2-3, including by explaining the intended meaning and effect of the "N/A" designation. (INP, pp. 2-24 to 2-25.)

B9-2

Clarify the Vibration Setbacks. The City should clarify the intent and effect of the 600-foot vibration setback established in P-LU-20, including by defining the affected "Category 1 facilities." (INP, p. 2-37.) For many uses, a 600-foot setback is unnecessary and should be reduced.

TRANSPORTATION

Clarify that Airway Property will not be BART Staging Area. As Chamberlin noted in its comments on the BART to Livermore DEIR, which are attached as Exhibit A and incorporated by reference, the Airway Property is not a feasible construction staging area for the BART expansion. The City should work with BART and request that it identify feasible alternative locations.

Reduce General Commercial (GC) Parking and Bike Parking Ratios. The proposed parking and bike parking ratios for the General Commercial (GC) District are too high. (INP, Tables 3-3 and 3-4.) For example, a hotel use in the GC

District would require about twice as many parking spaces as a hotel use in the Commercial Highway Service (CHS) District. Similarly, a standard large-format hardware store (116,000 square feet) or a similarly-sized hotel would require 41 bike parking spaces in the GC District, far more than is necessary or useful. The City should reduce the parking and bike parking ratios, such as by maintaining those for the existing CHS District.

Clarify that Private Sites are Not Required to Provide Public Parking. Policy P-TRA-35 would "[r]equire parking lots that are shared among different uses to be available for public use." (INP, p. 3-33.) As drafted, this policy appears to require shared private parking lots to be made open to general public use. This is an improper and unenforceable requirement and must be deleted or revised to clarify that private sites are not required to provide public parking.

PARKS, PUBLIC FACILITIES, AND INFRASTRUCTURE

B9-2

Clarify Recycled Water Requirement. Policy P-PF-38 requires certain sites within the INP to connect to the recycled water system, except where economically infeasible. (INP, p. 4-25.) The INP should be revised to clarify which sites will be required to connect to the recycled water system and to specify criteria for economic infeasibility. As drafted, the policy is unclear.

URBAN DESIGN

Provide More Flexibility In Urban Design Standards. The City should incorporate additional flexibility into the proposed urban design standards applicable to the Airway Property to ensure that future development remains economically viable, including the following.

- **Ceiling Height Minimums.** Standards DS-92 and DS-94 would "require" minimum ceiling heights for office (14 feet) and retail (16 feet). (INP, p. 5-37.) These minimums should be eliminated. Under the current Scenic Corridor standards, significant grading and off-haul (70,000 cubic yards or more) will be necessary to develop the

Airway Property. The proposed ceiling height minimums would necessitate even more grading and off hauling, at a cost of $1,800,000 to $3,200,000. The ceiling height minimums would preclude economically viable development of the site when combined with the current Scenic Corridor requirements.

- **Story Standards.** The City should relax the story standards (DS-46) so as not to require a two-story building on the Airway Property. (INP, p. 5-27.) This is not feasible over a majority of the Property given the Scenic Corridor requirements and minimum ceiling height standards.

- **Depth Standards.** The City should relax the depth standards for retail (DS-95), recognizing that certain uses such as fuel stations may need flexibility for smaller retail spaces. (INP, p. 5-38.)

B9-2

Clarify Sign Standards for the GC District. The INP should be revised to clarify the sign standards for the GC District. (INP, p. 5-41 to 5-42.) As drafted, the standards fail to address (1) single tenant buildings, such as hotels or large-format retail stores, or (2) freeway signs for multiple sites. The sign standards for the GC District should follow those applicable to the CHS District.

ENVIRONMENTAL RESOURCES

Correct Erroneous Biology Designations. INP Figure 6-2 (Habitats and Biological Resources) designates portions of the Airway Property as "California Tiger Salamander Habitat" and "Undeveloped Grassland." These designations are erroneous. WRA Environmental Consultants prepared a site-specific biological report for the Airway Property (*Biological Constraints Analysis and Wetland Assessment*, June 2016), which is attached as Exhibit B and which was previously submitted to the City (the "WRA Report"). The WRA Report confirms that no special status species are likely to occur on the Airway Property, that the property does not provide habitat for western burrowing owl or California tiger

salamander, and that the vegetation on the property is properly classified as "developed ruderal" rather than "grassland." The INP should be revised to accurately reflect the information in the WRA Report, including by deleting the erroneous designations from Figure 6-2. Chamberlin understands from the February 15, 2018 meeting that the City has agreed to make these revisions.

Clarify Allowable Uses in ALUC Safety Zones. The INP may change aircraft flight patterns if pilots are discouraged from overflying the newly-proposed residential areas within the Airport Planning Area. The INP must be revised to address the potential for changed aircraft flight patterns, including the land use and planning implications of flight path changes, potential changes to ALUC safety zones, and the allowable land uses within ALUC safety zones. (INP, pp. 6-2 to 6-4; Figure 6-1.)

B9-2

Reduce the Toxic Air Contaminant Setback. The INP should be revised to clarify that certain uses may have a setback of less than 500-feet from the freeway, and it should quantify the reduced setbacks for these uses. (INP, p. 6-7; Policy P-ENV-9.)

II. COMMENTS ON THE INP DEIR

PROJECT DESCRIPTION

"An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR." (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193.) Without an accurate, stable, and finite project description, the decisionmakers and the public cannot know what project is being approved, and cannot meaningfully assess the project's potential environmental impacts.

B9-3

The DEIR has an unstable and inconsistent project description, particularly as to its development assumptions. For example, in some places the DEIR assumes that 3,525 residential units will be constructed within a half-mile radius of the proposed BART station (*see e.g.* DEIR, p. 2-16), while in others it assumes that the figure could be as high as 4,073 units (*see e.g.* DEIR, p. 3.-17). The DEIR is

also unclear about affordable housing requirements, stating in some places that 15 percent of new units must be affordable (*see e.g.* DEIR, p. 3.1-17), but in others stating that the requirement will be increased to 20 percent affordable (*see e.g.* DEIR, pp. 3.1-20, 3.4-26).

B9-4

These inconsistencies ripple through and distort the environmental analysis because the DEIR uses population estimates to analyze the INP's impacts. (DEIR, p. 2-15.) Greenhouse gas emissions and traffic impacts, in particular, both depend on population metrics. The inconsistencies also make it difficult for the decisionmakers and the public to assess whether the DEIR correctly analyzes and discloses the INP's impacts. To comply with CEQA, the City must correct all discrepancies, stabilize the project description, reconsider and revise its environmental analysis using consistent development assumptions, and then recirculate the revised DEIR for public review and comment.

RELIANCE ON PROPOSED INP POLICIES AS MITIGATION

B9-5

The DEIR relies throughout on proposed INP policies to mitigate significant environmental impacts to a less-than-significant level (so-called "Proposed Plan Policies that Would Reduce the Impact"). This approach does not comply with CEQA because the INP policies are not made fully enforceable and there is no basis to assume that individual projects will comply with all policies. (Pub. Res. Code § 21091.6(b).) It is well-settled that development projects need not comply with each and every policy in a planning document, and indeed that perfect conformity would be impossible. (*Sequoyah Hills Homeowners Ass'n v. City of Oakland* (1993) 23 Cal.App.4th 704, 719–720.) Unless the INP makes all of these policies mandatory, there is no guarantee that they will effectively reduce impacts as assumed in the DEIR. In addition, the DEIR generally does not explain how specific policies would reduce impacts to a less-than-significant level. And where the DEIR relies on both INP policies and mitigation measures to reduce impacts, it does not clarify their respective roles in doing so. All of this precludes the decisionmakers and the public from fully understanding the INP's potential impacts and whether and how those impacts will actually be reduced.

LAND USE, POPULATION, AND HOUSING

The DEIR relies on Policy P-TRA-35 (shared private parking must be made open to the public) to reduce Impact 3.1-2 (conflict with land use plans). (DEIR, pp. 3.1-17, 3.1-24.) As discussed above, however, P-TRA-35 is improper and unenforceable because the City cannot force owners to make their private parking areas open to the general public. Accordingly, P-TRA-35 must be deleted or revised, and the DEIR's analysis and mitigation of Impact 3.1-2 must be updated accordingly.

B9-6

The DEIR concludes that the INP would not induce substantial population growth. (DEIR, pp. 3.1-25 to 3.1-29; Impact 3.1-3.) This is not true. A key objective of the INP is to induce substantial population growth, including by creating approximately 4,095 new housing units and increasing the City's population by 9,800 residents or 11 percent. (*Id.*)

B9-7

AIR QUALITY

MM-AQ-3 is not a feasible mitigation measure. It depends on the City working with the Bay Area Air Quality Management District ("BAAQMD") to establish a future City-specific mitigation fee program to offset emissions of individual projects within the INP. This mitigation measure does not comply with CEQA because the fee program does not currently exist, the City cannot ensure that BAAQMD will create it in the future, and there is no guarantee that any money collected would be used to reduce air quality impacts. Under CEQA, mitigation measures must be fully enforceable. (CEQA Guidelines § 15091(b).) For a fee payment to be effective as mitigation, it must be tied to an enforceable plan which ensures that the payment will actually go toward reducing impacts. A commitment to pay fees without any evidence that mitigation will actually occur is inadequate. (*City of Marina v. Bd. of Trustees of Calif. State University* (2006) 39 Cal.4th 341.) This is particularly true, where, as here, another agency, outside the City's control, will be responsible for implementation. (*See Tracy First v. City of Tracy* (2009) 177 Cal.App.4th 912, 938.)

B9-8

ENERGY, GREENHOUSE GASES, AND CLIMATE CHANGE

The DEIR assumes that the inclusion of affordable housing will decrease driving, and thereby decrease related greenhouse gas emissions. (DEIR, p. 3.4-33.) This assumption is not supported by any evidence, and it artificially reduces the INP's true impacts. The DEIR also relies on MM-GHG-1, requiring a minimum of 20 percent affordable housing, to reduce greenhouse gas impacts to a less-than-significant level. (Impact 3.4-2) The DEIR does not provide any evidence or explanation to show how this mitigation measure will reduce greenhouse gas impacts. And, as discussed above, it is contradicted by other sections of the DEIR which assume a 15 percent affordable housing requirement.

B9-9

The DEIR relies on Policy P-TRA-24 to reduce energy consumption impacts. (DEIR, p. 3.4-22, -27; Impact 3.4-1.) P-TRA-24 purports to require new businesses within a half-mile of the BART station to implement at least two employee TDM programs. (DEIR, p. 3.4-27.) But Health and Safety Code section 40717.9 prohibits the City from requiring employers to implement employee trip reduction programs. Consequently, P-TRA-24 is infeasible and unenforceable.

B9-10

In light of the defects in these two mitigation measures, the City must revise the DEIR's impact analysis, develop feasible alternative mitigations, change the impact conclusions as appropriate, and recirculate the DEIR.

B9-11

AESTHETICS

The DEIR concludes that the INP will have a significant and unavoidable impact on scenic vistas because exempting certain areas from the Scenic Corridor standards will result in blocked views of hillsides and ridgelines. (DEIR, pp. 3.5-8 to 3.5-10; Impact 3.5.-1.) The DEIR, however, does not discuss or propose any mitigation measures for this impact, instead concluding without explanation that "none [are] required." (DEIR, p. 3.5-10.) This violates CEQA, which requires the City to discuss and impose all feasible mitigation measures, even if they would not reduce impacts to a less-than-significant level. Moreover, there are feasible mitigation measures to reduce this impact. Specifically, the City's own visual modeling shows that there are numerous areas not visible from westbound I-580.

B9-12

(*See* http://www.cityoflivermore.net/citygov/cdd/bart/scenic_view_analysis.htm.) The City must mitigate Impact 3.5-1 by relaxing the Scenic Corridor standards in areas where new development would not obstruct hillside and ridgeline views, and removing the proposed Scenic Corridor exemptions under the current INP.

B9-12

The DEIR also concludes that the INP would have less than significant impacts on scenic resources and the visual character of the plan area. (DEIR, pp. 3.5-14 to 3.5-15; Impacts 3.5-2 and 3.5-3.) This is inconsistent with the analysis for Impact 3.5-1. If impacts on scenic vistas are significant and unavoidable, then for the same reasons, impacts on scenic resources and the visual character of the planning area will be significant and unavoidable. The City must revise these impact conclusions, develop feasible mitigation measures, and recirculate the DEIR.

B9-13

BIOLOGICAL RESOURCES

The DEIR must be revised to accurately characterize the biological resources on the Airway Property, and to make corresponding changes to the impact analysis and mitigation measures.

WRA Environmental Consultants prepared a site-specific biological report for the Airway Property (*Biological Constraints Analysis and Wetland Assessment*, June 2016), which is attached as Exhibit B, and which was previously provided to the City (the "WRA Report"). The WRA Report confirms that no special status species are likely to occur on the Airway Property, that the property does not provide habitat for western burrowing owl or California tiger salamander, and that the vegetation on the property is properly classified as "developed ruderal" rather than "grassland."

B9-14

The INP and DEIR fail to account for the information in WRA Report and mischaracterize the biological resources on the Airway Property. In particular, the following errors must be corrected.

B9-15

- DEIR Figure 3.7-1 (Land Cover and Habitats) identifies the Airway Property as being covered with "Annual Grassland." This is not

B9-15

correct. Consistent with the WRA Report, Figure 3.7-1 should be revised to show the Airway Property as "Ruderal."

B9-16

- INP Figure 6-2 (Habitats and Biological Resources) erroneously designates portions of the Airway Property as "California Tiger Salamander Habitat" and "Undeveloped Grassland." These designations should be removed.

B9-17

As a result of these erroneous habitat designations, the INP and DEIR incorrectly assume that various special-status plants (DEIR, pp. 3.7-5 to 3.7-7; Table 3.7-2) and wildlife (DEIR, pp. 3.7-8 to 3.7-15; Table 3.7-3) have potential to occur on the Airway Property. In turn, the DEIR requires the Airway Property to provide compensatory habitat mitigation for special-status species that do not actually occur on the site. For example, the DEIR imposes Policy P-ENV-23 requiring the Airway Property to provide compensatory mitigation, under the East Alameda County Conservation Strategy, for impacts to habitat of various grassland species, including California tiger salamander (3:1 ratio), California red-legged frog (3:1 ratio), Callippe silverspot butterfly (5:1 ratio), and burrowing owl (3:1 ratio). (DEIR, p. 3.7-29.) The WRA Report, however, confirms, that the Airway Property does not contain habitat for any of these species. The DEIR also imposes INP Policies P-ENV-21, requiring an inventory of sensitive resources, and P-ENV-24, requiring a worker training program, even though the Airway Property does not contain any sensitive resources. (DEIR, pp. 3.7-28 to 3.7-29.) The DEIR also appears to impose mitigation measures on the Airway Property for direct impacts to special-status species, including MM-BIO-3 (burrowing owl), MM-BIO-6 (San Joaquin kit fox and American badger), MM-BIO-7 (California tiger salamander), and MM-BIO-8 (Callippe silverspot butterfly) (DEIR, pp. 3.7-31 to 3.7-34). The WRA Report, however, confirms that these species have no or unlikely potential to occur on the Airway Property, and that no additional studies for biological resources are warranted for the site.

Consistent with the WRA Report, the City should remove the erroneous habitat designations from the Airway Property, and as necessary make

corresponding changes to the DEIR's impact analysis and mitigations. The City should also expressly clarify that the policies and mitigation measures discussed above shall not apply to the Airway Property or other sites that lack special status species or their habitats.

B9-17

Finally, we note that DEIR Figure 3.7-1 (Land Cover and Habitats) is sometimes inconsistent with INP Figure 1-3 (Existing Land Uses), especially for City- or BART-owned properties. For example, the parcel at the northeast corner of Kitty Hawk Road and Airway Boulevard is correctly shown as undeveloped on Figure 1-3, but incorrectly shown as developed on Figure 3.7-1. Similarly, the triangular property bounded by I-580 on the north, Isabel Avenue on the southeast, and Kitty Hawk Road on the southwest, is incorrectly shown as developed on Figure 3.7-1. The City should revise the habitat designations on these properties to be "grassland" or "ruderal" as appropriate.

B9-18

HAZARDS AND HAZARDOUS MATERIALS

The DEIR concludes that impacts related to airport safety hazards will be less than significant. (DEIR, p. 3.8-20; Impact 3.8-5.) This impact conclusion is not supported by substantial evidence. It must be changed to significant and mitigated if feasible.

The INP proposes to modify the Airport Protection Area (APA) around the Livermore Airport to allow new residential development. The DEIR incorrectly assumes that the APA is only relevant to noise impacts (DEIR, p. 3.8-20), when it is also relevant to safety impacts (General Plan, p. 10-30). The DEIR must be revised to analyze and mitigate all potential impacts of the APA modification, specifically including flight safety impacts on new residential development and existing development.

B9-19

Although not disclosed by the DEIR, City policy discourages pilots from flying over residential areas. (*See* Pilot Information Guide, available at: http://www.cityoflivermore.net/civicax/filebank/documents/14348.) Because this policy will discourage pilots from flying over the new residential areas within the APA, the INP may change aircraft flight patterns. The City must analyze the

B9-19 potential noise and safety impacts associated with changed flight patterns, impose feasible mitigation measures, and recirculate the DEIR.

PUBLIC SERVICES AND RECREATION

B9-20 The DEIR concludes that the INP will increase demand for police services such that a new police substation will be needed to serve the Isabel Neighborhood. (DEIR, pp. 3.11-13 to 3.11-14.) Although the DEIR does not provide any details regarding the new substation—such as its location, dimensions, or site-specific environmental issues—it nevertheless concludes that any associated impacts would be less-than-significant. (*Id.*) This conclusion is not supported by any evidence.

B9-21 The DEIR also improperly defers analysis of whether the INP will increase demand for fire services such that a new fire protection facilities will be needed. (DEIR, p, 3.11-16; INP Policy P-PF-26.)

* * * * *

Thank you for your consideration of these comments.

Very truly yours,

Alexander L. Merritt
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Exhibit A

Comment Letter on BART to Livermore DEIR

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October 13, 2017

VIA E-MAIL barttolivermore@bart.gov

BART Board Members
Mr. Andrew Tang, Project Manager
BART to Livermore Extension Project
300 Lakeside Drive, 21st Floor
Oakland, CA 94612

Re: BART to Livermore Extension Project: Comments on Draft Environmental Impact Report (SCH# 2012082104)

Dear BART Board Members and Mr. Tang:

We write on behalf of Chamberlin Associates ("Chamberlin"), the owner of an approximately eleven-acre vacant parcel in the City of Livermore ("City") that is bounded by North Canyons Parkway to the north, Airway Boulevard to the east, Interstate 580 ("I-580") to the south, and existing commercial development to the west (APN 905 000901303) (the "Chamberlin Property" or the "Property"). The Chamberlin Property also is within the City's proposed Isabel Neighborhood Plan ("INP") area, BART's proposed I-580 Relocation Area, and BART's proposed I-580 Airway On Ramp improvement area of the proposed BART to Livermore Extension Project (the "BART Project").

Chamberlin supports the extension of BART to Livermore, but has a few concerns about certain incorrect and misleading information in the draft environmental impact report ("DEIR") for the BART Project. These concerns are detailed below.

1. The Chamberlin Property

The Chamberlin Property is an infill site that is surrounded by commercial development, including hotels and a motorcycle dealership. The Property currently is zoned PD-I-181 (approximately 7.2 acres) and Highway Service Commercial (CHS) (approximately 4.1 acres). The General Plan designation for the site is Business and Commercial Park (BCP). The Property is located in a City of Livermore Priority Development Area, and is within the boundary of the proposed Isabel Neighborhood Plan area. The draft Isabel Neighborhood Plan (the "Plan") designates the Chamberlin Property as General Commercial. This designation provides for "a range of commercial uses with an emphasis on regional-serving uses such as gas stations, car sales, lodging, and retail. The designation allows limited office, professional

services, light industrial, entertainment, and community uses." The designation allows for a floor area ratio of 0.5. (Plan, p. 13.)

Consistent with the City's vision for regional-serving commercial uses, Chamberlin submitted an application to the City in March 2016 for a rezoning of the Property to a single PD zone; General Plan amendments regarding views and scenic corridors; and a conditional use permit and development code/zoning code amendments for a freestanding sign (the "Chamberlin Project"). As part of the application, Chamberlin assessed the impacts under the City's scenic corridor regulations based on the conceptual development of a hotel, commercial center, and gas station. Chamberlin's development application is on file with the City and, because it is in the area covered by the INP, is proposed to be processed in a manner consistent with the ongoing INP effort.

2. Comments On The DEIR

a. The Chamberlin Property Is Incorrectly Described In The DEIR

The DEIR does not accurately describe the Chamberlin Property. For example, Page 3 of Appendix C to the DEIR shows the Chamberlin Property (APN 905 000901303) as having a "Collier Canyon" address. This is incorrect. The correct address for the Property is either Airway Boulevard or North Canyons Parkway.

The table on page 3 of the DEIR also shows the Chamberlin Property land use as "Vacant Industrial land." As described above, however, the appropriate general land use designation for the Property is commercial. The DEIR should be revised to correctly identify the Chamberlin Property.

Figure 3.E-6.b of the DEIR designates the Chamberlin Property as "ornamental freeway." But the Chamberlin Property does not meet the DEIR's definition of ornamental freeway. (DEIR, p. 571.) The DEIR should be revised to show that the Chamberlin Property is not ornamental freeway.

Also, Appendix E, Table 1, "Cumulative Projects and Plans," incorrectly assumes up to 100,000 square feet of commercial and office space of development on the Chamberlin Property. Under the proposed development standards set forth in the Plan, the Property could be developed with up to approximately 245,500 square feet of commercial uses.

Regarding "Concurrent Construction with [the] Proposed Project or Build Alternatives," which is the section addressing construction anticipated to occur from 2021 through 2026, the table states that no current developer or project is known for the Chamberlin Property. As described above, this is incorrect. The DEIR should be revised to accurately reflect the fact that the Property likely will be developed in the near term.

b. The DEIR Must Include Alternative Construction Staging Sites

The DEIR identifies the Chamberlin Property as a construction staging site. (DEIR, pp. 178–179.) As described above, however, Chamberlin currently has an application on file with the City. According to the DEIR, construction of the BART Project is anticipated to take place between 2021 and 2026. (DEIR, p. 168.) Although construction activity near the Chamberlin Property is planned to take place in the earlier construction phases for the BART Project (see DEIR, p. 170), construction of the Chamberlin Project may be well underway by the time construction of the BART Project commences. Chamberlin does not intend to postpone development of its Property and is not interested in making it available for construction staging. Thus, use of the Chamberlin Property for construction staging is not likely to be feasible and the DEIR should be revised to include feasible alternative sites for BART Project construction staging.

c. The Biological Resources Analysis Incorrectly Assumes the Chamberlin Property Provides Western Burrowing Owl Habitat And Is Grassland

Based on the incorrect conclusion that there is no development application currently pending for the Chamberlin Property, the DEIR assumes that no biological resources assessment has been conducted for the Chamberlin Property. As a result of this error, the DEIR provides that the Chamberlin Property will be subject to Mitigation Measure BIO-1.A. (DEIR, p. 886.) As part of the Chamberlin Project, a biologist completed a biological resources assessment for the Property, which concludes, "[n]o special status plant or wildlife species have a moderate or high potential to occur on the Chamberlin Property." (WRA, *Biological Constraints Analysis* (June 13, 2016) at p. ii (the "Analysis") (attached).) Therefore, the DEIR should be revised to remove reference to the Chamberlin Property with respect to Mitigation Measure BIO-1.A.

The biological resources analysis in the DEIR also incorrectly identifies the Chamberlin Property as potential Western Burrowing owl ("Owl") habitat. (DEIR, p. 854.) As disclosed in the attached Analysis, Owls are unlikely to forage or nest on the Chamberlin Property. (Analysis, p. 16.) The Property is disked twice annually for weed and fire control, and the Property is surrounded by commercial development and is relatively small. Therefore, it is unlikely to support an abundance of prey for Owls. Finally, a June 13, 2016, site visit confirmed that there are no Owls present on the Chamberlin Property and no signs of Owls were detected. Thus, Chamberlin requests that the DEIR be revised to indicate that the Chamberlin Property does not provide potential habitat for Owls.

Finally, the DEIR incorrectly identifies the Chamberlin Property as "grassland," meaning annual grassland habitat dominated by grasses and forbs. (DEIR, Figure 3.1-1b & p. 825.) The Analysis found that the Chamberlin Property is "comprised of *ruderal* grassland, landscaped, and developed areas, which are not sensitive biological communities. No additional studies are warranted for biological communities." (Analysis, p. 20 [emphasis added].) Based on

the Analysis, Figure 3.1-1b of the DEIR should be revised to show that the Chamberlin Property is "ruderal" rather than "grassland."

d. Potential Noise Impacts To A Hotel On The Chamberlin Property Must Be Analyzed

The Chamberlin Project could be completed and operational during the BART Project construction period. As noted in the DEIR, hotels are in sensitive receptor land use category 2. (DEIR, p. 969.) A hotel is a likely land use on the Chamberlin Property and there are a few hotels already located directly across from the Chamberlin Property on Airway Boulevard. The Chamberlin Property is located adjacent to, and within 500 feet of the I-580 freeway, including the proposed BART Project and the I-580 Interchange Reconfiguration at Airway Boulevard. However, noise measurement analysis was not conducted at or near the Chamberlin Property. (See DEIR, p. 968.)

The noise analysis should be revised to include the Chamberlin Property as a potential sensitive receptor (see DEIR, p. 970, Table 3J-2; p. 990, Table 3J-12; p. 993, Table 3J-13) the noise impacts on the future Chamberlin Project uses (e.g., hotel) from the BART Project's construction and operation must be considered. For example, the analysis for Noise Impact NOI-5 should be revised to evaluate whether a substantial permanent increase in noise levels will occur at the Chamberlin Property as a result of the BART Project under the 2025 and 2040 Project and Cumulative conditions. (DEIR, pp. 1024–25, 1050–70.) If potentially significant impacts would occur at this location, the DEIR should be revised to consider feasible mitigation measures for such impacts.

e. Potential Electromagnetic Field Interference With Medical Equipment In Medical Office Buildings Must Be Considered

The DEIR identifies that the BART Project may produce electromagnetic fields ("EMFs") that interfere with medical equipment that also relies on magnetic fields such as a magnetic resonance imaging machine ("MRI") or electron microscopes. The DEIR states that such equipment can be found at hospitals and research universities (DEIR, p. 1335) and thus analyzes the potential impacts of EMFs on those uses. In addition to hospitals and universities, such equipment can be located in medical office buildings. (See, e.g., Building Design + Construction, *The New Medical Office Building: 7 Things to Know About Today's Outpatient Clinic* (Sept. 10, 2013), available at https://www.bdcnetwork.com/new-medical-office-building-7-things-know-about-today%E2%80%99s-outpatient-clinic [identifying a trend for more sophisticated medical services in medical office buildings]; Richard E. Juge, CCIM, *Rx for Success: Medical Office Buildings*, available at http://www.ccim.com/cire-magazine/articles/rx-success-medical-office-buildings/ [noting the trend for some sophisticated imaging procedures to be done in medical office buildings rather than hospitals].) Accordingly, the DEIR should also analyze whether medical office buildings allowed to be constructed under the INP's commercial zoning and the proposed zoning for the Chamberlin Property could be adversely impacted by EMFs produced by the BART Project.

f. The Cumulative Analysis Must Consider The Chamberlin Project

The cumulative analysis anticipates buildout of some of the Isabel Neighborhood Plan Area (see DEIR, pp. 227–229), but fails to include the Chamberlin Project in its projections. Because the Chamberlin Project may be under construction or operational at the same time as BART Project construction, the cumulative analyses throughout the DEIR should be revised to account for that fact. Specifically, the DEIR should consider cumulative air quality and traffic impacts that could result if construction of the BART Project overlaps with construction of the Chamberlin Project, and the DEIR should include the Chamberlin Project in its cumulative analysis of operations-related impacts from the BART Project.

g. Since BART Has Elected To Consider The City's Scenic Corridor Policies, It Must Do So Correctly

i. *BART Should Consider The City's Scenic Corridor Policies*

As provided in the DEIR, Government Code sections 53090 and 53091 exempt BART from complying with local land use regulations, such as the City of Livermore's General Plan. Although not required, BART has "elected to consider City of Livermore's scenic vistas and corridors as scenic resources for purposes of impact analysis" in the DEIR. (DEIR, p. 553.) Because it has elected to consider the City's scenic vistas and corridors, BART should revise the DEIR to conduct the analysis in the manner described in the City's General Plan, Community Character Element, in which the scenic vistas and corridors are designated.

As described in the Community Character Element of the City's General Plan, the I-580 Scenic Corridor is divided into six subareas. "Policies and development standards are identified for each subarea that reflect the unique visual resources in each area . . . . The policies and development standards (such as identified view angles) are intended to preserve views to ridgelines and hillsides as seen from I-580." (General Plan, p. 4-41.) The City has prescribed exactly how the visual analysis must be undertaken to comply with its General Plan policies. (General Plan, pp. 4-38–4-69.) Based on the DEIR's analysis and photosimulations, BART did not follow the City's analysis methodology. (Compare analysis methodology in the City's General Plan with DEIR, pp. 618–622 [no discussion of how I-580 and interchange modifications will effect motorists' views from I-580].) The DEIR is thus misleading because it purports to do something that it does not in fact do. When revising the DEIR, BART should also consider how the proposed widening of I-580 and interchange modifications, particularly those requiring new or realigned retaining walls, impact the scenic views protected by the City's policies.

ii. *BART Should Work With The City To Ensure The Scenic Corridor Policies In The INP Area Do Not Unduly Limit Growth And The BART Project's Success*

The funding from the Metropolitan Transportation Commission ("MTC") for the BART Project depends on the ability of the INP to accommodate 3,850 housing units within a half-mile radius of the proposed BART station. The BART Project also must compete against other major transportation projects in the region for MTC funding. Therefore, the more successful the INP is at encouraging development, the more likely the BART Project is to receive MTC funding.

BART should be aware that the City's preferred INP proposal retains scenic corridor regulations that do not accomplish the City's purported goal, which is to protect scenic views from I-580, and instead serve only to limit growth near the BART Project. For example, the City has done studies showing that the majority of the Chamberlin Property is not visible to westbound drivers on I-580 (City Website, Scenic View Analysis, Diagram 1, available at http://www.cityoflivermore.net/citygov/cdd/bart/scenic_view_analysis.htm). Nevertheless, the City is not proposing to change the scenic corridor policies in the portion of the INP area that includes the Chamberlin Property, which will make that area more difficult to develop. Since the BART Project's success is contingent on the success of the INP, BART staff and Board Members should work with the City to ensure the scenic corridor regulations in the INP area protect only realistic views of the hills from I-580. By doing so, BART will ensure that the INP permits the growth needed to make the BART Project successful.

3. Conclusion

Chamberlin appreciates the opportunity to provide BART with information regarding its plans for the Chamberlin Property and encourages BART to revise the DEIR for the above-stated reasons. In addition, Chamberlin suggests that BART staff and the BART Board work more closely with the City to ensure that the DEIR accurately accounts for the regulatory changes proposed by the INP and that the INP provides the policies necessary for BART to compete successfully for MTC funding and operate successfully for years to come.

Please feel free to contact me with any questions regarding this matter.

Sincerely,

Linda C. Klein

Attachment: WRA, *Biological Constraints Analysis and Wetland Assessment, Airway Blvd.* (June 2016).

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Exhibit B

Biological Constraints Analysis and Wetland Assessment, June 2016, prepared by WRA Enviromental Consultants

Biological Constraints Analysis and Wetland Assessment

AIRWAY BLVD, LIVERMORE
ALAMEDA COUNTY, CALIFORNIA

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LIST OF ACRONYMS AND ABBREVIATIONS

CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	U.S. Army Corps of Engineers
CWA	Clean Water Act
ESA	Federal Endangered Species Act
Inventory	CNPS Inventory of Rare and Endangered Plants
NRCS	Natural Resource Conservation Service
NWI	National Wetlands Inventory
NWPL	National Wetland Plant List
OHWM	Ordinary High Water Mark
Rank	California Rare Plant Rank
RWQCB	Regional Water Quality Control Board
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
WBWG	Western Bat Working Group
WRA	WRA, Inc.

EXECUTIVE SUMMARY

The purpose of this report is to provide an analysis of natural community and special-status species that could potentially occur at the Airway Blvd Property (APN 905-0009-013-03), in Livermore, California (Study Area). This report identifies potential resources that could be considered regulatory constraints to a future development project.

On June 13, 2016, WRA, Inc. (WRA) conducted a biological resources assessment and routine-level jurisdictional delineation within the Study Area located west of Airway Blvd., south of North Canyons Parkway, and north of Interstate 580 in Livermore, California. WRA observed one monotypic biological community which is not considered sensitive under the California Environmental Quality Act (CEQA). No special-status plant or wildlife species have a moderate or high potential to occur within the Study Area. Native nesting birds protected by the Migratory Bird Treaty Act and California Fish and Game Codes have potential to nest seasonally within the Study Area. Recommendations are discussed to avoid impacts to nesting bird species.

1.0 INTRODUCTION

On June 13, 2016, WRA, Inc. performed an assessment of biological resources and a routine-level jurisdictional delineation at the approximately 11.29-acre undeveloped site near the intersection of North Canyons Parkway and Airway Blvd (APN 905-0009-013-03), in Livermore, California (Figure 1). The Study Area is bordered by Airway Blvd to the East, North Canyons Parkway to the north, Interstate 580 to the south, and by a casino to the west. The purpose of the assessment was to gather information necessary to review the potential biological resources that could be considered constraints to development. The Study Area was historically agricultural land and the surrounding parcels have been built out by mixed-use development including a casino, corporate office, medical offices, a charter school, hotels, a gas station and fast-food restaurant. The Study Area has been completely surrounded by development since approximately 2007 and Airway Blvd to the east supports a major egress point to Interstate 580. North Canyons Parkway connects to Doolan Road to the west and frontage road north of Interstate 580.

This report describes the results of the June 13, 2016 site visit, which assessed the Study Area for the (1) potential to support special-status species; and (2) presence of other sensitive biological resources protected by local, state, and federal laws and regulations. This report also contains an evaluation of potential impacts to special-status species and sensitive biological resources that may occur as a result of a possible future development project and potential mitigation measures to compensate for those impacts.

The jurisdictional delineation completed for the Study Area on June 13, 2016 determined whether any wetlands or non-wetland waters potentially subject to federal jurisdiction under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act are present within the Study Area and to what extent. In addition, the delineation identified the extent of wetlands and non-wetland waters potentially subject to state jurisdiction under Section 401 of the CWA and under the Porter-Cologne Act.

This biological resources assessment is not an official protocol-level survey for listed species that may be required for project approval by local, state, or federal agencies. This assessment is based on information available at the time of the study and on site conditions that were observed on the dates of the site visit.

2.0 REGULATORY BACKGROUND

The following sections explain the regulatory context of the biological assessment, including applicable laws and regulations that were applied to the field investigations and analysis of potential project impacts.

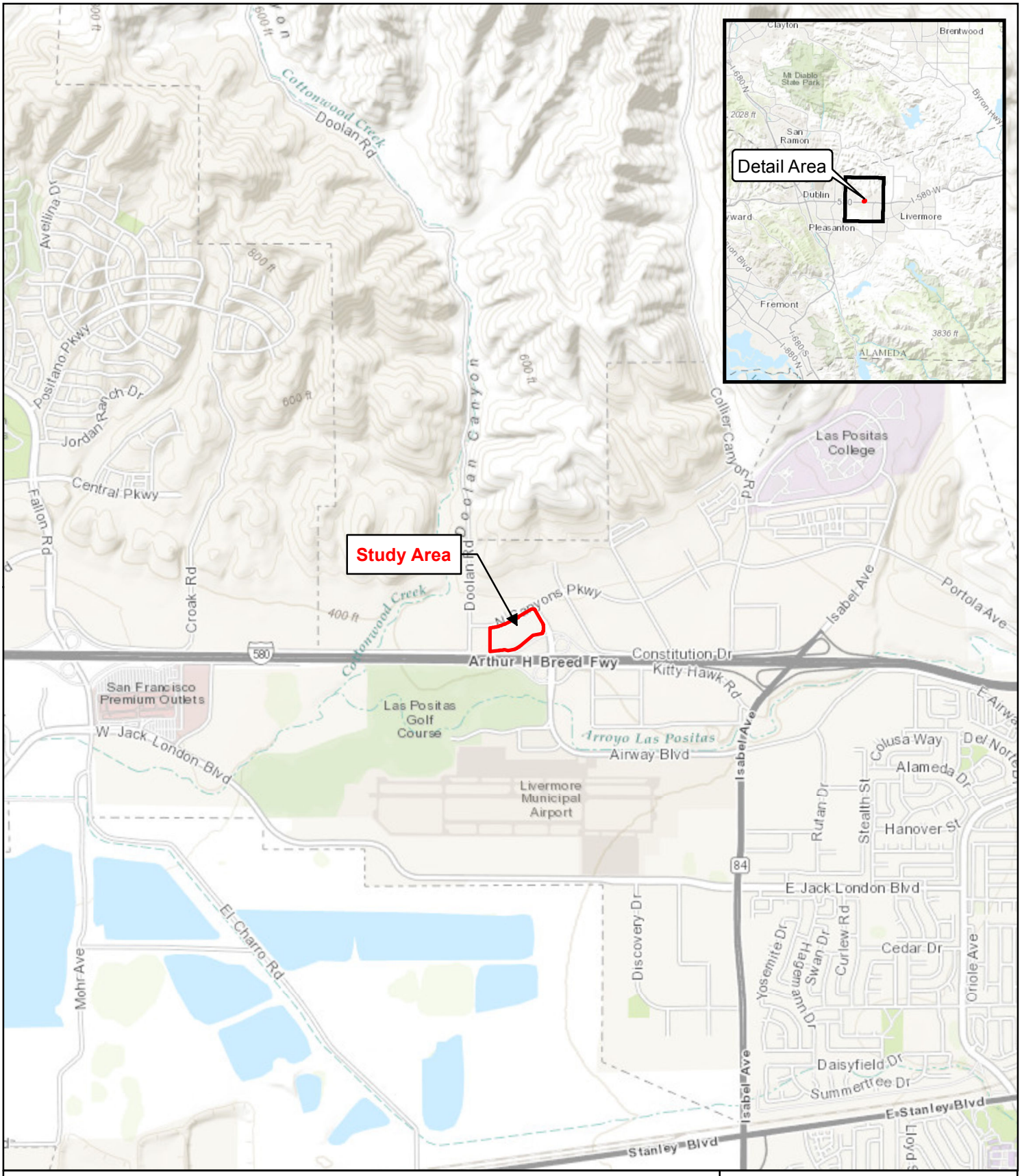


Figure 1. Study Area Location Map

N
W
E
S

ENVIRONMENTAL CONSULTANTS

Chamberlin Airway Blvd
Alameda County, California

0 1,000 2,000 4,000 Feet

Map Prepared Date: 6/10/2016
Map Prepared By: SGillespie
Base Source: ESRI World Topo
Data Source(s): WRA

2.1 Special-Status Species

Special-status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, and CDFW special-status invertebrates are all considered special-status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under the California Environmental Quality Act (CEQA). In addition to regulations for special-status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act of 1918. Under this legislation, destroying active nests, eggs, and young is illegal. Bat species designated as "High Priority" by the Western Bat Working Group (WBWG) qualify for legal protection under Section 15380(d) of the CEQA Guidelines. Species designated "High Priority" are defined as "imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats" (CDFG, 2006). Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Rank) of 1 and 2 are also considered special-status plant species and must be considered under CEQA. A description of the CNPS Ranks is provided below in Table 1.

Table 1. Description of CNPS Ranks and Threat Codes

California Rare Plant Ranks (formerly known as CNPS Lists)	
Rank 1A	Presumed extirpated in California and either rare or extinct elsewhere
Rank 1B	Rare, threatened, or endangered in California and elsewhere
Rank 2A	Presumed extirpated in California, but more common elsewhere
Rank 2B	Rare, threatened, or endangered in California, but more common elsewhere
Rank 3	Plants about which more information is needed - A review list
Rank 4	Plants of limited distribution - A watch list
Threat Ranks	
0.1	Seriously threatened in California
0.2	Moderately threatened in California
0.3	Not very threatened in California

Critical Habitat

Critical habitat is a term defined in the ESA as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The ESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it

will no longer aid in the species' recovery. In many cases, this level of protection is similar to that already provided to species by the ESA jeopardy standard. However, areas that are currently unoccupied by the species but which are needed for the species' recovery are protected by the prohibition against adverse modification of critical habitat.

2.2 Sensitive Biological Communities

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, or riparian habitat. These habitats are protected under federal regulations such as the Clean Water Act; state regulations such as the Porter-Cologne Act, the CDFW Streambed Alteration Program, and CEQA; or local ordinances or policies such as city or county tree ordinances, Special Habitat Management Areas, and General Plan Elements.

Waters of the United States

The U.S. Army Corps of Engineers (Corps) regulates "Waters of the United States" under Section 404 of the Clean Water Act. Waters of the U.S. are defined in the Code of Federal Regulations (CFR) as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate water bodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated at a sufficient depth and for a sufficient duration to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as "other waters" and are often characterized by an ordinary high water mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams. The placement of fill material into Waters of the U.S generally requires an individual or nationwide permit from the Corps under Section 404 of the Clean Water Act.

Waters of the State

The term "Waters of the State" is defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope and has special responsibility for wetlands, riparian areas, and headwaters. These water bodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes "isolated" wetlands and waters that may not be regulated by the Corps under Section 404. Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State, are required to comply with the terms of the Water Quality Certification determination. If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

Streams, Lakes, and Riparian Habitat

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFW under Sections 1600-1616 of California Fish and Game Code. Alterations to or work within or

adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term “stream”, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). In addition, the term “stream” can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). “Riparian” is defined as “on, or pertaining to, the banks of a stream.” Riparian vegetation is defined as “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself” (CDFG 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

Other Sensitive Biological Communities

Other sensitive biological communities not discussed above include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFW. CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in its California Natural Diversity Database (CNDDB; CDFW 2015). Sensitive plant communities are also identified by CDFW (2010). CNDDB vegetation alliances are ranked 1 through 5 based on NatureServe's (2010) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or USFWS must be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G). Specific habitats may also be identified as sensitive in city or county general plans or ordinances.

2.3 City of Livermore Tree Ordinance

The City of Livermore maintains a tree ordinance for the purpose protecting and encouraging the growth of trees and shrubs within City owned property and transportation corridors. Trees and shrubs within City property are protected and require a permit to remove; however, there are no conditions for trees and shrubs on private property.

3.0 METHODS

On June 13, 2016 the Study Area was traversed on foot to determine (1) plant communities present within the Study Area, (2) if existing conditions provided suitable habitat for any special-status plant or wildlife species, and (3) if sensitive habitats are present. A routine-level jurisdictional wetland delineation was also completed during the June 13 site visit. All plant and wildlife species encountered were recorded and are summarized in Appendix A. Plant nomenclature follows Baldwin et al. (2012) and subsequent revisions by the Jepson Flora Project (2015), except where noted. Because of recent changes in classification for many of the taxa treated by Baldwin et al. (2012) and the Jepson Flora Project, relevant synonyms are provided in brackets. For cases in which regulatory agencies, CNPS, or other entities base rarity on older taxonomic treatments, precedence was given to the treatment used by those entities.

3.1 Biological Communities

Prior to the site visit, aerial imagery, past biological and historical studies, the National Wetlands Inventory (NWI, USFWS 2015a), and a Web Soil Survey (USDA 2016) of the Study Area and vicinity were examined to determine if any plant communities and/or aquatic features were present or had the potential to be present in the Study Area. Biological communities present in the Study Area were classified based on existing plant community descriptions described in the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) and/or *Manual of California Vegetation, 2nd Edition* (Sawyer et al. 2009). However, in some cases it is necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Biological communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations.

3.1.1 Non-sensitive Biological Communities

Non-sensitive biological communities are those communities that are not afforded special protection under CEQA, and other state, federal, and local laws, regulations and ordinances. These communities may, however, provide suitable habitat for some special-status plant or wildlife species and are identified or described in Section 4.1.1 below.

3.1.2 Sensitive Biological Communities

Sensitive biological communities are defined as those communities that are given special protection under CEQA and other applicable federal, state, and local laws, regulations and ordinances. Applicable laws and ordinances are discussed above in Section 2.0. Special methods used to identify sensitive biological communities are discussed below.

Wetlands and Waters

The Study Area was evaluated for the presence of wetlands subject to Corps and EPA jurisdiction under Section 404 of the CWA. This evaluation was based on presence or absence of indicators of the three wetland parameters described in the Corps Manual (Environmental Laboratory 1987) and the Arid West Supplement (Corps 2008).

The Code of Federal Regulations (33 CFR 328.3 (b)) defines wetlands as:

> *Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.*

The three parameters used to delineate wetlands are the presence of (1) hydrophytic vegetation, (2) wetland hydrology, and (3) hydric soils. According to the Corps Manual, for areas not considered "problem areas" or "atypical situations":

> *....evidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland determination.*

Data on vegetation, hydrology, and soils collected at sample points during the delineation site visit were reported on Arid West Supplement data forms for any area meeting the three-parameters of a wetland. When wetland conditions were met, a paired sample point was taken at an adjacent upland location to distinguish the changes that qualify the wetland boundary.

Vegetation

Plant species observed in the Study Area were identified using the Jepson Manual, Second Edition (Baldwin et al. 2012) and/or the Jepson eFlora (Jepson Flora Project 2016). Plants were assigned a wetland indicator status according to the National Wetland Plant List (NWPL; Lichvar et al. 2016).

Wetland indicator statuses listed in the NWPL are based on the expected frequency of occurrence in wetlands as described in Table 2.

Table 2. Wetland Indicator Statuses from the National Wetland Plant List

Wetland Indicator Status	Definition*	Hydrophytic?
Obligate (OBL)	Almost always a hydrophyte, rarely in uplands	Yes
Facultative Wetland (FACW)	Usually a hydrophyte but occasionally found in uplands	Yes
Facultative (FAC)	Commonly occurs as either a hydrophyte or non-hydrophyte	Yes
Facultative Upland (FACU)	Occasionally a hydrophyte but usually occurs in uplands	No
Upland/Not Listed (UPL/NL)	Rarely a hydrophyte, almost always in uplands	No

*See Lichvar et al. (2016).

The presence of hydrophytic vegetation was then determined based on indicator tests described in the Arid West Supplement. The Arid West Supplement requires that a three-step process be conducted to determine whether hydrophytic vegetation is present. The procedure first requires the delineator to apply the “50/20 rule” (Indicator 1; Dominance Test) described in the manual. To apply the “50/20 rule”, dominant species are determined for each vegetation stratum present in a sampling plot of an appropriate size surrounding the sample point. Dominants are the most abundant species that individually or collectively account for more than 50 percent of the total vegetative cover in the stratum, plus any other species that, by itself, accounts for at least 20 percent of the total vegetative cover. If greater than 50 percent of the dominant species has an OBL, FACW, or FAC status, the sample point meets the hydrophytic vegetation criterion.

If the sample point fails Indicator 1 and both hydric soils and wetland hydrology are not present, then the sample point does not meet the hydrophytic vegetation criterion, unless the site is a problematic wetland situation. However, if the sample point fails Indicator 1 but hydric soils and wetland hydrology are both present, the delineator must apply Indicator 2.

Indicator 2 is known as the Prevalence Index. The Prevalence Index is a weighted average of the wetland indicator status for all plant species within the sampling plot. Each indicator status is given a numeric value (OBL = 1, FACW = 2, FAC = 3, FACU = 4, and UPL = 5). Indicator 2

requires the delineator to estimate the percent cover of each species in every stratum of the community and sum the cover estimates for any species that is present in more than one stratum. The delineator must then organize all species into groups according to their wetland indicator status and calculate the Prevalence Index using the following formula, where A equals total percent cover:

$$PI = \frac{A_{OBL} + 2A_{FACW} + 3A_{FAC} + 4A_{FACU} + 5A_{UPL}}{A_{OBL} + A_{FACW} + A_{FAC} + A_{FACU} + A_{UPL}}$$

The Prevalence Index will yield a number between 1 and 5. If the Prevalence Index is equal to or less than 3, the sample point meets the hydrophytic vegetation criterion. However, if the community fails Indicator 2, the delineator must proceed to Indicator 3.

Indicator 3 is known as Morphological Adaptations. If more than 50 percent of the individuals of a FACU species have morphological adaptations for life in wetlands, that species is considered to be a hydrophyte and its indicator status should be reassigned to FAC. If such observations are made, the delineator must recalculate Indicators 1 and 2 using a FAC indicator status for this species. The sample point meets the hydrophytic vegetation criterion if either test is satisfied using the reassigned indicator status.

Soils

The Natural Resource Conservation Service (NRCS) defines a hydric soil as follows:

> *A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part.*
>
> Federal Register July 13, 1994,
> U.S. Department of Agriculture, NRCS

Soils formed over long periods of time under wetland (anaerobic) conditions often possess characteristics that indicate they meet the definition of hydric soils. Hydric soils can have a hydrogen sulfide (i.e., rotten egg) odor; low chroma matrix color, generally designated 0, 1, or 2; presence of redoximorphic concentrations; a gleyed or depleted matrix; high organic matter content, and other features. Specific indicators that can be used to determine whether a soil is hydric for the purposes of wetland delineation are provided in the NRCS publication *Field Indicators of Hydric Soils in the U.S.* (USDA 2010). The Arid West Supplement provides a list of 23 of these hydric soil indicators which are applicable in the Arid West Region. Soil samples were collected and described according to the methodology provided in the Arid West Supplement. Soil chroma and values were determined by utilizing a standard Munsell soil color chart (Munsell Color 2012). Hydric soils were determined to be present if any of the soil samples met one or more of the hydric soil indicators described by the NRCS (2010).

Hydrology

The Corps jurisdictional wetland hydrology criterion is satisfied if an area is inundated or saturated for a period sufficient to create anoxic soil conditions during the growing season (a minimum of 14 consecutive days in the Arid West region). Evidence of wetland hydrology can include primary indicators, such as visible inundation or saturation, drift deposits, oxidized root channels, and salt crusts, or secondary indicators such as the FAC-neutral test, presence of a shallow aquitard, or crayfish burrows. The Arid West Supplement contains 16 primary hydrology indicators and 10 secondary hydrology indicators. Only one primary indicator is required to meet the wetland hydrology criterion; however, if secondary indicators are used, at least two secondary indicators must be present to conclude that an area has wetland hydrology.

Other Sensitive Biological Communities

The Study Area was evaluated for the presence of other sensitive biological communities, including riparian areas and sensitive plant communities recognized by CDFW. Prior to the site visit, aerial photographs, local soil maps, the *List of Vegetation Alliances* (CDFG 2010), and *A Manual of California Vegetation* (Sawyer et al. 2009) were reviewed to assess the potential for sensitive biological communities to occur in the Study Area. All alliances within the Study Area with a ranking of 1 through 3 were considered sensitive biological communities and mapped.

3.2 Special-Status Species

3.2.1 Literature Review

Potential occurrence of special-status species in the Study Area was evaluated by first determining which special-status species occur in the vicinity of the Study Area through a literature and database search. Database searches for known occurrences of special-status species focused on the area within a 2-mile radius of the Study Area. The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur in the vicinity of the Study Area:

- California Natural Diversity Database (CNDDB) records (CDFW 2016)
- USFWS species lists (USFWS 2016)
- CNPS Inventory records (CNPS 2016)
- CDFG publication “California’s Wildlife, Volumes I-III” (Zeiner et al. 1990)
- CDFG publication “Amphibians and Reptile Species of Special Concern in California” (Jennings 1994)
- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)

3.2.2 Site Assessment

A site visit was made to the Study Area to search for suitable habitats for special-status species. Habitat conditions observed at the site were used to evaluate the potential for presence of special-status species based on these searches and the professional expertise of the investigating biologists. The potential for each special-status species to occur in the Study Area was then evaluated according to the following criteria:

- No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- Present. Species is observed on the site or has been recorded (i.e. CNDDB, other reports) on the site recently.

The site assessment is intended to identify the presence or absence of suitable habitat for each special-status species known to occur in the vicinity in order to determine its potential to occur in the Study Area. The site visit does not constitute a protocol-level survey and is not intended to determine the actual presence or absence of a species; however, if a special-status species is observed during the site visit, its presence will be recorded and discussed.

In cases where little information is known about species occurrences and habitat requirements, the species evaluation was based on best professional judgment of WRA biologists with experience working with the species and habitats. If necessary, recognized experts in individual species biology were contacted to obtain the most up to date information regarding species biology and ecology.

If a special-status species was observed during the site visit, its presence is recorded and discussed below in Section 4.2. For some species, a site assessment visit at the level conducted for this report may not be sufficient to determine presence or absence of a species to the specifications of regulatory agencies. In these cases, a species may be assumed to be present or further protocol-level special-status species surveys may be necessary. Special-status species for which further protocol-level surveys may be necessary are described below in Section 5.0.

3.3 City of Livermore Protected Trees

A site visit was made to identify the presence of trees that could potentially be protected by the City. The site visit does not constitute a formal tree survey, and no certified or registered arborist was present; however, if potentially protected trees were observed, they were noted, and their presence is discussed below.

4.0 RESULTS

The Study Area is located immediately north of Interstate 580, south of North Canyons Blvd and west of Airway Blvd. The Study Area was historically agricultural land. The surrounding parcels have been built out by mixed-use development including a casino, corporate office, medical offices, a charter school, hotels, a gas station and fast-food restaurant. The Study Area has been completely surrounded by development since approximately 2007 and Airway Blvd to the east supports a major egress point to Interstate 580. North Canyons Parkway connects to Doolan Road to the west and frontage road north of Interstate 580.

The Study Area has been significantly altered from its native state, and is disced twice annually for at least the past several years. The site appears to have received fill and topographic alterations associated with adjacent development including Interstate 580, the Interstate on-ramp, Airway Blvd and North Canyons Parkway. The Study Area has some ornamental trees planted along the perimeter of the site, particularly along Airway Blvd, but supports little native vegetation.

4.1 Topography and Soils

The topography of the Study Area is relatively flat with slopes of less than 2 to 10 percent. The general slope is from west to northeast, and elevations range from 5 to 15 feet. The Alameda Area Soil Survey (USDA 1961) indicates that the Study Area is underlain of one native soil mapping unit: Diablo clay, very deep, 3 to 15 percent slopes, which is composed of one soil series: Diablo Series described below.

Diablo Series: This soil series consists of very deep silty clay soils formed from alluvium derived from shale and siltstone located on backslope hills at elevations ranging from 25 to 3,000 feet. These soils are considered hydric, and are well drained with slow runoff (dry) to medium or rapid when moist and slow permeability. Native and naturalized vegetation includes annual grasses and forbs in uncultivated areas, and predominant land uses include grazing and dry farmed grains (USDA 1961).

A representative pedon of this series consists of an A-horizon of neutral to mildly alkaline (pH 7.0-7.5) very dark gray (5YR 3/1) when moist silty clay from approximately 0 to 15 inches depth. This is underlain by a B-horizon of moderately alkaline (pH 8.4) olive gray (5Y 5/2) when moist silty clay to very dark gray (5Y 3/1) when moist silty clay with slickensides from approximately 15 to 42 inches depth. This is underlain by a C-horizon of moderately alkaline (pH 8.2) olive gray (5Y 5/2 to 5Y 4/2) when moist silty clay loam from approximately 42 to 60 inches depth and deeper (USDA 1961). The presence of sticky clay throughout and the slickensides in the B-horizon, suggest that these soils have the potential to support inundation and/or extended saturation in depressions, swales, and low-lying areas which may contribute to the formation of wetlands. Likewise, special-status plants with an affinity or association with neutral to alkaline clays have the potential to occur on these soils.

4.2 Climate and Hydrology

The Project Area is located at the edge of the coastal fog belt of the Bay Area in the Livermore Valley. Average annual precipitation for Livermore (CA 4997), located approximately three and one-half miles east southeast, is 14.82 inches, with the majority falling as rain in the winter months (November through March). The mean daily low and high temperatures in degrees

Fahrenheit range from 36.9 in December to 89.1 in July (USDA 2016). Currently, the Study Area has experienced normal rainfall according to a WETS analysis, with the region thus far receiving 102.2 percent of annual average rainfall (15.14 inches in Water Year 2016). The months of November, December, January, March, and April were all above normal rainfall, while October, February, and May were below normal. The three month (March, April, and May) antecedent rainfall condition was normal.

The primary hydrologic sources for the Study Area are precipitation and localized surface runoff from immediately adjacent lands. Surface runoff migrates to a three-foot diameter culvert situated on the southern boundary, approximately central on the east-west axis. This culvert connects to a larger stormwater system that parallels I-580 and flows westward.

4.3 Biological Communities

The Study Area is composed of one biological community, non-native annual grassland. The edge of the Study Area contains landscaping and hardscaping (e.g., sidewalks) which provide little to no ecologic value.

4.3.1 Non-Sensitive Biological Communities

Non-native Annual Grassland. Non-native annual grasslands are known throughout California on all aspects and topographic positions underlain by a variety of substrates. Within the Study Area, this biological community is composed of one vegetation alliance, wild oat grassland (*Avena barbata* Semi-Natural Herbaceous Stand) (Sawyer et al. 2009). The grassland is dominated by wild oat (*Avena barbata*) with substantial cover of ripgut brome (*Bromus diandrus*), soft chess (*B. hordeaceus*), Italian rye grass (*Festuca perennis*), and Mediterranean barley (*Hordeum marinum*). Non-native forbs include field bindweed (*Convolvulus arvensis*), Italian thistle (*Carduus pycnocephalus*), field mustard (*Hirschfeldia incana*), and curly dock (*Rumex crispus*). The grasslands are tilled/disked annually, and the site was tilled at the time of the site visit.

4.3.2 Sensitive Biological Communities

No sensitive biological communities were found within the Study Area. A broad swale runs through the center of the property, terminating at the three-foot diameter culvert. At the time of the site visit, the entire site had been disked and vegetation was lying flat. Several areas were sampled following the methods for delineating wetlands outlined in Section 3.1.2. Vegetation was dominated by Mediterranean barley (*Hordeum marinum*), a facultative (FAC) plant, with associates wild oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), and soft chess (*B. hordeaceus*). Soils were black (10YR 2/1) heavy clays that contained no redoximorphic features or depletions; therefore, the swale's substrate does not meet the criteria for hydric soils. Likewise, there were no indicators of saturation or inundation sufficient to meet the wetland hydrology criteria.

4.4 Special-Status Species

4.4.1 Plants

Based upon a review of the resources and databases given in Section 3.2.1, 14 special-status plant species have been documented in the vicinity of the Study Area. Figure 3 below depicts special-status species observed within a 5-mile radius of the Study Area. The Study Area is unlikely or has no potential to support 10 of these species for the following reasons:

- Hydrologic conditions (e.g. tidal, riverine) necessary to support the special-status plant species are not present in the Study Area;
- Edaphic (soil) conditions (e.g. volcanic, serpentine) necessary to support the special-status plant species are not present in the Study Area;
- Unique pH conditions (e.g. acidic conditions) necessary to support the special-status plant species are not present in the Study Area;
- Associated vegetation communities (e.g. forest, woodland, scrub, vernal pools) necessary to support the special-status plant species are not present in the Study Area;
- The Study Area is geographically isolated from the documented range of the special-status plant species; and/or
- The land use history (e.g., petro chemical and residential development) of the Study Area has resulted in habitat conversion and/or has a degree of disturbance to preclude the colonization and establishment of special-status species.

Four special-status plant species have a moderate to high potential to occur within the Study Area. All of these species germinate and bolt in late spring, and bloom in the summer into fall. Likewise, they are annuals that are tolerant of disturbance (e.g., tilling) and, because, they bloom in summer, can tolerate competitive pressure from non-native annual herbs (e.g., wild oats (*Avena barbata*). These species are detailed below:

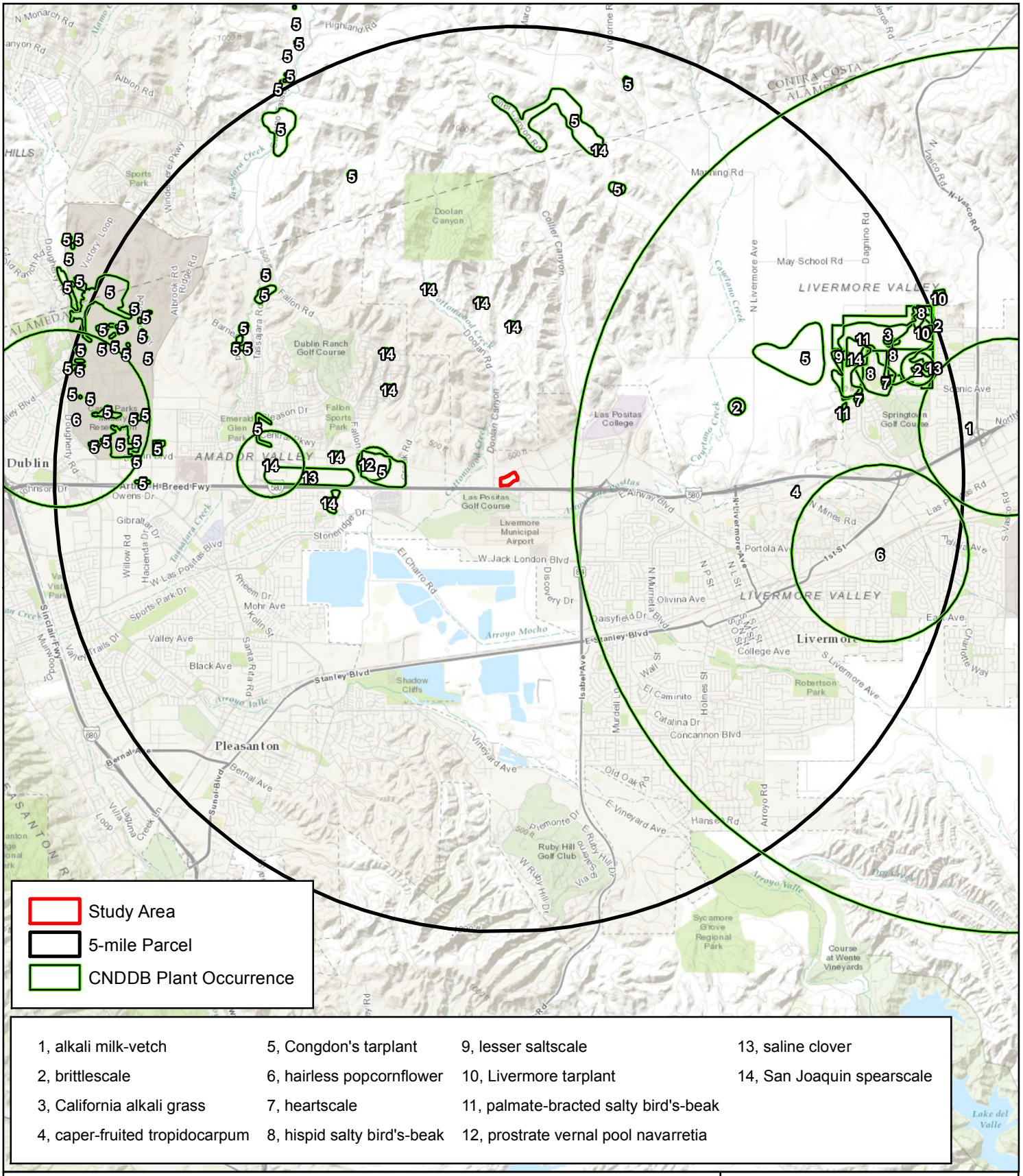
Brittlescale (*Atriplex depressa*). CNPS Rank 1B. Moderate Potential. Brittlescale is an annual forb in the goosefoot family (Chenopodiaceae) that blooms from April to October. It typically occurs on alkali clay substrate in scalds, meadows, and grassy areas in chenopod scrub, meadow, playa, valley and foothill grassland, and vernal pool habitat at elevations ranging from 3 to 1,040 feet (CDFW 2016, CNPS 2016). Observed associated species include common tarplant (*Centromadia pungens*), fivehook (*Bassia hyssopifolia*), pickleweed (*Salicornia virginica*), horned seablite (*Suaeda calceoliformis*), salt grass (*Distichlis spicata*), alkali heath (*Frankenia salina*), rabbit's-foot grass (*Polypogon monspeliensis*), and Mediterranean barley (*Hordeum marinum*) (CDFW 2016, personal observation 2014). Brittlescale has a moderate potential to occur within the Study Area due to moderate alkali conditions and this species relative tolerance to disturbance; however, it frequently occurs in strongly alkali conditions, with extended saturation. This species and others within this genus were not observed during the site visit, and is therefore assumed absent from the site.

Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*). CNPS Rank 1B. High Potential. Congdon's tarplant is an annual forb in the sunflower family (Asteraceae) that blooms from June to November. It typically occurs in alkaline grassy areas on the edge of brackish marsh in valley and foothill grassland habitat at elevations ranging from 1 to 750 feet (CDFW 2016, CNPS 2016). Observed associated species include common tarplant (*Centromadia pungens* ssp. *pungens*), alkali heath (*Frankenia salina*), salt grass (*Distichlis spicata*), Italian rye grass (*Festuca perennis*), Mediterranean barley (*Hordeum marinum*), foxtail barley (*Hordeum*

murinum), stinkwort (*Dittrichia graveolens*), yellow star thistle (*Centaurea solstitialis*), Italian thistle (*Carduus pycnocephalus*), bull thistle (*Cirsium vulgare*), and Bermuda grass (*Cynodon dactylon*) (CDFW 2016, personal observations 2008-2013). Congdon's tarplant has a high potential to occur within the Study Area due to moderate alkali conditions, the presence of associated species, this species relative tolerance to disturbance, and a seed source within close proximity within the direction of the prevailing winds. This species and others within this genus were not observed during the site visit as either seedlings or bolts, and is therefore assumed absent from the site.

Livermore tarplant (*Deinandra bacigalupii*). CNPS Rank 1B. Moderate Potential. Livermore tarplant is annual forb in the sunflower family (Asteraceae) that blooms from June through October. It typically occurs in alkaline herbaceous communities and scalds within meadow and seep habitat at elevations ranging from 485 to 600 feet (CNPS 2016, CDFW 2016, Baldwin et al. 2012). Observed associated species include ripgut brome (*Bromus diandrus*), soft chess (*B. hordeaceus*), Mediterranean barley (*Hordeum marinum*), salt grass (*Distichlis spicata*), iodine bush (*Allenrolfea occidentalis*), common spikeweed (*Centromadia pungens*), brittlescale (*Atriplex depressa*), sand spurry (*Spergularia* spp.), alkali heath (*Frankenia salina*), yellow tarweed (*Holocarpha virgata*), and three-ray tarweed (*Deinandra lobbii*) (CDFW 2016). Livermore tarplant has a moderate potential to occur within the Study Area due to moderate alkali conditions and this species relative tolerance to disturbance; however, it frequently occurs in strongly alkali conditions, with extended saturation. This species and others within this genus were not observed during the site visit, and is therefore assumed absent from the site.

San Joaquin spearscale (*Extriplex joaquinana*). CNPS Rank 1B. High Potential. San Joaquin spearscale is an annual herb in the goosefoot family (Chenopodiaceae) that blooms from April to October. It typically occurs in seasonal alkali sink scrub and wetlands in chenopod scrub, alkali meadow, and valley and foothill grassland habitat at elevations ranging from 0 to 2,740 feet (CDFW 2016, CNPS 2016). Observed associated species include salt grass (*Distichlis spicata*), alkali heath (*Frankenia salina*), Mediterranean barley (*Hordeum marinum*), Italian rye grass (*Festuca perennis*), bird's-foot trefoil (*Lotus corniculatus*), docks (*Rumex crispus, R. pulcher*), tarplants (*Centromadia parryi, C. pungens*), pickleweed (*Salicornia pacifica*), and fat hen (*Atriplex prostrata*) (CDFW 2016, personal observations 2010-2012). San Joaquin spearscale has a high potential to occur within the Study Area due to moderate alkali conditions, the presence of associated species, this species relative tolerance to disturbance, and a seed source within close proximity within the direction of the prevailing winds. This species and others within this genus were not observed during the site visit as either seedlings or bolts, and is therefore assumed absent from the site.



1, alkali milk-vetch
2, brittlescale
3, California alkali grass
4, caper-fruited tropidocarpum
5, Congdon's tarplant
6, hairless popcornflower
7, heartscale
8, hispid salty bird's-beak
9, lesser saltscale
10, Livermore tarplant
11, palmate-bracted salty bird's-beak
12, prostrate vernal pool navarretia
13, saline clover
14, San Joaquin spearscale

Figure 2. Special Status Plant Species within 5-mile Radius of the Study Area

Airway Blvd.
Alameda County, California

0 0.5 1 2 Miles

ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 6/21/2016
Map Prepared By: SGillespie
Base Source: ESRI World Topo
Data Source(s): WRA

Path: L:\Acad 2000 Files\26000\26166\GIS\ArcMap\FigX_CNDDBPlant.mxd

4.4.2 Wildlife

Seventeen (17) special-status wildlife species have been documented to occur within 5-miles of the Study Area (Figure 4). No special-status wildlife species were observed in the Study Area during the June 13, 2016 site visit, and it was determined that no special status wildlife species have a moderate or high potential to occur. The ecological value of the Study Area has largely been degraded as the site is completely surrounded on all sides by mixed development. The Study Area is therefore isolated from surrounding suitable habitats. Furthermore the site is disced twice per year further reducing the ecological value. Some landscaped ornamental trees are present around the perimeter, but the vast majority of the site is bare soil overlain with annual grass thatch.

Special-status wildlife species that are generally associated with aquatic habitats and known to occur within 5-miles include California red-legged frog (*Rana draytonii*; CRLF), foothill yellow-legged frog (*Rana boylii*; FYLF), tricolored blackbird (*Agelaius tricolor*), and Pacific pond turtle (*Actinemys marmorata*; PPT). The Study Area contains no streams, ponds or emergent wetlands and the extent of development surrounding the Study Area would preclude CRLF and PPT from dispersing through the site. Furthermore no hydrologic connectivity is present to suitable FYLF habitats nearby. Tricolored blackbirds may occasionally be seen flying over the Study Area, though no nesting habitat or significant foraging resources are supported, therefore these species have no potential or are unlikely to occur within the Study Area.

Likewise, California linderiella (*Linderiella occidentalis*), longhorn fairy shrimp (*Branchinecta longiantenna*), and vernal pool fairy shrimp (*Branchinecta lynchi*) are vernal pool or seasonal wetland obligate species. Since no wetland habitats exist within the Study Area, these species have no potential to occur.

Alameda whipsnake (*Masticophis lateralis euryxanthus*), American badger (*Taxidea taxus*), and San Joaquin kit fox (*Vulpes macrotis mutica*) are each documented to occur within 5-miles of the Study Area. All three species are wide-ranging and require extensive swaths of connected habitat to persist. Because of the small patch-size of the Study Area, extent, frequency and duration of disturbance, and its isolated nature, these species are not expected to occur. Furthermore, no evidence or sign of badger or kit fox utilizing ground squirrel burrows was observed during the June 13 site assessment.

Ferruginous hawk (*Buteo regalis*), prairie falcon (*Falco mexicanus*), and Townsend's big-eared bat (*Corynorhinus townsendii*) are species capable of flight that may opportunistically forage in the vicinity of the Study Area. The Study Area is not within the nesting range of Ferruginous hawk, and nesting and roosting habitat is not present for prairie falcon or Townsend's big-eared bat. These species are therefore unlikely to occur and unlikely to be affected by any future development at the site.

The following is discussion of four special-status wildlife species that are known to occur in the vicinity, or directly adjacent to the Study Area that are unlikely to occur but are included in this section for completeness.

Burrowing owl (*Athene cunicularia*; BUOW). CDFW Species of Special Concern; USFWS Bird of Conservation Concern. Burrowing owl occurs as a year-round resident and winter visitor in much of California's lowlands, inhabiting open areas with sparse or non-existent tree or shrub canopies. Typical habitat is annual or perennial grassland, although human-modified areas such as agricultural lands and airports are also used (Poulin et al. 1993). This species is dependent on burrowing mammals to provide the burrows that are characteristically used for

shelter and nesting, and in northern California is typically found in close association with California ground squirrels (*Spermophilus beecheyi*). Manmade substrates such as pipes or debris piles may also be occupied in place of burrows. Prey consists of insects and small vertebrates. Breeding typically takes place from March to July.

The Study Area is disced twice annually for weed and fire control. On the June 13, 2016 visit, several ground squirrel burrows were observed along the perimeter of the Study Area. The squirrel burrows were inspected for sign of BUOW including white-wash, pellets, or feathers. No BUOW or indications of use were noted. Furthermore, the Study Area is relatively small is therefore unlikely to support abundance of prey required to sustain breeding BUOW. A CNDDB record of nesting burrowing owl was documented approximately 1-mile southwest of the Study Area in 2004. Adjacent contiguous natural and agricultural lands provide higher quality and quantity of habitat than is available within the Study Area. Therefore the species is unlikely to forage or nest within the Study Area.

California tiger salamander (*Ambystoma californiense*; CTS), Federal Threatened Species, State Threatened Species. California tiger salamander is restricted to grasslands and low-elevation foothill regions in California (generally under 1500 feet) where it uses seasonal aquatic habitats for breeding. The salamanders breed in natural ephemeral pools, or ponds that mimic ephemeral pools (stock ponds that go dry), and occupy substantial areas surrounding the breeding pool as adults. California tiger salamanders spend most of their time in the grasslands surrounding breeding pools. They survive hot, dry summers by living underground in burrows (such as those created by ground squirrels and other mammals and deep cracks or holes in the ground) where the soil atmosphere remains near the water saturation point. During wet periods, the salamanders may emerge from refugia and feed in the surrounding grasslands.

The Study Area does not contain any aquatic features that could support CTS breeding. Multiple occurrences of CTS have been documented in the vicinity including one occurrence where 2 adults were observed crossing roads adjacent to the Study Area in 1992. Since this occurrence, the location of that occurrence has been developed and significant development has occurred in the areas surrounding the Study Area on all sides. While it is possible that the Study Area once supported CTS upland habitat, the site has been completely isolated for nearly 10-years from adjacent habitats, and is disced twice per year for weed and fire control. A vestigial population of California ground squirrels occurs with burrows concentrated along the perimeter of the site, however the extent, frequency and duration of disturbance of the site coupled with its completely isolated nature preclude any potential for CTS to occur within the Study Area.

Golden eagle (*Aquila chrysaetos*), Federal Eagle Protection Act, CDFW Fully Protected Species, USFWS Bird of Conservation Concern. Golden eagles are large raptors that occur in open and semi-open areas from sea level to high elevation. Typical occupied habitats include grasslands, shrublands, deserts, woodlands, and coniferous forests. Breeding activity occurs broadly from January through August, and in California is usually initiated from January to March. The large stick nests of this species are reused across years and may be maintained throughout the year. Nests are most often placed on the ledges of steep cliffs, but nesting also occurs in trees and on tall manmade structures (e.g., utility towers) (Kochert et al. 2002). Golden eagles forage over wide areas, feeding primarily on medium-sized mammals (e.g., ground squirrels and rabbits), large birds, and carrion.

A golden eagle nest was recorded in the CNDDB in 1991-1992 approximately 4.4 miles to the northwest of the Study Area (CDFW 2016), however the nest was unsuccessful for unknown reasons. While golden eagles may occasionally fly over or opportunistically forage within the Study Area, no appropriate nesting habitat is available on or in the immediate vicinity of the site. Furthermore, the Study Area is bounded by highly developed areas and sees regular disturbance via discing for weed and fire control, making it unlikely to be visited by golden eagles. While it is possible that eagles may be occasionally observed in the immediate vicinity, much higher quality foraging habitat is present to the north in the vicinity and they have no nesting habitat at the site. Therefore, they are unlikely to occur within the Study Area.

White-tailed kite (*Elanus leucurus*). CDFW Fully Protected Species. White-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities (Dunk 1995). Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall (Dunk 1995). This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates.

White-tailed kite fledglings were observed and recorded in the CNDDB in 2009 approximately 4.75 miles northwest of the Study Area. The wide-range and relative commonality of this species along urban-rural interfaces suggest white-tailed kite could opportunistically forage within the Study Area. However, the Study Area is isolated from nearby foraging and nesting habitat via roads with heavy traffic. In addition, the twice-annual discing of the site means disturbance of the area is likely too high to encourage nearby nesting. White-tailed kite is unlikely to nest or occur within the Study Area.

Nearly all habitats have the potential to seasonally support nesting birds that are protected by the MBTA and CFGC. Trees along the perimeter of the Study Area and the unmowed fringe of the Study Area supporting annual grasses and forbs are examples of these habitats. Direct removal of a nest or disturbance in the vicinity of an active nest that could result in nest abandonment would be considered take under the MBTA and CFGC.

4.5 City of Livermore Protected Trees

Given that all trees within the Study Area occur on private property and are not considered public areas, no trees within the Study Area are protected under the tree ordinance for the City of Livermore. However, if any trees adjacent to the Study Area that line Airway Blvd or North Canyon Parkway will be removed or pruned as part of site improvements within the Study Area, permits will likely be necessary through the City of Livermore.

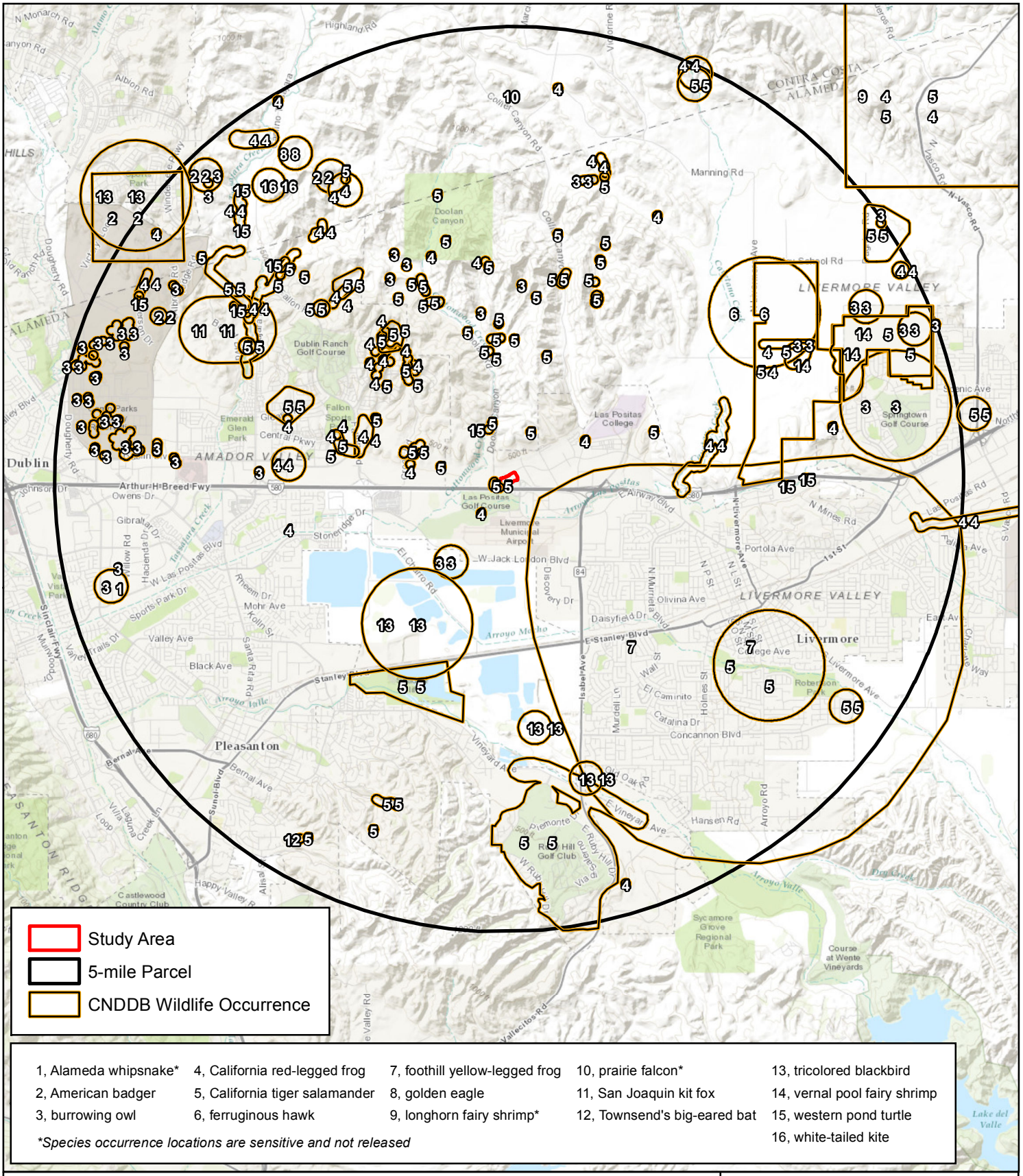


Figure 3. Special Status Wildlife Species within 5-mile Radius of the Study Area

Airway Blvd.
Alameda County, California

0 0.5 1 2 Miles

wra
ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 6/21/2016
Map Prepared By: SGillespie
Base Source: ESRI World Topo
Data Source(s): WRA

Path: L:\Acad 2000 Files\26000\26166\GIS\ArcMap\FigX_CNDDBWildlife.mxd

5.0 SUMMARY AND RECOMMENDATIONS

No sensitive biological communities were identified within the Study Area. No special-status plant species and no special-status wildlife species have either moderate or high potential to occur within the Study Area. There is a potential for birds protected by the MBTA and CFGC to seasonally nest within the Study Area. Based on these findings, the following sections summarize those findings and present recommendations for future studies and/or measures to avoid or reduce impacts to these species and sensitive habitats.

5.1 Biological Communities

The Study Area is comprised of ruderal grassland, landscaped, and developed areas, which are not sensitive biological communities. No additional studies are warranted for biological communities.

5.2 Special-Status Plant Species

Of the 25 special-status plant species known to occur in the vicinity of the Study Area, none were determined to have high or moderate potential to occur in the Study Area. Most of the special-status species occur in coastal areas or intact and native grasslands, forests, and woodlands that are not present within the Study Area. The grassland in the Study Area is highly disturbed and overwhelmingly dominated by non-native species, making it unlikely that special-status grassland species would occur within it. Protocol-level rare plant surveys are not recommended.

5.3 Special-Status Wildlife Species

Of the 17 special-status wildlife species documented to occur within a 5-mile radius of the Study Area, no special-status wildlife species have either moderate or high potential to occur within the Study Area. There is a potential for birds protected by the MBTA and CFGC to seasonally nest within the Study Area. Future development has the potential to result in direct or indirect impacts including nest abandonment, which would be considered take under the MBTA and CFGC. WRA recommends the following measures be implemented to avoid take of special-status birds and nesting birds protected by the MBTA.

<u>Nesting Season: February 1 through August 31</u>

If ground disturbance or removal of vegetation occurs between February 1 and August 31, pre-construction surveys should be performed by a qualified biologist no more than 14 days prior to commencement of such activities to determine the presence and location of nesting bird species. If active nests are present, establishment of temporary protective nesting season buffers will avoid direct mortality of these birds, nests, or young. The appropriate buffer distance is dependent on the species, surrounding vegetation, and topography and should be determined by a qualified biologist as appropriate to prevent nest abandonment and direct mortality during construction.

Non-nesting Season: September 1 through January 31

Ground disturbance and removal of vegetation within the Study Area does not require pre-construction surveys if performed between September 1 and January 31.

5.4 City of Livermore Protected Trees

If Project work will affect trees lining Airway Blvd. or North Canyons Parkway, consult with the City Public Works Division to determine if these trees are under City jurisdiction. In the event that the trees are protected tree under guidelines outlined in Livermore Municipal Code 12.20.160, are under City jurisdiction, and are to be removed, a permit with the City will be required. Likewise, activities with the potential to harm or kill said trees (e.g., laying down of equipment) should be avoided in the trees' rooting zone (approximately the same area occupied below ground as that of the tree's crown). An ISA- or NAA-certified arborist should be consulted if the trees are to be scheduled for removal and/or activities with the potential to impact their health are planned for the immediate vicinity of the trees.

As per Livermore Municipal Code 12.20, potential mitigation actions for removing protected trees include replacing the trees with those of comparable number and size and planting them on or off the site at the expense of the permit applicant.

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APPENDIX A

LIST OF OBSERVED PLANT AND WILDLIFE SPECIES

Appendix A. Plant and wildlife species observed in the Study Area on June 13, 2016.

Scientific Name	Common Name
Plants	
Carduus pycnocephalus	Italian thistle
Centaurea solstitialis	yellow star thistle
Cynara cardunculus	artichoke thistle
Dittrichia graveolens	stinkwort
Helminthotheca echioides	bristly ox-tongue
Lactuca serriola	prickly lettuce
Brassica nigra	black mustard
Hirschfeldia incana	field mustard
Convolvulus arvensis	field bindweed
Medicago polymorpha	bur clover
Melilotus indicus	yellow sweetclover
Vicia sativa	spring vetch
Erodium brachycarpum	foothill filaree
Eucalyptus sp.	eucalyptus
Avena barbata	slender oat
Bromus diandrus	ripgut brome
Bromus hordeaceus	soft chess
Festuca perennis	Italian rye grass
Hordeum marinum	Mediterranean barley
Hordeum murinum	mouse barley
Phalaris paradoxa	hood canarygrass
Polygonum aviculare	dooryard knotweed
Rumex crispus	curly dock

Scientific Name	Common Name
Wildlife	
Corvus brachyrhynchos	American crow
Euphagus cyanocephalus	Brewer's blackbird
Petrochelidon pyrrhonota	cliff swallow
Columba livia	rock pigeon
Sturnus vulgaris	European starling
Cathartes aura	turkey vulture (fly-over)
Aeronautes saxatalis	white-throated swift (fly-over)
Spinus tristis	American goldfinch (fly-over)

APPENDIX B

SITE PHOTOGRAPHS

Top: View of disced vegetation facing northeast to North Canyon Parkway.

Bottom: View of disced vegetation along I-580 WB on-ramp.

Photographs taken: June 13, 2016

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Top: View of site facing northeast from 580 WB slip road.

Bottom: View of site facing northwest from Airway Blvd.

Photographs taken: June 13, 2016

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February 11, 2018

VIA HAND DELIVERY

Chair Shefizi and Members of the Airport
Commission
City of Livermore
1052 South Livermore Avenue
Livermore, CA 94550

Re: 3055 Comcast Drive
Request for Rezoning/Overlay Zone

Dear Chair Shefizi and Members of the Commission:

Our firm represents the property owner ("Client") of 3055 Comcast Drive, also referred to as "Triad Drive" (the "Property"). Our Client's Property is located within the planning area of the proposed Isabel Neighborhood Plan ("INP") (see Attachment "1"). We wish to thank you for the opportunity to address the Commission relative to the INP and its related Draft Environmental Impact Report ("DEIR").

B8-1

The focus of our comments on the INP relate primarily to the current and proposed height limits on the Property, as well as on the zoning for the Property. Related to the height issue are comments directed toward changes to the Airport Protection Area ("APA"). We will address these comments below.

General Plan

The General Plan designation for the Property is proposed to be Business Park. This General Plan designation is changing slightly from the current designation of Business and Commercial Park (BCP) which allows for a mix of limited service and highway commercial, community/regional commercial retail, office and light industrial activities. (See INP, Figure 2-3).

The Business Park designation will allow for new lot coverage ranges and height limits which will permit a slightly greater intensity of development than permitted under the BCP designation.

Zoning

The Property is currently zoned Business Commercial Park, which is consistent with the General Plan designation . We understand that, with the adoption of the INP, the zoning for the Property will be "Specific Plan", meaning the zoning requirements set forth in the INP will be the zoning for properties within the INP area.

We note that two parcels to the immediate south of the Property are in the INP's "Change Areas". The purpose of these Change Areas is to identify "areas where the Plan envisions the majority of new development or redevelopment." (See INP, p. 2-4) A primary purpose of the INP is to change and intensify the land uses within a ¼ and ½ mile radius of the proposed BART station. These two adjacent parcels are currently zoned Planned Development and, while outside of the ½ mile radius, these two parcels are within the Change Areas and are proposed to be zoned Transition and Village (densities proposed are 15-25 du/acre and 25-40 du/acre, respectively).

Since the properties to the immediate east of the Property are already zoned Planned Development with a residential overlay, *we request the Property be included within the Change Area and receive a similar designation of Planned Development with a residential overlay.* While our Client has no plans to redevelop the Property in the near term, our Client prefers to have the option—depending upon future market conditions—to either keep the Property as a business park or to redevelop the Property as residential. We would propose the Property be included in the Change Area and have a similar residential density as the Transition areas to the immediate south and east (See INP, Figure 2-1 and Attachment "1").

B8-1

The inclusion of the Property meets the General Plan Objectives LU-1.1 (locate new development so as to create a consolidated pattern on urbanization, maximizing the use of existing public services and facilities); and Objective LU-1.2 (create neighborhoods that include a mix of uses and a range of housing types to meet the needs of all residents).

Airport Protection Area

The INP is also proposing modifications to the Airport Protection Area ("APA"). Currently, the Property is located within the APA and, as such, prohibits new residential uses within the APA boundary. If adopted, the INP will require an amendment to the City's General Plan will be required to allow residential development within the APA boundaries in the INP. With such amendment, the APA is proposed to allow residential uses over most of the Property which the Client supports. However, as Figure 6-1 of the INP reflects, if the APA were not amended to allow residential development, one portion of the Property would be allowed to support residential uses (the segment north of the APA boundary line) and the other portion would not (the segment south of the APA boundary. Therefore, *we request Airport Land Use Commission ("ALUC") and the City's Airport Commission modify the APA envelope to follow the Property's southern parcel boundary line.*

We acknowledge the ALUC has already considered the INP at its hearing on January 31, 2018, but feel this request is consistent with comments from the 2016 planning process regarding

the Preferred Plan which included moving new residential development further north (see p. 2 of the Commission's Staff Report, dated February 12, 2018). Such an amendment to the APA would further allow residential development on the Property.

B8-1

In summary, the Client is supportive of the City's efforts to adopt and, ultimately, implement the INP and supports staff's recommendation that the Commission find the INP and associated EIR compatible with the Livermore Airport based upon the INP's consistency with airport land use compatibility regulations. We support the proposed amendments to the APA and the exceptions for transit-oriented residential development with the requested changes articulated above.

Thank you for your attention to these requested changes.

Very truly yours,

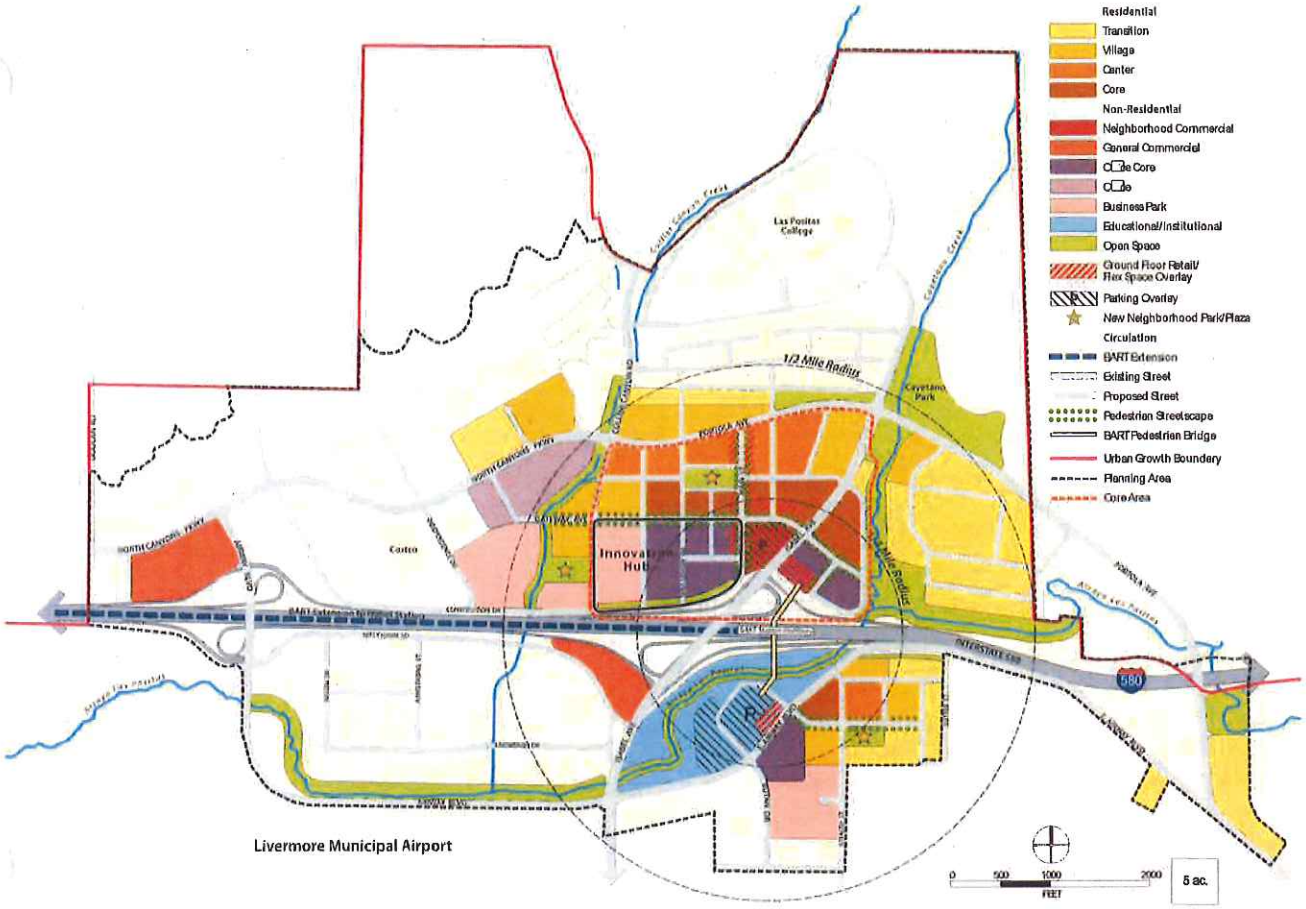
WENDEL, ROSEN, BLACK & DEAN LLP

Amara L. Morrison

ALM/alm

cc: Client
Steve Riley, Principal Planner
Paul Spence, Community Development Director

Fig URE 2-2: LAND USE DIAg RAM — CHANg EAREAS



Attachment 1

February 26, 2018

VIA EMAIL

Bob Vinn (bgvinn@cityoflivermore.net)
Project Manager for BART to Livermore
Ashley McBride (asmcbride@cityoflivermore.net)
Assistant Planner
CITY OF LIVERMORE
Planning Division
1052 South Livermore Avenue
Livermore, CA 94550

RE: Isabel Neighborhood Plan ("INP")

SUBJECT: Cornerstone/Chu Property (13.10± acres)
Northwest corner of Constitution Drive and Collier Canyon Road (the "Property")

Dear Bob, Ashley and Planning Commissioners,

On behalf of Cornerstone Fellowship of Livermore and the Chu Family (collectively the "Owners"), who own the five (5) parcels making up the 13.10± acres located at the northwest corner of Constitution Drive and Collier Canyon Road, please consider this letter as the Owners' official position and concerns regarding the city of Livermore's proposed "Land Use" on their subject Property.

First of all, thank you for all your time and efforts in this major process to lure BART to Livermore which, for the most part, the Owners support. Secondly, it's important to have a snap shot of Cornerstone as one of the largest churches in the Bay Area with approximately 6,000 people going through their doors every weekend at their five East Bay campuses. Cornerstone has many callings and purposeful goals including deeply serving each community they are located in (Livermore, Brentwood, Hayward, Walnut Creek and Danville), spreading throughout the Bay Area, California, our nation and the world. Keeping in line with their desire to serve Livermore, the Owners goals for their Property are aligned in that they would like to provide Livermore with a "Work Force Housing" development. This project would have an affordable theme with tenants coming from the college, Cornerstone and local residence who wouldn't have the means to afford living and working in Livermore. With that said, the following five (5) items represent the owners' disapproved items, position and concerns with the proposed INP Land Use plan:

B7-1

1. **BART or No BART:**
We strongly disagree with the concept that, "If full BART does not commit to come to Livermore/Isabel then the INP zoning does not go into effect". The Owners are one of three "Stakeholders" within the half mile BART station buffer that actually owns vacant/undeveloped parcels. Our logic tells us that we should have the opportunity to provide affordable Work Force Housing development on the northern portion of their Property regardless if BART says yes or "Not Yet". If the goal is to entice BART to Livermore, why wouldn't you encourage your INP owners to build on their vacant/undeveloped land as soon as possible? We feel the concept is detrimental to all the land owners in the INP. In essences, you're putting them all into limbo. Simplistically, the value of property is determined by what you can build on it and by having two zonings on the properties subject to BART, you're creating the limbo. How do you sell, build or value your property when you don't know what you can build on it? A Business Park Commercial ("BPC") land value versus a Residential land value is night and day. What would the city support today if a developer submitted a development under the BPC zoning when you

have a Residential overlay zoning on it in hopes of enticing BART? This basically devalues all the property in the INP. We encourage you to support development under the proposed INP and amend the APA to allow for residential development and start providing a portion of those proposed 4,000 residential units regardless if BART says Yes, No or Not Yet.

2. **Phasing Sub-Areas:**
We absolutely do not support being placed in Phase 2 of your Phasing Subarea plan per figure 7.1 of the INP, Public Review Draft, dated January 2018. We feel it's obvious that this Property should be in Phase 1 considering that it's one of very few vacant/undeveloped properties within the INP. Phase 1 is 3 times bigger than Phase 2 with very little undeveloped land available. As we stated above, we encourage you to support development as soon as reasonably possible in order to pave the way in our hopes for BART to extend Livermore.

B7-1

3. **Proposed Residential Land Use Designation**:
We do not support your current overlay zoning on the back (north) portion of the Property, currently earmarked at Village (25 to 40 du/acre). We purpose a broader designation by basically combining the Village and Transition designations (15 to 40 du/acre). This would allow for a more realistic potential for future development. With the dramatic increases in construction costs and development fees as it relates to affordable/market rental rates, the 25 to 40 du/acre (3 to 4 stories) product is basically unjustifiable to build.

4. **The Open Space:**
As we have voiced before, we do not want to have open space (Neighborhood Park) in the middle of our Property. We acknowledge that you have shrunk it after a previous meeting we had but we still feel it makes no sense to designate a vacant/undeveloped parcel for another Neighborhood Park and especially putting it so close to the freeway. This just doesn't seem like a good plan.

5. **The Road:**
Having Gateway Avenue cut through the Owners Property and extending northwest through the existing sea of parking currently used and owned by Cornerstone and actually required by the city of Livermore to fulfill a condition to their CUP, is not an option for this plan. Imagine the safety concerns alone if the required parking lot is bifurcated. We suggest removing it completely or relocating it off of the Owners and Cornerstones properties. This is a major concern and a non-starter for the Owners. There will be no compromise here.

B7-2

Again, thank you for everyone's time and efforts. We look forward to working with you to resolve these concerns.

Sincerely,

THE CORNERSTONE CHU REAL ESTATE OWNERSHIP COMMITTEE

Mark Pleis
Chris Stockhaus
Miriam Chu

From: Doug Giffin
To: Riley, Stephen
Cc: McBride, Ashley; Vinn, Bob; Roberts, Marc; Marchand, John; Tom Siewert
Subject: RE: Isabel Neighborhood Plan and DEIR
Date: Wednesday, January 24, 2018 5:21:08 PM

Steve,

To build at our site with the cross-sections you reference would necessitate over $1,000,000 in excavation and off-haul. The modelling that you completed shows that a building would need to be four stories tall to be visible. To leave restrictions on the east half of the site when the buildings would not be visible does not make sense. If the regulation has no impact, as your studies show, it should be changed so as not to burden us with extensive costs that serve no purpose.

To place the burden on us to complete a separate application just means it will never happen. The only reason the proposed scenic corridor changes may be approved now is because of the benefit of the INP to the city.

Relative to scenic corridor restrictions on the west half of the site, this is just a problem in fairness. You are imposing different rules on us than you are on the majority of the INP area.

B6-1

- Between the Shea Homes project and the currently proposed exemptions, you have modified the scenic corridor to allow for review of oblique angles instead of 90 degree angles for half of the INP with freeway frontage
- A vast majority of the rest of the INP with freeway frontage (42%) is already developed or not visible from the freeway (as is the east half of our site)
- This means that in practice, the current scenic corridor restrictions apply only to four small undeveloped sites in the INP that make up 8% of the freeway frontage:

Analyzing sites via oblique angles is rational and realistically models the way people observe the sites from the freeway. This is why you used it as the basis for modifying the scenic corridor for the majority of the INP.

To withhold these changes from such a small subset of the INP is completely counter to the goal of identifying and building upon opportunities for new development within the Planning area.

Granting this request will allow us to be treated with the same rules as everyone else and allow our site to be analyzed with oblique views for the scenic corridor.

Please consider making rational changes to the scenic corridor policies for the entire INP as staff was directed by City Council last fall.

Thank you for your time,

Doug Giffin
Chamberlin Associates

From: Riley, Stephen [mailto:spriley@cityoflivermore.net]
Sent: Friday, January 12, 2018 3:07 PM
To: Doug Giffin <Doug@chamb.com>; 'Robin Giffin' <rkegiffin@gmail.com>
Cc: McBride, Ashley <asmcbride@cityoflivermore.net>; Vinn, Bob <bgvinn@cityoflivermore.net>
Subject: RE: Isabel Neighborhood Plan and DEIR

Hi Doug and Robin,

I hope all is well and Happy belated New Year. After more analysis and simulations from our consultant Patrick, we determined we still could not support a Scenic Corridor change for your property at this time. I thought you said at our last meeting you could live with the Scenic Corridor standards on the east side of your property. We looked back on the PMC Scenic Corridor Analysis that was done in May 2006 (see attached) and it shows, for example, that you could get a gas station/convenience store with fuel canopies on the far eastern side with height limits that range from 23-35 feet. And then a little further west on your site you could get a building that has a height range of 17-32 feet. We have heard there is a gas station developer interested in your site and would be happy to meet with them to discuss.

As for the west half of your property, unfortunately that is still the side that would have the biggest Scenic Corridor impact. And our direction was to focus our amendments on the Core Area and Portola/East Airway to best support the objectives of the INP. That being said, if you want to pursue a specific height amendment, you can contract directly with Patrick, who has so much baseline information already in his system. We don't have an issue having him work directly with you if he is comfortable doing that. Also, we did add permitted land uses that we discussed last time and reduced the setback from North Canyons Parkway to create a larger building envelope.

B6-1

You should receive an e-mail today that the Draft Plan and EIR is now available for public review. Please look over the Plan carefully and let us know if you have any questions or concerns. Thanks

Steve

From: Doug Giffin [mailto:Doug@chamb.com]
Sent: Tuesday, January 9, 2018 5:07 PM
To: McBride, Ashley <asmcbride@cityoflivermore.net>; 'Robin Giffin' <rkegiffin@gmail.com>; Riley, Stephen <spriley@cityoflivermore.net>
Subject: RE: Isabel Neighborhood Plan and DEIR

Hi Ashley,

So no changes at all? Last time we met, you were planning to lessen restrictions on the east half of the site because it is not visible and to consider a realistic "clothesline" or minimum allowable building height.

Thanks,

Doug

From: McBride, Ashley [mailto:asmcbride@cityoflivermore.net]
Sent: Tuesday, January 9, 2018 4:49 PM
To: 'Robin Giffin' <rkegiffin@gmail.com>; Riley, Stephen <spriley@cityoflivermore.net>; Doug Giffin <Doug@chamb.com>
Subject: RE: Isabel Neighborhood Plan and DEIR

Hi Robin,

Yes, the Draft Plan and EIR will be released together this Friday, January 12. After much review and consideration, we have determined to not include your site as one of the scenic corridor amendment areas proposed in the Plan.

At this time, we only have a tentative date for the EIR Public Hearing which is Tuesday, February 6th. We will continuously update the project website as more meetings and information becomes available: http://www.cityoflivermore.net/citygov/cdd/bart/isabel_neighborhood_plan.htm.

Thanks,

B6-1

Ashley McBride
Assistant Planner
Community Development Department
City of Livermore
(925) 960-4479
www.cityoflivermore.net

From: Robin Giffin [mailto:rkegiffin@gmail.com]
Sent: Monday, January 8, 2018 2:22 PM
To: Riley, Stephen <spriley@cityoflivermore.net>; McBride, Ashley <asmcbride@cityoflivermore.net>; Doug Giffin <Doug@chamb.com>
Subject: Isabel Neighborhood Plan and DEIR

Hi Steve and Ashley,

Any word on when the INP and it's DEIR will be released? Are there any upcoming meetings?

Take Care,
Robin Giffin

*** The City of Livermore's anti-virus application (eSafe) scanned this email for

INTERSTATE STORAGE
RV'S, BOATS & MORE

Stephen Riley
Senior Planner
City of Livermore
1052 S. Livermore Avenue
Livermore, CA 94550

January 22, 2018

Re: Isabel Neighborhood Plan

Dear Mr. Riley,

We are the owners of the Interstate Storage facility located at 1800 Sutter Street in Livermore. Our facility occupies about 10 acres and was completed seven years ago. It is a thriving state of the art facility that provides self-storage, enclosed and covered RV storage, and inventory storage for small businesses in the Livermore community. It is our intention to own and operate this facility for many years.

The site has been included in the Isabel Neighborhood Plan area and unfortunately has been designated for future residential use. Residential will not be appropriate on the site for decades if ever. As a practical matter the level of investment in our facility makes it economically unsuitable for a change of use. Nevertheless making the facility a nonconforming use will do us real harm. It will impact our ability to refinance the property, to rebuild it in the event of loss, and to maintain it and remodel it to remain competitive.

B5-1

The best solution is to simply leave this property out of the planning area. It is on the periphery and will have little impact on the transit oriented housing numbers. Self- storage is entirely compatible with residential use. We generate no noise, have limited traffic impact, and serve the neighborhood. If it is included in the planning area, self-storage and RV storage must remain a conforming use so that the facility can be operated, maintained, remodeled and rebuilt without having to seek a conditional use permit or other approval.

Including our property and indicating future residential use could be viewed by the BART Board as a disingenuous attempt to show density where none will actually be built. The neighborhood plan will be stronger if it recognizes existing uses that will not change for decades. We look forward to working this out with the planning staff before city and regional agency hearings begin. You may contact me at rnahas@rafnah.com or John Steinbuch at John. Steinbuch@Colliers.com.

Cordially,

Ronald C Nahas

cc. John Steinbuch, Yvette Hoyer

1800 Sutter Street • Livermore, CA 94551
Phone (925) 264-8176 • Fax (925) 447-7176

3 Responses to Comments

This chapter includes responses to each comment received during the public comment period, in the same order as presented in Chapter 2. The responses are marked with the same number-letter combination as the comment to which they respond, as shown in the margin of the comment letters.

A. Agencies

A1 Elke Rank, Zone 7 Water Agency

A1-1 The commenter notes that the reference to the location of drainage from Lawrence Livermore National Laboratory (LLNL) in Draft EIR Section 3.9, Hydrology and Water Quality, page 3.9-1 is incorrect. The LLNL drains to the relocated Arroyo las Positas, Line P-1, located along the northern portion of the LLNL, rather than Line P. The error is corrected and included in Chapter 4, Revisions to the Draft EIR.

A1-2 The comment identifies an error in the stated agency responsible for sections of Arroyo Las Positas. The commenter also notes that Zone 7 does indeed have capital improvement plans to modify drainage within Arroyo Las Positas in the Planning Area. The errors are corrected and included in Chapter 4, Revisions to the Draft EIR.

A1-3 The commenter states that additional Zone 7 programs and ordinances, including the Development Impact Fee, Stream Management Master Plan (SMMP), and Groundwater Management, should be included in the Draft EIR. This comment refers to the Regulatory Setting of Draft EIR Section 3.9, Hydrology and Water Quality, beginning on page 3.9-8. These programs and ordinance have been added and included in Chapter 4, Revisions to the Draft EIR.

A1-4 The commenter states that the language on Draft EIR page 3.10-2 be edited. The language has been revised and included in Chapter 4, Revisions to the Draft EIR. The comment also states that language in the proposed Plan should also be edited, which is noted.

A1-5 The commenter identifies a Zone 7 flood control easement in the Planning Area and requests that the land not be designated for commercial uses. Regardless of the land use designation, any development cannot hinder the purpose, intent, and use of the easement for flood control purposes, based on implementation of Policies P-ENV-30 and P-ENV-32. Therefore, this land use designation remains and does not change the environmental analysis in the Draft EIR.

A1-6 The commenter states that BART's corporation yard north of Portola Avenue is not shown in the Draft EIR. The corporation yard is not within the scope of the proposed Plan and is, along with the required track extensions, analyzed in the BART to Livermore EIR. The Draft EIR analyzes the cumulative impacts of the proposed Plan and the BART to Livermore extension project. Therefore, the graphics in the EIR have been revised to show

the tail track alignment through the Planning Area. The graphics do not show the proposed maintenance yard and storage tracks for the extension, which would be located outside the Planning Area.

A1-7 The commenter identifies Zone 7 water supply facilities and easements within the Planning Area and states that work within these areas will require an encroachment permit. The comment is noted.

A1-8 The commenter refers to a previous comment letter on the Draft Water Supply Assessment. The letter and Water Supply Assessment are attached to the Final EIR.

A2 Timothy J. Barry, Livermore Area Recreation & Park District (LARPD)

A2-1 The commenter provides conditions under which LARPD would support the proposed Plan's park sites. The comment would not change the Draft EIR finding that implementation of the proposed Plan would lead to less-than-significant impacts on parks (see Draft EIR Section 3.11, Public Services and Recreation). These conditions have been noted.

A3 Joni Pattillo, Alameda County Local Agency Formation Commission (LAFCO)

A3-1 The comment summarizes LAFCO's understanding of the project and the agency's responsibilities, which are noted. The commenter states that the agency did not receive a copy of Notice of Preparation, which is noted.

A3-2 The commenter requests that references to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 be made in the Final EIR. A description of the Cortese-Knox-Hertzberg Act has been added to Section 3.1, Land Use, of the Draft EIR. This does not change the conclusion in Section 3.14, Agricultural Resources that the conversion of important farmland to a non-agricultural use would result in a significant and unavoidable impact (Impact 3.14-1).

A3-3 The comment states that the Draft EIR's project description should reference LAFCO actions and that LAFCO should be listed as a "Public Agency Whose Approval is Required." Please refer to the text under Responsible and Trustee Agencies in Draft EIR Chapter 1, Introduction, where LAFCO is listed as the agency "responsible for reviewing applications for boundary changes to cities and special districts." The Introduction also states that "LAFCO has review and approval authority over the proposed annexation of a 21-acre parcel currently in unincorporated Alameda County into the City of Livermore." Additionally, Draft EIR Chapter 2, Project Description, includes "annexation and pre-zoning of unincorporated County land" as part of proposed Plan implementation.

A3-4 The commenter suggests including a discussion of Cortese-Knox-Hertzberg factors in the EIR which include agricultural resources, regional housing needs, and the Sustainable Communities Strategy. Agricultural resources are discussed in Draft EIR Section 3.14, Agricultural Resources. Regional housing needs are discussed in Draft EIR Section 3.1,

Land Use, Population, and Housing. Plan Bay Area, the applicable Sustainable Community Strategy for the proposed Plan, is discussed in Draft EIR Section 3.1, Land Use, Population, and Housing, and Section 3.4, Energy, Greenhouse Gases, and Climate Change.

A3-5 The commenter reiterates that the Draft EIR should recognize LAFCO's role as a governmental agency whose approval is required for this project and should include a reference to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (CKH). Responses to Comments A3-2 and A3-3 address these concerns. The commenter also suggests adding LAFCO policies to strengthen the Draft EIR's conclusion on agricultural resource impacts. A description of LAFCO policies has been added to Section 3.1, Land Use of the Draft EIR.

A3-6 The commenter expresses concern that policy P-LU-24 would not be mandatory. All policies and mitigations measures set forth in the Plan and Draft EIR are requirements, unless specifically noted as a guideline or optional. After receiving a complete application for a project, the City of Livermore will evaluate the project's consistency with Plan policies and mitigation measures as part of the development review process. Program-level environmental review allows for subsequent projects to tier from this Program EIR; this means that the project-level analysis of each environmental impact may refer to the Plan's EIR as long as the project complies with the applicable Plan policies and mitigation measures. If a project potentially conflicts with a given policy or mitigation measure, then the City will evaluate whether it would result in a new or more significant environmental impact. If so, the City would prepare an additional environmental document, likely a Mitigated Negative Declaration or Supplemental EIR to analyze the new or more significant environmental impacts. The decision-maker (Community Development Director, Planning Commission, or City Council) must make findings based on City staff's analysis in order to certify the environmental document and approve the project. This process ensures implementation of required policies and mitigation measures.

A3-7 The commenter acknowledges that the Draft EIR includes consideration of regional housing needs, which has been noted.

A3-8 The commenter acknowledges that the Draft EIR includes a discussion of the relationship of the proposed Plan to the regional growth goals and policies and related sustainable communities strategies identified in Plan Bay Area, which has been noted.

A4 Patricia Maurice, California Department of Transportation (Caltrans)

A4-1 The commenter summarizes Caltrans' understanding of the proposed Plan. The description is accurate.

A4-2 The commenter requests that the neighborhood and commercial areas of the Plan be on the side same side of Isabel Avenue. The Plan designates the neighborhood-serving commercial core on the west side of Isabel Avenue to create a focal point for the community and make non-car-trips convenient to the new residents. A small amount of retail is allowed on the BART-owned property east of Isabel Avenue to activate the station area and create a safe, welcoming environment for transit riders. The retail uses would be located

along the "Isabel Path," a pedestrian pathway linking the BART station to the retail center. The proposed land use diagram and transportation network would create a complete, walkable neighborhood that reduces environmental impacts associated with vehicle travel. No revisions to the EIR are necessary.

A4-3 The commenter states that additional measures should be considered in the proposed Plan's Transportation Demand Management (TDM) Program. The Draft Plan currently incorporates most of the suggested measures either by design (i.e., walkability) or directly in the TDM policies in Chapter 3, Transportation. Implementation of these policies would reduce travel-related environmental impacts. Additional measures suggested by Caltrans will be considered during Plan implementation. No revisions to the EIR are necessary.

A4-4 The commenter recommends that the Plan identify development and/or traffic impact fees, consider fair share contributions, use sustainable mode share measures, and include a capital improvement plan. These comments will be considered during the preparation of the detailed Infrastructure Financing Program, building upon the preliminary strategy in Chapter 7 of the Draft Plan. No revisions to the EIR are necessary.

A4-5 The commenter suggests that the Draft EIR be submitted to Metropolitan Transportation Commission (MTC), Association of Bay Area Governments (ABAG), and the Alameda County Transportation Commission. The City of Livermore complied with the State Clearinghouse requirements for the Notice of Completion and Environmental Document Transmittal of draft environmental documents, as well as requirements for the Notice of Availability, pursuant to CEQA. In addition, the City invited these three agencies to provide input on the Plan throughout the process.

A5 Val Menotti, San Francisco Bay Area Rapid Transit District (BART)

A5-1 The commenter appreciates the City of Livermore's willingness to incorporate BART Board-adopted policies and performance measures, and states that the Plan's features closely align with BART's interests and goals, which is noted.

A5-2 The comments discuss parking, station area land use and densities, and pedestrian and bicycle infrastructure. These comments are related to the proposed Plan and do not question the adequacy of the environmental analysis or mitigation measures in the Draft EIR. Some of the comments are on Plan policies that would reduce an environmental impact. While no revisions to the EIR are necessary, staff recommends incorporating the following suggestions into Plan policies:

- Complete sentence on page 3-14 "While the Plan envisions the Isabel Path as an under-crossing running beneath Isabel Avenue, other options for a crossing include a pedestrian bridge at the same location or an at-grade mid-block crosswalk with a signal."
- Added crosswalks to Portola Avenue (Figure 3-13 and Figure 3-14) to the Shea Sage entrances and east leg of Shea Montage/North Canyons Parkway.

Staff will consider the remaining suggestions during Plan implementation and future updates. To address the comments on the Plan and how these Plan policies and features help reduce environmental impacts, staff offers the following responses.

In early stages of Plan implementation, the City will focus on retrofitting existing streets to improve walkability and bike access. The proposed pedestrian/bicycle overpasses and underpasses are longer-term improvements. Staff removed two pedestrian bridges originally considered in the Alternatives phase in order to reduce environmental impacts and infrastructure cost. The crossings identified in the Draft Plan are essential for connectivity across the freeway, major streets, and creeks running through the Planning Area. As noted in the Plan policies, the City will work with BART to determine the best way to cross Isabel Avenue and connect the BART Station to the neighborhood's Main Street. An at-grade crossing will be provided at the intersection of Isabel Avenue and Gateway Avenue. Adding another at-grade crossing to the south of that intersection will be challenging, due to proximity to the Caltrans freeway interchange, although this may still be considered.

The Plan has been revised to emphasize flexibility in site layout to accommodate the desired density levels and height limits (see Policy P-LU-7). Increasing the densities of Transition and Village sites could make development infeasible in the near-term, as the minimum density of the Village designation already exceeds the desired level of property owners and developers. Based on the current market demand by real estate developers, the Transition/Village subareas will encourage partnering with non-profit affordable housing developers to achieve the minimum densities and affordability requirements. The Plan would facilitate development at the lower density ranges early in Plan implementation and allow higher densities closer to when the BART station will open and market demand will be in more alignment. Given the current regional housing shortage and demand for more affordable options, the City believes it is important to encourage market-rate and affordable housing development in the near-term.

The Airway Business Park is almost entirely built out with only two vacant sites that are outside of the half mile radius in the BART station. The property owner has no plans to redevelop any of the sites with the possible exception of the one requiring demolition due to the BART extension right-of-way needs.

The figures in Chapter 5 are meant to represent conceptual site layouts and designs. It is assumed that office development on the BART property would include some below ground or structured parking, which is reflected on the diagrams. A stand-alone parking structure is not envisioned. Office retail and garbage pickup have been considered at a conceptual level, but will need detailed analysis during the development review process.

The Plan includes parking minimums for most land uses, but allows flexibility in parking supply upon request, based on factors such as proximity to the station, TDM measures, and affordability. The minimum ratios for Center and Core housing are consistent with existing parking supply and demand near BART stations in East Alameda and Contra Costa

counties, based on Transform's GreenTRIP parking database. This shows a market-rate apartment next the Dublin/Pleasanton BART station as having an "occupied parking spaces per unit" ratio of 1.22. Three affordable housing developments in Pleasant Hill and Concord have ratios ranging from 0.9 to 1.42. The parking ratios for the Transition/Village designations are incrementally higher because those developments will be farther from the BART station and occur sooner in the Plan's implementation. Until the BART station opens and the neighborhood is fully built out with the mix of retail uses and amenities that can serve daily needs, there will still be demand for some car ownership and car use, especially for non-commute trips. While market-rate housing and office developers have indicated that they would provide the minimum parking regardless of the City making it a requirement, the City must acknowledge the potential for private development to provide insufficient parking and create problems in existing neighborhoods in the near-term.

A5-3 The commenter refers to the parking comments listed previously in the letter in reference to the Enhanced Parking Alternative. The purpose of this Alternative is to analyze the incremental increase in environmental impacts resulting from an additional parking structure that would serve the BART station, as well as retail uses. City Council directed staff to analyze this option. The Plan identifies the southernmost portion of the Retail Center site as a potential parking structure location because of its proximity to the station and retail uses, which create shared parking opportunities. There are relatively few land uses appropriate for that location given the proximity to the freeway. The Plan already includes sufficient land for office and commercial development, based on the market analysis, and most new office uses would be located within a quarter-mile of the station, as BART staff suggests. New housing would be undesirable due to air quality, noise and other public health concerns. A parking structure at this location would not interfere with walking routes between the Innovation Hub and the BART Station East of Isabel, as the proposed Isabel Path and Gateway Avenue would be easily accessible from the office blocks. The comments and suggestions for other parking locations are noted and will be considered during the future analysis of parking demand and supply (Policy P-TRA-26).

A5-4 The commenter expresses a preference for the Car-Light Alternative, which is noted.

A6 Karen Whitestone, East Bay California Native Plant Society

A6-1 The commenter notes that *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* is a key document for designing surveys; it describes methods for conducting field surveys and emphasizes the importance of comprehensive surveys in forming the basis of adequate impact analysis. The comment requests that a citation to this document be added alongside the existing guidance for biological surveying and reporting requirements.

The commenter is referring to Mitigation Measure (MM-) BIO-1 in Draft EIR Section 3.7, Biological Resources. As shown in Chapter 4, Revisions to the Draft EIR, the text has been revised to include this citation, and the reference has been added to Draft EIR Section 6, References.

A6-2 The commenter expresses concern that the phrase "if present in the Planning Area" as stated on Draft EIR page 3.7-27, could allow for lack of detection of special-status plant species due to false negative surveys. The commenter requests that the phrase and similar phrases be revised to require special-status species protection even in locations where they may have been previously documented but not detected in that same year or during a single visit.

As stated on Draft EIR page 3.7-27, "All of these activities would disturb approximately 340 acres of existing suitable habitat for special-status species or the species themselves, if present in the Planning Area during construction activities." This text is intended to describe how protected biological resources could be impacted by construction activities that would occur under the proposed Plan. The location of special-status species, while indicative of suitable habitat and the species occurrence present at the time of the observation, are not protected resources themselves. Several locations where special-status species have previously been documented have experienced changes (e.g., human development, land cover type conversions, altered hydrology), which reduce or, in extreme cases, eliminate the possibility of the protected species from occurring there. Several mitigation measures require that focused survey efforts be conducted to determine (a) if suitable habitat persists and (b) if the species itself is present before an activity under the proposed Plan is carried out to avoid or compensate potential impacts to it. A major component of field preparation for such surveys entails that spatial databases (e.g., California Natural Diversity Database [CNDDB], California Native Plant Society) be queried and their data reviewed to gain insight into when an observation was last made, its status at the time of observation, and current expected persistence before conducting the survey. Compliance with these measures would adequately protect special status plants present in the Planning Area.

A6-3 The commenter requests that the EIR name and describe East Alameda County Conservations Strategy (EACCS) Focal Plant Species with potential to occur in the Planning Area, along with the mitigation ratios referenced for their preservation. The commenter also recommends that the EIR describe avoidance and mitigation specifically for big-scale balsamroot (Balsamorhiza marcrolepis var. marcoleps, 1B.2), Congdon's tarplant (Hemizonia parryi ssp.congdonii, 1B.1), and prostrate vernal pool navarretia (Navarretia prostrata, 1B.1) for the sake of consistency as they are identified in the section.

As described on Draft EIR page 3.7-5, a review of special-status plant species that have a potential to occur in the Planning Area was made using CNDDB and U.S. Fish and Wildlife Service (USFWS) sources. Three species of special-status plants were identified (big-scale balsamroot, Congdon's tarplant, and prostrate vernal pool navarretia) and are shown on Figure 3.7-2 and listed in Table 3.7-2 of the Draft EIR. As shown in Chapter 4, Revisions to the Draft EIR, proposed Plan Policy P-ENV-23 has been revised to include these species and their corresponding mitigation ratios consistent with EACCS.

A6-4 The commenter requests that MM-BIO-1 be revised to include avoidance of rare native plant species where possible and to include compensatory mitigation where avoidance is not possible. The revision is included in Chapter 4, Revisions to the Draft EIR.

A6-5 The commenter notes that the Draft EIR discusses impacts to special-status species during the construction process and requests that the EIR also include guidance for avoiding significant impacts to these species during initial project design. Starting on page 3.7-27 of Section 3.7, Biological Resources, the Draft EIR lists proposed Plan policies that would reduce impacts to special-status species. Many of these policies pertain to the initial design phase of a project, including DS-32, 33, and 80 of the proposed Plan's Urban Design Chapter. These design standards require new development built adjacent to creeks to make provide creek improvements, discourage work within creeks unless required for mitigation, design development to provide access to natural areas while protecting sensitive habitat, and design outdoor lighting in a manner that does not shine directly into or cause any glare for wildlife habitat.

A6-6 The commenter recommends an increase in the area covered by exclusion fencing and erosion control measures according to Policy P-ENV-25. The suggestion is noted. The EACCS recommends a 30 to 100-foot-buffer along creeks. Due to existing development and roadway infrastructure in the Planning Area and their current proximity to stream banks, the 50-foot buffer from the top of bank is appropriate. To reflect this, changes to Policy P-ENV-18 are in Chapter 4, Revisions to the Draft EIR. This revised measure still serves to reduce biological impacts as it is within EACCS guidance.

A6-7 The commenter requests that the EIR address the potential for the rare and locally native species included in the commenter's letter on the Notice of Preparation as well as address other locally rare plant species in the Planning Area and their protection.

As described on Draft EIR page 3.7-5, a review of special-status plant species that have a potential to occur in the Planning Area was conducted using CNDDB and USFWS sources. According to these sources, the locations where special-status species have the potential to occur are shown on Figure 3.7-2 and listed in Table 3.7-2 of the Draft EIR.

The EIR performs a program-level analysis. As described in Draft EIR Chapter 1, Introduction, the EIR analyzes the "potential environmental impacts expected to result from the implementation of the various policies, programs, and projects identified in the proposed Plan." For this reason, Section 3.7, Biological Resources discusses the special-status species that are known to occur or have the potential to occur within the Planning Area in general terms. The EIR is not intended to be the final assessment of special-status species within the Planning Area. As stated on Draft EIR page 3.7-26, "[i]t is assumed that future projects proposed within the Planning Area will conduct project-specific assessments of the potential for impacts to biological resources to occur." Therefore, no further response is necessary.

A6-8 The commenter notes that alkaline and sandy soils may be present in the Planning Area and recommends that soil surveys and conservation measures for these soil types be included in the EIR.

Soil surveys pertaining to special-status species are required as part of MM-BIO-1. As described on Draft EIR page 3.7-30, "[i]f a protocol-level botanical survey reveals the presence of special-status plant species in the Planning Area, all directly affected areas of

special-status plants will be documented.… Documentation will include density and percent cover; key habitat characteristics, including soil type...."

B. Organizations

B1 Tom Siewert; Terrence J. Rose, Inc.

B1-1 The commenter expresses a preference to not change parking ratios in the Livermore Airway Business Park. The comments are related to proposed Plan contents and not the environmental analysis conducted in the Draft EIR. However, the Plan has been revised to reflect the requested changes.

B2 Gordon D. Jacoby; Livermore Venture Partners, L.P. (LVP)

B2-1 The commenter provides background on the property's history including its relationship with Las Positas College and requests for annexation.

B2-2 The commenter requests the property be included in the Isabel Neighborhood Specific Plan with a residential zoning. This comment is related to proposed Plan contents and not the environmental analysis conducted in the Draft EIR. The Planning Area is entirely within the Urban Growth Boundary for North Livermore. The Plan does not need to go beyond the Urban Growth Boundary to meet its objectives, BART requirements, or Housing Element goals. Therefore, the Planning Area was not amended to include the subject property. No further response is necessary.

B2-3 The comment reiterates the request to include the property in the Planning Area. See response to Comment B2-2. The commenter also requests an explanation for why the Draft EIR does not discuss ABAG/MTC guidelines on affordable housing. Consistency with Plan Bay Area and MTC goals and policies is discussed in Draft EIR Sections 3.1, Land Use, Population, and Housing and 3.4, Energy, Greenhouse Gases, and Climate Change. Draft EIR Section 3.1 also discusses the proposed Plan's consistency with BART's Affordable Housing Policy. The housing needs overview in the Plan's Affordable Housing Strategy (Chapter 2) is based on the needs assessment 2015-2022 Housing Element.

B2-4 The commenter requests an explanation as to why the Plan boundaries cannot be amended. This comment is related to proposed Plan contents and not the environmental analysis conducted in the Draft EIR. The City designated the Isabel Priority Development Area (PDA) boundaries in 2011, and the PDA boundary corresponds to the Planning Area analyzed in the EIR.

B2-5 The commenter suggests the inclusion of climate change-related regulatory settings and impact analyses in Draft EIR Sections 0, Executive Summary; 1, Introduction, 2, Project Description; and 3.1, Land Use, Population, and Housing. These settings and analyses can be found in Draft EIR Section 3.4, Energy, Greenhouse Gases, and Climate Change. This section is referenced in other related chapters to avoid repetition and redundancy in the EIR. Additionally, Senate Bill 375 (SB 375) is referenced in the Regulatory Setting of Draft

EIR Section 3.1, Land Use, Population, and Housing. In this same section, the proposed Plan's consistency with SB 375 is discussed under Impact 3.1-2.

The commenter also suggests elaboration on how the proposed Plan meets Objective #9 "to position the BART to Livermore extension project to qualify and compete for regional transportation funds". MTC allocates regional transportation funds through Plan Bay Area. Before consideration for project funding can occur, the BART Board of Directors must approve the BART to Livermore extension project, which requires adoption of a ridership development plan (i.e., the Isabel Neighborhood Specific Plan). As part of their decision-making process, BART and MTC will consider the Plan's abilities to generate transit ridership and support BART policies and Plan Bay Area goals, respectively. Consistency with these regional plans and policies are discussed in the EIR. The comment has been noted and no further response is necessary.

B2-6 The commenter suggests that the importance of MTC be included in the EIR. The importance of MTC to the proposed Plan is discussed under "Plan Bay Area" in Draft EIR Chapter 1, Introduction. A proposed Plan objective listed in Draft EIR Chapter 2, Project Description is "Meet or exceed the minimum housing threshold for MTC policy." Consistency with Plan Bay Area and MTC goals and policies is discussed in Draft EIR Sections 3.1, Land Use, Population, and Housing and 3.4, Energy, Greenhouse Gases, and Climate Change. In addition, MTC has been added as a Responsible Agency for this Plan. This revision can be found in Chapter 4, Revisions to the Draft EIR.

B2-7 The comment requests an explanation of the importance of Assembly Bill 32 (AB 32) and affordable housing to the proposed Plan. AB 32 is discussed in Draft EIR Section 3.4, Energy, Greenhouse Gases, and Climate Change, and affordable housing is discussed in Draft EIR Section 3.1, Land Use, Population, and Housing. The comment also requests an explanation of the use of cap-and-trade funds in the context of the proposed Plan. This is unrelated to the environmental analysis Draft EIR required under CEQA and no further response is necessary.

B2-8 The comment states that the discussion of BART's Affordable Housing Policy should be linked to Regional Housing Needs Assessment (RHNA) needs. Draft EIR Section 3.1, Land Use, Population, and Housing analyzes the proposed Plan's consistency with BART policies under Impact 3.1-2. The Draft EIR analyzes, pursuant to CEQA, the proposed Plan's consistency with the City's General Plan (including its Housing Element, which addresses RHNA). As discussed in the Draft EIR under Impact 3.2-1, "[b]y creating a high-intensity neighborhood with a variety of land uses near a BART station, the project would help implement existing General Plan goals to promote multi-modal transportation and create high-intensity mixed-use development near transit." Under CEQA, for the proposed Plan to have a significant impact related to consistency with the City's General Plan in terms of housing, it would have to take away from the City's ability to fulfill its housing needs, which the EIR analysis does not find to be the case.

The City's updated Housing Element (2015-22) demonstrates that there are sufficient residentially zoned sites in Livermore to accommodate the city's RHNA of about 2,700 units. The inventory of residential lands does not include new housing under the proposed

Plan or any other potential BART station planning area. The State Housing and Community Development Department (HCD) certified the City's Housing Element as being consistent with state law. As development of available sites progresses, the City will need to identify additional suitable sites to meet RHNA targets, and future Housing Element updates may need to include the proposed Plan.

B2-9 The commenter asks why the Draft EIR does not discuss the 2017 changes to Plan Bay Area. The Draft EIR describes Plan Bay Area in Section 3.1, Land Use, Population, and Housing, and Section 3.4, Energy, Greenhouse Gases, and Climate Change, and the descriptions are current as of January 2018. Additionally, the commenter suggests preparation of a preliminary Performance Assessment to assist BART and the City of Livermore in adjusting the proposed Plan. While this is outside the scope of the EIR, the comment is noted.

B2-10 The commenter requests an explanation of why CEQA Guidelines' placing less emphasis on economic and social effects do not apply in the DEIR. The comment also requests an explanation for why financial and economic analyses are adequate in validating the adequacy of the Plan in implementing affordable housing. The DEIR does not conduct financial or economic analyses but considers environmental factors appropriate to each impact topic to reach environmental impact conclusions.

The comment also states that affordable housing have been determined to impact greenhouse gas emissions, air quality, energy use, and transportation. Modeling (emissions, traffic, or energy use) for the energy and greenhouse gas, air quality, and transportation analyses were conducted based on the overall residential and nonresidential buildout. The tools used for the modeling in this Draft EIR do not involve separate inputs for affordable housing. Page 3.4-33 in DEIR Section 3.4, Energy, Greenhouse Gases, and Climate Change has been revised to clarify that affordable housing is a qualitative factor that would decrease GHG emissions (with references - attached), but was not explicitly reflected in the emission estimate. Since the proposed Project includes a 20 percent affordability requirement, it does not need to be listed in mitigation measure MM-GHG-1 (see Chapter 4, Revisions to the EIR). The transportation and air quality analyses (DEIR Sections 3.2 and 3.3, respectively) do not require an analysis of affordable housing to reach environmental impact conclusions, and no revisions are necessary.

B2-11 The commenter requests an explanation for the role of MTC/ABAG Guidelines in the EIR. Consistency with relevant Plan Bay Area and MTC goals and policies is discussed at a program level in Draft EIR Sections 3.1, Land Use, Population, and Housing and 3.4, Energy, Greenhouse Gases, and Climate Change. Refer to the response to Comment B2-3 and B2-8.

B2-12 The commenter expresses a preference for greater use of suggestions provided by the East Bay Housing Organization (EBHO) in the proposed Plan, which is noted. This comment refers to the proposed Plan and no further response is necessary.

B2-13 The commenter states that the City's Housing Element is not sufficient to meet the city's RHNA. Refer to the response to Comment B2-8.

B2-14 The commenter requests an update to the City's Housing Element. While this is outside the scope of the Plan and EIR, the comment is noted.

B2-15 The commenter requests information about whether market rate rental projects have provided low or very-low income rental units. Providing a history of affordable housing is not within the scope of the Plan and EIR, and no further response is necessary.

B2-16 The commenter requests an update to the city's RHNA inventory. This is outside the scope of the Plan and EIR.

B2-17 The commenter requests the property be included in the Isabel Neighborhood Specific Plan with a residential zoning. See response to Comment B2-2.

B2-18 The commenter provides information on the potential environmental impacts of including the LVP development site in the Planning Area and requests that the EIR include this information. As the EIR is only intended to analyze the effects of the proposed Plan, this request is outside the scope of this EIR.

B3 Janet Laurain, Livermore Residents for Responsible Development

B3-1 The commenter requests mailed notice of environmental review documents, hearings and/or actions related to the proposed Plan. The comment is noted.

B4 Richard J. Grant, Livermore Condor Fund LLC

B4-1 The commenter states that increasing the City's inclusionary housing requirement would create economic hardship and suggests finding developers who can finance 100 percent below-market-rate housing. The comment does not address the environmental analysis conducted in the Draft EIR. The comment has been noted and no further response is necessary.

B4-2 The comment states that requiring three product types on small parcels with lower densities, such as Transition and Village parcels, would lead to economic deterrents to residential development. While the comment does not address the environmental analysis conducted in the Draft EIR, Policy P-LU-29 has since been revised and is included in Chapter 4, Revisions to the Draft EIR.

B4-3 The commenter reiterates that increasing the City's inclusionary housing requirement would result in economic hardship. See response to Comment B4-1.

B4-4 The commenter suggests clarification for Policy P-LU-38. While the comment does not address the environmental analysis conducted in the Draft EIR, Policy P-LU-38 has since been revised and is included in Chapter 4, Revisions to the Draft EIR.

B4-5 The commenter asserts that the EACCS was developed for mitigation on agricultural lands in unincorporated areas in the Tri-Valley area and should not apply to the proposed Plan.

As described on Draft EIR page 3.7-23, the EACCS is designed to convey the project-level permitting and environmental compliance requirements of the Endangered Species Act, California Endangered Species Act, CEQA, National Environmental Protection Act, and other applicable laws for all projects within the designated study area. The Planning Area falls within Conservation Zone 2 (CZ-2) of the EACCS study area. While CZ-2 encompasses 37,066 acres of largely urbanized Livermore Valley, it also contains portions of Arroyo Seco, Arroyo Las Positas, Arroyo Mocho, Arroyo Valle, and Arroyo de la Laguna. All future development within the Planning Area, regardless of the type of land cover of the specific project site, would be required to comply with the EACCS, as required by P-ENV-23. No revisions to the Draft EIR are necessary.

B4-6 The comment states that Policy P-PF-15 designates a 50-foot buffer along each side of the natural creeks and Policy P-ENV-18 requires a 100-foot buffer from the top of bank. The commenter asserts that the 100-foot buffer on both sides of the creek is excessive and believes that the 50-foot buffer is more appropriate.

This comment refers to proposed Plan Policy P-PF-15, which "designate[s] a 50-foot buffer along each side of natural (non-channelized) creeks," and Policy P-ENV-18, which "establish[es] a minimum 100-foot buffer from all creek edges." The EACCS recommends a 30 to 100-foot-buffer along creeks. Due to existing development and roadway infrastructure in the Planning Area and their current proximity to stream banks, the 50-foot buffer from the top of bank is appropriate. To reflect this, changes to Policy P-ENV-18 are in Chapter 4, Revisions to the Draft EIR. This revised measure still serves to reduce biological impacts as it is within EACCS guidance.

B4-7 The comments are related to proposed Plan contents and not the environmental analysis conducted in the Draft EIR. The comments have been noted.

B5 Ronald C. Nahas, Interstate Storage

B5-1 The commenter expresses a preference to leave the parcel containing Interstate Storage outside of the Planning Area because the Plan would make self-storage a legal non-conforming use. This comment is related to proposed Plan contents and not the environmental analysis conducted in the Draft EIR. The comment has been noted.

B6 Doug Giffin, Chamberlin Associates

B6-1 The commenter expresses concern about the effect of the City's Scenic Corridor regulations on their property. This comment is related to proposed Plan contents and not the environmental analysis conducted in the Draft EIR. The comment has been noted.

B7 Mark Pleis, Chris Stockhaus, and Miriam Chu; Cornerstone Fellowship of Livermore and Chu Family

B7-1 The commenter expresses concerns over the requirement that conventional, or full, BART be approved in order for the proposed Plan be approved. In addition, the commenter expresses concerns regarding the proposed phasing plan, configuration of residential land

use designations on their property, and the open space land use designation on their property. These comments are related to proposed Plan contents and not the environmental analysis conducted in the Draft EIR. The comments have been noted and no further response is necessary.

B7-2 The commenter expresses safety concerns over the Gateway Avenue. Hazards related to the circulation network are addressed under Impact 3.2-4. As the extension of Gateway Avenue is aligned with parcel lines, safety impacts would be minimal. Refer to response B7-1 for Staff's recommendation for Gateway Avenue.

B8 Amara L. Morrison; Wendel, Rosen, Black & Dean LLP

B8-1 The commenter notes that the proposed Plan will allow for greater intensity of development, requests for 3055 Comcast drive to be identified as a Change Area, and requests that the APA be modified to exclude the subject property. These comments are not related to the environmental analysis.

B9 Alexander L. Merritt, Sheppard, Mullin, Richter & Hampton LLP

B9-1 The commenter writes on behalf of Chamberlin Associates and states that, while they support the proposed Plan's objectives, they have concerns about the proposed Plan and Draft EIR, which is noted.

B9-2 The comments are related to proposed Plan contents and not the environmental analysis conducted in the Draft EIR. The comments have been noted.

B9-3 The commenter states that the development assumptions presented in the Draft EIR are inconsistent. The commenter states that the Draft EIR assumes that 3,535 residential units will be constructed within a half-mile radius of the proposed BART station on Draft EIR page 2-16, which is correct. The commenter states that this number is inconsistent with the 4,073 new units assumed within a half-mile radius of the proposed BART station on Draft EIR page 3.1-17. As stated on Draft EIR page 3.1-17, the latter figure includes existing housing and considers a 50 percent density bonus for 15 percent of units assumed to be affordable in order to make a comparison to MTC's Transit Oriented Development (TOD) policy.

B9-4 The commenter states that the affordable housing requirements presented in the Draft EIR are inconsistent. The commenter notes that the Draft EIR states that 15 percent of new residential units will be affordable on Draft EIR page 3.1-17, but indicates a 20 percent affordable housing requirement in other sections of the Draft EIR. The proposed Plan will increase the affordable housing requirement from 15 to 20 percent on a project-by-project basis. However, the analysis on page 3.1-17 includes existing housing and, for the sake of comparing a housing projection to a housing minimum set by MTC TOD policy, uses a conservative assumption of the current affordable housing requirement—15 percent—when estimating whether the minimum would be met under the proposed Plan. To clarify this assumption, revisions are included to page 3.1-17 in Chapter 4, Revisions to the Draft EIR.

B9-5 The commenter expresses concern that policies in the proposed Plan are not mandatory and therefore, there is no guarantee that these policies would reduce the significance of environmental impacts. Refer to Response A3-6.

In addition, the commenter states that the Draft EIR does not explain how the proposed policies reduce impacts to a less-than-significant level and fails to describe the role of mitigation measures and policies. Under Section 15126.4 of the CEQA guidelines, the EIR must identify measures that will reduce/avoid impacts. *North Coast Rivers Alliance v. Marin Mun. Water Dist.* (2013) 216 Cal. App. 4th 614. 647 speaks to the level of specificity required, finding that a mitigation plan is sufficient if it identifies methods that will be used to mitigate the impact and sets out standards that the agency commits to meet. To clarify the role of mitigation measures and policies, revisions to page 1-2 can be found in Chapter 4, Revisions to the Draft EIR.

B9-6 The commenter expresses concern that proposed Plan Policy P-TRA-35 is unenforceable, which is noted. The policy can be enforced through execution of shared parking agreements with property owners during the entitlement process for proposed development projects in the Planning Area. As Policy P-TRA-35 has since been edited, revisions are shown in Chapter 4, Revisions to the Draft EIR.

B9-7 The commenter disagrees with the significance determination for Impact 3.1-3, stating that the proposed Plan would lead to population growth. As discussed in greater detail under Impact 3.1-3, the analysis of growth inducement is based on anticipated growth under the City's General Plan. Projects that would induce growth beyond levels established in the General Plan could have a significant impact under this criterion. The Plan's maximum development levels (shown in Table 2-3 of the EIR) is within the General Plan's remaining capacity, when shifting the capacity associated with a BART station from the Greenville Road TOD to the Isabel Neighborhood.

In addition, projects that extend infrastructure to areas not planned for growth could be considered a significant impact. The Planning area is within the Urban Growth Boundary for North Livermore and is already served by major streets and other infrastructure. The Plan facilitates infill development and redevelopment of underutilized properties. Therefore, while the proposed Plan would lead to population growth, it would not lead to a significant and unavoidable impact related to population growth inducement.

B9-8 The commenter states that MM-AQ-3, included in Draft EIR Section 3.3, Air Quality, is not fully enforceable. The commenter notes a number of future contingencies that might, if they occurred, result in emissions not being offset if there are no remedial measures taken by the City. BAAQMD has determined that offsite mitigation programs are a feasible mitigation measure under CEQA for construction emissions and have provided guidance for these programs.[1] In its 2012 guidance, BAAQMD identifies that funding could be provided to a lead agency or to the Air District. MM-AQ-3 includes payment to the Bay

[1] Bay Area Air Quality Management District. 2012. Guidance for Lead Agencies to develop an Offsite Mitigation Program. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/offsite-mitigation-guidance-may-2012.pdf

Area Clean Air Foundation, which was founded in 2008 and funds programs to reduce emissions in the Bay Area.

To ensure that the offset mitigation would actually occur, MM-AQ-3 has been edited, as shown in Chapter 4, Revisions to the Draft EIR, to address the possibility that BAAQMD will not be able to use the fees to actually offset emissions. Although mitigation through fees submitted to BAAQMD is feasible, just in case, the measure has been revised to require the City to use the mitigation fees to offset construction emissions over the BAAQMD thresholds in the event that arrangements cannot be made with BAAQMD. The City could use the funds to support replacement or upgrades of City equipment, by electric or alternatively fueled vehicles, or construction equipment, or other measures as noted in the revised measures.

B9-9 The commenter expresses concern that MM-GHG-1, which is proposed to reduce impacts related to greenhouse gas emissions associated with the Proposed Plan, and notes that the Draft EIR does not adequately explain how the mitigation measure and, in particular, the provision of affordable housing will reduce greenhouse gas emissions. The comment also notes that the requirement included as part of MM-GHG-1 that future development provide a minimum of 20 percent affordable housing is contradicted by other sections of the Draft EIR. Refer to response B2-10.

B9-10 The comment expresses concern that proposed Plan Policy P-TRA-24 is unenforceable, which is noted. The comment incorrectly states that the significance determination for Impact 3.4-1 relies entirely on Policy P-TRA-24. Rather, this significance determination relies on many proposed Plan features and policies, which are discussed under Impact 3.4-1 in Draft EIR Section 3.4, Energy, Greenhouse Gases, and Climate Change. As Policy P-TRA-24 has since been edited, revisions are shown in Chapter 4, Revisions to the Draft EIR. Revisions to this policy do not change the conclusion for Impact 3.4-1.

B9-11 See response to Comments B9-9 and B9-10.

B9-12 The commenter expresses concern that the Draft EIR concludes no mitigation measures are required for Impact 3.5-1 in Draft EIR Section 3.5, Aesthetics. This statement has been corrected as shown in Chapter 4, Revisions to the Draft EIR.

B9-13 The commenter states that the impact conclusions related to scenic resources and visual character and quality (Impacts 3.5-2 and 3.5-3, respectively) should conclude with the same significant and unavoidable impact determination made related to scenic vistas (Impact 3.5-1). However, these impacts cover different aesthetics-related issues and are based on three separate significance criteria (Refer to Criteria 1 through 3 on Draft EIR page 3.5-8) originating from Appendix G of the CEQA Guidelines. For a more detailed analysis on the different issues, see the analyses conducted under Impacts 3.5-2 and 3.5-3.

B9-14 The commenter states that Draft EIR Section 3.7, Biological Resources inaccurately characterizes the biological resources on the Airway Property and requests changes to the impact analysis and mitigation measures. The commenter provides a Biological Constraints Analysis and Wetland Assessment prepared by WRA Environmental

Consultants for the Airway Property (WRA Report) and states that the report confirms that the property does not provide habitat for western burrowing owl or California tiger salamander. The commenter adds that the vegetation on the property should be classified as "developed ruderal" rather than "grassland."

Draft EIR Section 3.7, Biological Resources describes the potential for special-status species to occur within the Planning Area; however, the Draft EIR does not make any specific claim for the presence of these species within the Airway Property. As described in Chapter 1, Introduction, the Draft EIR analyzes the "potential environmental impacts expected to result from the implementation of the various policies, programs, and projects identified in the proposed Plan," and does not assess the impacts of any specific project occurring on the Airway Property. Draft EIR pages 3.7-8 to 3.7-15, discuss in general terms the special-status species that are known to occur or have the potential to occur within the Planning Area. No specific assertions are made regarding the current presence or absence of these species on the Airway Property. As stated on page 3.7-26 of the Draft EIR, "[i]t is assumed that future projects proposed within the Planning Area will conduct project-specific assessments of the potential for impacts to biological resources to occur. Such specific projects would be expected to adopt the mitigation measures proposed herein, as needed, and/or proposed project-specific mitigation to avoid or reduce impacts to biological resources." To the extent that the site specific Biological Constraints Analysis and Wetland Assessment prepared for the Airway Property has found that neither the western burrowing owl nor the California tiger salamander, or habitat for these species, are present on the property, then the CEQA analysis associated with development on this site could conclude that that there is no impact to these species, and that mitigation would not be required.

In addition, the commenter requests the Airway Property be described as "developed ruderal." Draft EIR Figure 3.7-1, Land Cover and Habitats describes the Airway Property as "Annual Grassland," and proposed Plan Figure 6-2, Habitats and Biological Resources describes the Airway Property as "Undeveloped Grassland." The WRA Report identifies the property as "non-native Annual Grassland" and as "comprised of ruderal grassland, landscaped, and developed areas." These variations in nomenclature do not represent a substantive difference in land cover type. As stated on Draft EIR page 3.7-3, "[b]ecause of the highly variable nature of ruderal habitats, this type was not classified according to Sawyer et al. (2009) or Holland (1986). Ruderal areas may be similar to California annual grassland but are characterized by a greater level of disturbance." Therefore, no change is required.

B9-15 The commenter requests the Airway Property be described as "ruderal." See response to Comment B9-14.

B9-16 The commenter states that proposed Plan Figure 6-2, Habitats and Biological Resources incorrectly designates portions of the Airway Property as "California Tiger Salamander Habitat" and "Undeveloped Grassland" and asks that the designations be removed. Proposed Plan Figure 6-2 shows a small portion of the Airway Property as being within a zone of California Tiger Salamander (CTS) Habitat. These mapping shapes are derived from the CNDDB which keeps an inventory of the status and locations of rare plants and

animals in California. As noted in the WRA Report the commenter supplied, 2 adult California tiger salamanders were observed adjacent to the Study Area in 1992. This occurrence likely accounts for the portion of the property showing CTS habitat. No change is required. Refer to response to Comment B9-14, for a response to the "Undeveloped Grassland" designation.

B9-17 The commenter states that the Draft EIR requires the Airway Property to provide compensatory habitat mitigation and other mitigation measures for species the commenter maintains have no potential or are unlikely to occur on the Airway Property. The comment asks that the City remove "the erroneous habitat designations" from the Airway Property and asks that the City "expressly clarify that policies and mitigation measures" shall not apply to the Airway Property or other sites that lack special-status species or their habitats. The commenter states that pages 3.7-8 to 3.7-15 of the Draft EIR indicate that special-status plants and wildlife have the potential to occur on the Airway Property and argues that the WRA Report confirms that these species do not occur on the property.

The commenter is correct that the Draft EIR describes the potential for special-status species to occur within the vegetation communities described; however, the commenter is incorrect in asserting that the Draft EIR makes any specific claim for the presence of these species within the Airway Property. As described in Draft EIR Chapter 1, Introduction, the Draft EIR analyzes the "potential environmental impacts expected to result from the implementation of the various policies, programs, and projects identified in the proposed Plan," not any specific project occurring on this property. Draft EIR pages 3.7-8 to 3.7-15, discuss in general terms special-status species known to occur or have the potential to occur within the Planning Area. No specific descriptions or assertions are made regarding the current presence or absence of these species on the Airway Property. As stated on Draft EIR page 3.7-26, "[i]t is assumed that future projects proposed within the Planning Area will conduct project-specific assessments of the potential for impacts to biological resources to occur. Such specific project would be expected to adopt the mitigation measures proposed herein, as needed, and/or proposed project-specific mitigation to avoid or reduce impacts to biological resources."

The commenter is correct that future projects, including any proposed development on the Airway Property, would be subject to proposed Plan Policies P-ENV-21 and P-ENV-23. P-ENV-21 merely requires that new proposed development within the Planning Area inventory sensitive resources and develop adequate measures to avoid or mitigate impacts for any parcel that may include special-status species habitat with a moderate or greater potential to occur in the Planning Area. The potential for such habitat to occur would be determined on a site-specific basis. All future development within the Planning Area, regardless of the type of land cover of the specific project site, would be required to comply with the East Alameda County Conservation Strategy, as required by P-ENV-23. Regarding the applicability of MM-BIO-3, BIO-6, and BIO-8 to the Airway Property, these measures are applicable to all future development within the Planning Area, regardless of the type of land cover of the specific site. Therefore, no change is required.

B9-18 The commenter states that Draft EIR Figure 3.7-1, Land Cover and Habitats is inconsistent with proposed Plan Figure 1-3, Existing Land Uses.

The commenter is incorrect in drawing equivalents between Draft EIR Figure 3.7-1 and proposed Plan Figure 1-3. Figure 3.7-1 shows the vegetation communities (such as annual grassland, cropland, wetlands, etc.) appearing in the Planning Area for the purposes of analyzing the potential occurrence of wildlife species. Figure 1-3 of the proposed Plan shows existing land uses (Single Family Residential, Office, etc.) in order to show the range of land uses in the Planning Area. Land uses and vegetation communities are not comparable criteria. Therefore, no change is required.

B9-19 The commenter expresses concern about the safety impacts of modifying the Airport Protection Area (APA) and requests that they be analyzed. The City of Livermore designated the APA in 1991 to encourage noise-compatible land uses in the vicinity of the Livermore Municipal Airport. The Airport Land Use Compatibility Plan (ALUCP), adopted by Alameda County in 2012, provides more detailed guidance on land use compatibility factors such as noise, safety, airspace, and overflight annoyance, based on current federal and state aviation standards. The ALUCP incorporates the City's APA policy, although Section 3.3.2.6 states: "Should the City of Livermore, after adoption of this ALUCP, modify City of Livermore Resolution 192-91, which establishes the APA, or adopt a new Resolution, the Airport Land Use Commission shall acknowledge the modification of the APA for purposes of transit-oriented residential development around the future Isabel/I-580 BART station in subsequent land use reviews, and shall revise this policy at the earliest possible date as provided by state law." The proposed Plan is determined to be consistent with the ALUCP provisions, as discussed in greater detail under Impact 3.8-5 in Section 3.8, Hazards and Hazardous Materials.

In addition, the commenter states that the proposed Plan may change flight patterns. The commenter states that the proposed Plan may change flight patterns with regard to introducing new residential uses into the Livermore Municipal Airport (LVK) environs.

As part of the Isabel Neighborhood Plan planning process, the City of Livermore conducted an assessment of the Plan's land use diagram against the Airport Land Use Compatibility Plan (ALUCP). The assessment analyzed impacts to noise, safety, airspace protection, and overflight annoyance, and found that the Plan is consistent with these four criteria. To increase residence awareness of their proximity to the airport and reduce the potential for noise complaints resulting from overflight annoyance, the Plan proposes policies that require extra airport proximity disclosures and notifications to future residents in the Airport Influence Area. The claim that the project would result in excessive complaints from residents such that the City may close the airport is highly speculative and is not supported by the environmental analysis.

The City does not have the authority to address or act upon aircraft in flight, but it must establish flight patterns per federal regulations. Flight patterns provide typical paths for take-offs and landings depending on wind direction, aircraft type, and other factors. The established flight patterns for LVK are based on FAA regulations and pilot discretion. Currently, changes to flight patterns occur regardless of land use, typically when the Air Traffic Control changes the instrument flight rule arrival and departure routes. Often times, changes in one airport's routing result in an impact to another airport's routing, causing the latter airport's routes to shift. For example, a change at Oakland International

Airport could affect LVK. In practice, flight paths may deviate from established patterns when the Air Traffic Controller must route aircraft different ways to provide adequate separation between aircrafts. In addition to the established flight patterns, the City posts an "LVK Pilot Information Guide" on the website here: http://www.cityoflivermore.net/citygov/pw/public_works_divisions/airport/services/noise.htm. The guide requests that pilots avoid flying directly over residential areas, safety permitting, and follow the Voluntary Restraint From Night Flying policy (10PM – 6AM). The night flying policy and LVK Pilot Information Guide are voluntary in nature, as the City does not have authority to regulate these activities.

With the City's voluntary Pilot Guide and the potential that some pilots may avoid flying over new residential development, implementation of the Plan could indirectly change typical flight patterns compared to existing conditions. For example, some pilots could fly farther south or north. However, the take-offs and landing approaches would not change and the project does not propose any elements that would affect the established flight patterns for LVK, as the Plan is consistent with the ALUCP and federal aviation regulations on height and safety. Flight patterns would be similar to the flight patterns experienced today and those allowed under local policy and federal law. Therefore, the impact on flight patterns would be less than significant. No new mitigation measures are required. The Draft EIR analysis has been revised as shown in Chapter 4, Revisions to the Draft EIR.

B9-20 The commenter states that the less-than-significant impact determination for the construction of a new police substation is not supported by any evidence. On Draft EIR page 3.11-14 of Section 3.11, Public Services and Recreation, it is discussed that "[t]he small substation could be incorporated within an existing or new fire station or other public/commercial building." Otherwise, "[t]he Police Department would coordinate with BART and the Fire Department to determine the appropriate location and design for the police facility, as the Plan is implemented." For this program-level analysis, the location of the police substation has not been chosen, but its construction would undergo environmental review and would be subject to the same policies and regulations as any other construction in the Planning Area. Environmental analysis for any individual development is not within the scope of this program-level EIR. Impacts resulting from an individual development will be identified at the time development is proposed, when relevant details have been determined.

B9-21 The commenter expresses concern that the Draft EIR defers analysis of the demand for fire services. As discussed on Draft EIR page 3.11-13, the nearby Livermore-Pleasanton Fire Department (LPFD) has facilities provide sufficient coverage for new development in the Planning Area. The Draft EIR analysis has been revised as shown in Chapter 4, Revisions to the Draft EIR to clarify that the analysis accounts for future demand for fire services.

B10 Linda C. Klein; Cox, Castle & Nicholson LLP

B10-1 The comment expresses concern about the safety impacts of modifying the APA. See response to Comment B9-19.

C. Individuals

C1 John Stein

C1-1 The comment expresses concern about the safety impacts of modifying the APA. See response to Comment B9-19.

C2 William Smith

C2-1 The commenter states that the proposed Plan would not meet the city's RHNA. See response to Comment B2-8. The commenter states that there should be more affordable housing and more housing overall, which is noted.

C2-2 The commenter states that the proposed Plan creates too many jobs and not enough housing, and that the proposed Plan will lead to an increase in housing prices. Of the potential impacts assessed in the EIR, these concerns are most relevant to Impact 3.1-4. This analysis concluded that the implementation of the proposed Plan would not result in the displacement of substantial numbers of existing population and housing, necessitating the construction of replacement housing elsewhere. No further response is necessary.

The Plan would rezone approximately 113 acres from commercial/industrial to residential, and allow more intense use of the remaining non-residential land, particularly on office sites close to the BART station. The intent of the Plan is to create a complete neighborhood that maintains a balance of jobs and housing and takes full advantage of the regional transit access.

The Plan would allow development based on the phasing program, linked to the provision of regional transit that will serve the new development. Development of new residential, office, or retail uses must be initiated by private property owners, as the City cannot mandate construction on privately-owned land. The market analysis projects that housing will continue to be in highest demand and will develop in earlier phases of Plan implementation, while office is a longer-term opportunity. Development of retail uses will also rely on much of the new housing to be built before it becomes viable.

The Plan calls for a range of attached housing products to add supply and diversity to Livermore's housing stock. These housing types are more affordable by design than single-family detached residences, which make up the majority of housing in Livermore today. The Plan also establishes a realistic yet ambitious goal for 25 percent of the new housing to be subsidized at below-market rates. This goal would be achieved through a combination of a 20% inclusionary requirement and nonprofit Housing Development, as described in the Plan's Affordable Housing Strategy (Chapter 2). The next phase of planning will include a detailed analysis of the affordable housing policies and will establish the specific income targets under the 20 percent inclusionary requirement.

C2-3 The commenter states that the proposed Plan would not meet the city's RHNA. See response to Comment B2-8.

C2-4 The commenter expresses concerns over construction phasing in the proposed Plan. This comment is related to proposed Plan contents and not the environmental analysis conducted pursuant to CEQA. The comment has been noted.

C2-5 The commenter states that the Draft EIR failed to identify or adequately discuss how the proposed Plan fails to fully and equitably meet its objectives, and that the Final EIR should discuss mitigation measures for the objectives the proposed Plan fails to meet or document its failures. The EIR is intended to analyze environmental topics based on significance criteria identified by Appendix G of the CEQA Guidelines. Analysis of the degree to which a proposed project meets objectives not outlined in the significance criteria is not within the scope of this EIR. Mitigation measures are required only where they would minimize significant adverse impacts identified by the EIR analysis (CEQA Guidelines Section 15126.4). Therefore, no revisions are necessary. Additionally, the comment expresses that the proposed Plan should include more housing. The response to Comment B2-8 addresses this concern.

C2-6 See response to Comment C2-4.

C2-7 The commenter expresses concern that the Draft EIR does not detail the proposed Plan's approach to finance affordable housing in the Planning Area. The Plan includes an Affordable Housing Strategy that identifies several policies other than the inclusionary requirement for meeting the Plan's 25 percent affordability goal. Partnering with non-profit developers to build standalone and mixed income projects is critical to this strategy. More detailed financial analysis will occur at the next stage of planning. The EIR adequately analyzes the proposed policies at a program level. The comment also expresses that the proposed Plan should include more housing. Response to Comment B2-8 addresses this concern.

C2-8 See response to Comment C2-4.

C3 Mike Kujacich

C3-1 The comment expresses a preference for extending BART to San Jose before Livermore, which is noted. The comment also expresses a preference for not adopting the proposed Plan, which is noted. Planning for over 4,000 new units and office uses within walking distance of the Isabel BART station enables more people to commute by transit rather than car. The Plan intends to reduce car commuters on I-580 by increasing housing opportunities for people who would other before otherwise be forced to live in areas with less transit access and/or farther from their jobs, such as in the Central Valley.

C4 Susan Junk

C4-1 The commenter asks if there are any plans to save G & M Farms, along with the "100 + year house" and eucalyptus trees. This comment refers to the property described in the Draft EIR as the Gandolfo Ranch historic district, a farming complex consisting of 16 buildings and associated landscape features including trees, shrubs, and agricultural fields. The Draft EIR analyzes potential impacts resulting from the implementation of the proposed Plan,

which includes re-zoning the property from agricultural to residential and park uses. As stated on Draft EIR page 3.13-14 to 3.13-15 of Section 3.13, Cultural and Tribal Resources, future development resulting from this change in use would require subdivision of the property and the potential for demolition, relocation and/or alteration of the historic resource. A significant and unavoidable impact was identified in the Draft EIR as a result of the proposed Plan. However, preservation of the house and trees are not precluded by the Plan. Policy P-PF-19 strongly encourages the preservation of structures or other character-defining features.

C5 John and Diane Gandolfo

C5-1 The commenter introduces the Gandolfo property and Interstate Storage. The commenter states concerns regarding the historical analysis and proposed agricultural mitigation for the Gandolfo property and the proposed residential development at Interstate Storage.

C5-2 The commenter expresses a preference to leave the parcel containing Interstate Storage outside of the Planning Area. See response to Comment B5-1.

C5-3 The commenter expresses concern regarding the potential effects stemming from the historic status of the commenters' ranch. The commenter adds that while the buildings may look old from the outside, they have been maintained and modernized over the years. The commenter does not want to participate in any rehabilitation efforts.

As described on Draft EIR page 3.13-14 of Section 3.13, Cultural and Tribal Resources, a database search was completed to identify any historic resources in the Planning Area. The database search found Department of Parks and Recreation (DPR) forms prepared in 2000 for the Gandolfo property, which concluded that it was potentially eligible for listing on the National Register of Historic Places as a district. According to Section 15064.5 of the CEQA Guidelines and Public Resources Code section 5024.1(d)(1), any structure or property found to be potentially eligible for listing on the National Register is considered a "significant historical resource" for CEQA purposes. Therefore, the City must consider the Gandolfo property as a significant historic resource, and the partial or complete demolition of the ranch structures would be a significant unavoidable impact.

The Plan proposes policies to minimize impacts to historic resources, such as interpretative signage, structure preservation, or recordation through drawings and photographs. These measures are based on Secretary of the Interior's standards for historic preservation. At the time the property owner initiates annexation and site development, the City will reevaluate cultural resource impacts and the applicability of the policies through the Certificate of Appropriateness process.

For these reasons, the historic analysis and mitigation associated with the Gandolfo property are consistent with federal, state, and local laws on historic preservation and land-use regulation.

C5-4 The commenter expresses confusion over terms used in proposed Plan policies related to historic preservation. The regulatory section of the Cultural Resources chapter of the EIR

has been revised to more clearly define historic preservation terms and applicable regulations. Policy P-PF-20 has also been revised and is included in Chapter 4, Revisions to the Draft EIR.

C5-5 The commenter requests that Policy P-LU-24 be removed. The Gandolfo property is outside of the City limits but within the City's Urban Growth Boundary. The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP, http://www.conservation.ca.gov/dlrp/fmmp) designates much of the Gandolfo property as Prime Farmland. According to the CEQA Guidelines, conversion of Prime Farmland designated by the FMMP to a non-agricultural use is considered a significant impact. In addition, the City's General Plan states under Objective OSC 3-1: "Undeveloped lands that are State-designated as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland shall be preserved, to the greatest extent feasible, for open space or agricultural use."

The vast majority of development occurring within the City limits and UGB over the past 20-30 years has been on land categorized as "Urban and Built-up Land" according to the California Department of Conservation FMMP. A relatively recent example where development occurred on farmland is the South Livermore Valley Specific Plan (SLVSP). Housing development under the SLVSP was required to preserve one acre of land for open space or farmland uses for each dwelling unit.

In the Draft EIR for the BART to Livermore extension project, BART proposes to replace the loss of important farmland a 1-to-1 ratio and protect the replacement farmland in perpetuity through agricultural easements or other permanent protection. The proposed Policy P-LU-24 is consistent with the mitigation for the BART property across the street from the Gandolfo property. If the FMMP changes the designation of the Gandolfo property and it is no longer considered important farmland by the time the owner seeks annexation and proposes a development project, then the impact to agricultural resources would be reevaluated at that time.

C6 Steven Dunbar

C6-1 The comments are related to proposed Plan contents and not the environmental analysis conducted in the Draft EIR. The comments have been noted. Refer to Responses C2-2 on the jobs-housing balance and C2-7 on the Affordable Housing Strategy.

C7 Eugene Wheeler

C7-1 The comment expresses concern about the safety impacts of modifying the APA. See response to Comment B9-19.

4 Revisions to the Draft EIR

Executive Summary

On Page ES-13, remove Policy P-LU-41

On Page ES-18, revise Policy P-TRA-31:

P-TRA-31: For ~~residential and office~~ projects that do not include senior or disabled units, allow reductions in the minimum parking requirements by up to 20 percent, subject to Community Development Director approval…

On Page ES-19, revise Policy P-TRA-35:

P-TRA-35: Require parking lots along Main Street and Gateway Avenue (between Isabel and Shea Center Drive) to be available for public use as secured through an agreement with the City (e.g., as part of a Development Agreement) or a land use entitlement condition of approval. Where an existing private lot is converted to a shared lot that is open for non-exclusive use, spaces that are provided in excess of the amount required may be leased to other establishments.

On Page ES-20, revise Policy P-LU-29:

P-LU-29~~— New residential developments with a Transition or Village designation on sites over three acres shall provide at least three two product types (see Chapter 5 for descriptions and design standards of product types).~~ Each product type <u>within new residential developments</u> shall provide at least two unit types which differ in the number of bedrooms.

On Page ES-21, revise Policy G-LU-4:

G-LU-4: Promote the production of affordable <u>for-sale and rental</u> units and mixed-income developments ~~to create~~ <u>such that at least 25 percent of all new units at build-out are offered at</u> below-market rate<u>s, in order to provide affordable housing</u> opportunities for rent and ownership in the Isabel Neighborhood <u>and to take advantage of the strong connection between transit use and affordable housing</u>.

On Page ES-30, revise Policy P-LU-30:

P-LU-30: For residential projects with at least 10 dwelling units, 10 percent of the units must adhere to principles of Universal Design. Any fraction greater than or equal to 0.50 shall be rounded up to the nearest whole number. No additional unit shall adhere to principles of Universal Design for a fractional unit of less than 0.50. Such features include but are not limited to…

On Page ES-21, revise the first Policy P-LU-34:

P-LU-3334: All new residential development shall comply with the City's Inclusionary Ordinance (Section 10.06.050 of the Livermore Development Code) except that at least 20 percent of units for each project shall be affordable (i.e., offered at below-market rates)~~, with an overall 25 percent affordability for the entire Planning Area~~. Under the Ordinance, affordable housing units shall be integrated within new residential developments, unless the City Council approves an alternative method of compliance. Affordable rental housing units in mixed-income developments may be provided in separate buildings from the market-rate units and do not need to be comparable in size to the market-rate units. Mixed-income developments are defined as projects that involve a combination of market-rate units (for sale or rental) and affordable units (built and managed by a non0profit developer). For projects that utilize land dedication as a compliance method, the dedicated land must be located within one mile of the Isabel BART Station or Livermore Transit Center (ACE Station).

On Page ES-21, revise Policy P-LU-35:

P-LU-35: Establish a program to reduce the development cost of affordable units. For example, adopt ~~Adopt~~ flexible parking standards for the Core and Center land use categories to reduce housing costs associated with excess parking. (See parking ratios and policies in [Isabel Neighborhood Plan] Chapter 3, Transportation).

On Page ES.22, revise Policy P-LU-36:

P-LU-36: Pursue grant opportunity funds for transit-oriented development such as those using cap and trade funds (i.e., the Affordable Housing and Sustainable Communities program).

On Page ES-22, revise Policy P-LU-38:

P-LU-38: For projects that consist of 80 or more residential units and that include a minimum of 20 percent affordable rental ~~units (as a standalone project or part of a mixed income development)~~, require the provision of on-site management, at least two shared amenities (e.g., a meeting, computer, or

exercise room), and at least two supportive services for tenants (i.e., childcare, senior services, or mobility services).

On Page ES-22, revise Policy P-LU-39:

P-LU-39: Develop an anti-displacement strategy in the event of rapidly rising rents after the opening of the Isabel BART station. This may include providing rental assistance for long-time residents of nearby neighborhoods (within one mile of the BART Station).

On pages ES-28 and ES-43, revise Policy P-PF-40:

P-PF-40: Restaurants and others uses that discharge grease into the wastewater treatment system shall be required to reduce impacts through individual or collective pretreatment facilities.

On pages ES-29 and ES-43, revise Policy P-PF-41:

P-PF-41: Design new streetscape and landscaped areas in the public right-of-way for stormwater management and the efficient use of water through:

- The installation of low-maintenance, drought-resistant plant palettes;
- Use of low-flow irrigation systems; and/or
- Use of bioswales and rain gardens in planting areas and curb extensions.

On Pages ES-30 and ES-34, revise Policy P-ENV-9:

P-ENV-9: Require new residential projects and other new sensitive receptors such as schools, child day cares, nursing and retirement homes...

On Pages ES-30 and ES-34, revise Policy P-ENV-10:

P-ENV-10: Require project proponents within areas ~~identified high risk Overlay Zones~~ surrounding existing hazardous sites, roadways, or TAC sources, to assess health risks at the location in question and to incorporate feasible design-related risk mitigation measures, such as high-efficiency particulate air filters (HEPA filters) or equivalent indoor air quality equipment mechanisms, as appropriate and determined in consultation with the City.

On Page ES-31, revise Policy P-ENV-13:

P-ENV-13: Require that applicants proposing development of projects within the Planning Area require contractors, as a condition of contract, to reduce construction-related exhaust emissions by ensuring that all off-road equipment greater than 50 horsepower (hp) shall operate on an EPA-approved Tier 4 or newer engine. Exemptions can be made for specialized equipment where Tier 4 engines are not commercially available within 200 miles of the project construction site. The construction contractor must identify these pieces of equipment,

document their unavailability from at least two construction equipment rental firms, and ensure that they operate on no less than an EPA-approved Tier 3 engine.

On Page ES-33, revise Design Standard DS-28:

DS-28: ~~Where possible, l~~ Large-scale developments shall be broken up by pedestrian paths that connect to the street grid.

On Page ES-42, revise Design Standard DS-28:

DS-28: ~~Where possible, l~~ Large-scale developments shall be broken up by pedestrian paths that connect to the street grid.

On Page ES-51 and ES-64, revise Policy P-ENV-18:

P-ENV-18: Establish a minimum ~~100~~50-foot buffer from ~~all creek edges~~ the top of stream banks and restrict new development within the buffer….

On Page ES-52, revise Policy P-ENV-23:

P-ENV-23: Require project proponents… average mitigation ratios.

- Vernal pool fairy shrimp—10:1 ratio (mitigation area to impact area) dependent on impact location relative to mitigation location
- Callippe silverspot butterfly—5:1 dependent on impact location relative to mitigation location
- California tiger salamander and California red-legged frog—3:1 dependent on impact location relative to mitigation location, or above through coordination with relevant regulatory agency/ies
- Burrowing owl—3:1 dependent on impact location relative to mitigation location, or above through coordination with relevant regulatory agency/ies
- Temporary effects to State and federally listed species—1.1:1
- Big-scale balsamroot —4:1 to 3:1 dependent on impact location relative to mitigation location, or above through coordination with relevant regulatory agency/ies
- Congdon's tarplant —5:1 or above through coordination with relevant regulatory agency/ies
- Prostrate vernal pool navarretia — ranges from 4:1 to 3:1 dependent on impact location relative to mitigation location, or above through coordination with relevant regulatory agency/ies

On Page ES-54, revise Policy P-ENV-25:

P-ENV-25: If any work remains to be completed after the start of the rainy season or during the upland migration periods of protected amphibians (October 15 to ~~June~~ 1), require project proponents…

On Page ES-56, under impact 3.8-3, P-ENV-28 should be labeled P-ENV-29.

On Page ES-67, revise Policy P-PF-19:

P-PF-19: Incorporate elements commemorating Gandolfo Ranch into the park development in order to promote understanding among visitors of the site's historical significance. ~~Such elements may include, but are not limited to, interpretive signage and preserved structures or other character-defining features.~~ The preservations of structures or other character-defining features is strongly encouraged.

On Page ES-69, revise Policy P-PF-20:

P-PF-20: Require, prior to issuance of permits for the alteration, relocation, or demolition of a historical resource, that the project sponsor conduct Historic American Buildings Survey (HABS) and Historic American Landscapes Survey (HALS) Level II documentation. The HABS is a federal preservation program used to document architectural heritage and the HALS is a federal program used to document landscapes…

On Page ES-74, revise Policy P-LU-24:

P-LU-24: Development of the Gandolfo property shall acquire Prime farmland at a 1:1 ratio of compensatory mitigation under permanent easement ~~or participate in the City's TDC program~~.

Chapter 1: Introduction

On Page 1-2, the following text has been added:

As necessary, the EIR recommends goals, policies, and mitigation measures to mitigate less than significant and significant adverse impacts identified in the analysis of the proposed Plan. Policies and mitigation measures are both requirements of the Plan. These goals, policies, and mitigation measures are incorporated into the Neighborhood Plan.

On Page 1-4, Metropolitan Transportation Commission has been added as a Responsible Agency.

Metropolitan Transportation Commission. The Metropolitan Transportation Commission is the metropolitan planning organization for the nine-county San Francisco Bay Area at the federal level and the regional transportation planning agency for the Bay Area at the state level.

Chapter 2: Project Description

Figure 2-2, Planning Area, text in the legend has been revised to Half Mile Station ~~Buffer~~ Radius. See the revised figure below.

Figure 2-3, Land Use Diagram, has been revised to include an open space designation in the north portion of the Planning Area, where an existing conservation easement is in place. Also, the figure has been modified figure to remove open space "finger" in northwest part of Planning Area that is over existing business park use, and to remove proposed extension of Gateway Boulevard west of Collier Canyon Road. See the revised figure below.

On Page 2-7, the following text has been revised:

> The Change Areas encompass a total of ~~360~~ 370 acres, or about ~~32~~33 percent of the whole Planning Area.

On page 2-12 the following text has been added:

> **School Overlay**. The Land Use Diagram … The maximum permitted density for a K-12 school is 300 people per acre (average) and 1,200 people per single acre. This overlay also permits public uses including Fire, Police, Library, parks, public recreation facilities, school administration and other community serving public and quasi-public uses like day care. Refer to Section 3.11: Public Services and Recreation for additional discussion on schools.

On page 2-12, the following text has been removed:

> …Developments standards for each district. ~~Figure 2-4 in the Isabel Neighborhood Plan is provided for reference only to show estimated maximum building heights in feet above existing grade.~~

On page 2-13, the following text has been revised:

> Isabel Neighborhood Plan identifies ~~three~~ four Scenic Corridor Amendment Areas: the Core, East Airway, Gateway, and Portola areas.

On Page 2-13, the following text has been revised:

> Lastly, building height limits were verified for consistency with airport-related policies and regulations, including Federal Aviation Regulations Part 77 (refer to ~~the Draft Environmental Impact Report~~ Section 3.8, Hazards and Hazardous Materials, for additional detail).

On Page 2-14, the following text has been revised:

> The proposed amendments to the Scenic Corridor Policy are outlined on [Isabel Neighborhood Plan] figures 2-3~~, 2-4,~~ and 3.5-3 in this document, and include the following…

…with adjacent residential uses.

Gateway. Views of the hills from I-580 along this stretch of the freeway are currently obscured by the Portola Avenue interchange, and construction of the BART facilities will further affect views. Height limits in the Gateway Scenic Corridor exception area shall be measured in feet above existing grade. Buildings shall be set back from the southern property line adjacent to the freeway by a minimum of 100 feet.

Chapter 3.1: Land Use, Population, and Housing

Figure 3.1-4, Local Airport Policies has been modified to include an open space designation in the north portion of the Planning Area, where an existing conservation easement is in place; to remove open space "finger" in northwest part of Planning Area that is over existing business park use; and to remove proposed extension of Gateway Boulevard west of Collier Canyon Road. See the revised figure below.

On page 3.1-17, revise the text under "Regional Plans":

The proposed Plan would result in a minimum of 4,073 dwelling units within a half-mile radius of the Isabel BART station, taking into account existing housing and a 50 percent bonus for a minimum of 15 percent of units assumed to be affordable under the City's current affordable housing requirements. This is a conservative assumption considering that the affordable housing requirement will be increased to 20 percent under the proposed Plan, as explicitly required by policy P-LU-41 listed below. The Isabel BART station area would exceed the minimum housing requirement of 3,850 housing units under MTC's TOD policy (Resolution 3434) by 223 units.

On page 3.1-27, Table 3.1-3. Phasing Program Summary has been revised as follows:

	PHASE 1	*PHASE 2*	*PHASE 3*
Effective Action	Approval of a full BART extension to Isabel Avenue and City Council approval of Isabel Neighborhood Plan by resolution or ordinance*	Secure full project funding for the BART to Livermore extension and City Council approval of a resolution*	Start of construction of BART to Livermore extension and City Council approval of Isabel Neighborhood Plan by resolution*
Estimated Eligible Residential Units (refer to Figure 7-1 for specific locations)	~~585~~ 1,247 units	~~1,191~~ 529 units	2,319 units

Non-residential Development (refer to Figure 7-1 for specific locations)	~~2,568,000~~ 490,700 sq. ft.	~~397,000~~ 506,500 sq. ft.	~~1,109,000~~ 1,107,000 sq. ft.
Interim Zoning prior to Phase effective date	N/A	INP Business Park or INP Open Space for the BART property south of the Freeway	INP Business Park or INP Open Space for G&M Farms on East Airway Boulevard
Note: Upon adoption of the INP, all residential units will be available for allocation subject to the INP Phasing Program, similar to the City's Downtown Specific Plan Growth Management Program. For example, upon the start of Phase 3, all INP residential units will be available for allocation through the HIP.			

*The BART Board of Directors or regional rail authority may approve the BART to Livermore project. Full funding is secured when the Regional Transportation Plan (Plan Bay Area), in conjunction with other funding sources if needed, have programmed funding for the BART to Livermore project to cover the estimated capital cost, as shown in the BART to Livermore EIR ($1.6 billion in 2016 dollars) or as revised based on subsequent analysis. Construction starts on the first day that BART (or other agency overseeing the project) sets up a staging area for work involving freeway widening, Isabel station construction, or modifications to the Dublin/Pleasanton station.

Figure 3.1-6, Proposed Isabel Neighborhood Phasing Plan has been modified to include the following property owner's into Phase 1: Shea Sage West, Livermore Condor Fund, and Cornerstone. In addition, the figure has been revised to include an open space designation in the north portion of the Planning Area, where an existing conservation easement is in place. Also, the figure has been modified to remove open space "finger" in northwest part of Planning Area that is over existing business park use, add open space designation between I-580 and Arroyo Las Positas within city boundaries at eastern edge of Planning area, and remove proposed extension of Gateway Boulevard west of Collier Canyon Road. See the revised figure below.

On page 3.1-30, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-LU-29 as follows:

P-LU-29 ~~New residential developments with a Transition or Village designation on sites over three acres shall provide at least three two product types (see Chapter 5 for descriptions and design standards of product types).~~ Each product type within new residential developments shall provide at least two unit types which differ in the number of bedrooms.

On page 3.1-30, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-LU-30 as follows:

P-LU-30: For residential projects with at least 10 dwelling units, 10 percent of the units must adhere to principles of Universal Design. Any fraction greater than or equal to 0.50 shall be rounded up to the nearest whole number. No additional unit shall adhere to principles of Universal Design for a fractional unit of less than 0.50. Such features include but are not limited to…

On page 3.1-31, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Guideline G-LU-4 as follows:

G-LU-4: Promote the production of affordable for-sale and rental units and mixed-income developments ~~to create~~ such that at least 25 percent of all new units at build-out are offered at below-market rates, in order to provide affordable housing opportunities for rent and ownership in the Isabel Neighborhood and to take advantage of the strong connection between transit use and affordable housing.

On page 3.1-31, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-LU-33 as follows:

P-LU-33: All new residential development shall comply with the City's Inclusionary Ordinance (Section 10.06.050 of the Livermore Development Code) except that at least 20 percent of units for each project shall be affordable (i.e., offered at below-market rates)~~, with an overall 25 percent affordability for the entire Planning Area~~. Under the Ordinance, affordable housing units shall be integrated within new residential developments, unless the City Council approves an alternative method of compliance. Affordable rental housing units in mixed-income developments may be provided in separate buildings from the market-rate units and do not need to be comparable in size to the market-rate units. Mixed-income developments are defined as projects that involve a combination of market-rate units (for sale or rental) and affordable units (built and managed by a non0profit developer). For projects that utilize land dedication as a compliance method, the dedicated land must be located within one mile of the Isabel BART Station or Livermore Transit Center (ACE Station).

On page 3.1-31, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-LU-35 as follows:

P-LU-35: Establish a program to reduce the development cost of affordable units. For example, adopt ~~Adopt~~ flexible parking standards for the Core and Center land use categories to reduce housing costs associated with excess parking. (See parking ratios and policies in [Isabel Neighborhood Plan] Chapter 3, Transportation).

On page 3.1-31, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-LU-36 as follows:

P-LU-36: Pursue grant opportunity funds for transit-oriented development such as those using cap and trade funds (i.e., the Affordable Housing and Sustainable Communities program).

On page 3.1-31, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-LU-38 as follows:

P-LU-38: For projects that consist of 80 or more residential units and that include a minimum of 20 percent affordable rental ~~units (as a standalone project or part of a mixed income development)~~, require the provision of on-site management, at least two shared amenities (e.g., a meeting, computer, or exercise room), and at least two supportive services for tenants (i.e., childcare, senior services, or mobility services).

On page 3.1-31, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-LU-39 as follows:

P-LU-39: Develop an anti-displacement strategy in the event of rapidly rising rents after the opening of the Isabel BART station. This may include providing rental assistance for long-time residents of nearby neighborhoods (within one mile of the BART Station).

On page 3.1-31, under "Proposed Plan Goals and Policies that Reduce the Impact," remove Policy P-LU-41.

On page 3.1-31, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-TRA-31 as follows:

P-TRA-31: For ~~residential and office~~ projects that do not include senior or disabled units, allow reductions in the minimum parking requirements by up to 20 percent, subject to Community Development Director approval…

Chapter 3.2: Traffic and Transportation

Figure 3.2-1 has been revised to remove intersection 26, Gateway Avenue west of Collier Canyon Road to North Canyons Parkway. See revised figure below.

On Page 3.2-6, Table 3.2-1: Intersection Level of Service, Existing Conditions has been revised to remove intersection 26, Gateway Avenue and North Canyons Parkway.

Figure 3.2-4, Bicycle Circulation: revise to remove Gateway Avenue west of Collier Canyon Road to North Canyons Parkway. See revised figure below.

Figure 3.2-5, Pedestrian Circulation: revise to remove Gateway Avenue west of Collier Canyon Road to North Canyons Parkway but keep trail alignment. See revised figure below.

On Page 3.2-34, Table 3.2-9: 2025 Near Term No Project Intersection Level of Service has been revised to remove intersection 26, Gateway Avenue and North Canyons Parkway.

On Page 3.2-37, Table 3.2-10 2040 Cumulative No Project Intersection Level of Service has been revised to remove intersection 26, Gateway Avenue and North Canyons Parkway.

On Page 3.2-40, Table 3.2-11 2025 Near Term Plus Project Intersection Level of Service AM Peak Hour has been revised to remove intersection 26, Gateway Avenue and North Canyons Parkway.

On Page 3.2-41, Table 3.2-12 2025 Near Term Plus Project Intersection Level of Service PM Peak Hour has been revised to remove intersection 26, Gateway Avenue and North Canyons Parkway.

Figure 3.2-9 has been revised to remove intersection 26, Gateway Avenue and North Canyons Parkway. See revised figure below.

On Page 3.2-44, Table 3.2-13 2040 Cumulative Plus Project Intersection Level of Service AM Peak Hour has been revised to remove intersection 26, Gateway Avenue and North Canyons Parkway and to revise intersection 10 as follows.

10	Collier Canyon Road & North Canyons Parkway	Signal	Mid D	0.52	20.7	C	~~0.71~~ 0.73	~~33.3~~ 36.0	~~C~~ D

On Page 3.2-45, Table 3.2-14 2040 Cumulative Plus Project Intersection Level of Service PM Peak Hour has been revised to remove intersection 26, Gateway Avenue and North Canyons Parkway and to revise intersection 10 as follows.

10	Collier Canyon Road & North Canyons Parkway	Signal	Mid D	0.55	22.5	C	~~0.60~~ 0.65	~~26.8~~ 39.9	~~C~~ D

On page 3.2-64, the following text has been revised:

Impact 3.2-3 Implementation of the proposed Plan would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. (*~~No Impact~~Less than Significant*)

The Livermore Municipal Airport is located just southwest of the Planning Area. As such, the proposed Plan ~~has the potential to~~ would create land uses that ~~may not be~~ are compatible with the airport ~~use~~ from a safety perspective, although it would increase the number of residents exposed to overflight noise and may increase noise complaints (see Section 3.1, Land Use, Population, and Housing; Section 3.6, Noise and Vibration; and Section 3.8, Hazards and Hazardous Materials). ~~However, given the nature of the proposed Plan and the nature of services provided at the Livermore Municipal Airport, the proposed~~

~~Plan is not expected to result in any changes to air traffic patterns or safety. Therefore, there is no impact.~~ Given the potential that some pilots may avoid flying over new residential development, implementation of the Plan could indirectly change typical flight patterns compared to existing conditions. For example, some pilots could choose to fly farther south or north. However, the take-offs and landing approaches would not change, and the project does not propose any elements that would affect the established flight patterns for LVK, as the Plan is consistent with the ALUCP and federal aviation regulations on height and safety. Flight patterns would be similar to the flight patterns experienced today and those allowed under local policy and federal law. Therefore, the impact on flight patterns would be less than significant.

Chapter 3.3: Air Quality

On page 3.3-35, revise the text under "Mitigation Measures":

MM-AQ-3: Require Payment of Mitigation Fees to Offset Emissions Exceeding BAAQMD's Daily Pollutant Thresholds.

This mitigation will either be conducted by the City through BAAQMD or by the City itself.

BAAQMD Mitigation Fee Approach

The City shall work with BAAQMD's Office of Community Investment and Infrastructure (OCII) to establish City-specific construction emissions offset guidance that can be implemented to assess, determine, and issue mitigation fees that project applicants would be required to pay BAAQMD on a pro rata basis for all concurrently ongoing construction projects in the Planning Area to offset all pollutant emissions exceeding BAAQMD's daily pollutant thresholds. The offset fees will be paid into BAAQMD's Bay Area Clean Air Foundation (Foundation) in an amount to be determined at the time of mitigation.

City Mitigation Fee Approach

If for any reason providing mitigation fees through BAAQMD is not pursued, then the City shall administer the mitigation funds directly for emissions reductions. The offset mitigation program shall follow the BAAQMD Guidance for Lead Agencies to Develop and Offset Mitigation Program (BAAQMD 2012). The offset fees with this approach will be paid into the City's mitigation program in an amount to be determined at the time of mitigation. This mitigation (AQ-3) does not apply if builder contractor documents show they will not exceed BAAQMD's daily pollutant thresholds.

This mitigation (AQ-3) does not apply if builder/contractor documents show they will not exceed BAAQMD's daily pollutant threshold.

Specific Requirements

This mitigation includes the following specific requirements:

- For all construction projects occurring in the Planning Area, the applicants for each project shall require their construction contractors to estimate annual construction activity monitoring data for the following year. All applicants shall submit their estimated construction-related emissions to the City for review by November 1 of each year for the following construction year.
- The City shall review all received construction estimates to ensure they are representative, total the emissions estimates for all construction projects that had activities that would be ongoing during the following construction year, and determine the total mitigation fee that would need to be submitted to BAAQMD or the City to fund offsets for the portion of annual emissions that exceed BAAQMD's average daily thresholds for criteria pollutants.
- In light of the total mitigation fee that was determined, and based on the construction emission amounts submitted by each applicant, the City shall appropriate the mitigation fee amount that would need to be submitted by each project applicant on a pro rata basis. The City shall issue the required mitigation fee amounts to each applicable project applicant.
- Upon receiving the City's assigned mitigation fee amount, the applicants shall enter into a construction mitigation contract with BAAQMD to submit their apportioned mitigation fees or enter into an agreement with the City to submit their apportioned mitigation fees.

Examples of Potential Offset Actions

There are a wide range of feasible actions to offset emissions (through BAAQMD or the City) including, but not limited to, the following:

- Retrofitting and/or replacing heavy duty diesel engines and trucks (on or off road) with new, cleaner engines and trucks.
- Retrofitting stationary sources such as backup generators or boilers with new technologies that reduce emissions.
- Replacing diesel agriculture water pumps with alternative fuels.
- Fund projects within a jurisdiction's adopted bicycle/pedestrian plans.
- Replace non-EPA wood burning devices with natural gas or EPA approved fireplaces.
- Provide energy efficiency upgrades at residential, commercial, or government buildings.
- Electrification of loading docks at distribution warehouses.
- Install alternative energy supply on buildings.
- Replace older landscape maintenance equipment with newer, lower-emission equipment.

On page 3.3-31, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-PF-40 as follows:

P-PF-40: Restaurants and others uses that discharge grease into the wastewater treatment system shall be required to reduce impacts through individual or collective pretreatment facilities.

On page 3.3-31, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-PF-41 as follows:

P-PF-41: Design new streetscape and landscaped areas in the public right-of-way for stormwater management and the efficient use of water through:

- The installation of low-maintenance, drought-resistant plant palettes;
- Use of low-flow irrigation systems; and/or
- Use of bioswales and rain gardens in planting areas and curb extensions.

On pages 3.3-31 and 3.3-44, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-ENV-9 as follows:

P-ENV-9: Require new residential projects and other new sensitive receptors such as schools, child day cares, nursing and retirement homes...

On pages 3.3-31 and 3.3-43, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-ENV-10 as follows:

P-ENV-10: Require project proponents within areas ~~identified high risk Overlay Zones~~ surrounding existing hazardous sites, roadways, or TAC sources, to assess health risks at the location in question and to incorporate feasible design-related risk mitigation measures, such as high-efficiency particulate air filters (HEPA filters) or equivalent indoor air quality equipment mechanisms, as appropriate and determined in consultation with the City.

On page 3.3-32, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-ENV-13 as follows:

P-ENV-13: Require that applicants proposing development of projects within the Planning Area require contractors, as a condition of contract, to reduce construction-related exhaust emissions by ensuring that all off-road equipment greater than 50 horsepower (hp) shall operate on an EPA-approved Tier 4 or newer engine. Exemptions can be made for specialized equipment where Tier 4 engines are not commercially available within 200 miles of the project construction site. The construction contractor must identify these pieces of equipment, document their unavailability from at least two construction equipment rental firms, and ensure that they operate on no less than an EPA-approved Tier 3 engine.

On page 3.3-33, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Design Standard DS-28 as follows:

DS-28: ~~Where possible, l~~ Large-scale developments shall be broken up by pedestrian paths that connect to the street grid.

Chapter 3.4: Energy, Greenhouse Gases, and Climate Change

On Page 3.4-33, the text has been revised as follows:

> To reduce the proposed Plan's operational GHG emissions in 2040, Mitigation Measure GHG-1 is recommended, which includes strategies derived directly from the proposed Plan's policies to promote traffic-calming measures as part of neighborhood enhancements, development of affordable housing, transit improvements, water conservation, and solid waste recycling and diversion. Affordable housing is a qualitative factor that decreases GHG emissions[2,3,4], but is not explicitly reflected in the emission estimate. The proposed Plan's resulting net operational emissions in 2040 with implementation of Mitigation Measure GHG-1 are shown in Table 3.4-10. The proposed Plan's mitigated emissions presented include emissions benefits achieved by strategies 1 through 5 in Mitigation Measure GHG-1. Strategies 6 and 7 would achieve additional GHG savings, although reductions have not been explicitly quantified since they depend on program participation.

On Page 3.4-28, DS-28 has been revised as follows:

> DS-28: ~~Where possible,~~ ~~l~~ Large-scale developments shall be broken up by pedestrian paths that connect to the street grid.

On page 3.4-35, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-PF-40 as follows:

> P-PF-40: Restaurants and other~~s~~ uses that discharge grease into the wastewater treatment system shall be required to reduce impacts through individual or collective pretreatment facilities.

On page 3.4-35, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-PF-41 as follows:

> P-PF-41: Design new streetscape and landscaped areas in the public right-of-way for stormwater management and the efficient use of water through:
>
> - The installation of low-maintenance, drought-resistant plant palettes;
> - Use of low-flow irrigation systems; and/or

[2] National Center for Sustainable Transportation. Affordable Housing in Transit-Oriented Developments: Impacts on Driving and Policy Approaches. April 2017.

[3] Newmark, G.L.; Hass, P.M. Income, Location Efficiency, and VMT: Affordable Housing as a Climate Strategy. December 2015.

[4] Transform. Why Creating and Preserving Affordable Homes Near Transit is a Highly Effective Climate Protection Strategy. May 2014.

- Use of bioswales and rain gardens in planting areas and curb extensions.

Chapter 3.5: Aesthetics

On page 3.5-8, the text has been revised as follows:

> The Plan proposes ~~three~~ four amendment areas to the I-580 Scenic Corridor policies in the Planning Area, as illustrated in Figure 3-5.3. ~~Figure 3.5-4 shows the maximum building height limits within these three amendment areas, expressed in feet above mean sea level~~…
>
> The ~~S~~second and third amendments are ~~is a~~ new exemption areas on the south side of the Isabel Avenue interchange and the west side of the Airway Boulevard interchange, respectively. The ~~third~~ fourth amendment involves increasing the height limit for residential development in the vicinity of Portola Avenue/East Airway Boulevard.

On page 3.5-9, the following text has been revised:

> The Isabel Avenue interchange currently blocks many of the views of the hills along the second exemption area on the south side of Isabel Avenue interchange, particularly when travelling eastbound and looking south. The Airway Boulevard interchange currently blocks many of the views of the hills along the third exemption area, particularly when traveling westbound and looking north. The ~~third~~ fourth exemption area, existing sound walls, vegetation, and distance from I-580 limit the visibility of these residential sites. The new height limits proposed under the third exemption area are intended to preserve views of the ridgelines over the building rooflines. Therefore, the third exemption area would not significantly affect a scenic vista.

On page 3.5-10, the following text has been revised under "Mitigation Measures:"

> ~~None required.~~ As full implementation of the proposed Plan would rely on the expansion of amendment areas to the I-580 Scenic Corridor policies in the Planning Area, no mitigation is available that would reduce impacts to a level that is less than significant.

Figure 3.5-3, Isabel Neighborhood Scenic Corridor Policy Amendment has been revised to include the Gateway amendment area. See the revised figure below.

Figure 3.5-4, Maximum Building Heights in Scenic Corridor Amendment Areas has been revised to include the Gateway amendment area and revised heights for the Core and East Airway properties. See the revised figure below.

Figure 3.5-5, Maximum Building Heights in the Gateway Amendment Area has been added to illustrate the maximum building heights in the Gateway Amendment Area only.

Chapter 3.7: Biological Resources

Figure 3.7-1 has been revised to cite an additional source. See the revised figure below.

Figure 3.7-3 has been revised to show all occurrences. See the revised figure below.

On page 3.7-8, the text under Vernal Pool Fairy Shrimp has been revised as follows:

...~~One~~Two CNDDB record~~s~~ of this species is located approximately 1.6 miles northeast of the outermost edge of the Planning Area (California Department of Fish and Wildlife, 201~~7~~8).

On page 3.7-8, new text under Amphibians has been included:

Western Spadefoot

Western spadefoot is a small toad that lives underground during the dry season and inhabits seasonal wetlands, ephemeral drainages, and vernal pools during the rainy season. This species occurs throughout much of the Central Valley, from Shasta County to Kern County, and along Central and Southern California Coast. This species has the potential to occur within seasonal wetlands, vernal pools, ephemeral drainages, and associated undeveloped upland land cover primarily in the northern portion of the Planning Area There are two records of this species within five miles of the study area. The nearest record is located approximately 4.43 miles southeast of the study area, immediately south of Lawrence Livermore Laboratory (California Department of Fish and Wildlife 2018).

On page 3.7-8, the text under California Red-legged Frog has been revised as follows:

California red-legged frog inhabits ponds, streams, other aquatic habitats, and adjacent upland land cover. This species has potential to occur within stock ponds, streams, and riparian habitat; as well as migrate through all undeveloped types of land cover within 1.7 miles of suitable aquatic habitat. The presence of bullfrogs and mosquito fish in aquatic habitat seriously reduce but do not preclude the potential for California red-legged frog to occur at such locations. There are ~~11~~ 74 CNDDB records (including two presumed and possibly extirpated records) of this species within 5 miles of the Planning Area, with the nearest extant occurrence located in the western portion approximately 1.2 miles east of the Planning Area (California Department of Fish and Wildlife, 201~~7~~8). This species has potential to occur in all of the drainages and wetlands in the Planning Area, and in undeveloped uplands within 1.7 miles of suitable aquatic habitat. While **revised** Figure 3.7-3 shows all CNDDB occurrences within the Planning Area and within the five-mile buffer of the Planning Area, including the two occurrences within the Planning Area that are presumed/possibly extirpated, the "possibly extirpated" occurrence in the center of the Planning Area (at the entrance to Las Positas College) represents a 1998 observation of six juveniles and a 2000 observation of 2 adults, 9 juveniles, and 15 larvae (24 of which were relocated to a pond on Pleasanton Ridge during the observation) at a location that is documented as having been "completely developed" as seen in 2007 aerial photographs (California Department of Fish and Wildlife 2018).

On page 3.7-9, the text has been revised as follows:

California tiger salamander ranges from Yolo County to Tulare County and San Luis Obispo County in the respective Central Valley and Coast Range [both considered the Central Valley Distinct Population Segment (DPS)]. Two other DPS of the species also occur in Sonoma and Santa Barbara Counties. California tiger salamander spends most of the year underground within Botta's pocket gopher (Thomomys bottae) or California ground squirrel (Otospermophilus beecheyi) burrows, typically in grasslands. During the late fall to winter, adults migrate to vernal pools and ephemeral stock ponds to breed. As the pools and ponds begin to dry, adults and metamorphs migrate back to the rodent burrows in the surrounding uplands. There are ~~eight~~ 71 CNDDB records of this species within 5 miles of the Planning Area, ~~two~~ 14 of which are extirpated (i.e., no longer exist), with the nearest occurrence located approximately 1.2 miles east of the Planning Area (California Department of Fish and Wildlife, 201~~7~~8). Proximity to aquatic habitat is generally the limiting habitat factor; therefore, the species has potential to occur within seasonal and freshwater emergent wetlands in the Planning Area and California annual grassland that supports rodent burrows within 1.3 miles of wetlands. While Figure 3.7-3 shows all CNDDB occurrences within the Planning Area and within the five-mile buffer of the Planning Area, including the two occurrences within the Planning Area that are now extirpated, the latter represent 1992 observations in locations that are now either developed or surrounded by development that isolates this location from potentially suitable habitat outside of the Planning Area.

On page 3.7-9, the text under Western Pond Turtle has been revised as follows:

...~~No~~ Thirteen CNDDB records of this species occur within 5 miles of the Planning Area.

On page 3.7-9, the text under Burrowing Owl has been revised as follows:

...There ~~is one~~ 25 record~~s~~ of ~~a~~ burrowing owl occurrence~~s~~ within 5 miles of the Planning Area, located approximately 2.2 miles east of the Planning Area (California Department of Fish and Wildlife, 201~~7~~8).

On page 3.7-10, the text under Loggerhead Shrike has been revised as follows:

...~~While there are no~~ There is one CNDDB records of loggerhead shrike within 5 miles of the Planning Area (California Department of Fish and Wildlife, 201~~7~~8), ~~this species is known to occur in the greater Livermore area~~...

On page 3.7-10, the text under Tricolored Blackbird has been revised as follows:

...There are ~~four~~ ten CNDDB records of the species within 5 miles of the Planning Area, located approximately 0.5 mile south of the Planning Area (California Department of Fish and Wildlife, 201~~7~~8)...

On page 3.7-10, new text under Tricolored Blackbird has been included:

Golden Eagle

Golden eagle is a large raptor that forages over a variety of open habitats, such as grasslands, chaparral, and oak woodlands, and nests on cliffs, escarpments, or in tall trees overlooking open areas. Several observations have documented golden eagle foraging over grasslands in the areas surrounding the Planning Area. This species has potential to forage within grasslands and other open habitats within the Planning Area. There is one record of this species within five miles of the Planning Area located 4 miles northwest (California Department of Fish and Wildlife 2018). Nesting substrate is absent from the region surrounding the Planning Area.

Ferruginous Hawk

Ferruginous hawk is a large raptor that forages over a variety of open habitats, such as grasslands, chaparral, and oak woodlands, and nests on cliffs, escarpments, or in tall trees overlooking open areas. There are three records of this species within five miles of the Planning Area and the nearest record is approximately 1.1 miles northeast (California Department of Fish and Wildlife 2018). This species does not nest in California, but it has potential to forage within grasslands and other open habitats within the Planning Area.

Northern Harrier

Northern harrier is a medium sized raptor that forages primarily for small mammals over open habitats, including grassland, tidal salt marsh, and agricultural fields. This species nests on the ground within grassland habitat. The range of northern harrier encompasses all of lowland California, but this species has been observed at high elevations. There is one record of northern harrier within five miles of the study area located approximately 4 miles northwest (California Department of Fish and Wildlife 2018). Grasslands, marshes, and wetlands provide suitable foraging habitat for this species throughout the Planning Area. Grassland in the Planning Area and adjacent areas contain suitable nesting substrate for northern harrier.

On page 3.7-10, the text under White-Tailed Kite has been revised as follows:

...~~No~~ There are four CNDDB records of white-tailed kite occur within 5 miles of the Planning Area (California Department of Fish and Wildlife, 2017~~), but this species is known to occur in the greater Livermore area.~~

On page 3.7-10, new text under White-Tailed Kite has been included:

Prairie Falcon

Prairie falcon is a year-round resident of much of California and winters in other areas, including the north coast and Sacramento Valley. There are nine records of this species within five miles of the Planning Area and the nearest record is approximately 2.3 miles north (California Department of Fish and Wildlife 2018). This species has potential to forage for small birds above undeveloped habitats in the Planning Area, but nesting substrate is absent from the Planning Area and surrounding region.

American Peregrine Falcon

American peregrine falcon is a permanent resident of the north and south Coast Ranges, is expected to summer in the Cascade and Klamath Ranges and Sierra Nevada Range south to Madera County, and winters in the Central Valley south through the Transverse and Peninsular Ranges in southern California, as well as on the plains east of the Cascade Range. There are four records of this species within five miles of the Planning Area and the nearest record is approximately 2.3 miles north (California Department of Fish and Wildlife 2018). This species has potential to forage for small birds above undeveloped habitats in the Planning Area, but nesting substrate is absent from the Planning Area and surrounding region.

California Horned Lark

California horned lark is a year-round resident of much of California and summers in other areas, including the north coast. This species forages for seeds and nests in open grasslands. There are two records of this species within five miles of the Planning Area, with the nearest location being approximately 3 miles northwest (California Department of Fish and Wildlife 2018). This species has potential to forage and nest in grassland land cover in the Planning Area and surrounding region.

Grasshopper Sparrow

Grasshopper sparrow is a small passerine that occurs during spring and summer in coastal California in foothills of the Sierra Nevada Mountains. This species forages for insects and nests in open grasslands. There is one record of this species within five miles of the Planning Area located approximately 3.8 miles northeast (California Department of Fish and Wildlife 2018). This species has potential to forage and nest in grassland land cover in the Planning Area and surrounding region.

On page 3.7-10, the text under White-Tailed Kite has been revised as follows:

...No CNDDB records of white-tailed kite occur within 5 miles of the Planning Area (California Department of Fish and Wildlife, 201~~7~~8)...

On page 3.7-11, the text under American Badger has been revised as follows:

... There ~~is one~~ are seven CNDDB record of this species within 5 miles of the Planning Area, approximately 4.2 miles to the northwest (California Department of Fish and Wildlife, 201~~7~~8).

On page 3.7-11, the text under Hoary Bat has been revised:

There is one CNDDB record within 5 miles of the Planning Area, located approximately 4.4 miles south (California Department of Fish and Wildlife, 201~~7~~8).

On page 3.7-11, new text under Hoary Bat has been included:

Pallid Bat

Pallid bat is found throughout most of California at low to middle elevations (6,000 feet above mean sea level). Pallid bats are found in a variety of habitats, including desert, brushy terrain, coniferous forest, and non-coniferous woodlands. In central and northern California, the species is associated with oak, ponderosa pine, redwood, and giant sequoia land cover. Pallid bats forage among vegetation and above the ground surface, eating large ground-dwelling arthropods and large moths. Daytime roost sites include rock outcrops, mines, caves, hollow trees, buildings, and bridges. Hibernation may occur during late November through March. Pallid bats breed from late October through February (Zeiner et al. 1990:70).

There is one record of pallid bat within five miles of the Planning Area located approximately 5 miles south (California Department of Fish and Wildlife 2018). Woodland, riparian woodland, and anthropogenic structures (e.g., bridges, buildings) with stable thermal regimes in the Planning Area offer suitable roosting habitat for this species. Such habitat is located in the Lathrop to Ceres and Ceres to Merced segments.

On page 3.7-11, the text under San Joaquin Kit Fox has been revised as follows:

...There is one CNDDB record of this species within 5 miles of the Planning Area, approximately three miles to the northwest (California Department of Fish and Wildlife, 2017~~8~~8).

On page 3.7-11, the text under Townsend's Big-Eared Bat has been revised as follows:

... There are ~~no~~ two CNDDB records of this species within 5 miles of the Planning Area (California Department of Fish and Wildlife, 2017~~8~~8)...

On page 3.7-26, the text under Impact 3.7-1 has been revised as follows:

Construction associated with future development in the Planning Area could affect special-status plant and wildlife species such as big-scale balsamroot, Congdon's tarplant, prostrate vernal pool navarretia, Callippe silverspot butterfly, vernal pool fairy shrimp, California red-legged frog, California tiger salamander, western pond turtle, burrowing owl, loggerhead shrike, tricolored blackbird, white-tailed kite, American badger, hoary bat, ~~and~~ Townsend's big-eared bat~~.~~, western spadefoot, grasshopper sparrow, northern harrier, California horned lark, and pallid bat.

On page 3.7-28, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-ENV-18 as follows:

P-ENV-18 Establish a minimum ~~100~~50-foot buffer from ~~all creek edges~~ the top of stream banks and restrict new development within the buffer….

On page 3.7-29, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-ENV-23 as follows:

P-ENV-23: Require project proponents…average mitigation ratios.

- Vernal pool fairy shrimp—10:1 ratio (mitigation area to impact area) dependent on impact location relative to mitigation location

- Callippe silverspot butterfly—5:1 dependent on impact location relative to mitigation location
- California tiger salamander and California red-legged frog—3:1 dependent on impact location relative to mitigation location, or above through coordination with relevant regulatory agency/ies
- Burrowing owl—3:1 dependent on impact location relative to mitigation location, or above through coordination with relevant regulatory agency/ies
- Temporary effects to State and federally listed species—1.1:1
- Big-scale balsamroot —4:1 to 3:1 dependent on impact location relative to mitigation location, or above through coordination with relevant regulatory agency/ies
- Congdon's tarplant —5:1 or above through coordination with relevant regulatory agency/ies
- Prostrate vernal pool navarretia — ranges from 4:1 to 3:1 dependent on impact location relative to mitigation location, or above through coordination with relevant regulatory agency/ies

On page 3.7-30, revise Policy P-ENV-25:

P-ENV-25: If any work remains to be completed after the start of the rainy season or during the upland migration periods of protected amphibians (October 15 to June 1), require project proponents…

On page 3.7-30, revise the text under "Mitigation Measures":

MM-BIO-1: If impacts to special-status plan species are unavoidable, ~~P~~prepare and implement a salvage, relocation, or propagation and monitoring plan for special-status plant species.

If a protocol-level botanical survey reveals the presence of special-status plant species in the Planning Area, all directly affected areas of special-status plants will be documented by a qualified botanist or ecologist retained by project proponents prior to issuance of grading permits, consistent with *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities State of California* (CDFW, 2009). Documentation will include density and percent cover; key habitat characteristics, including soil type, associated species, hydrology, and topography; and photographs of preconstruction conditions. ~~The~~Impacts to rare (California Rare Plant Rank 1 and 2) native plant species will be avoided where feasible. If impacts to such species are unavoidable, the project proponent will notify USFWS and/or CDFW and a qualified botanist or restoration ecologist will prepare a salvage, relocation, or propagation and monitoring plan in coordination with USFWS and/or CDFW prior to construction to address affected special-status plant species.

On page 3.7-29, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-ENV-23 as follows:

P-ENV-23: Require project proponents… average mitigation ratios.

- Vernal pool fairy shrimp—10:1 ratio (mitigation area to impact area) dependent on impact location relative to mitigation location
- Callippe silverspot butterfly—5:1 dependent on impact location relative to mitigation location
- California tiger salamander and California red-legged frog—3:1 dependent on impact location relative to mitigation location, or above through coordination with relevant regulatory agency/ies
- Burrowing owl—3:1 dependent on impact location relative to mitigation location, or above through coordination with relevant regulatory agency/ies
- Temporary effects to State and federally listed species—1.1:1
- Big-scale balsamroot —4:1 to 3:1 dependent on impact location relative to mitigation location, or above through coordination with relevant regulatory agency/ies
- Congdon's tarplant —5:1 or above through coordination with relevant regulatory agency/ies
- Prostrate vernal pool navarretia — ranges from 4:1 to 3:1 dependent on impact location relative to mitigation location, or above through coordination with relevant regulatory agency/ies

On page 3.7-30, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-ENV-25 as follows:

P-ENV-25: If any work remains to be completed after the start of the rainy season or during the upland migration periods of protected amphibians (October 15 to ~~June~~ 1), require project proponents…

On page 3.7-33, under Mitigation Measures, revise Mitigation Measure MM-BIO-7 as follows:

MM-BIO-7: Avoid California tiger salamander, western spadefoot and California red-legged frog where feasible. Proponents of specific projects within the Planning Area shall retain a USFWS and/or CDFW approved biologist (as appropriate) to identify and flag (pin flags or 4-foot lath) all suitable aquatic habitat for California tiger salamander, western spadefoot and California red-legged frog outside of but adjacent to development footprints and ground-disturbance areas prior to staging, vegetation clearing, grading, or other construction activities. The project proponent or its contractor will protect habitat areas by installing orange exclusion and erosion control fencing at the maximum practicable distance from the work site or, if feasible, at least 500 feet from the aquatic habitat edge, wet or dry, to make it easily visible by

construction crews. A qualified biologist will conduct a preconstruction survey each morning before construction activities begin and continue to monitor ground-disturbing construction activities where suitable habitat occurs during all phases of construction to remove any California tiger salamander, western spadefoot and California red-legged frogs found in the development footprint. Individual salamanders and frogs will be moved immediately to a relocation site that is a minimum of 330 feet from the construction boundary. The relocation site will be determined in coordination with USFWS and/or CDFW prior to the commencement of construction activities. Construction activities near drainages and wetland complexes identified as potential movement corridors shall take place between July 1 and October 1, when the California tiger salamander, western spadefoot and California red-legged frog are least likely to be present in the development area. To discourage California tiger salamander, western spadefoot and California red-legged frogs from entering the improvements areas via ditches, the ditches will be equipped with lightweight, one-way flow gates.

Chapter 3.8: Hazards and Hazardous Materials

Figure 3.8-1, Hazardous Materials Sites in the Planning Area has been revised to include three additional Permitted Underground Storage Tank sites. See the revised figure below.

Chapter 3.9: Hydrology and Water Quality

On page 3.9-1, revise the text under "Surface Water Hydrology":

> During the dry season the primary source of water in Arroyo Seco is wastewater from the Lawrence Livermore National Laboratory, which is drained ~~by the Zone 7 Water Agency P-1 flood control channel~~to the relocated Arroyo las Positas, Line P-1, located along the northern portion of the Lawrence Livermore National Laboratory (San Francisco Bay RWQCB, 2007).

On page 3.9-2, revise the text in the first paragraph:

> ~~The Alameda County Flood Control and Water Conservation District~~Zone 7 is responsible for sections of Arroyo Las Positas Creek within the Planning Area. ~~Currently, Zone 7 has no capital improvement plans to modify any of these creeks.~~ Between the Las Positas College entry and North Canyons Parkway, Collier Canyon Creek runs in a series of city-owned culverts and drainage pipes.

On page 3.9-14, add the following subsection under "State Regulations":

> **Policy for Water Quality Control for Recycled Water (Recycled Water Policy)**

In response to the collapse of the Bay-Delta ecosystem, climate change, and continuing population growth combined with a server drought on the Colorado River, the State Water Resources Control Board (State Water Board) has adopted goals to increase the use of recycled water and stormwater, the amount of water conserved in urban and industrial uses, and the substitution of recycled water for potable water where possible. This Policy provides direction to the Regional Water Quality Control Boards (Regional Water Boards), proponents of recycled water projects, and the public regarding the appropriate criteria to be used by the State Water Board and the Regional Water Boards in issuing permits for recycled water projects.

On page 3.9-14, revise the text under "Alameda County Ordinances and Policies":

- Ch. 15.40, Floodplain Management.… areas of special flood hazard.
- Ch. 6.88, Water Wells. The water wells ordinance provides the regulations for the construction, repair, reconstruction, and destruction of wells, including abandoned wells or wells found to be public nuisances.

On page 3.9-15, revise the text under "Alameda County Flood Control and Water Conservation District Programs":

The Alameda County Flood Control …as required for NPDES permits.

The Development Impact Fee for Flood Protection and Storm Water Drainage applies to new development and the expansion of existing development which may impose a burden on the existing flood protection and storm drainage infrastructure within the Zone 7 service area. Developments creating new impervious areas within the Livermore-Amador Valley are subject to the assessment of this fee. These fees are collected for Zone 7 by the local governing agency: 1) upon approval of final map for public improvements creating new impervious areas; and/or 2) upon issuance of a building or use permit required for site improvements creating new impervious areas. Fees are dependent on whether post-project impervious area conditions are greater than pre-project conditions and/or whether fees have previously been paid.

The Stream Management Master Plan (SMMP) is a multi-benefit program that is developed to fulfill the stream management goals and objectives of Zone 7 and other local and regional agencies. First completed in 2006, the SMMP identified projects now located in the Planning Area. These projects are currently planned to be superseded with a new project in the SMMP Amendment to be released in the near term, which will address regional flooding issues.

The Sustainable Groundwater Management Ordinance requires that the groundwater resources of Eastern Alameda County be protected from adverse impacts resulting from specific activities that constitute unsustainable groundwater extraction within Zone 7's service area and from the export of water outside of the Zone 7 service area. The ordinance prohibits the unsustainable or wasteful use of groundwater within the service area; the

export of water to areas or users outside the service area; and the waste or unreasonable use of surface water within the service area.

The Zone 7 Salt Management Plan is a cooperate effort developed to address the increasing level of total dissolved solids in the main groundwater basin and provides the technical information and analyses that support the Zone 7 Board approved salt management strategy of using increased conjunctive use combined with shallow groundwater demineralization in the western portion of the service area to fully offset current and future sources of salt loading to the main groundwater basin.

The Nutrient Management Plan (NMP) provides an assessment of existing and future groundwater nutrient concentrations relative to the current and planned expansion of recycled water projects and future development in the Livermore Valley. The NMP also presents planned actions for addressing positive nutrient loads and high groundwater nitrate concentration in localized Areas of Concern where the use of onsite wastewater treatment systems (i.e., septic tank systems) are the predominant method for sewage disposal.

Any planned new well, well repair or modification, well decommissioning or destruction, or exploratory soil boring that may intersect groundwater within Zone 7's jurisdiction must by permitted by Zone 7 before starting the work. In addition, a Zone 7 drilling permit is required to dig, drill, bore, drive, advance by direct push any exploratory soil boring 10 feet or greater in depth within the groundwater basins of Zone 7 regardless of groundwater depth.

On page 3.9-28, the header at the top of the page has been revised as follows:

Proposed ~~General~~ Plan Goals and Policies that Reduce the Impact

On page 3.9-29, the policies referenced under Impact 3.9-7 have been added to the text:

The Planning Area contains some areas … would be less than significant.

Mitigation Measures

~~None required.~~

P-ENV-30: Ensure new projects within the 100-year flood zone are designed to reduce flood risk. In accordance with Municipal Code Chapter 16.12, Flood Control Regulations, strategies include site planning, grading to minimize flood risk, and flood proofing new commercial construction.

P-ENV-32: If any structure or grading for the Isabel Station surface parking will alter the flood-plain, a floodplain analysis including a conditional letter of map revision and letter of map revision may be required to meet FEMA requirements in the City. BART will work with floodplain managers in impacted cities and counties to submit and process required paperwork for FEMA approval.

Chapter 3.10: Utilities and Service Systems

The Water Supply Assessment completed in 2017 referenced in this chapter was mistakenly not included as an attachment to the Draft EIR, but it can be found as Appendix A of this FEIR. The significance determinations in this section related to water supply are based on the attached Water Supply Assessment and would not change. Additionally, a draft Water Supply Assessment was provided to Zone 7, and their comments informed the final report. Also referenced in this Draft EIR section and attached as Appendix B and C are the Isabel Neighborhood Plan Potable Water System Evaluation and Isabel Neighborhood Plan Sewer System Evaluation, respectively.

On page 3.10-2, revise the text under "Potable and Non-Potable Water":

> Based on the adopted UWMPs and updated projections, Zone 7 has indicated that there is sufficient planned water supply at this time to serve the City's General Plan anticipated growth, which accounts for development under the Isabel Neighborhood Plan (West Yost Associates, 2017a).

On page 3.10-11, revise the text under "Impact 3.10-1":

> According to the Isabel Neighborhood Plan Sewer System Evaluation, additional development resulting from implementation of the proposed Plan would require treatment of an additional 0.42 MGD of Average Dry Weather Flow (West Yost Associates, 2017~~b~~c).

Chapter 3.11: Public Services and Recreation

On page 3.11-12, under "Proposed Plan Goals and Policies that Reduce the Impact," revise Policy P-ENV-18 as follows:

> P-ENV-18 Establish a minimum ~~100~~50-foot buffer from ~~all creek edges~~the top of stream banks and restrict new development within the buffer….

On page 3.11-13, revise the text under "Schools":

> … with the approved CUP (or with a CUP amendment). The maximum permitted density for a K-12 school is 300 people per acre (average) and 1,200 people per single acre. This overlay also permits public uses including Fire, Police, Library, parks, public recreation facilities, school administration and other community serving public and quasi-public uses like day care.

On page 3.11-13, revise the text under "Fire":

> According to the LPFD, the existing nearby fire stations would provide sufficient coverage for future development projected to occur in the Planning Area, and no new facilities would be required to serve new development resulting from implementation of the proposed Plan.

Chapter 3.13: Cultural and Tribal Resources

On page 3.13-15, Policy P-PF-19 has been revised:

P-PF-19: Incorporate elements commemorating Gandolfo Ranch into the park development in order to promote understanding among visitors of the site's historical significance. ~~Such elements may include, but are not limited to, interpretive signage and~~ The preservation of structures or other character-defining features is strongly encouraged.

On page 3.13-15, Policy P-PF-20 has been revised to clarify terms:

P-PF-20: Require, prior to issuance of permits for the alteration, relocation, or demolition of a historical resource, that the project sponsor conduct Historic American Buildings Survey (HABS) and Historic American Landscapes Survey (HALS) Level II documentation. The HABS is a federal preservation program used to document architectural heritage and the HALS is a federal program used to document landscapes…

Chapter 3.14: Agricultural Resources

On page 3.14-8, the text under Impact 3.14-2 has been revised as follows:

Impact 3.14-2 Buildout of the proposed Plan would not conflict with an existing zoning for agricultural use, or a Williamson Act contract. (Less than Significant ~~and Unavoidable~~)

…The proposed Plan would designate ~~both~~ the northern parcel~~s~~ as ~~Transition Residential~~ Open Space, which does ~~not~~ allow for agricultural uses and limits urban development. ~~Thus, because~~ Therefore, the proposed Plan land use designation ~~would conflict~~ is consistent with the existing zoning to permit only agricultural plantings on the northern parcel~~, there would be a significant and unavoidable impact related to zoning for agricultural use~~. ~~However, should the proposed Plan be adopted, zoning in this area would be revised to be consistent with the proposed Plan designation~~…

Mitigation Measures

None required. ~~As implementation of the proposed Plan would designate non-agricultural uses on a parcel zoned for agricultural use, there are no mitigation measures available that would reduce this impact to a level that is less than significant.~~

On page 3.14-8, the text under Impact 3.14-3 has been revised as follows:

...The areas of Unique Farmland and Farmland of Statewide Importance in the periphery of the northwestern part of the Planning Area are designated as Open Space and located immediately north of lands developed with and designated as Business Park and Residential Transition under the proposed Plan. ~~However, these land use designations are proposed where there are existing townhomes and condominiums, offices, business parks, and industrial uses, where people already live and work.~~..

Chapter 4: Alternatives Analysis

On page 4-3 Table 4.2-1, Comparison of Alternatives at Buildout: remove Existing buildout column; remove population figures; remove buildout by non-residential land use for all alternatives; and revise residential and non-residential buildout numbers for the No Project (2040) and Reduced Development (Plan Bay Area 2040) alternatives.

Table 4.2-1: Comparison of Alternatives at Buildout

	~~*Existing Conditions (2013)*~~	*Net New Development by INP Alternative*			
		Proposed Plan (2040)	*No Project (GP 2040)*	*Reduced Development (Plan Bay Area 2040) Alternative*	*Enhanced Parking, Car-Light, and DMU alternatives (same as Proposed Plan 2040)*
~~Residential Population and Housing~~					
Residential ~~Housing~~ Units[1]	~~1,383~~[4]	4,095	~~9100~~	~~3,1022,192~~	4,095[4]
Households[2]	~~1,313~~	3,890	~~8650~~	~~2,9472,082~~	3,890
~~Population~~	~~3,308~~[3]	~~9,803~~[3]	~~2,179~~	~~7,426~~	~~9,803~~[3]
Non-Residential ~~Area and Jobs~~[4]					
~~Ground Floor Retail/Neighborhood Commercial (sf)~~	~~0~~	~~324,300~~	~~0~~	~~0~~	~~324,300~~
~~General Commercial (sf)~~	~~903,000~~	~~296,300~~	~~784,000~~	~~574,700~~	~~296,300~~
~~Office Core (sf)~~	~~0~~	~~1,414,000~~	~~0~~	~~0~~	~~1,414,000~~
~~Office/Business Park (sf)~~	~~918,100~~	~~482,700~~	~~797,100~~	~~917,500~~	~~482,700~~
~~Industrial/Warehousing (sf)~~	~~2,345,000~~	~~-413,100~~	~~2,036,100~~	~~264,600~~	~~-413,100~~
~~Education/Institutional~~	~~231,500~~	~~0~~	~~201,000~~	~~0~~	~~0~~
Total Non-Residential (sf)[3]	~~4,397,700~~	2,104,200	~~3,818,3001~~,884,000	~~1,756,800~~564,267	2,104,200
Jobs[5]	~~8,744~~	9,100	~~7,5925~~,900	~~3,493~~1,800	9,100
Other					
Public/Institutional (acres)	~~204.5~~	167.4	129.8	167.4	167.4
Parks (acres)	~~36.4~~	150.2	137.5	150.2	150.2

Notes:

1. Net new development does not include ~~Includes~~ the 476 Shea Homes Sage units ~~currently under construction~~.

2. Households are estimated as 95 percent of the total housing units, assuming a 5 percent vacancy rate.

~~3. Population is calculated assuming an average of 2.52 persons per household multifamily household.~~

3. Non-Residential square feet are rounded to the nearest hundred.

~~5. Jobs were calculated assuming one job per 225 square feet of Office-Core; one job per 225 square feet of Office; one job per 300 square feet of Business Park; one job per 800 square feet of General Commercial; and one job per 500 square feet of Neighborhood Commercial.~~

Source: Dyett & Bhatia, 2017.

Page 4-11 Table 4.3-2, 2040 Cumulative Comparative Level of Service Results for the Alternatives – AM Peak Hour: revise intersection 10 as follows.

10	Collier Canyon Road & North Canyons Parkway	Mid D	20.7	C	~~33.3~~ 36.0	~~C~~ D	~~23.0~~ 25.7	C	~~33.3~~ 36.0	~~C~~ D	~~32.7~~ 35.4	~~C~~ D	~~35.2~~ 37.9	D

Page 4-12 Table 4.3-2, 2040 Cumulative Comparative Level of Service Results for the Alternatives – AM Peak Hour: revise to remove intersection 26, Gateway Drive and North Canyons Parkway.

Page 4-13: Table 4.3-3: 2040 Cumulative Comparative Level of Service Results for the Alternatives – PM Peak Hour: revise intersection 10 as follows.

10	Collier Canyon Road & North Canyons Parkway	Mid D	22.5	C	~~26.8~~ 39.9	~~C~~D	~~20.6~~ 33.7	~~C~~ D	26.8 39.9	~~C~~ D	~~26.6~~ 39.7	~~C~~ D	~~23.4~~ 36.4	~~C~~ D

Page 4-14: Table 4.3-3: 2040 Cumulative Comparative Level of Service Results for the Alternatives – PM Peak Hour: revise to remove intersection 26, Gateway Drive and North Canyons Parkway.

Page 4-57: Table 4.4-1, Summary of Impacts for Alternatives: revise "Traffic and Transportation" impact to air traffic from NI to LTS.

Chapter 6: References

On page 6-7, add the following reference under "3.7 Biological Resources":

California Department of Fish and Wildlife, 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. Online. https://www.wildlife.ca.gov/Conservation/Survey-Protocols#377281280-plants. Accessed: April 26, 2018.

On page 6-8, add the following reference under "3.7 Biological Resources":

Zeiner, D. C., W. F. Laudenslayer, Jr., and K. E. Mayer (eds.). 1990. California's Wildlife. Volume III: Mammals. California Statewide Wildlife Habitat Relationships System. Sacramento, CA: California Department of Fish and Game.

Appendix E

Page 1: Special-Status Wildlife Known or with Potential to Occur in the Study Area Table: include column between Conservancy fairy shrimp and Vernal pool fairy shrimp:

Longhorn fairy shrimp *Branchinecta longiantenna*	FE/–/–	Eastern margin of central Coast Ranges from Contra Costa County to San Luis Obispo County; disjunct population in Madera County	Small, clear pools in sandstone rock outcrops in Contra Costa and Alameda Counties or clear to moderately turbid clay- or grass-bottomed pools elsewhere	Absent	Vernal pools in sandstone rock outcrops are absent from the study area

Page 2 and Table 3.7-3: Special-Status Wildlife Known or with Potential to Occur in the Study Area Table: include column under Amphibians and above California red-legged frog:

Western spadefoot toad *Spea hammondii*	–/–/SSC	Sierra Nevada foothills, Central Valley, Coast Ranges, coastal counties in southern California	Shallow streams with riffles and seasonal wetlands, such as vernal pools in annual grasslands and oak woodlands.	Present	Study area includes suitable aquatic habitat (wetlands, shallow streams) and upland habitat (grassland).

Page 3: Special-Status Wildlife Known or with Potential to Occur in the Study Area Table: include column under Reptiles and above Alameda whipsnake:

San Joaquin coachwhip *Masticophis flagellum ruddocki*	–/–/SSC	From Colusa county in the Sacramento Valley southward to the grapevine in the San Joaquin Valley and westward into the inner coast ranges. An isolated population occurs at Sutter Buttes. Known elevation range from 65 to 2,950 feet above mean sea level	Occurs in open, dry, vegetative associations with little or no tree cover. It occurs in valley grassland and saltbush scrub associations. Often occurs in association with mammal burrows	Absent	Insufficient habitat present surrounded and fragmented by development (including Interstate 580 and arterial roads) with landscape trees present.

Page 4 and Table 3.7-3: Special-Status Wildlife Known or with Potential to Occur in the Study Area Table: include column between Tricolored blackbird and above White-tailed kite:

Golden eagle *Aquila chrysaetos*	–/–/FP	Foothills and mountains throughout California. Uncommon nonbreeding visitor to lowlands such as the Central Valley	Nest on cliffs and escarpments or in tall trees overlooking open country. Forages in annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals	Present	Suitable foraging habitat present, nesting habitat absent.
Ferruginous hawk *Buteo regalis*	–/–/–	Does not nest in California; winter visitor along the coast from Sonoma County to San Diego County, east-ward to the Sierra Nevada foothills and south-eastern deserts, the Inyo-White Mountains, the plains east of the Cascade Range, and Siskiyou County	Open terrain in plains and foothills where ground squirrels and other prey are available	Present	Suitable foraging habitat present, does not nest in California.
Northern harrier *Circus cyaneus*	–/–/SSC	Occurs throughout lowland California. Has been recorded in fall at high elevations	Grasslands, meadows, marshes, and seasonal and agricultural wetlands	Present	Suitable nesting and foraging habitat occur within and/or near study area

Page 4 and Table 3.7-3: Special-Status Wildlife Known or with Potential to Occur in the Study Area
Table: include column under White-tailed kite:

Prairie falcon *Falco mexicanus*	–/–/–	Permanent resident in the south Coast, Transverse, Peninsular, and northern Cascade Ranges, the southeastern deserts, Inyo-White Mountains, foothills surrounding the Central Valley, and in the Sierra Nevada in Modoc, Lassen, and Plumas Counties. Winters in the Central Valley, along the coast from Santa Barbara County to San Diego County, and in Marin County.	Nests on cliffs or escarpments, usually overlooking dry, open terrain or uplands	Present	Suitable foraging habitat present, nesting habitat absent.
American peregrine falcon *Falco peregrinus anatum*	–/E/FP	Permanent resident along the north and south Coast Ranges. May summer in the Cascade and Klamath Ranges and through the Sierra Nevada to Madera County. Winters in the Central Valley south through the Transverse and Peninsular Ranges and the plains east of the Cascade Range	Nests and roosts on protected ledges of high cliffs, usually adjacent to lakes, rivers, or marshes that support large prey populations	Present	Suitable foraging habitat present, nesting habitat absent.

California horned lark *Eremophila alpestris actia*	–/–/–	Found throughout much of the state, less common in mountainous areas of the north coast and in coniferous or chaparral habitats	Common to abundant resident in a variety of open habitats, usually where large trees and shrubs are absent. Grasslands and deserts to dwarf shrub habitats above tree line	Present	Suitable nesting and foraging habitat occur within and/or near study area
Grasshopper sparrow *Ammodramus savannarum*	–/–/SSC	Found in grasslands throughout coastal California and low foothills the Sierra Nevada Mountains	Grasslands and savannas in open areas.	Present	Suitable nesting and foraging habitat occur within and/or near study area

Page 5 and Table 3.7-3: Special-Status Wildlife Known or with Potential to Occur in the Study Area
Table: include column above Townsend's big-eared bat:

Pallid bat Antrozous pallidus	–/–/SSC	Occurs throughout California except the high Sierra from Shasta to Kern County and the northwest coast, primarily at lower and mid elevations	Occurs in a variety of habitats from desert to coniferous forest. Most closely associated with oak, yellow pine, redwood, and giant sequoia habitats in northern California and oak woodland, grassland, and desert scrub in southern California. Relies heavily on trees for roosts	Present	Suitable woodland and man-made structures for roosting habitat occur in study area

Figure 2-2:
Planning Area

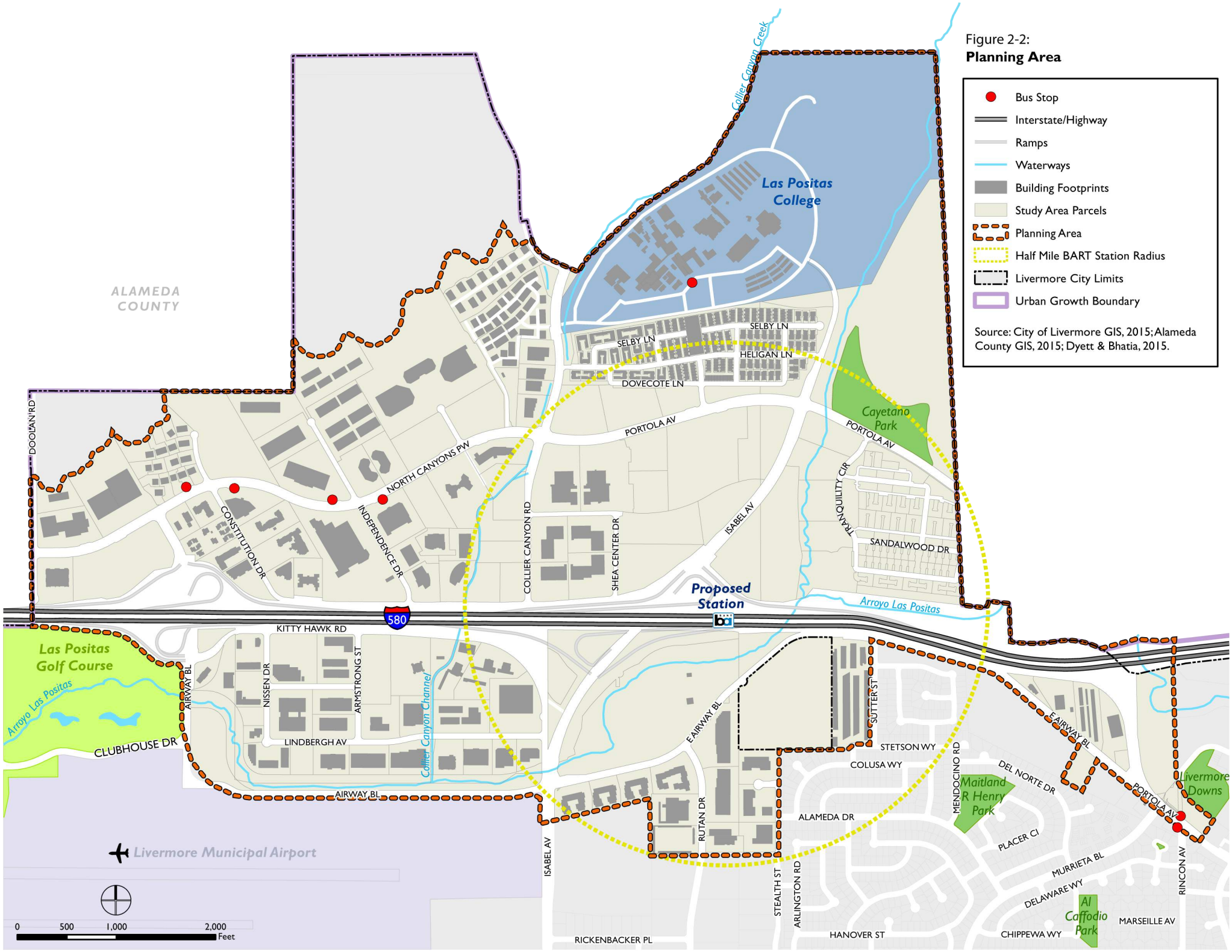


Figure 2-3:
Land Use Diagram

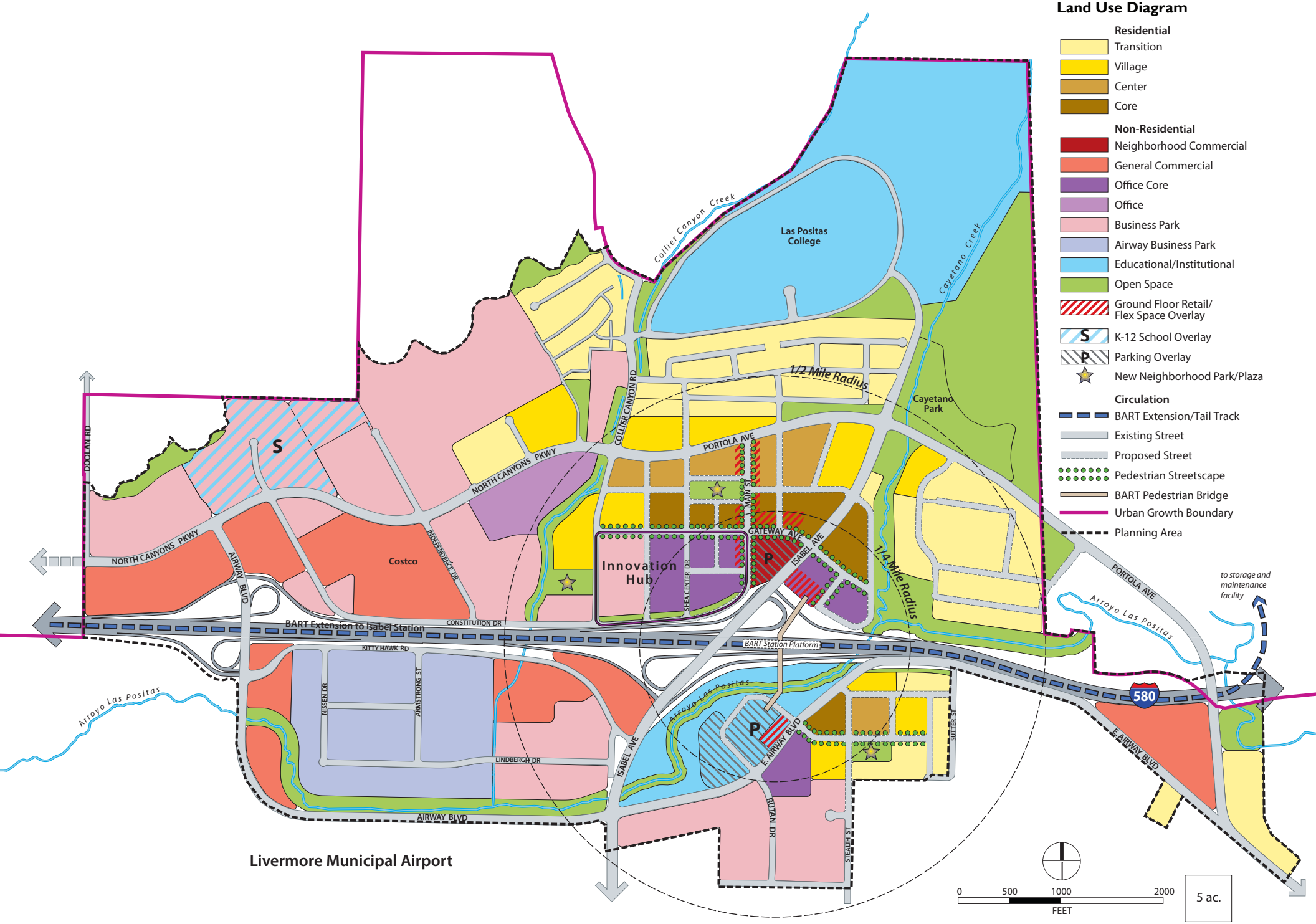


Figure 2-4:
Land Use Diagram — Change Areas

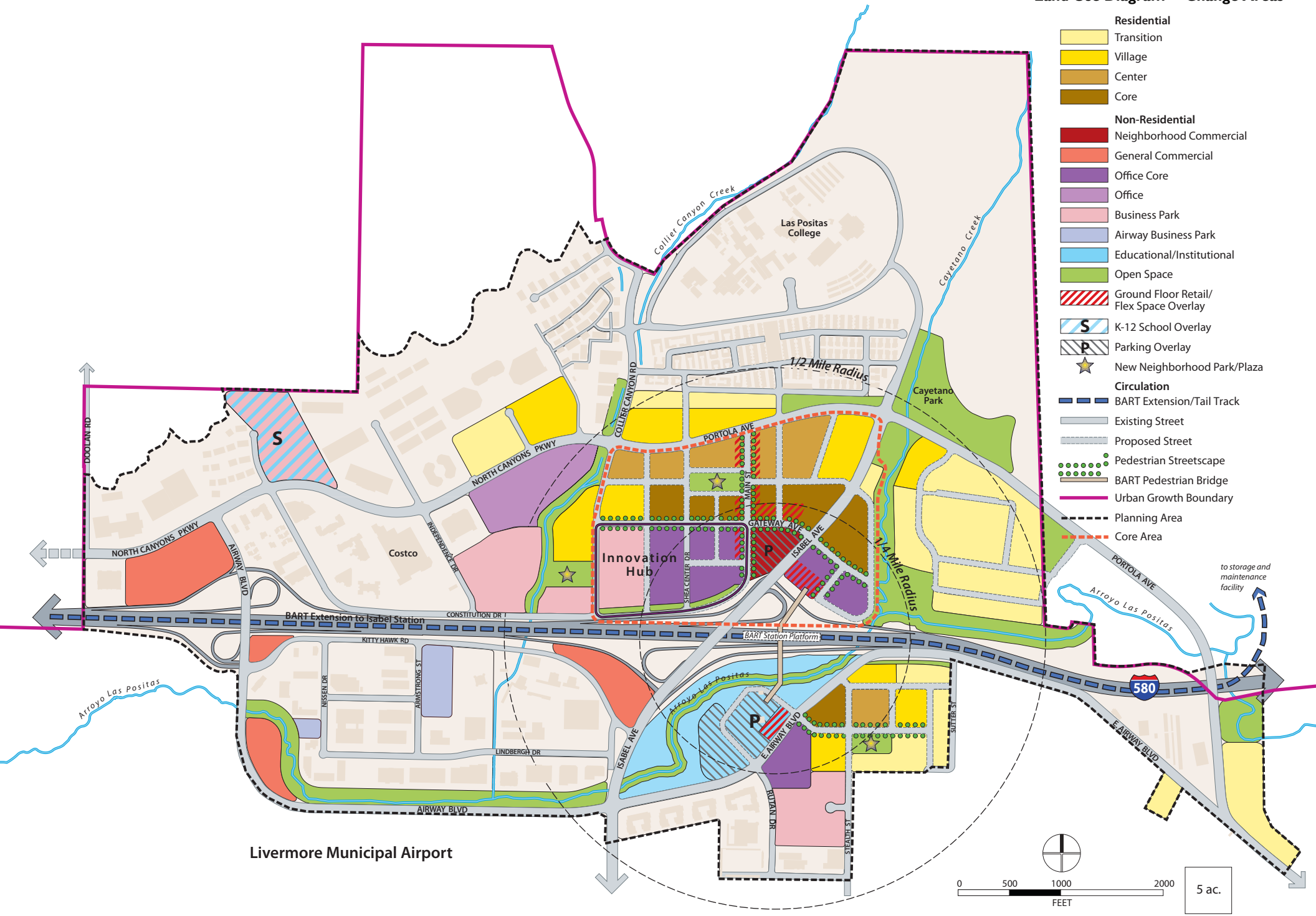


Figure 3.1-4:
Local Airport Policies

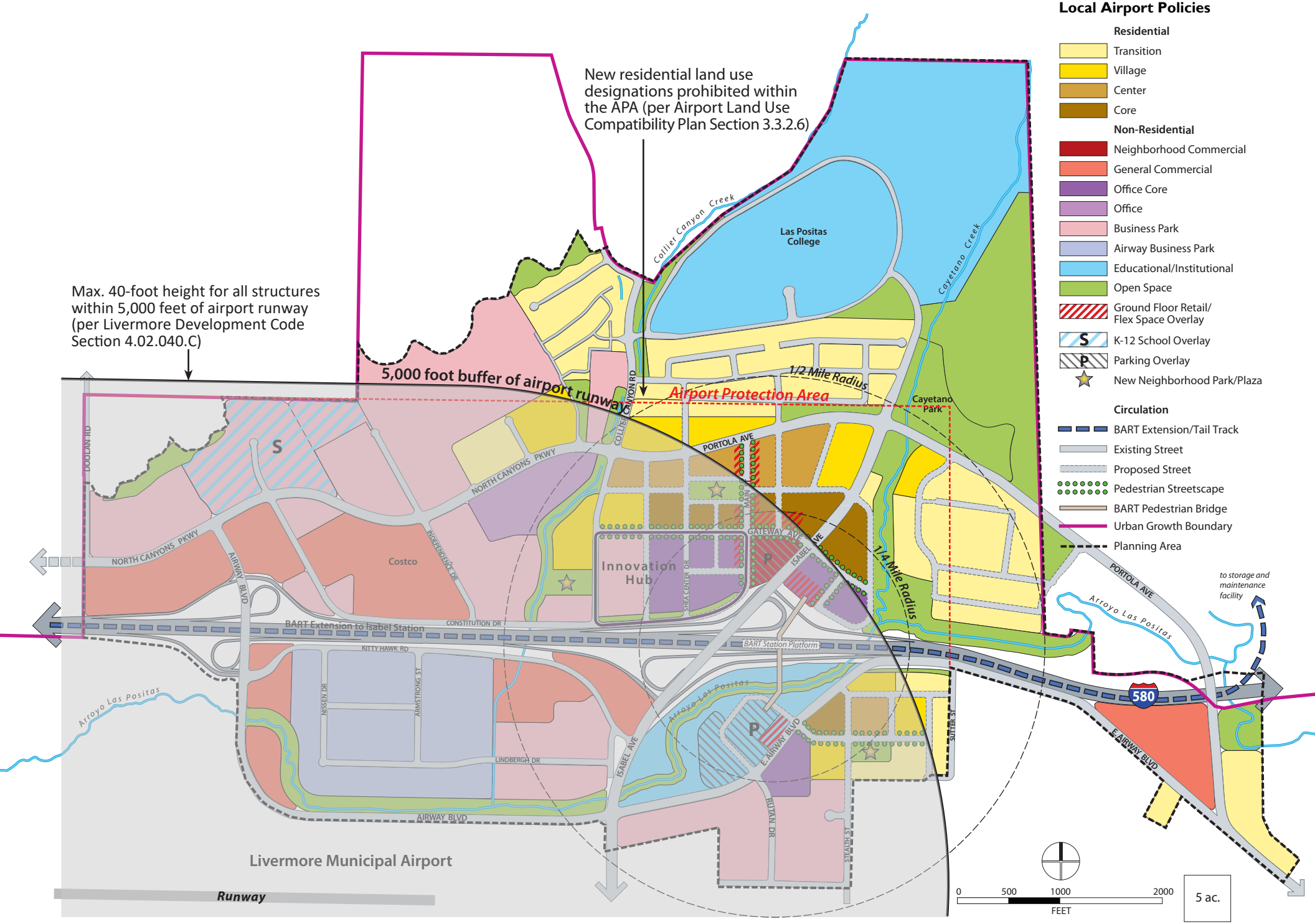
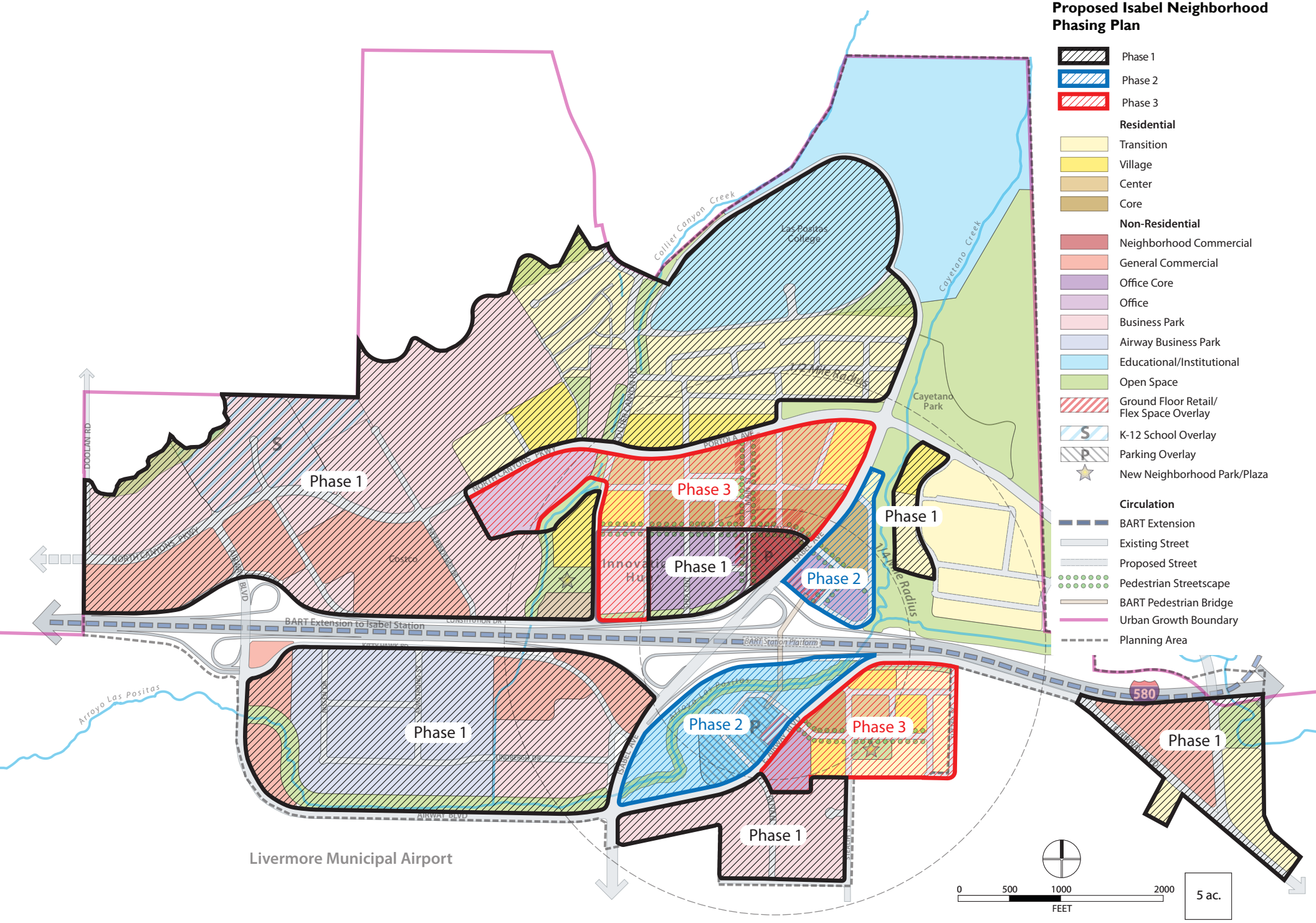
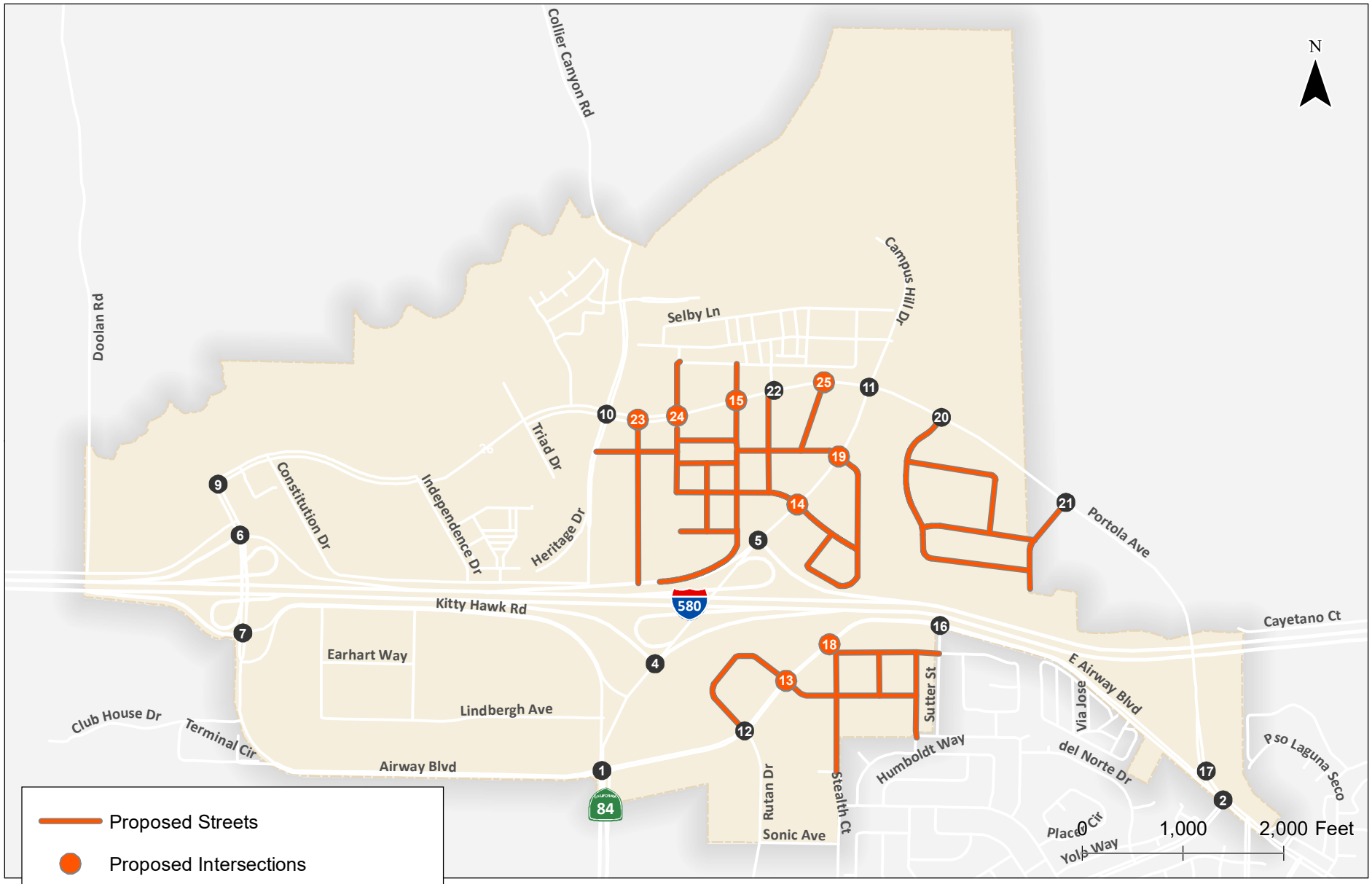


Figure 3.1-6:
Proposed Isabel Neighborhood Phasing Plan





Study Area and Study Intersections
Livermore, CA

Figure
3.2-1

Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

KITTELSON & ASSOCIATES

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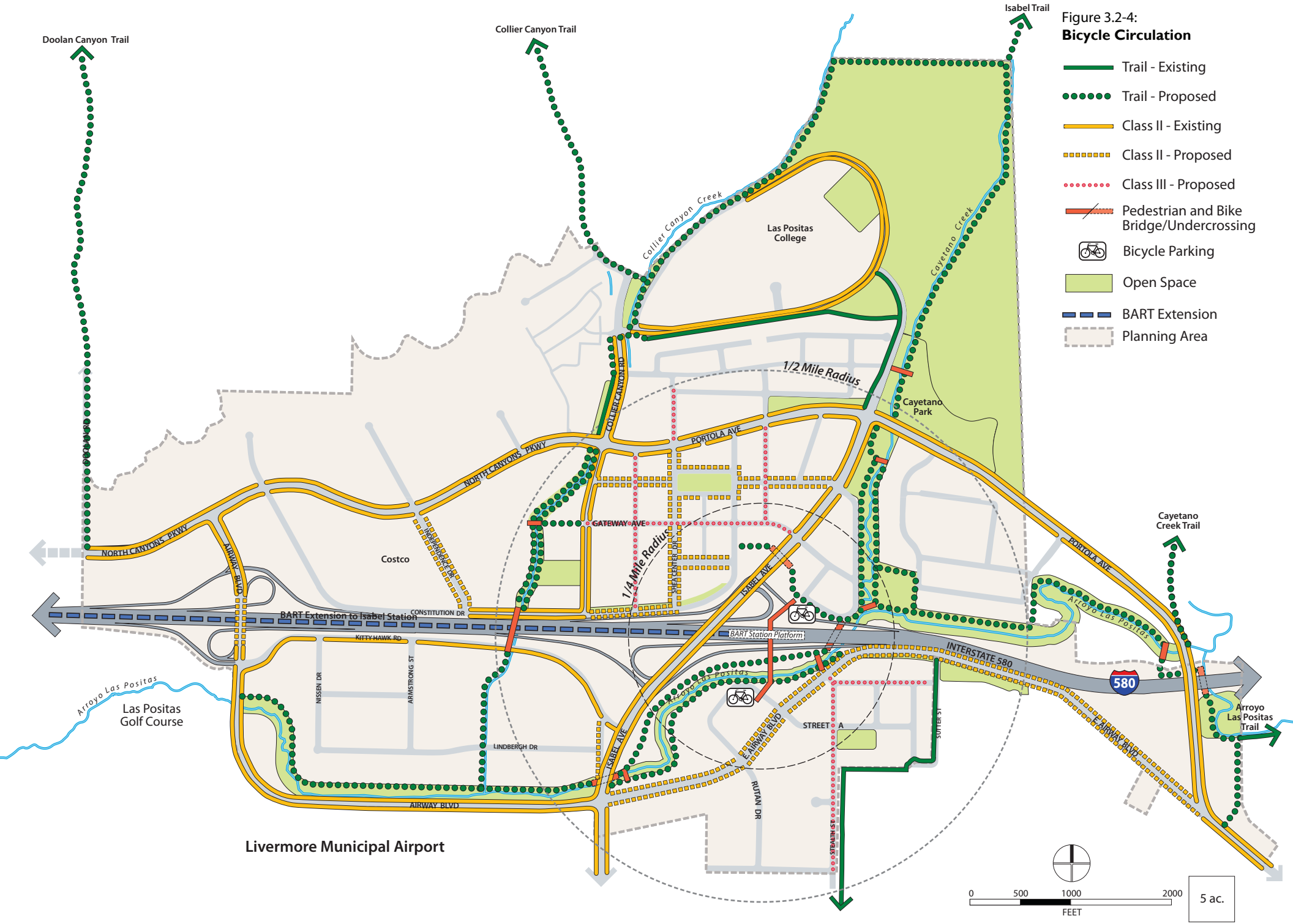
Figure 3.2-4:
Bicycle Circulation
Trail - Existing
Trail - Proposed
Class II - Existing
Class II - Proposed
Class III - Proposed
Pedestrian and Bike Bridge/Undercrossing
Bicycle Parking
Open Space
BART Extension
Planning Area
Doolan Canyon Trail
Collier Canyon Trail
Isabel Trail
Collier Canyon Creek
Cayetano Creek
Las Positas College
1/2 Mile Radius
1/4 Mile Radius
Cayetano Park
COLLIER CANYON RD
PORTOLA AVE
NORTH CANYONS PKWY
GATEWAY AVE
Costco
AIRWAY BLVD
CONSTITUTION DR
BART Extension to Isabel Station
BART Station Platform
KITTY HAWK RD
NISSEN DR
ARMSTRONG ST
LINDBERGH DR
ISABEL AVE
SPECTRUM DR
FAIRWAY BLVD
STREET A
RUTAN DR
STEALTH ST
SOUTER ST
INTERSTATE 580
580
Arroyo Las Positas
Las Positas Golf Course
Livermore Municipal Airport
Cayetano Creek Trail
Arroyo Las Positas Trail
0
500
1000
2000
FEET
5 ac.

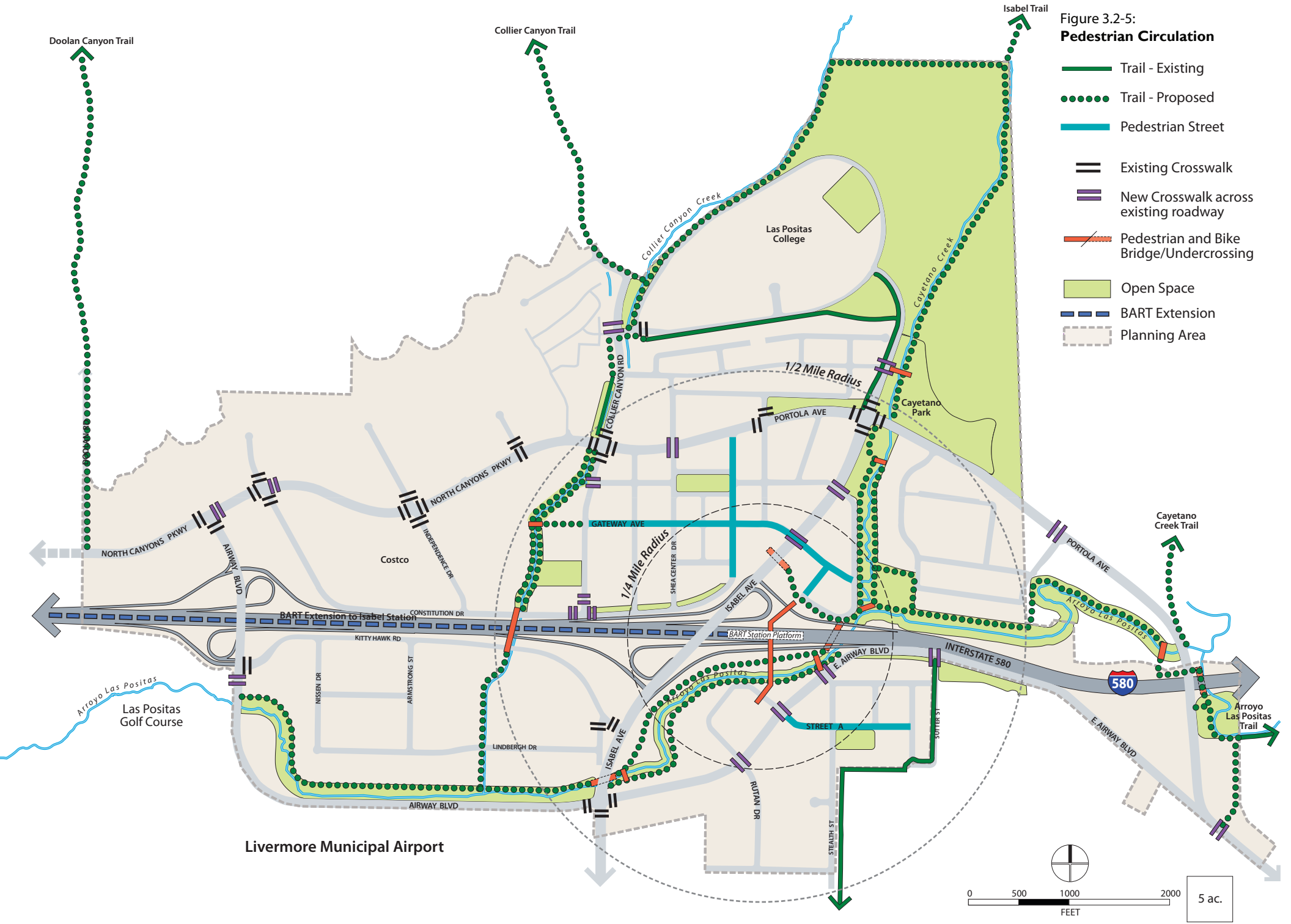
Figure 3.2-5:
Pedestrian Circulation
Trail - Existing
Trail - Proposed
Pedestrian Street
Existing Crosswalk
New Crosswalk across existing roadway
Pedestrian and Bike Bridge/Undercrossing
Open Space
BART Extension
Planning Area
Doolan Canyon Trail
Collier Canyon Trail
Isabel Trail
Collier Canyon Creek
Las Positas College
Cayetano Creek
1/2 Mile Radius
1/4 Mile Radius
COLLIER CANYON RD
PORTOLA AVE
Cayetano Park
Cayetano Creek Trail
NORTH CANYONS PKWY
DOOLAN RD
AIRWAY BLVD
INDEPENDENCE DR
Costco
GATEWAY AVE
SHEA CENTER DR
ISABEL AVE
CONSTITUTION DR
BART Extension to Isabel Station
KITTY HAWK RD
BART Station Platform
INTERSTATE 580
E. AIRWAY BLVD
Arroyo Las Positas
Las Positas Golf Course
NISSEN DR
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RUTAN DR
STEALTH ST
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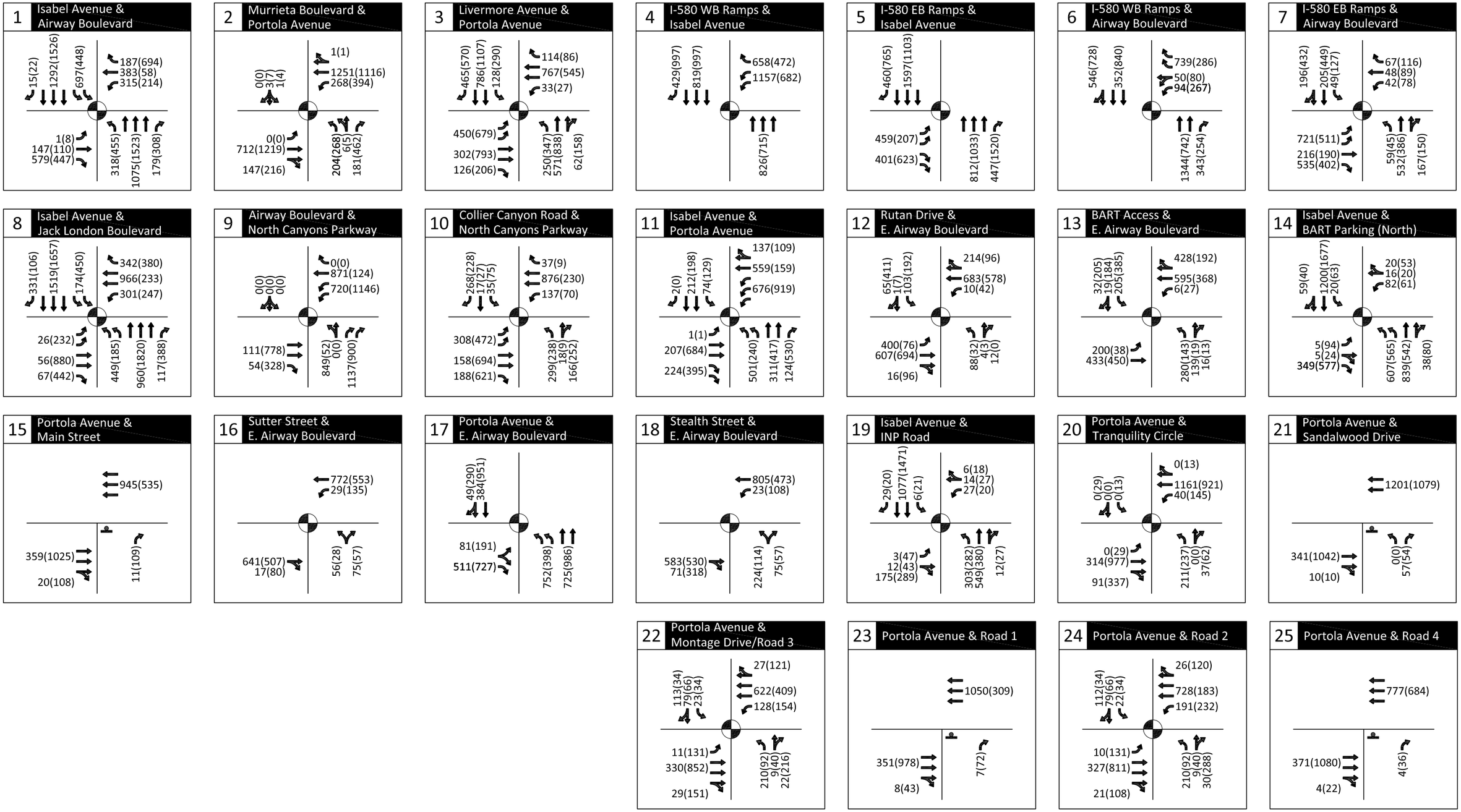

AM(PM) - Traffic Volume

- Stop Sign

- Traffic Signal

2040 Cumulative Plus Project Traffic Volumes
Weekday AM and PM Peak Hours
Livermore, CA

Figure
3.2-9

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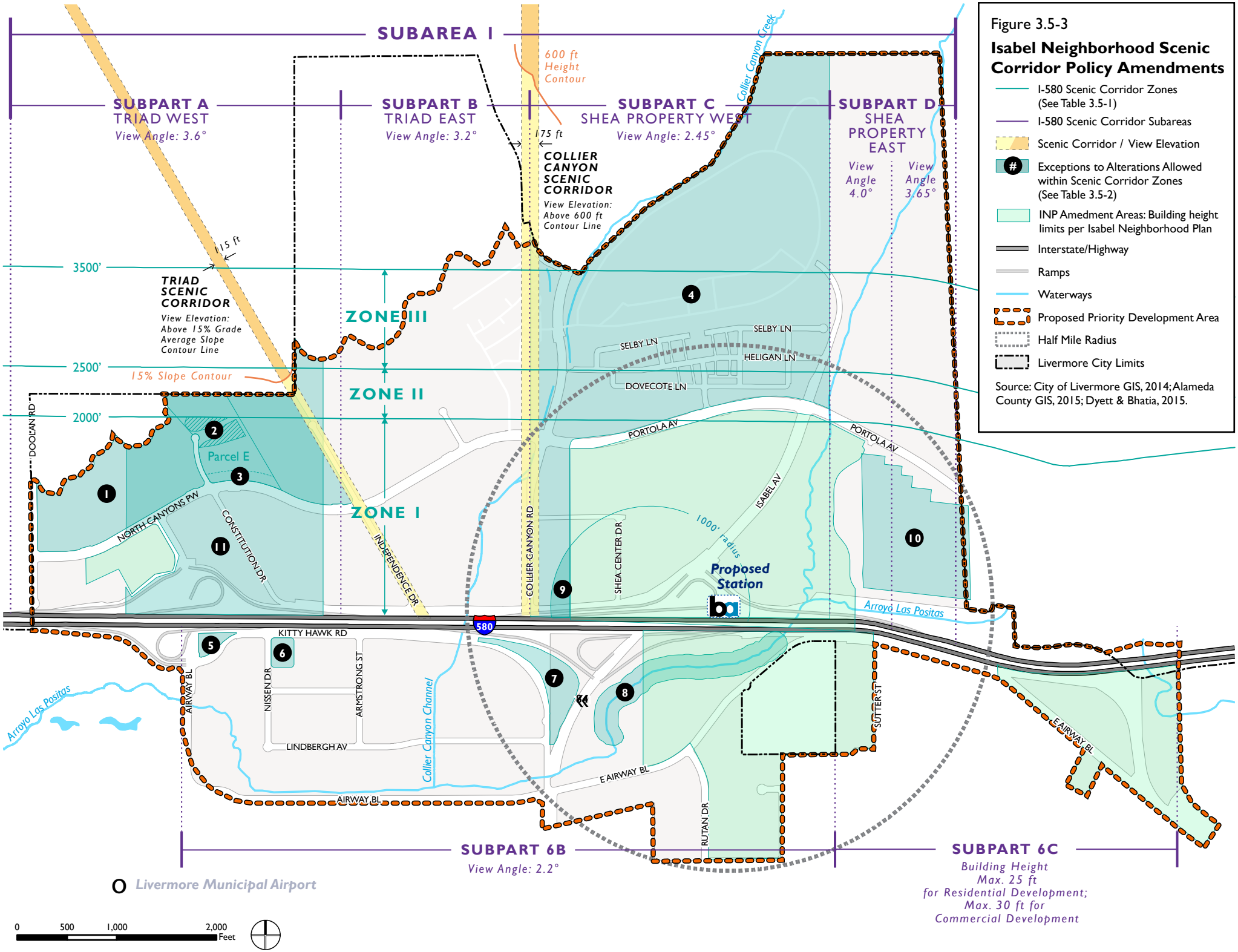


Figure 3.5-3

Isabel Neighborhood Scenic Corridor Policy Amendments

- I-580 Scenic Corridor Zones (See Table 3.5-1)
- I-580 Scenic Corridor Subareas
- Scenic Corridor / View Elevation
- # Exceptions to Alterations Allowed within Scenic Corridor Zones (See Table 3.5-2)
- INP Amedment Areas: Building height limits per Isabel Neighborhood Plan
- Interstate/Highway
- Ramps
- Waterways
- Proposed Priority Development Area
- Half Mile Radius
- Livermore City Limits

Source: City of Livermore GIS, 2014; Alameda County GIS, 2015; Dyett & Bhatia, 2015.

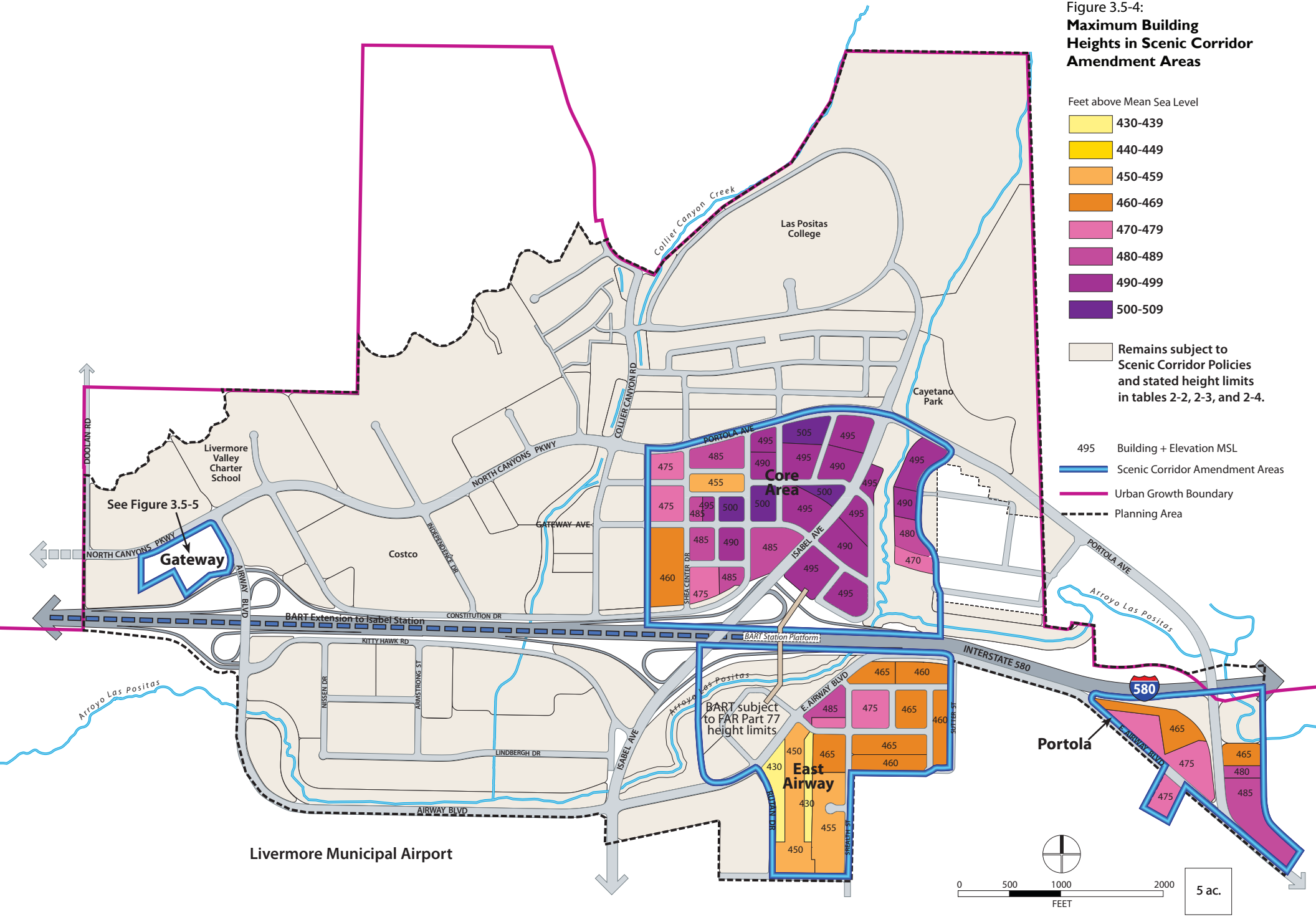
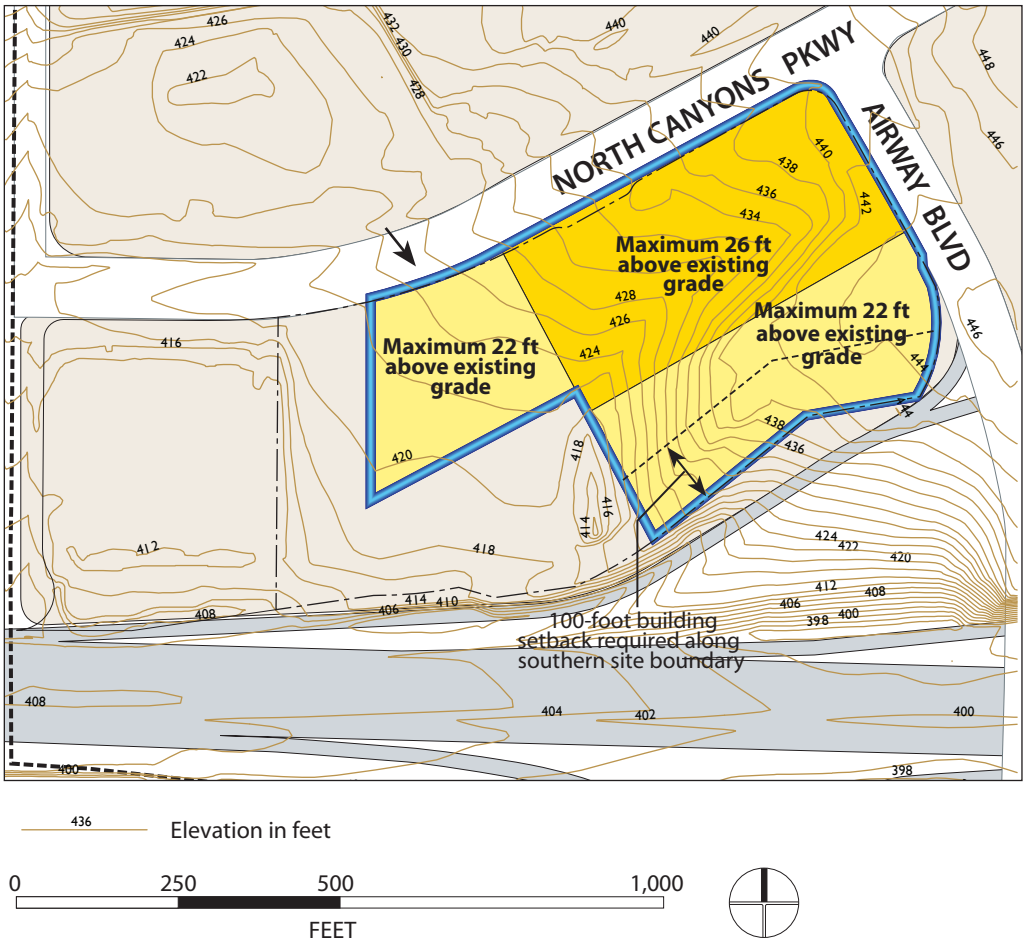
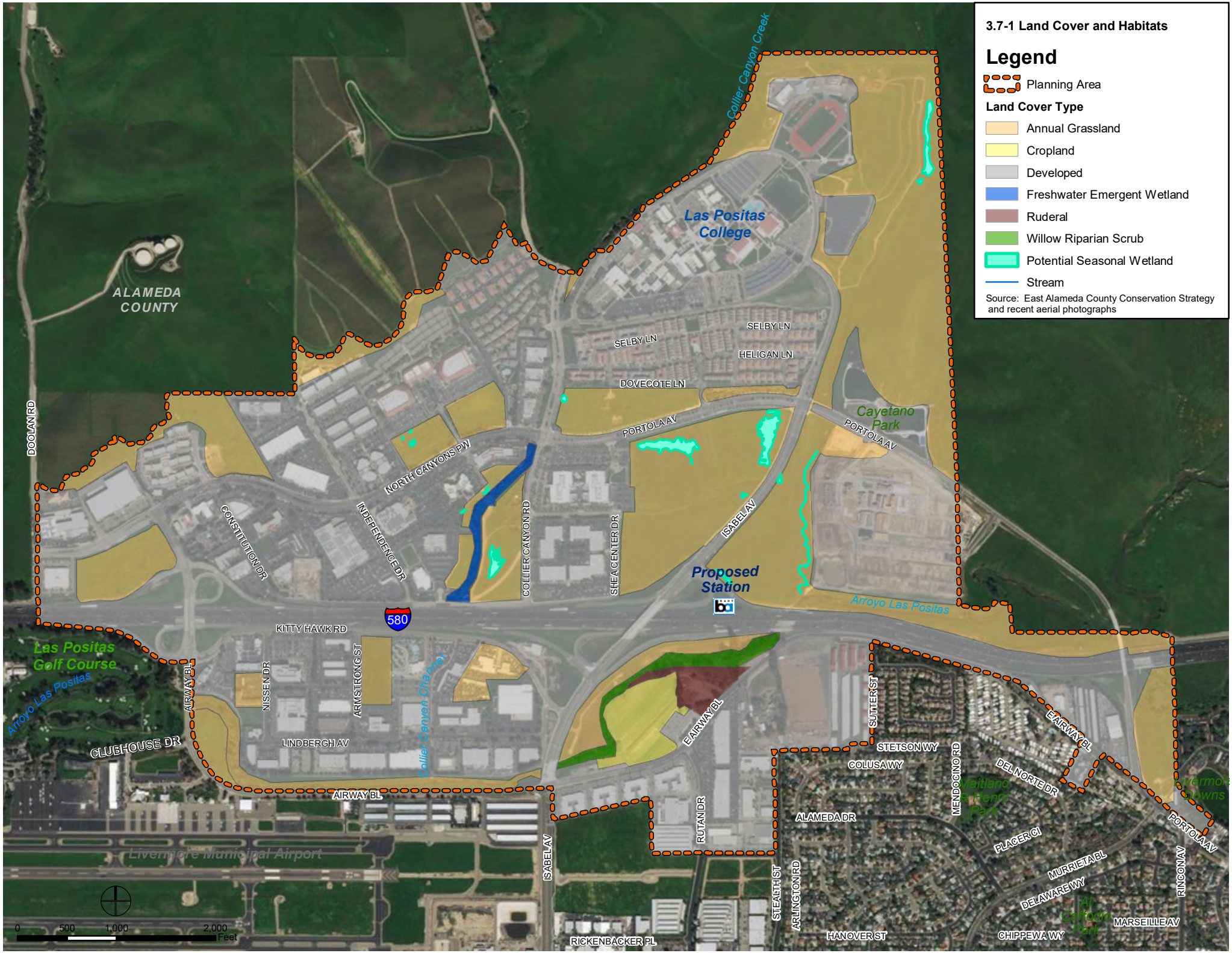


Figure 3.5-4:
Maximum Building Heights in Scenic Corridor Amendment Areas
Feet above Mean Sea Level
430-439
440-449
450-459
460-469
470-479
480-489
490-499
500-509
Remains subject to Scenic Corridor Policies and stated height limits in tables 2-2, 2-3, and 2-4.
495 Building + Elevation MSL
Scenic Corridor Amendment Areas
Urban Growth Boundary
Planning Area
Las Positas College
Collier Canyon Creek
Cayetano Park
Livermore Valley Charter School
See Figure 3.5-5
Gateway
Costco
Core Area
East Airway
Portola
BART subject to FAR Part 77 height limits
BART Extension to Isabel Station
BART Station Platform
Livermore Municipal Airport
Arroyo Las Positas
DOOLAN RD
COLLIER CANYON RD
NORTH CANYONS PKWY
GATEWAY AVE
INDEPENDENCE DR
AIRWAY BLVD
CONSTITUTION DR
KITTY HAWK RD
NISSEN DR
ARMSTRONG ST
LINDBERGH DR
ISABEL AVE
PORTOLA AVE
SHEA CENTER DR
E. AIRWAY BLVD
HUTAN DR
SUTTER ST
INTERSTATE 580
0 500 1000 2000
FEET
5 ac.

Figure 3.5-5: **Maximum Building Heights in Gateway Amendment Area**




3.7-1 Land Cover and Habitats
Legend
Planning Area
Land Cover Type
Annual Grassland
Cropland
Developed
Freshwater Emergent Wetland
Ruderal
Willow Riparian Scrub
Potential Seasonal Wetland
Stream
Source: East Alameda County Conservation Strategy and recent aerial photographs
Collier Canyon Creek
Las Positas College
ALAMEDA COUNTY
SELBY LN
HELIGAN LN
DOVECOTE LN
PORTOLA AV
Cayetano Park
DOOLAN RD
NORTH CANYONS PW
CONSTITUTION DR
INDEPENDENCE DR
COLLIER CANYON RD
SHEA CENTER DR
ISABEL AV
Proposed Station
Arroyo Las Positas
580
KITTY HAWK RD
Las Positas Golf Course
AIRWAY BL
NISSEN DR
ARMSTRONG ST
Collier Canyon Channel
LINDBERGH AV
CLUBHOUSE DR
EAIRWAY BL
SUTTER ST
STETSON WY
COLUSA WY
MENDOCINO RD
DEL NORTE DR
Maitland P. Henry Park
ALAMEDA DR
PLACER CI
MURRIETA BL
DELAWARE WY
RINCON AV
PORTOLA AV
Livermore Municipal Airport
RUTAN DR
STEALTH ST
ARLINGTON RD
HANOVER ST
CHIPPEWA WY
Al Cafoora Park
MARSEILLE AV
RICKENBACKER PL
0 500 1,000 2,000 Feet

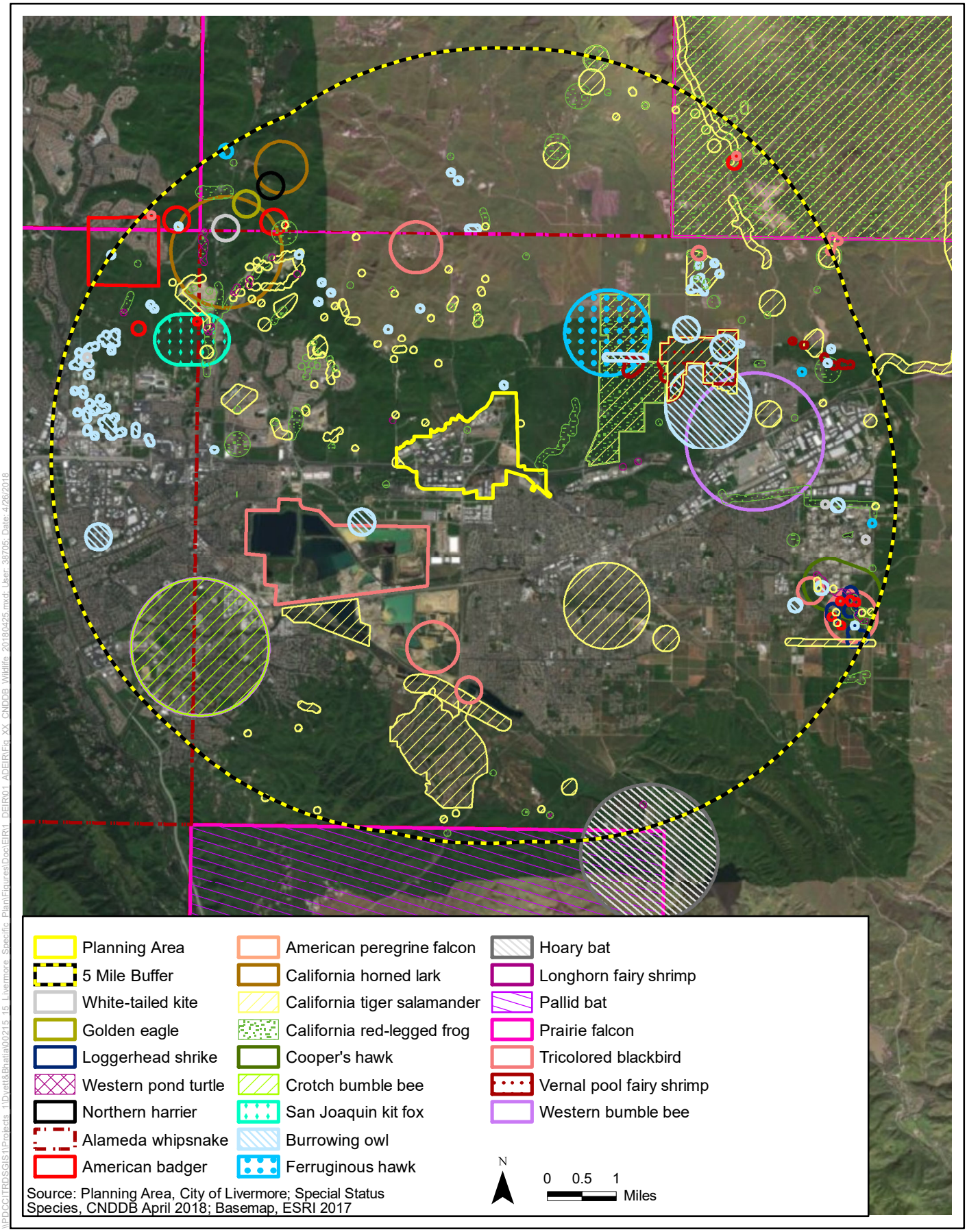
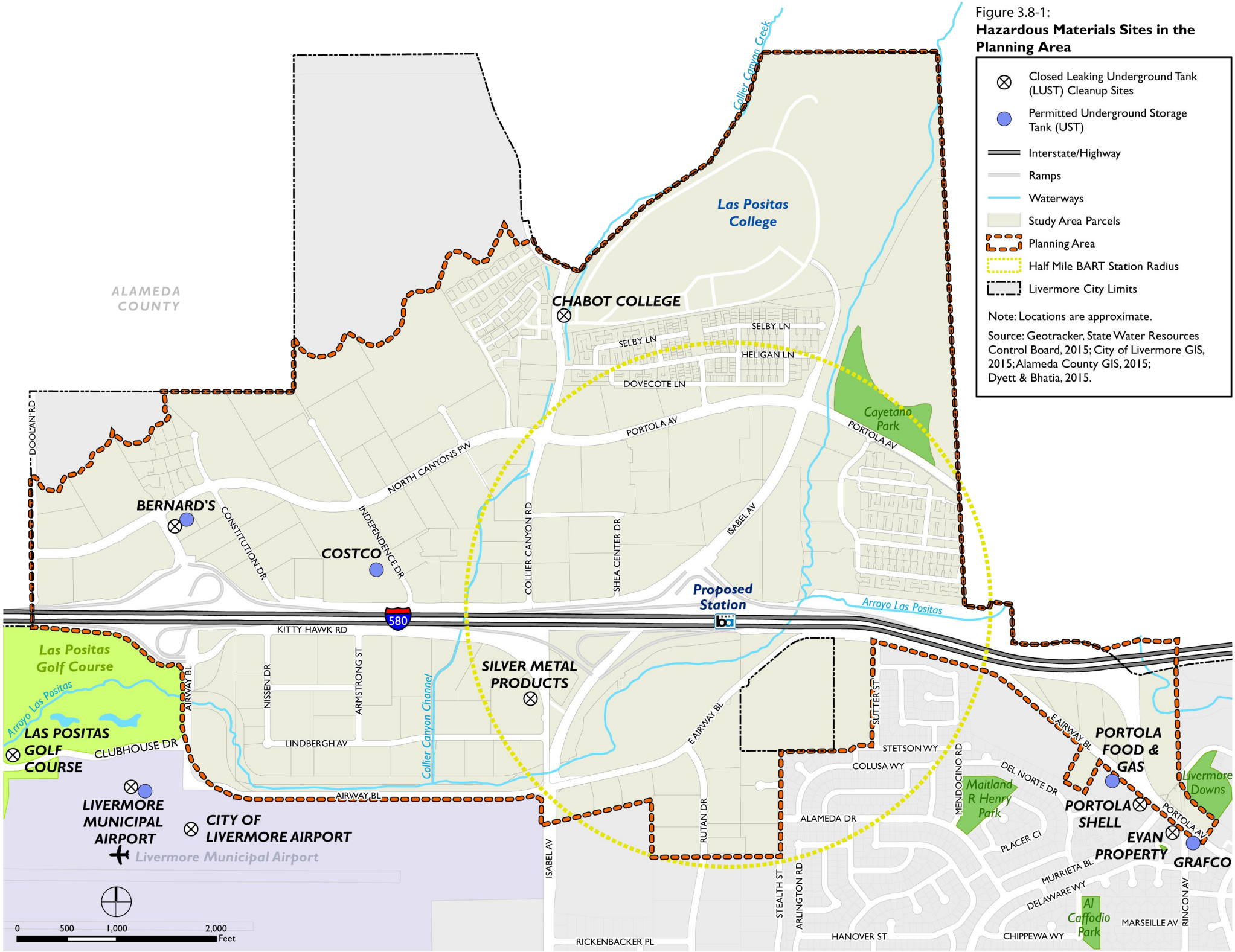


Figure 3.7-3

California Natural Diversity Database (CNDDB) Wildlife Occurrences within 5 Miles of Planning Area

Figure 3.8-1:
Hazardous Materials Sites in the Planning Area



5 Appendix A: Isabel Neighborhood Plan Water Supply Assessment

Water Supply Assessment for the Isabel Neighborhood Plan

Prepared for

City of Livermore

September 2017

WEST YOST ASSOCIATES
Consulting Engineers

438-12-17-07

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WEST YOST ASSOCIATES
consulting engineers

WATER WASTEWATER STORMWATER

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SEPTEMBER 2017

Water Supply Assessment
For the Isabel Neighborhood Plan

Prepared for

City of Livermore

Project No. 438-12-17-07

Project Manager: Elizabeth T. Drayer, PE — March 15, 2018 (Date)

QA/QC Review: Greg K. Chung, PE — March 15, 2018 (Date)

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Appendix A: Confirmation of Additional Water Supply Availability from Zone 7 Water Agency (2017)
Appendix B: Zone 7 Water Agency Resolution No. 13-4230 Water Supply Reliability Policy (adopted October 17, 2012)

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EXECUTIVE SUMMARY

Purpose of Water Supply Assessment

The purpose of this Water Supply Assessment (WSA) is to perform the evaluation required by California Water Code sections 10910 through 10915, as established by Senate Bill 610 (SB 610), in connection with the City of Livermore's (City) proposed Isabel Neighborhood Plan (Proposed Project). The Proposed Project lies within the water service areas of both the City and the California Water Service Company's Livermore District (Cal Water-Livermore), so part of the Proposed Project area will be provided with potable water from the City, and part will be served by Cal Water-Livermore. This WSA evaluates the projected water demands associated with the Proposed Project's proposed new development within the City and Cal Water-Livermore water service areas and the availability of water supplies to meet those projected water demands under all hydrologic conditions (Normal Years, Single Dry Years, and Multiple Dry Years).

Proposed Project Overview

The Proposed Project will guide future development of the area surrounding the proposed future Bay Area Rapid Transit (BART) station located in the Interstate 580 (I-580) median just east of Isabel Avenue in the City of Livermore. Currently, the City's General Plan designates most vacant lands within the Proposed Project planning area for commercial and business park development. Under the Proposed Project, several new residential areas both north and south of I-580, as well as a range of employment-generating uses near the BART station, are proposed.

The Proposed Project area covers approximately 1,138 acres, or less than about 2 square miles. It is located in the northwest portion of the City and encompasses an area intersected by Interstate 580 and Isabel Avenue. The Proposed Project is located entirely within the City's Urban Growth Boundary as defined in the City's General Plan. It is mostly within the City limits, with the exception of an approximately 24-acre property that is currently within unincorporated Alameda County. The Proposed Project area includes existing developed parcels and approximately 381 acres (34 percent) of vacant, developable parcels.

The Proposed Project is located partially within the City's water service area, and partially within the Cal Water-Livermore water service area. The portion of the Proposed Project in the City's water service area is located within Zone 1 of the City's water system. City water customers within Zone 1, including the Proposed Project, have access to recycled water supplies for use in meeting non-potable water demands (e.g., landscape irrigation). The portion of the Proposed Project in the Cal Water-Livermore water service area is anticipated to only receive potable water supplies from Cal Water-Livermore, as recycled water supplies are not available in the Cal Water-Livermore water service area.

The Proposed Project meets the definition of a "Project" per California Water Code sections 10910 through 10915, as established by SB 610 in 2001, thus requiring the preparation of this WSA.

Projected Potable and Recycled Water Demands

City of Livermore Water Service Area

The projected potable water demands for buildout of the Proposed Project within the City's water service area total approximately 836 acre-feet per year (af/yr), of which approximately 441 af/yr is for proposed new development and approximately 395 af/yr is for existing development. This WSA evaluates the projected water demands associated with the Proposed Project's proposed new development and the availability of water supplies to meet those projected water demands.

The water demand projections in the City's 2015 UWMP are based on based the City's projected population and a 2020 per capita water use target of 192 gallons per capita per day. In the City's 2017 Water Master Plan, the City's buildout (2040) water demand was updated based on existing rebounded demands, demands for reasonably foreseeable development projects and demands for the development of vacant parcels based on the land use categories defined in the City's current adopted General Plan and corresponding unit water demand factors, and is higher than the projected water demand included in the City's 2015 UWMP.

As described in Section 4.0 of this WSA, the Proposed Project results in projected water demands which are slightly higher than the projected water demands included in the City's 2017 Water Master Plan.

Cal-Water Livermore Water Service Area

The projected water demands for buildout of the Proposed Project within the Cal Water-Livermore water service area total approximately 189 af/yr, of which approximately 153 af/yr is for proposed new development and approximately 36 af/yr is for existing development. This WSA evaluates the projected water demands associated with the Proposed Project's proposed new development and the availability of water supplies to meet those projected water demands.

As described in Section 4.0 of this WSA, the Proposed Project results in projected water demands which are slightly higher than the projected water demands included in Cal Water-Livermore's 2015 UWMP.

Water Supply Availability

It is anticipated that the Proposed Project, if approved by the City, would be served from the City and Cal Water's respective existing and future portfolio of water supplies. The inclusion of existing and planned future water supplies is specifically allowed by the Water Code:

> *Water Code section 10631(b): Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a).*

As described in Section 5.0 of this WSA, based on discussions with Zone 7, Zone 7 will be formally analyzing Livermore's updated demand projections and incorporating them into the preparation of the Zone 7 2020 UWMP, as appropriate. Zone 7's current estimates indicate that the requested increase in demand projections to meet the City's 2017 Water Master Plan projected potable water demand could likely be served by planned excess supplies as projected in Zone 7's 2015 UWMP. The additional demand from the Proposed Project, if approved by the Livermore City Council, represents less than 1 percent of the demands for Livermore and Cal Water-Livermore combined, and is not considered significant enough to warrant interim analysis as it is well within the margin of error for water supply planning purposes. Documentation from Zone 7 supporting this water supply assumption is provided in Appendix A of this WSA.

Proponents of the Proposed Project will provide their proportionate share of required funding to the City and Cal Water for the acquisition, treatment and delivery of treated potable and/or recycled water supplies to serve the Proposed Project.

Pursuant to Water Code section 10910(c)(4), and based on the technical analyses described in this WSA, this WSA demonstrates that the City's and Cal Water's existing and additional planned future water supplies are sufficient to meet existing and projected future water demands, including the future water demands associated with the Proposed Project, to the year 2040 under all hydrologic conditions (including Normal Years, Single Dry Years, and Multiple Dry Years).

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1.0 INTRODUCTION

1.1 Legal Requirement for Water Supply Assessment

California Senate Bill 610 (SB 610) and Senate Bill 221 (SB 221) amended state law, effective January 1, 2002, to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 were companion measures which sought to promote more collaborative planning between local water suppliers and cities and counties. Both statutes require detailed information regarding water availability to be provided to the city and county decision-makers prior to approval of specified large development projects. The purpose of this coordination is to ensure that prudent water supply planning has been conducted, and that planned water supplies are adequate to meet existing demands, anticipated demands from approved projects and tentative maps, and the demands of proposed projects.

SB 610 amended California Water Code sections 10910 through 10915 (inclusive) to require land use lead agencies to:

- Identify any public water purveyor that may supply water for a proposed development project; and
- Request a Water Supply Assessment (WSA) from the identified water purveyor.

The purpose of the WSA is to demonstrate the sufficiency of the purveyor's water supplies to satisfy the water demands of the proposed project, while still meeting the water purveyor's existing and planned future uses. Water Code sections 10910 through 10915 delineate the specific information that must be included in the WSA.

SB 221 amended State law (California Government Code section 66473.7) to require that approval by a city or county of certain residential subdivisions[1] requires an affirmative written verification of sufficient water supply. SB 221 was intended as a fail-safe mechanism to ensure that collaboration on finding the needed water supplies to serve a new large residential subdivision occurs before construction begins.

1.2 Need for and Purpose of Water Supply Assessment

The purpose of this WSA is to perform the evaluation required by Water Code sections 10910 through 10915 in connection with the City of Livermore's (City) proposed Isabel Neighborhood Plan (Proposed Project). It is not to reserve water, or to function as a "will serve" letter or any other form of commitment to supply water (see Water Code section 10914). The provision of water service will continue to be undertaken in a manner consistent with applicable policies and procedures, consistent with existing law.

[1] Per Government Code Section 66473.7(a)(1) subdivision means a proposed residential development of more than 500 dwelling units.

1.3 Water Supply Assessment Preparation, Format and Organization

The format of this WSA is intended to follow Water Code sections 10910 through 10915 to clearly delineate compliance with the specific requirements for a WSA. The WSA includes the following sections:

- Section 1: Introduction
- Section 2: Description of Proposed Project
- Section 3: Required SB 610 Determinations
- Section 4: Water Demands
- Section 5: Water Supplies
- Section 6: Water Supply Reliability
- Section 7: Determination of Water Supply Sufficiency Based on the Requirements of SB 610
- Section 8: Water Supply Assessment Approval Process
- Section 9: References

As described in this WSA, the Proposed Project lies within the water service areas of two water suppliers: the City of Livermore and the California Water Service Company's Livermore District (Cal Water-Livermore). Water supply conditions within the City and Cal Water-Livermore are similar as both receive water supplies from the same water wholesaler, the Zone 7 Water Agency (Zone 7). However, because a portion of the Proposed Project will be served by the City, and another portion will be served by Cal Water-Livermore, some sections of this WSA have been subdivided to separately describe distinct conditions within the City and Cal Water-Livermore water service areas.

Relevant citations of Water Code sections 10910 through 10915 are included throughout this WSA in *italics* to demonstrate compliance with the specific requirements of SB 610.

2.0 DESCRIPTION OF PROPOSED PROJECT

2.1 Proposed Project Location

The Proposed Project area covers approximately 1,138 acres, or less than about 2 square miles[2]. The Proposed Project is located in the northwest portion of the City and encompasses an area intersected by Interstate 580 (I-580) and Isabel Avenue. The Proposed Project is located entirely within the City's Urban Growth Boundary, as defined in the City's General Plan. It is mostly within the City limits, with the exception of an approximately 24-acre property that is currently within unincorporated Alameda County. The Proposed Project area includes existing developed parcels and approximately 381 acres (34 percent) of vacant, developable parcels.

The City is provided with potable water service by two water suppliers: the City and Cal Water-Livermore. The City provides water service to the northwestern and northeastern parts of the City, while Cal Water-Livermore provides water service to the central part of the City. The Proposed Project, located in the northwestern part of the City, is located partially within the City's water service area, and partially within the Cal Water-Livermore water service area. The portion of the Proposed Project in the City's water service area is located within Zone 1 of the City's water system. The location of the Proposed Project in relation to the current City limits, and the City's and Cal Water-Livermore's water service areas, is shown on Figure 2-1.

2.2 Proposed Project Description

2.2.1 Proposed Project Overview

The Proposed Project will guide future development of the area surrounding the proposed future Bay Area Rapid Transit (BART) station located in the I-580 median just east of Isabel Avenue. Currently, the City's General Plan designates most vacant lands within the Proposed Project planning area for commercial and business park development. Under the Proposed Project, several new residential areas both north and south of I-580, as well as a range of employment-generating uses near the BART station, are proposed. Key features of the Proposed Project include:

- A compact, mixed-use neighborhood core between Isabel Avenue and Collier Canyon Road north of I-580;
- A main street with active ground floor retail extending from a shopping center north through the neighborhood core;
- A variety of housing types with building heights that step down from the neighborhood core near the BART station to the edges of the planning area, adjacent to existing residences;
- An Innovation Hub with a concentration of complementary office uses located within walking distance from the BART Station, along with three other locations designated for office development to further support new businesses and local entrepreneurs;

[2] Isabel Neighborhood Plan Notice of Preparation for Program Environmental Impact Report, prepared by City of Livermore Planning Division, April 6, 2016.

- Three new neighborhood-serving parks and open space buffers along the creeks to provide recreational opportunities and access to natural areas; and
- Several roads with "Signature Streetscape" to define the main walking routes through the neighborhood, linking to the BART station, neighborhood parks, and trails.

The Proposed Project will guide private and public development over the next 20 to 25 years to achieve the community's vision for the BART station area.

2.2.2 Proposed Land Uses and Subareas

Proposed land uses for the Project are based on the following information provided by the City of Livermore Planning Division:

- Residential and Non-Residential acres by subarea and land use designation (Isabel Neighborhood Plan Draft Plan Buildout 02/21/17);
- Residential dwelling units by subarea (Preferred Plan Buildout – Residential Units (Isabel Neighborhood Plan Draft Plan Buildout by Subarea 02/16/17); and
- Isabel Neighborhood Plan Subarea Map (February 2017).

If adopted, the Proposed Project's regulatory framework would amend the existing City General Plan land use designations and zoning standards regulating the development of properties in the Proposed Project area. The land use designations for the Proposed Project area are different than the land use designations in the City's current adopted General Plan. Most of the Proposed Project's land use designations allow for a higher intensity of development than currently allowed in the planning area.

The Proposed Plan establishes an overall buildout capacity, based on the development of all vacant developable parcels within the Project site, as well as redevelopment of parcels with new or intensified land use areas compared to the existing land use designations under the City of Livermore General Plan. The majority of the areas where new development or redevelopment is anticipated is located within a half-mile radius of the proposed future Isabel Avenue BART station. The remainder of the planning area has land use designations that are generally consistent with existing (as of 2016) land uses and the City's General Plan designations. For planning and environmental review purposes, buildout of the Plan is assumed to occur by 2040.

The planning area was divided into subareas based on the anticipated timing of development, as the Proposed Project includes policies to phase land use changes and pace residential growth. Proposed land uses by subarea for the Proposed Project are summarized in Table 2-1 and shown on Figure 2-2. The Proposed Project's Subareas 1a, 1b and 4 are in the Cal Water-Livermore water service area, and all other subareas are in the City's water service area.

This WSA evaluates only the projected water demands and supplies associated with buildout of the Proposed Project. The water demands and supplies associated with the existing development assumed to remain in the planning area do not require evaluation in this WSA.

Table 2-1. Proposed Land Uses by Subarea

Subarea	Existing vs. New[a]	Residential, acres						Non-Residential, acres								Total Acres	Subarea Total Acres	Notes
		Transition	Village	Center	Core	Total Residential Acres	Residential Dwelling Units (du)	Ground Floor Retail/ Flex Space	Neighborhood Commercial	General Commercial	Office Core	Office	Business Park	Public/ Institutional	Total Non-Residential Acres			
1a	New	11.2				11.2	224								-	**11.2**	**25.2**	INP Subarea 1a is in CalWater water service area
	Existing					-				14.0					14.0	**14.0**		
1b	New					-							10.2		10.2	**10.2**	**31.2**	INP Subarea 1b is in CalWater water service area
	Existing					-							21.0		21.0	**21.0**		
1c	New					-				7.0			4.8		11.8	**11.8**	**102.2**	
	Existing					-				30.9			59.5		90.4	**90.4**		
1d	New					-				12.4			7.4		19.8	**19.8**	**294.0**	
	Existing	53.8				53.8	907			59.3			80.9	80.2	220.4	**274.2**		
1e	New					-									-	**-**	**31.1**	Area is currently being developed; this is the Shea Sage development which is already approved and currently under construction; not yet "existing"
	Existing	31.1				31.1	476								-	**31.1**		
2a	New	3.5	3.2			6.7	182								-	**6.7**	**6.7**	
	Existing					-									-	**-**		
2b	New	4.6	7.7			12.3	361								-	**12.3**	**13.1**	
	Existing	0.8				0.8									-	**0.8**		
2c	New	5.5	6.2			11.7	328								-	**11.7**	**11.7**	
	Existing					-									-	**-**		
2d	New	1.7	4.0			5.7	174								-	**5.7**	**5.7**	
	Existing					-									-	**-**		
3a	New	2.8			3.8	6.6	507	0.9			6.4				7.3	**13.9**	**13.9**	
	Existing					-									-	**-**		
3b	New		6.4	10.8	7.9	25.1	1,278	2.5	4.1						6.6	**31.7**	**31.7**	
	Existing					-									-	**-**		
3c	New					-		0.5			6.9				7.4	**7.4**	**7.4**	
	Existing					-									-	**-**		
3d	New					-					5.9		8.0		13.9	**13.9**	**13.9**	Area is currently developed; does not reflect existing office buildings proposed to be replaced under INP project
	Existing					-									-	**-**		
3e	New		3.3	4.0	2.7	10.0	488								-	**10.0**	**10.0**	Area is currently developed; does not reflect existing office buildings proposed to be replaced under INP project
	Existing					-									-	**-**		
3f	New					-						6.2			6.2	**6.2**	**12.2**	Area is currently developed; does not reflect replacement of existing office building
	Existing					-						6.0			6.0	**6.0**		
4	New	10.3	7.5	3.1	2.6	23.5	795				5.2				5.2	**28.7**	**28.7**	INP Subarea 4 is in CalWater water service area
	Existing					-									-	**-**		
Outside of Subarea	New					-		0.9							0.9	**0.9**		
	Existing					-									-	**-**	**0.9**	
Totals	**New**	**39.6**	**38.3**	**17.9**	**17.0**	**112.8**	**4,337**	**4.8**	**4.1**	**19.4**	**24.4**	**6.2**	**30.4**	**-**	**89.3**	**202.1**		
	Existing	**85.7**	**-**	**-**	**-**	**85.7**	**1,383**	**-**	**-**	**104.2**	**-**	**6.0**	**161.4**	**80.2**	**351.8**	**437.5**		
	Total	**125.3**	**38.3**	**17.9**	**17.0**	**198.5**	**5,720**	**4.8**	**4.1**	**123.6**	**24.4**	**12.2**	**191.8**	**80.2**	**441.1**	**639.6**	**639.6**	**Does not include Parks and Open Space**

Source: INP Draft Plan Buildout 02/21/2017 (residential and non-residential acreages by subarea) and INP Draft Plan Buildout 02/16/2017 (residential dwelling units by subarea)

[a] "New" corresponds with "Change Areas" in the INP Land Use Plan; "Existing" corresponds with "Non-Change Areas" in the INP Land Use Plan.

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2.3 Water Use Factors and Assumptions

As part of the City of Livermore's 2017 Water Master Plan[3], the City adopted unit water use factors for use in projecting potable and recycled water demand based on the proposed future land uses within the City's General Plan. The potable water use factors developed in the City's 2017 Water Master Plan, and used in this WSA, were based on the following criteria:

- Potable water demand for the Proposed Project's residential land uses is based on the water use factor for Urban High Residential-4 (UH-4) of 1,880 gallons per acre per day (gpad) (based on the rebounded water use factors established for the 2017 Water Master Plan). This water use factor is equivalent to 94 gallons per day (gpd) per dwelling unit (du), assuming 20 du per acre.
  - This potable water use factor of 94 gpd/du has been assumed for all of the Proposed Project's residential land uses regardless of dwelling unit density as the proposed INP residential development has densities which are either equal to the UH-4 density or greater than the UH-4 density.
  - The potable water use factor of 94 gpd/du is considered appropriate for the residential dwelling units at UH-4 density, as well as higher density residential development, as the individual dwelling unit square footages, expected occupancy and expected water use of the higher density residential development would be similar to UH-4 development, only with higher Floor Area Ratios (FARs) through denser development and/or additional stories to provide for more dwelling units per acre.
  - Potable water demand for irrigation of residential landscaping in Cal Water-Livermore's service area is accounted for separately as described below.
- Potable water demand for all of the Proposed Project's non-residential land uses is based on the water use factor for Business/Commercial Park (BCP) of 690 gpad (based on the rebounded water use factors established for the 2017 Water Master Plan).
  - The proposed non-residential land uses within the proposed INP include Ground Floor Retail/Flex Space, Neighborhood Commercial, General Commercial, Office Core, Office, Business Park and Public/Institutional. The Ground Floor Retail/Flex Space, Neighborhood Commercial, General Commercial, Business Park, and Public/Institutional land uses will have similar potable water use consistent with the BCP land use category.
  - Proposed Office Core and Office land uses are proposed to have multi-story office buildings (4 to 6 stories for Office Core and 3 to 4 stories for Office), while the other non-residential land uses would generally be 1 to 2 stories. To account for higher water use in Office Core and Office land uses, the BCP water use factor is scaled up for Office Core (3 times the BCP factor, or 2,070 gpad) and for Office (2 times the BCP factor, or 1,380 gpad).
  - Potable water demand for irrigation of non-residential landscaping in Cal Water-Livermore's service area is accounted for separately as described below.

[3] City of Livermore Water Master Plan, prepared by West Yost Associates, Draft Report, May 2017.

- Potable water demand for the residential and non-residential landscaping and proposed parks in Subareas 1a and 4 (to be served by Cal Water-Livermore) are based on the Model Water Efficient Landscape Ordinance (MWELO) Maximum Applied Water Allowance (MAWA) for landscaping in residential and non-residential areas. The formula for calculating the MAWA is as follows:

  MAWA = (ETo) (0.62) [(ETAF x LA) + ((1-ETAF) x (SLA)]

  Where:

  MAWA = Maximum Applied Water Allowance, gallons per year

  ETo = Reference Evapotranspiration, inches (ETo for Livermore is 47.2 inches)

  ETAF = Evapotranspiration Adjustment Factor (maximum of 0.55 for residential areas and 0.45 for non-residential areas)

  LA = Landscape area, square feet (assumed to be 15 percent of the residential and non-residential areas)

  SLA = Special landscape area, square feet

  0.62 = Conversion factor that converts acre-inches per acre per year to gallons per square foot per year

  Based on the MAWA formula, the MAWA for residential landscaping is 1,920 gpad (2.15 acre-feet per acre per year, af/ac/yr) and for non-residential landscaping is 1,570 gpad (1.76 af/ac/yr).

  These same factors have also been used to estimate the recycled water demand for residential and non-residential areas and parks in the City's water service area for discussion in this WSA. The irrigated area within the City's water service area is assumed to be 15 percent of the overall residential and non-residential acres plus park acres.

Based on the water use factors described above, the projected potable water demand for the Proposed Project for the City and Cal Water-Livermore water service areas, by subarea, is provided in Table 2-2, and summarized in Table 2-3.

Table 2-2. Projected Potable and Recycled Water Use

Subarea	Existing vs. New[a]	Residential		Office Core		Office		Other Non-Residential		Residential Landscaping		Non-Residential Landscaping		Parks		Total Potable Water Demand		Notes
		gpd	af/yr	gpd	af/yr	gpd	af/yr	gpd	af/yr	gpd	af/yr	gpd	af/yr	gpd	af/yr	gpd	af/yr	
Potable Water Use Factor		94		2,070		1,380		690		1920		1570		1570				
Unit		gpd/du		gpad		gpad		gpad		af/ac/yr		af/ac/yr		af/ac/yr				
1a	New	21,056	24	-	-	-	-	-	-	3,226	4	-	-	6,519	7	**30,801**	**35**	Landscaping demands to be met with potable water in CalWater service area
	Existing	-	-	-	-	-	-	9,660	11	-	-	3,297	4			**12,957**	**15**	
1b	New	-	-	-	-	-	-	7,038	8	-	-	2,402	3			**9,440**	**11**	Landscaping demands to be met with potable water in CalWater service area
	Existing	-	-	-	-	-	-	14,490	16	-	-	4,946	6			**19,436**	**22**	
1c	New	-	-	-	-	-	-	8,142	9							**8,142**	**9**	
	Existing	-	-	-	-	-	-	62,376	70							**62,376**	**70**	
1d	New	-	-	-	-	-	-	13,662	15							**13,662**	**15**	
	Existing	85,258	96	-	-	-	-	152,076	170							**237,334**	**266**	
1e	New	-	-	-	-	-	-	-	-							**-**	**-**	Not existing yet; Shea Sage currently under construction
	Existing	44,744	50	-	-	-	-	-	-							**44,744**	**50**	
2a	New	17,108	19	-	-	-	-	-	-							**17,108**	**19**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
2b	New	33,934	38	-	-	-	-	-	-							**33,934**	**38**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
2c	New	30,832	35	-	-	-	-	-	-							**30,832**	**35**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
2d	New	16,356	18	-	-	-	-	-	-							**16,356**	**18**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
3a	New	47,658	53	13,248	15	-	-	621	1							**61,527**	**69**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
3b	New	120,132	135	-	-	-	-	4,554	5							**124,686**	**140**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
3c	New	-	-	14,283	16	-	-	345	0							**14,628**	**16**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
3d	New	-	-	12,213	14	-	-	5,520	6							**17,733**	**20**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	Existing office park
3e	New	45,872	51	-	-	-	-	-	-							**45,872**	**51**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	Existing office park
3f	New	-	-	-	-	8,556	10	-	-							**8,556**	**10**	
	Existing	-	-	-	-	8,280	9	-	-							**8,280**	**9**	Existing office park
4	New	74,730	84	10,764	12	-	-	-	-	6,768	8	1,225	1	2,719	3	**96,206**	**108**	Landscaping demands to be met with potable water in CalWater service area
	Existing	-	-	-	-	-	-	-	-	-	-	-	-			**-**	**-**	
Outside of Subarea	New	-	-	-	-	-	-	621	1							**621**	**1**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
Totals for INP	**New**	**407,678**	**457**	**50,508**	**57**	**8,556**	**10**	**40,503**	**45**	**9,994**	**11**	**3,627**	**4**	**9,239**	**10**	**530,104**	**594**	
	Existing	**130,002**	**146**	**-**	**-**	**8,280**	**9**	**238,602**	**267**	**-**	**-**	**8,243**	**9**	**-**	**-**	**385,127**	**431**	
	Total	**537,680**	**602**	**50,508**	**57**	**16,836**	**19**	**279,105**	**313**	**9,994**	**11**	**11,869**	**13**	**9,239**	**10**	**915,230**	**1,025**	
City Water Service Area	**New**	311,892	349	39,744	45	8,556	10	33,465	37	-	-	-	-	-	-	**393,657**	**441**	All INP Subareas except 1a, 1b and 4
	Existing	130,002	146	-	-	8,280	9	214,452	240	-	-	-	-	-	-	**352,734**	**395**	
	Total	441,894	495	39,744	45	16,836	19	247,917	278	-	-	-	-	-	-	**746,391**	**836**	
CalWater Water Service Area	**New**	95,786	107	10,764	12	-	-	7,038	8	9,994	11	3,627	4	9,239	10	**136,447**	**153**	INP Subareas 1a, 1b and 4
	Existing	-	-	-	-	-	-	24,150	27	-	-	8,243	9	-	-	**32,393**	**36**	
	Total	95,786	107	10,764	12	-	-	31,188	35	9,994	11	11,869	13	9,239	10	**168,839**	**189**	

Subarea	Existing vs. New [a]								Residential Landscaping		Non-Residential Landscaping		Parks			Total Recycled Water Demand		Notes
									gpd	af/yr	gpd	af/yr	acres	gpd	af/yr	gpd	af/yr	
Recycled Water Use Factor									1,920		1,570			1,570				Landscaping demands to be met with recycled water in City service area; includes irrigation of neighborhood plazas, neighborhood parks, community parks, and sport facility; no irrigation assumed for passive recreation or scenic buffer/setback; does not include landscape irrigation in CalWater service area
Unit									af/ac/yr		af/ac/yr			af/ac/yr				
Recycled Water (City Service Area Only)	New								22,493	25	17,403	19	44	68,947	77	108,844	122	
	Existing								24,682	28	74,606	84				99,288	111	
	Total								47,174	53	92,010	103	44	68,947	77	208,132	233	

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2.4 Water Demand Calculations

2.4.1 Potable Water Demand

As shown in Table 2-3, the projected potable water demands for buildout of the Proposed Project within the City's water service area total approximately 836 acre-feet per year (af/yr), of which about approximately 441 af/yr is for proposed new development and approximately 395 af/yr is for existing development. The projected potable water demands for buildout of the Proposed Project within the Cal Water-Livermore water service area total approximately 189 af/yr, of which about approximately 153 af/yr is for proposed new development and approximately 36 af/yr is for existing development.

Table 2-3. Projected Water Demands for Buildout of the Proposed Project

Service Area	Potable Water Demand, af/yr		
	Change Areas (New Development)	Non-Change Areas (Existing Development)	Total
City of Livermore	441	395	836
Cal Water-Livermore	153	36	189
Overall	594	431	1,025

2.4.2 Recycled Water Demand

According to the City's 2015 UWMP and the City's 2017 Water Master Plan, City water customers within Zone 1 of the City's water service area also have access to recycled water supplies for use in meeting non-potable water demands (e.g., landscape irrigation). Therefore, it is assumed that parks and other residential and non-residential landscape areas included in the Proposed Project within the City's water service area will receive recycled water supplies. As shown in Table 2-2, the recycled water demand for the Proposed Project within the City's water service area is estimated to be approximately 233 af/yr.

As described below, recycled water is not currently available within Cal Water-Livermore's water service area and, according to Cal Water-Livermore's 2015 UWMP, is not planned to be available in the future. Therefore, no recycled water demands are projected for the Proposed Project within the Cal Water-Livermore water service area.

2.5 Projected Water Supply

2.5.1 Potable Water Supply

Potable water demands for the Proposed Project will be served using the City's and Cal Water-Livermore's respective existing and future portfolio of potable water supplies (described further in Section 5 of this WSA). The inclusion of existing and planned future water supplies is specifically allowed by the Water Code:

> *Water Code section 10631(b): Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a).*

2.5.2 Recycled Water Supply

According to the City's 2017 Water Master Plan, City water customers within Zone 1 also have access to recycled water supplies for use in meeting non-potable water demands (e.g., landscape irrigation). Because the Proposed Project is located within the City's Zone 1, the portion of the Proposed Project within the City's water service area will be met with both potable and recycled water supplies. Recycled water infrastructure may need to be constructed to deliver recycled water supplies to the Proposed Project within the City's water service area.

Recycled water is not currently available within Cal Water-Livermore's water service area and, according to Cal Water-Livermore's 2015 UWMP, is not planned to be available in the future. Therefore, for purposes of this WSA, it is assumed that no recycled water will be used for the Proposed Project within Cal Water-Livermore's water service area, and that all projected water demands, including those for landscape irrigation, will be met using potable water supplies provided by Cal Water-Livermore.

2.5.3 Water Supply Funding Requirements

Proponents of the Proposed Project will provide their proportionate share of required funding to the City for the acquisition and delivery of treated potable and recycled water supplies to the Proposed Project area within the City's water service area.

Proponents of the Proposed Project will provide their proportionate share of the required funding to Cal Water for the acquisition and delivery of treated potable water supplies to the Proposed Project area within Cal Water's water service area.

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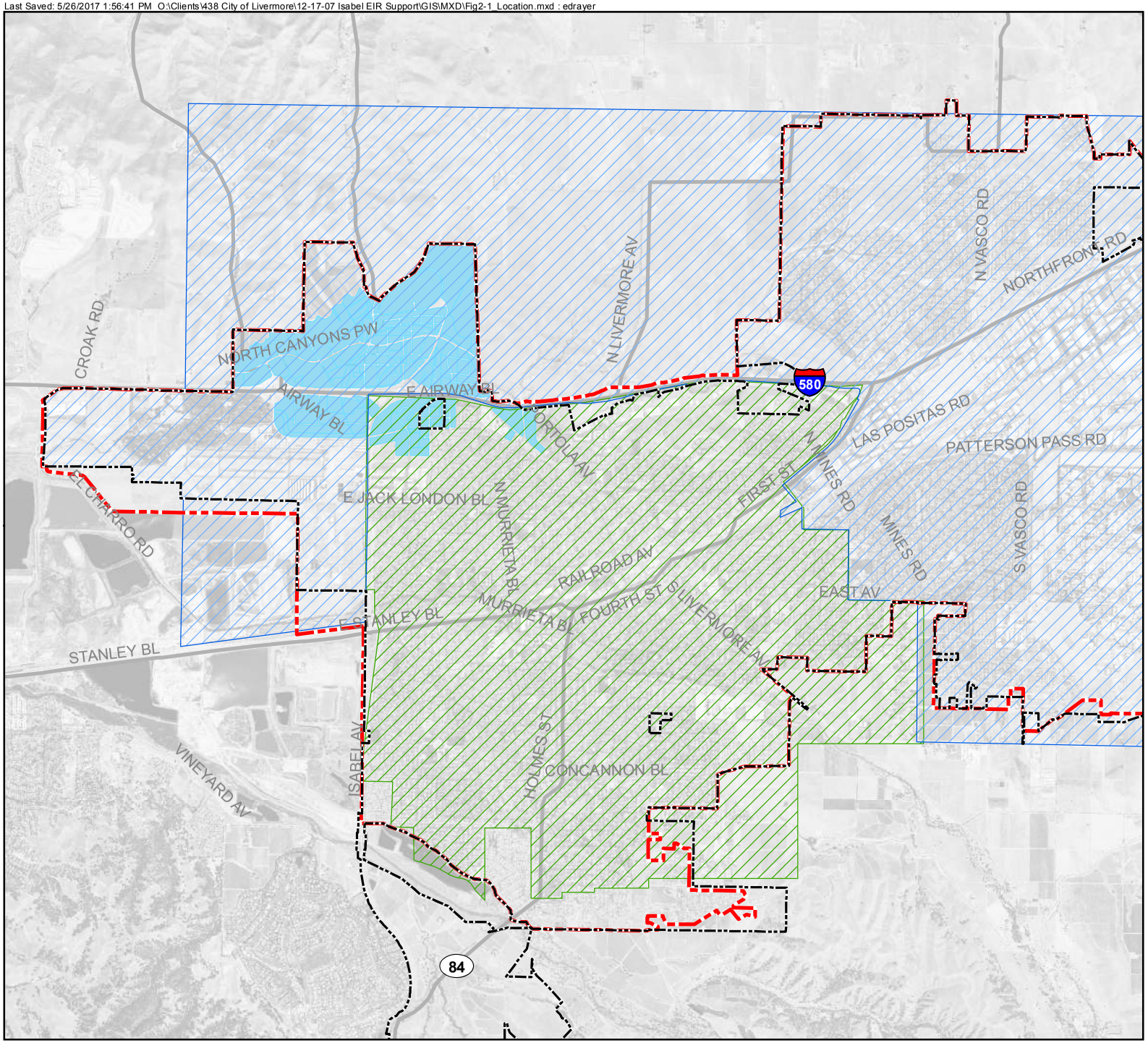

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0 0.5 1

Scale in Miles

Symbology

- Isabel Neighborhood Plan
- City Limits
- City Urban Growth Boundary
- City Water Service Area
- Cal Water-Livermore Water Service Area

WEST YOST ASSOCIATES

LIVERMORE CALIFORNIA

Figure 2-1

Proposed Project Location

City of Livermore
Water Supply Assessment
for Isabel Neighborhood Plan

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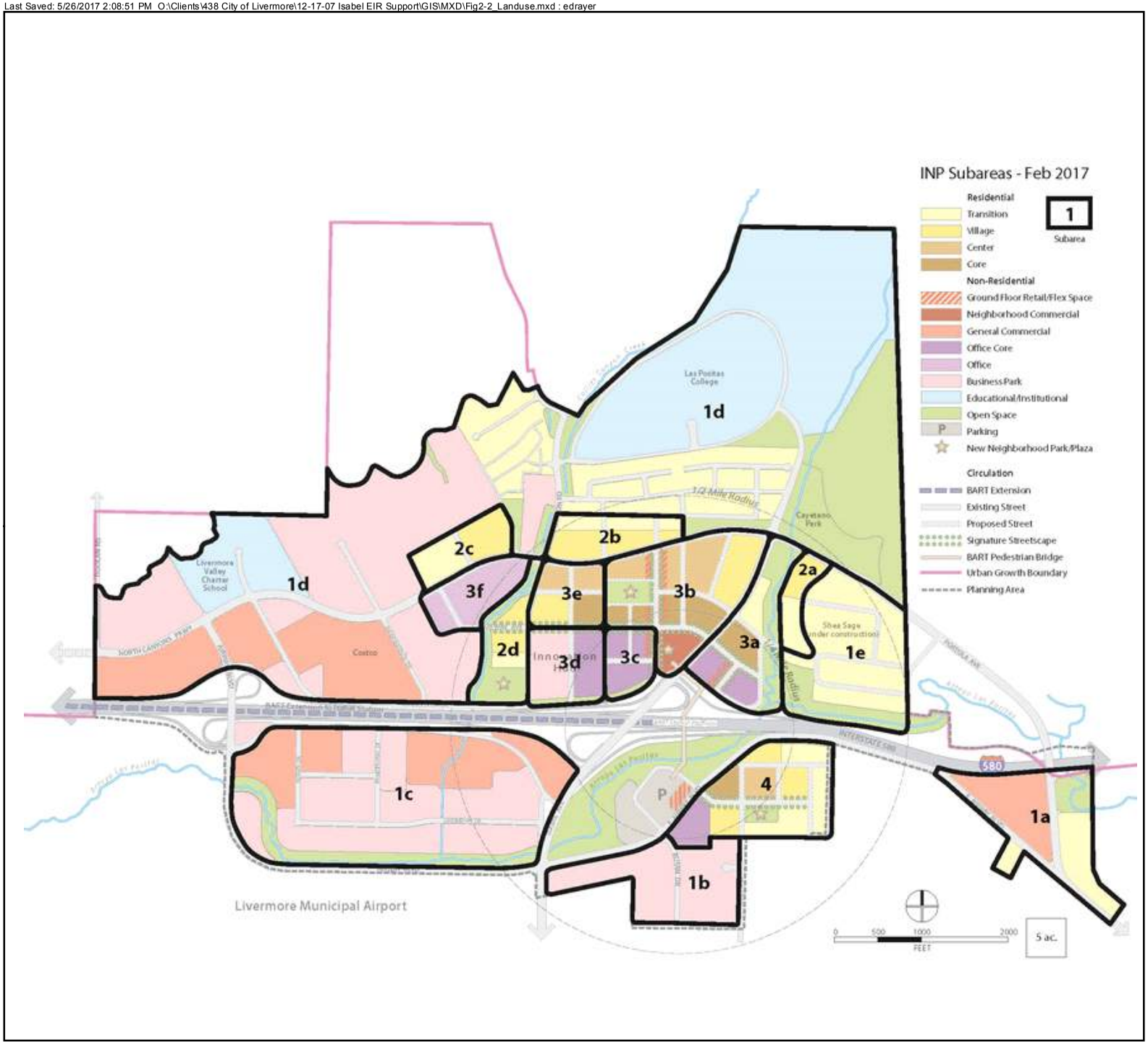

WEST YOST ASSOCIATES

LIVERMORE CALIFORNIA

Figure 2-2

Proposed Project Land Uses

City of Livermore
Water Supply Assessment
for Isabel Neighborhood Plan

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3.0 REQUIRED SB 610 DETERMINATIONS

3.1 Does SB 610 Apply to the Proposed Project?

10910 (a) Any city or county that determines that a project, as defined in Section 10912, is subject to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part.

10912 (a) "Project" means any of the following:

(1) A proposed residential development of more than 500 dwelling units.

(2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.

(3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.

(4) A proposed hotel or motel, or both, having more than 500 rooms.

(5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.

(6) A mixed-use project that includes one or more of the projects specified in this subdivision.

(7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.

Based on the following facts, SB 610 does apply to the Proposed Project.

- The City of Livermore has determined that the Proposed Project is subject to the California Environmental Quality Act (CEQA) and that an Environmental Impact Report (EIR) is required.
- The Proposed Project would allow up to 3,318 new residential dwelling units in the City's water service area and up to 1,019 new residential dwelling units in Cal Water-Livermore's water service area, which meets the definition of a "Project" as specified in Water Code section 10912(a) paragraph (1) as defined for residential development.
- The Proposed Project would also allow new non-residential development with proposed square footages (2.9 million square feet) which also meet the definition of a "Project" as specified in Water Code section 10912(a) paragraph (3) for commercial office building development.

The Proposed Project has not been the subject of a previously adopted WSA and has not been included in an adopted WSA for a larger project. Therefore, according to Water Code section 10910(a), a WSA is required for the Proposed Project.

3.2 Does SB 221 Apply to the Proposed Project?

In 2001, SB 221 amended State law to require that approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply. Per California Government Code section 66473.7(a)(1), a subdivision means a proposed residential development of more than 500 dwelling units. The Proposed Project would allow up to 3,318 new residential

dwelling units in the City's water service area and up to 1,019 new residential dwelling units in Cal Water-Livermore's water service area; however, at this stage of the planning process, it is unclear if the proposed residential development will proceed in a manner which meets the definition of a residential subdivision and whether development of the Proposed Project will be subject to the requirements of SB 221. Therefore, this determination will be made at a later date.

If SB 221 is determined to be applicable to the Proposed Project, a written verification of sufficient water supply, prepared in compliance with SB 221 requirements, will be required from the City of Livermore and Cal Water-Livermore prior to final approval of the Proposed Project within their respective water service areas.

3.3 Who is the Identified Public Water System?

> *10910(b) The city or county, at the time that it determines whether an environmental impact report, a negative declaration, or a mitigated negative declaration is required for any project subject to the California Environmental Quality Act pursuant to Section 21080.1 of the Public Resources Code, shall identify any water system that is, or may become as a result of supplying water to the project identified pursuant to this subdivision, a public water system, as defined by Section 10912, that may supply water for the project*
>
> *10912 (c) "Public water system" means a system for the provision of piped water to the public for human consumption that has 3,000 or more service connections…*

The Proposed Project is located within the water service areas of both the City and Cal Water-Livermore, so part of the Proposed Project area will be provided with potable water from the City, and part will be served by Cal Water-Livermore. The Proposed Project's Subareas 1a, 1b and 4 are in the Cal Water-Livermore water service area, and all other subareas are in the City's water service area. Therefore, both the City and Cal Water-Livermore are the identified public water systems for Proposed Project within their respective water service areas.

3.4 Does the Identified Water Supplier have an adopted Urban Water Management Plan (UWMP) and does the UWMP include the projected water demand for the Proposed Project?

> *10910(c)(1) The city or county, at the time it makes the determination required under Section 21080.1 of the Public Resources Code, shall request each public water system identified pursuant to subdivision (b) to determine whether the projected water demand associated with a proposed project was included as part of the most recently adopted urban water management plan adopted pursuant to Part 2.6 (commencing with Section 10610).*

3.4.1 City of Livermore 2015 UWMP

The City's most recent UWMP (the City's 2015 UWMP) was adopted by the Livermore City Council in June 2016 and is incorporated by reference into this WSA[4]. The City's 2015 UWMP included water demand projections for existing and future water land uses to be developed within the City's water service area through 2040. The water demand projections in the City's 2015 UWMP included existing City water demands (as of 2015), plus projected water demands for future population growth. In the City's 2015 UWMP, water demands through 2040 are based

[4] City of Livermore 2015 Urban Water Management Plan, June 2016.

the City's projected population and a 2020 per capita water use target of 192 gallons per capita per day (gpcd).

In the City's 2017 Water Master Plan, the City's buildout (2040) water demand was updated to include existing rebounded demands, demands for reasonably foreseeable development projects and demands for development of vacant parcels based on the land use categories defined in the City's current adopted General Plan and corresponding unit water demand factors, and is higher than the projected water demand included in the City's 2015 UWMP.

In this WSA, the City's projected water demand is based on the updated projected water demands included in the City's 2017 Water Master Plan plus the additional projected water demands associated with the proposed land use changes within the Proposed Project area.

The projected potable demand for the Proposed Project planning area contained in the City's 2017 Water Master Plan (based on the City's current adopted General Plan) is approximately 769 af/yr. With the proposed land uses for the Proposed Project, the proposed water demand for the Proposed Project planning area increases to 836 af/yr, an increase of 67 af/yr, as shown in Table 3-1. Therefore, the projected potable water demand for the Proposed Project is higher than what is included in the City's 2017 Water Master Plan, and what is included in the City's 2015 UWMP.

Table 3-1. Comparison of Water Demands for the Proposed Project Planning Area with those included in the City's 2017 Water Master Plan

Document	Potable Water Demand (includes UAW), af/yr
Water Supply Assessment for the Isabel Neighborhood Plan (Proposed Project) (see Table 2-3)	836
City of Livermore 2017 Water Master Plan (based on the land uses in the City's current adopted General Plan)	769
Difference (increase (+) or decrease (-) from City's 2017 Water Master Plan)	+ 67

The Proposed Project's recycled water demand of 233 af/yr is within the City's total projected recycled water supplies (2,685 af/yr by 2020 and 4,082 af/yr by 2040)[5].

Additional discussion of the projected water demands included in the City's 2015 UWMP and the 2017 Water Master Plan, with and without the Proposed Project, is provided in Section 4.0 of this WSA.

Water Code section 10910(c)(3) states that if the projected water demand associated with a proposed project was not accounted for in the most recently adopted UWMP, the WSA shall include a discussion with regard to whether water supplies are available to meet the projected water demand for the proposed projected during normal, single dry and multiple dry years. The City's

[5] City of Livermore 2015 UWMP, Table 6-7 (values converted from million gallons per year to acre-feet per year).

ability to meet the projected water demands for the Proposed Project is described in Section 7.0 of this WSA. As described in Section 7.0, Zone 7's current estimates indicate that the requested increase in demand projections to meet the City's 2017 Water Master Plan projected potable water demand could likely be served by planned excess supplies as projected in Zone 7's 2015 UWMP. The additional demand from the Proposed Project, if approved by the Livermore City Council, represents less than 1 percent of the demands for Livermore and Cal Water-Livermore combined, and is not considered significant enough to warrant interim analysis as it is well within the margin of error for water supply planning purposes.

3.4.2 Cal Water-Livermore 2015 UWMP

Cal Water-Livermore's most recent UWMP (Cal Water-Livermore's 2015 UWMP) was adopted by the Cal Water Board of Directors in June 2016 and is incorporated by reference into this WSA[6]. Cal Water-Livermore's 2015 UWMP included water demand projections for existing and future water land uses to be developed within the Cal Water-Livermore District through 2040. The water demand projections in Cal Water-Livermore's 2015 UWMP including existing water demands (as of 2015), plus projected water demands for future population growth.

In Cal Water-Livermore's 2015 UWMP, water demands through 2040 are estimated as the product of future services and expected water use per service. Future services are based on historical growth rates in the Cal Water-Livermore water service area. Residential and non-residential services are projected using the service growth rates from the 2007 Water Supply and Facility Master Plan (2007 Master Plan)[7]. The forecast assumes no change in the number of industrial services. The Cal Water-Livermore projected average annual growth rate in services across all customer categories is approximately 0.2 percent. Expected water use per service is based on weather-normalized historical use, adjusted for future expected water savings from plumbing codes and conservation programs.

Potable water demand for the Proposed Project planning area was included in the Cal Water-Livermore's 2015 UWMP, but the potable water demand based on the current proposed land uses for the Proposed Project is slightly greater than the potable water demand for the Proposed Project planning area included in the 2007 Master Plan and 2015 UWMP. As shown in Table 3-2, the projected potable demand for the Proposed Project within the Cal Water-Livermore water service area based on the land use assumptions contained in the 2007 Master Plan is approximately 116 af/yr.

[6] California Water Service Company Livermore District 2015 Urban Water Management Plan, June 2016.

[7] California Water Service Company – Livermore District, Water Supply and Facilities Master Plan, prepared by West Yost Associates, 2007.

Table 3-2. Projected Water Demand for Proposed Project Planning Area based on Previous Land Use Assumptions (as included in the Cal Water-Livermore 2015 UWMP and 2007 Water Master Plan)

Land Use Designation	Gross Area, acres	Water Use Factor[a]	Potable Water Demand, af/yr
Highway Commercial (HC)	29.4	3.7 af/acre	108.7
Low Intensity Industrial (LII)	40.6	0 af/acre	0
Limited Agriculture (LDAG)	21.1	0 af/acre	0
Subtotal	91.1		108.7
Unaccounted for Water (6% of total demands)[b]			6.9
Total Demand			115.6

(a) Source: California Water Service Company Livermore District 2007 Water Supply and Facility Master Plan, Table 3-7.
(b) Consistent with assumptions used in the California Water Service Company Livermore District 2007 Water Supply and Facilities Master Plan.

With the proposed land uses for the Proposed Project, the proposed water demand for the Proposed Project planning area increases to 189 af/yr, an increase of 73 af/yr, as shown in Table 3-3. Therefore, the projected potable water demand for the Proposed Project is higher than what is included in the Cal Water-Livermore 2007 Master Plan and 2015 UWMP.

Table 3-3. Comparison of Water Demands for the Proposed Project Planning Area with those included in the Cal Water-Livermore 2015 UWMP

Document	Potable Water Demand (includes UAW), af/yr
Water Supply Assessment for the Isabel Neighborhood Plan (see Table 2-3)	189
Cal Water-Livermore 2015 UWMP (see Table 3-2)	116
Difference (increase (+) or decrease (-) from Cal Water-Livermore 2015 UWMP)	+ 73

Additional discussion of the projected water demands included in Cal Water-Livermore's 2015 UWMP and the 2007 Master Plan, with and without the Proposed Project, is provided in Section 4.0 of this WSA.

Water Code section 10910(c)(3) states that if the projected water demand associated with a proposed project was not accounted for in the most recently adopted UWMP, the WSA shall include a discussion with regard to whether water supplies are available to meet the projected water demand for the proposed projected during normal, single dry and multiple dry years. Cal Water-Livermore's ability to meet the projected water demands for the Proposed Project is described in Section 7.0 of this WSA. As described in Section 7.0, the additional demand from the Proposed Project, if approved by the Livermore City Council, represents less than 1 percent of the demands for Livermore and Cal Water-Livermore combined, and is not considered significant enough to warrant interim analysis as it is well within the margin of error for water supply planning purposes.

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4.0 WATER DEMANDS

> *10910(c)(2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g).*

The descriptions provided below for the City's and Cal Water's water demands have been taken, for the most part, from the City's 2017 Water Master Plan (Draft Report dated May 2017), the City's 2015 UWMP (adopted in June 2016), and Cal Water-Livermore's 2015 UWMP (adopted in June 2016). As described in Section 3.4, although the projected water demands for the Proposed Project are higher than the water demands included in the City's and Cal Water's 2015 UWMP, the water providers and Zone 7 have determined that incorporating relevant information from the UWMPs into the WSA is appropriate.

4.1 City of Livermore Water Demands

4.1.1 Historical and Existing Water Demand

According the City's 2015 UWMP, from 2010 through 2015, the City's municipal water system had grown by about 6.6 percent (based on the number of water services), while the total volume of water sold decreased by 12.6 percent. This decrease in total water consumption despite the growth in water services was due to the increased water conservation during the recent statewide drought. Table 4-1 shows the City's water demand (based on water production) for the past six years.

Table 4-1. City of Livermore Historical Potable Water Demand

	2010	2011	2012	2013	2014	2015
Total Water Demand[(a)], af/yr	6,078	6,235	6,598	6,731	5,064	4,556

(a) Source: City of Livermore 2017 Water Master Plan (Draft Report dated May 2017), Table 3-1.

4.1.2 Future Water Demand

As stated previously, the City experienced a decrease in demands in 2014 and 2015 due to the increased water conservation efforts during the recent drought. While it is not known if demands will rebound after the drought ends, or how much they might rebound, the City decided not to base its planning efforts on demands from 2014 or 2015, as these represent a low level of demands that may not be sustained. Instead, the City chose to develop a set of demands that represents an estimate of what demands may be after a certain level of demand rebound occurs. Based on discussions with City staff, demands from 2013 and 2015 were selected to develop the existing rebounded demand projections.

Buildout in the City's water service area is anticipated to occur by 2040. In the City's 2017 Water Master Plan, the City's buildout (2040) water demand was updated to include existing rebounded demands, demands for reasonably foreseeable development projects and demands for development of vacant parcels based on the land use categories defined in the City's current adopted General Plan and corresponding unit water demand factors. The unit water demand factors were calculated

using the 2020 per capita water use target of 192 gallons per capita per day (gpcd). This assumption provides a more conservative water demand estimate to account for typical water use patterns during normal hydrologic conditions.

As discussed in Section 3.4.1, the water demand projections in the City's 2015 UWMP are based on based the City's projected population and a 2020 per capita water use target of 192 gallons per capita per day (gpcd).

Table 4-2 shows a comparison of the water demand projections in the City's 2015 UWMP and 2017 Water Master Plan. In the City's 2017 Water Master Plan, the City's projected future water demand was assumed to linearly increase from the City's existing rebounded demands in 2015 to buildout in 2040. As discussed in Section 3.4.1, potable water demand is projected for the Proposed Project planning area in the City's 2017 Water Master Plan, but the total potable water demand for buildout of the Proposed Project based on the current proposed land uses is greater than the potable water demand for the Proposed Project planning area based on the current adopted General Plan land uses.

Table 4-2. City of Livermore Projected Potable Water Demands during Normal Years

Source	2020	2025	2030	2035	2040
2015 UWMP[(a)], af/yr	6,291	6,819	6,966	6,966	6,966
2017 Water Master Plan[(b)], af/yr	6,576	6,988	7,401	7,813	8,225
2017 Water Master Plan (with Proposed Project)[(c,d)], af/yr	**6,392**	**6,867**	**7,343**	**7,817**	**8,292**
Increase Compared to 2015 UWMP, af/yr	101	48	377	851	1,326
Increase Compared to 2017 Water Master Plan, af/yr	-184	-121	-59	4	67

(a) Source: City of Livermore 2015 Urban Water Management Plan (June 2016), Table 4-3.
(b) Based on the buildout (2040) demand shown in Table 3-10 of the City of Livermore 2017 Water Master Plan (Draft Report dated May 2017). Projected water demands assumed to linearly increase from the City's existing rebounded demands in 2015 (6,164 af/yr) to buildout demand. Includes existing and planned water demands in the Proposed Project planning area, but projected water demands are based on current adopted General Plan land uses.
(c) Removes up to 769 af/yr of water demands (based on current General Plan land uses) from the Water Master Plan projections to account for existing and projected water demands within the Proposed Project planning area.
(d) Includes Proposed Project demands in the Water Master Plan projections. Includes existing water demands within the Proposed Project planning area (395 af/yr) and a linear increase to buildout demands by 2040 (836 af/yr).

The projected recycled water demand for the Proposed Project (233 af/yr) within the City's water service area is within the City's total projected recycled water supplies (2,685 af/yr by 2020 and 4,082 af/yr by 2040)[8].

[8] City of Livermore 2015 UWMP, Table 6-7 (values converted from million gallons per year to acre-feet per year).

4.1.3 Dry Year Water Demand

The City currently has a water conservation program in place, as described in Section 8 of the City's 2015 UWMP. The projected future water demand presented in Table 4-2 includes continued implementation of the City's existing water conservation program, and is based on future normal hydrologic years. In the City's 2015 UWMP, and this WSA, it is assumed that the City would implement demand reduction measures during Single Dry and Multiple Dry Years. During a Single Dry Year, potable water demands for the City are assumed to be 75 percent of Normal Year demands (25 percent reduction in water use). During Multiple Dry Years, potable water demands for the City are assumed to be 85 percent of Normal Year supplies (15 percent reduction in water use). Recycled water demands during Single Dry and Multiple Dry Years are assumed to be the same as Normal Year demands.

Table 4-3 presents the City's projected dry year potable water demand (with the Proposed Project) based on the Normal Year projections in the City's 2017 Water Master Plan.

Table 4-3. City of Livermore Projected Dry Year Potable Water Demand[(a)]

Hydrologic Condition	% of Normal Year	2020	2025	2030	2035	2040
Single Dry Year, af/yr	75%	4,794	5,150	5,507	5,863	6,219
Multiple Dry Years, af/yr	85%	5,433	5,837	6,241	6,645	7,048

(a) Calculated as a percentage of the Normal Year demands (with the Proposed Project) shown in Table 4-2.

4.2 California Water Service Company-Livermore District Water Demands

4.2.1 Historical and Existing Water Demand

According to the Cal Water-Livermore's 2015 UWMP, Cal Water-Livermore was strongly affected by the Drought Emergency Regulation adopted by the State Water Resources Control Board. Cal Water-Livermore was ordered to reduce potable water use by 24 percent relative to its use in 2013. In 2015, Cal Water-Livermore had a total water demand (based on water production) of 6,824 AF, and achieved a water reduction of 41.4 percent.

4.2.2 Future Water Demand

In the Cal Water-Livermore 2015 UWMP, the projected future water demand for Cal Water-Livermore is estimated as the product of future services and expected water use per service. Future services are based on historical growth rates in the District. Residential and non-residential services are projected forward using the service growth rates from the 2007 Water Supply and Facility Master Plan. The forecast assumes no change in the number of industrial services. Cal Water-Livermore's projected average annual growth rate in services across all customer categories is approximately 0.2 percent. Expected water use per service is based on weather-normalized historical use, adjusted for future expected water savings from plumbing codes and conservation programs. Projected water uses are predicated on unrestricted demands under normal weather conditions.

Table 4-4 shows the projected potable water demand through 2040 as presented in Cal Water-Livermore's 2015 UWMP assuming Normal Year conditions. As discussed in Section 3.4.2, potable water demand for the Proposed Project planning area was included in the Cal Water-Livermore's 2015 UWMP, but the potable water demand based on the current proposed land uses for the Proposed Project are slightly greater than the potable water demand for the Proposed Project planning area included in the 2015 UWMP.

Table 4-4. Cal Water-Livermore Projected Potable Water Demand During Normal Years

Source	2020	2025	2030	2035	2040
2015 UWMP[(a)], af/yr	11,946	12,457	12,507	12,418	12,346
2015 UWMP (with Proposed Project)[(b)], af/yr	11,982	12,502	12,562	12,482	12,419
Increase Compared to 2015 UWMP, af/yr	36	45	55	64	73

(a) Source: Cal Water Livermore District 2015 UWMP (June 2016), Table 4-3.
(b) Adds Proposed Project demands to the 2015 UWMP projections. Assumes 36 af/yr of additional existing demands in the Proposed Project planning area in 2020 and a linear increase to additional buildout demands by 2040 (73 af/yr).

Cal Water-Livermore does not plan to use recycled water in its water service area through 2040.

4.2.3 Dry Year Water Demand

In Cal Water-Livermore's 2015 UWMP, and this WSA, it is assumed that Cal Water-Livermore's dry year demands are based on the historical average, single driest year, and driest multi-year period. The years are also known as "Base Years" and are shown in Table 4-5.

Table 4-5. Cal Water-Livermore Bases of Water Year Data[(a)]

Year type	Base Year	Volume, AF	% of Normal
Average Year	2003	12,507	100%
Single Dry Year	2015	13,190	105%
Multiple Dry Year 1	2013	13,024	104%
Multiple Dry Year 2	2014	12,979	104%
Multiple Dry Year 3	2015	12,993	104%

(a) Source: Cal Water Livermore District 2015 UWMP (June 2016), Table 7-1

Table 4-6 presents the projected dry year potable water demand through 2040 as presented in the Cal Water-Livermore 2015 UWMP, but with the Proposed Project demands included.

Table 4-6. Cal Water-Livermore Projected Dry Year Potable Water Demand

Hydrologic Condition	% of Normal Year	2020	2025	2030	2035	2040
Single Dry Year[a], af/yr	105.5%	12,636	13,185	13,248	13,164	13,097
Multiple Dry Year 1[b], af/yr	104.1%	12,477	13,019	13,081	12,998	12,932
Multiple Dry Year 2[b], af/yr	103.8%	12,434	12,974	13,036	12,953	12,888
Multiple Dry Year 3[b], af/yr	103.9%	12,448	12,988	13,050	12,967	12,902

(a) Source: Cal Water Livermore District 2015 UWMP (June 2016), Table 7-3, but with the additional water demand associated with the Proposed Project included (see Table 4-4).

(b) Source: Cal Water Livermore District 2015 UWMP (June 2016), Table 7-4, but with the additional water demand associated with the Proposed Project included (see Table 4-4).

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5.0 WATER SUPPLIES

10910(c)(2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f) and (g).

10910(d)(1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system…under the existing water supply entitlements, water rights, or water service contracts.

10910(e) If no water has been received in prior years by the public water system…under the existing water supply entitlements, water rights, or water service contracts, the public water system…shall also include in its water supply assessment…an identification of the other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system.

10910(f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment.

(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

(2) A description of any groundwater basin or basins from which the proposed project will be supplied. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most recent bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historical use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historical use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project. A water assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 10631.

The descriptions provided below for the City's and Cal Water's water supplies have been taken, for the most part, from Zone 7's 2015 UWMP (adopted in March 2016), the City's 2015 UWMP (adopted in June 2016), and Cal Water-Livermore's 2015 UWMP (adopted in June 2016).

5.1 Water Supply Overview

The City and Cal Water-Livermore both obtain potable water supplies from Zone 7. Zone 7 is a multi-purpose agency that oversees water-related issues in the Livermore-Amador Valley. Zone 7 is a State Water Project contractor that wholesales treated water to four retail water agencies (Dublin San Ramon Services District (DSRSD), Cal Water-Livermore, and the cities of Livermore and Pleasanton), retails non-potable water supplies for irrigated agricultural use, retails treated water to several direct customers, provides and maintains flood control facilities, and manages groundwater and surface water supplies in its service area. Zone 7's water supplies are discussed in detail in Section 5.2 (Potable Water Supplies from Zone 7).

Cal Water-Livermore has a groundwater pumping quota (GPQ) of 3,069 af/yr in the Livermore Valley Main Groundwater Basin (Main Basin) and pumps groundwater from twelve groundwater wells located in its water service area. While the City technically has a small groundwater pumping quota (GPQ) of 30 af/yr in the Main Basin, according to the City's 2015 UWMP, it is unlikely that the City will use those supplies the 20-year planning horizon. The City and Cal Water-Livermore also both receive groundwater from wholesaler Zone 7 as part of the overall supply purchased from Zone 7. This groundwater supply is discussed in detail in Section 5.3 (Groundwater Supply).

The City's potable water supply is augmented with recycled water from the Livermore Water Reclamation Plant (LWRP). The City owns and operates a wastewater treatment plant that treats wastewater collected within the Livermore city limits. The LWRP includes conventional secondary treatment facilities, as well as tertiary and advanced recycled water treatment facilities. Wastewater transported out of the area is handled through the Livermore Amador Valley Water Management Agency (LAVWMA), a joint powers authority comprised of DSRSD, City of Livermore, and City of Pleasanton.

The sections below describe the water supplies available to the City and Cal Water-Livermore. These descriptions have been taken, for the most part, from the City's 2015 UWMP, Cal Water-Livermore's 2015 UWMP, and Zone 7's 2015 UWMP.

5.2 Potable Water Supplies from Zone 7

Zone 7 uses a combination of water supplies and water storage facilities to meet the municipal and industrial (M&I) demands of its four retailers (DSRSD, Cal Water-Livermore, and cities of Livermore and Pleasanton). These include the following:

- Imported surface water from the State Water Project (SWP);
- Imported surface water transferred from the Byron Bethany Irrigation District (BBID);
- Local surface water runoff captured in Del Valle Reservoir;
- Local groundwater extracted from the Livermore Valley Groundwater Main Basin;

- Local storage in the Chain-of-Lakes; and
- Non-local groundwater storage in the Semitropic Water Storage District and Cawelo Water District.

Each of these supplies is described further in the sections below.

5.2.1 State Water Project

In November 1961, Zone 7 entered into a 75-year agreement with the Department of Water Resources (DWR) to receive water from the State Water Project (SWP). The SWP is the nation's largest publicly-built water storage and conveyance system and currently serves over 25 million people throughout California. SWP water originates within the Feather River watershed, is captured in and released from Lake Oroville, and flows through the Sacramento-San Joaquin Delta before it is conveyed by the South Bay Aqueduct (SBA) to Zone 7 or by the California Aqueduct to other south-of-Delta SWP contractors.

The SBA also delivers water to other water suppliers, namely Santa Clara Valley Water District and Alameda County Water District. Lake Del Valle is part of the SBA system and is used for storage of SWP water, as well as local runoff. At Zone 7, SWP water is used to meet treated water demands from municipal and industrial customers (both wholesale and retail) and untreated water demands from agricultural customers. It is also used to artificially recharge the local groundwater basin or to fill non-local storage.

Negotiations on extending the SWP contracts took place between DWR and the contractors during 2013 and 2014. The following terms were agreed to and are currently the subject of analysis under the requirements of the California Environmental Quality Act (CEQA) (Notice of Preparation dated September 12, 2014) (Draft EIR released on August 17, 2016):

- Extend the term of the 29 Water Supply Contracts to December 31, 2085,
- Provide for increased SWP financial operating reserves during the extended term of the SWP contracts,
- Provide additional funding mechanisms and accounts to address SWP needs, and
- Develop a revised payment methodology with a corresponding billing system that better matches the timing of future SWP revenues to future expenditures.

It is anticipated that the term of the SWP contracts will be extended to December 31, 2085 and the data and information contained in Zone 7's 2015 UWMP reflect that assumption.

5.2.1.1 Table A Allocation

Each SWP contractor is limited to a maximum annual contract amount as specified in Article 6(c) and Table A of the SWP Contract; this amount is therefore commonly referred to as "Table A." As noted above, Zone 7 first entered into the SWP Contract in November 1961; as the SWP was expanded and as Zone 7 demands increased over the years, Zone 7's Table A amount was increased, reaching the amount of 46,000 acre-feet annually (AFA) in 1997. Since then, Zone 7 has increased its supply from the SWP through a series of five permanent transfers. In December

1999, Zone 7 secured Table A SWP allocations from Lost Hills Water District of 15,000 AFA and Berrenda Mesa Water District of 7,000 AFA. In December 2000, 10,000 AFA of SWP allocation from Belridge Water Storage District was acquired. An additional 2,219 AFA was obtained from the same source in October 2003. Finally, 400 AFA of water was acquired from the Tulare Lake Basin Water Storage District in 2003. Together, these transfers have raised Zone 7's current Table A allocation to 80,619 AFA.

In practice, the actual amount of SWP water available to Zone 7 under the Table A allocation process varies from year to year due to hydrologic conditions, water demands of other contractors, existing SWP stored water, SWP facility capacity, and environmental/regulatory requirements.

In July 2015, DWR issued the "State Water Project Final Delivery Capability Report 2015" (2015 Delivery Capability Report). Since 2002, DWR has been publishing 'Delivery Reliability Reports' to provide contractors and other local agencies a single source of the most current data available on SWP delivery reliability that can be used for the development of local plans such as UWMPs. There were notable changes in 2015. First, DWR renamed the report 'Delivery Capability Report'. Second, and more importantly, DWR provided multiple alternatives for the reliability of the SWP under future conditions**.** Under the 'Early Long-Term' alternative in the 2015 Delivery Capability Report, the SWP's projected long-term average yield is 62 percent of Table A, equivalent to approximately 50,000 AFA for Zone 7.

As a SWP contractor, Zone 7 has the option to store unused Table A water from one year to the next in SWP surface storage facilities (specifically San Luis Reservoir in the case of Zone 7) when there is storage capacity available. This "carryover" water is also called Article 12e or 56c water, in reference to the relevant contract terms. Article 12e water must be taken by March 31 of the following year, but Article 56c water may remain as carryover as long as San Luis Reservoir storage is available. Zone 7 typically maintains between 10,000 to 15,000 acre-feet (AF) of carryover water. The analysis provided in Zone 7's 2015 UWMP assumes Zone 7 carries over 10,000 AF of water each year.

5.2.1.2 Article 21 Water (Interruptible or Surplus Water)

Under Article 21 of Zone 7's contract with DWR, Zone 7 also has access to excess water supply from the SWP that is available only if: (1) it does not interfere with SWP operations or Table A allocations; (2) excess water is available in the Delta; and (3) it will not be stored in the SWP system. Per the 2015 Delivery Capability Report, the projected yield from Article 21 is very low and does not represent a significant water supply for Zone 7.

5.2.1.3 Article 56d Water (Turnback Pool Water)

Article 56d is a contract provision that allows SWP contractors with unused Table A water to sell that water to other SWP contractors via a "turnback pool" administered by DWR on an annual basis. Historically, only a few SWP contractors have been in a position to make turnback pool water available for purchase, particularly in normal or dry years. Over 2013 and 2014, DWR began pilot-testing a Multi-Year Pool Demonstration Program ("Water Pool Program") to evaluate the feasibility of a multi-year water purchase program. The Water Pool Program could conceivably provide an alternative to the turnback pool, providing more incentive to prospective sellers and therefore increasing the amount of water available. In 2015, the Water Pool Program was

re-introduced through the end of 2016 at a price more in line with the current market. The program remains on pilot status.

While Zone 7 received 2,500 AF of water from the Water Pool Program in 2013, Zone 7 currently does not anticipate a significant amount of water supply to be reliably available under Article 56d (or its alternative) until there is a resolution to the current Delta crisis.

5.2.1.4 Yuba Accord

In 2007, Zone 7 entered into a contract with DWR to purchase additional water under the Lower Yuba River Accord (Yuba Accord). The original contract expires in 2025, and a number of amendments have been made to the original agreement over the years, including a new pricing agreement executed in 2014.

There are four different types ("Components") of Yuba water available. Zone 7 has the option to purchase Components 2 and 3 water during drought conditions, and Component 4 water when the Yuba County Water Agency has determined that it has water supply available to sell.

Under the Yuba Accord, water is primarily available during dry years, and the amount is relatively small: 400 AF in 2014 and approximately 300 AF in 2015. For planning purposes, Zone 7 currently assumes a long-term average yield under the Yuba Accord of 145 AF annually; in the future, this amount may increase given the new terms as renegotiated in 2014. Any such increase will be reflected in future planning efforts.

5.2.2 Byron Bethany Irrigation District

The Byron Bethany Irrigation District (BBID) diverts water from the Sacramento-San Joaquin Delta (Delta) pursuant to a "Notice of Appropriation of Water" dated May 18, 1914. Zone 7 entered into a short-term water transfer demonstration project in 1994 with BBID, which provided a minimum supplemental water supply of 2,000 AFA. This was a five-year agreement with a potential to purchase up to 5,000 AFA. In 1998, Zone 7 and BBID agreed to convert the agreement into a long-term 15-year contract, renewable every five years up to a total of 30 years. The current contract was recently extended through 2030 with an option to extend through 2039. However, in the last few years, BBID, Zone 7, and DWR have been reviewing the potential yield available for Zone 7, and discussing the long-term future of the contract. Furthermore, Zone 7 now expects the available supply under this contract to diminish as BBID's own water demands increase. Until discussions among BBID, DWR, and Zone 7 reach a conclusion, 2,000 AFA of water is assumed to be available under this contract at this time; this amount is similar to the latest BBID transfer approved in 2013 of 2,200 AF.

5.2.3 Local Surface Water Runoff

Zone 7, along with Alameda County Water District (ACWD), has water right permits to divert flows from Arroyo del Valle. Runoff from the Arroyo del Valle watershed above Lake Del Valle is stored in the lake, which is managed by DWR. As noted above, Lake Del Valle is also used to store imported surface water deliveries from the SWP. In late summer/early fall, DWR typically lowers lake levels in anticipation of runoff from winter storm events, and to provide flood control capacity. Water supply in Lake Del Valle is made available to Zone 7 via the SBA through

operating agreements with DWR. Inflows to Lake Del Valle, after accounting for permit conditions, are equally divided between ACWD and Zone 7. Zone 7 can store up to about 7,500 AF of its share of Arroyo Valle runoff in the lake; runoff collected in any given year is required to be delivered to Zone 7 by the end of the following year.

5.2.4 Local Storage

Zone 7 has three options for local storage: storage in Lake Del Valle, storage in the local groundwater basin and, in the future, surface storage in the Chain of Lakes. Each of these is described below.

5.2.4.1 Lake Del Valle

As described above, Lake Del Valle is used to store runoff from the Arroyo del Valle watershed above the lake, and also to store imported surface water deliveries from the SWP.

5.2.4.2 Livermore Valley Groundwater Basin

Zone 7 overlies the Livermore Valley Groundwater Basin (Main Basin). The Main Basin is the portion of the Livermore Valley Groundwater Basin that contains high-yielding aquifers and good quality groundwater. It has an estimated storage capacity of about 254,000 af. DWR has not identified the Main Basin (DWR Basin No. 2-10) as either a basin in overdraft or a basin expected to be in overdraft. Detailed descriptions of the Main Basin are available in Zone 7's Groundwater Management Plan (GMP) and the Zone 7 2015 UWMP.

It should be noted that, for Zone 7, the Basin is considered a storage facility and not a long-term water supply because Zone 7 does not have a groundwater-pumping quota, and only pumps groundwater it has previously artificially recharged using its surface water supplies.

Zone 7 administers oversight of the Main Basin as part of its Groundwater Management Program. As part of its conjunctive use program, Zone 7's policy is to maintain groundwater levels above historic lows in the Main Basin through artificial recharge of SWP water or locally-stored runoff from Arroyo del Valle. Currently, this is accomplished by releasing water to the arroyos for subsequent percolation and replenishment of the aquifers. Zone 7 established historic lows based on the lowest measured groundwater elevations in various wells in the Main Basin; historic lows correspond to a groundwater storage volume of about 128,000 af. In general, the difference between water surface elevations when the Main Basin is full and water surface elevations when the Main Basin is at historic lows defines Zone 7's operational storage. Operational storage is about 126,000 af based on Zone 7's experience operating the Main Basin.

Section 5.3 (Groundwater Supply) further describes the Livermore Valley Groundwater Basin and Zone 7's Groundwater Management Plan[9] that is used to manage the basin.

[9] Groundwater Management Plan for Livermore-Amador Valley Groundwater Basin, prepared for Zone 7 Water Agency, prepared by Jones & Stokes, September 2005.

5.2.4.3 Chain of Lakes – Lake I and Cope Lake

The Chain of Lakes (COLs) refers to a series of former or active gravel quarry pits that have been or will be transferred to Zone 7 for water resources applications. These might include surface storage of stormwater or other local runoff, surface storage of water from the SWP, and/or use as groundwater recharge basins once mining has lakes are named Cope Lake and Lakes A through I.

The COLs will ultimately cover approximately 1,500 acres and have 150,000 AF of total storage volume; 31,000 AF is estimated to be available for operational storage. Zone 7 currently only owns Cope Lake and Lake I. Zone 7 expects to take ownership of Lakes A and H sometime within the next five years; however, the availability of Lakes B through G may extend well beyond 2030, and may be as late as 2060.

5.2.5 Non-Local Storage

In addition to local storage, Zone 7 also participates in the two non-local (also called "out of basin") groundwater-banking programs described below; both banks are located in Kern County. Note that while these banking programs provide a water source during drought years, they represent water previously stored from Zone 7's surface water supplies during wet years. Therefore, they do not have a net contribution to Zone 7's water supply over the long-term and in fact result in some operational losses as described below. Furthermore, this banked water supply is only available when the SBA is operational.

5.2.5.1 Semitropic Water Storage District

Zone 7 originally acquired a storage capacity of 65,000 af in the Semitropic Water Storage District (Semitropic) groundwater banking program in 1998. Subsequently, Zone 7 agreed to participate in Semitropic's Stored Water Recovery Unit, which increased pumpback capacity and allowed Zone 7 to contractually store an additional 13,000 af. Zone 7 currently has a total of 78,000 af of groundwater banking storage available to augment water supplies during drought conditions. During non-drought periods, Zone 7 can store up to 5,883 af/yr into the Semitropic groundwater bank. Note that a 10 percent loss is associated with water put into Semitropic. During a drought year, Zone 7 has the ability to request up to 9,100 af of pumpback and any amount between 0 to 8,645 af of exchange water; the availability of exchange water depends on projected SWP allocation. Pumpback is water that is pumped out of the Semitropic aquifer and into the SWP system. Exchange water is water that is transferred between Zone 7 and Semitropic by adjusting the amounts of Table A water allocated between Zone 7 and Semitropic. During the recent drought, Zone 7 was able to recover 9,900 AF in 2014 and about 12,500 AF in 2015. The agreement is in effect through December 31, 2035.

5.2.5.2 Cawelo Water District

Similar to the arrangements with Semitropic, Zone 7 has 120,000 af of groundwater banking storage available with the Cawelo Water District, as executed in an agreement in 2006. During non-drought periods, Zone 7 can store up to 5,000 af/yr in the bank. During droughts, Zone 7 has the ability to request up to 10,000 af/yr of pumpback (or exchange water) from Cawelo. During the recent drought, Zone 7 was able to recover 9,700 AF, delivered evenly over 2014 and 2015;

most of this water was used directly, while the rest was stored in San Luis Reservoir for future use. The agreement is in effect through December 31, 2035.

5.3 Groundwater Supply

This section describes the Livermore Valley Groundwater Basin and Zone 7's Groundwater Management Plan[10] that is used to manage the basin. Each year, Zone 7 prepares an Annual Report for the Groundwater Management Program.

The City and Cal Water-Livermore both receive groundwater from wholesaler Zone 7 as part of the overall supply purchased from Zone 7. As mentioned previously, the City does not plan to pump groundwater to meet any water demands of the municipal water service area through the 20-year planning horizon.

Cal Water-Livermore owns and operates twelve groundwater wells in the Main Basin. The groundwater pumped by Cal Water-Livermore currently comprises approximately 30 percent of Cal Water-Livermore's total supply. This groundwater resource is described in the sections below.

5.3.1 Groundwater Pumping Quota

DSRSD, the Cal Water-Livermore, and the cities of Livermore and Pleasanton, through agreements with Zone 7, have mutually agreed to limit their extraction from the Main Basin to a combined quantity of approximately 7,200 af/yr, about 54 percent of the long-term sustainable yield of the Main Basin. This agreement, along with Zone 7's other groundwater management activities, keeps the groundwater budget essentially in balance under average hydrologic conditions. Each of these retailers has a groundwater pumping quota (known as their GPQ). Cal Water-Livermore's GPQ is 3,069 af/yr. In accordance with its agreement with Zone 7, Cal Water-Livermore may obtain groundwater in excess of its GPQ if it pays a recharge fee (per acre-foot of groundwater extracted above the GPQ) to Zone 7.

5.3.2 Historical and Projected Future Pumpage

The volume of groundwater pumped by Cal Water-Livermore from 2011 to 2015 is shown in Table 5-1. The volume of groundwater projected to be pumped by Cal Water-Livermore is shown in Table 5-2.

As mentioned previously, the City does not pump groundwater and does not plan to pump groundwater during the 20-year planning horizon.

[10] Groundwater Management Plan for Livermore-Amador Valley Groundwater Basin, prepared for Zone 7 Water Agency, prepared by Jones & Stokes, September 2005.

Table 5-1. Historical Groundwater Pumped by Cal Water-Livermore					
Basin Name	2011	2012	2013	2014	2015
Main Basin, Livermore Valley, af/yr[(a)]	2,987	3,250	2,667	2,821	2,361
(a) Source: Cal Water Livermore District 2015 UWMP (June 2016), Table 6-1.					

Table 5-2. Groundwater Projected to be Pumped by Cal Water-Livermore					
Basin Name	2020	2025	2030	2035	2040
Main Basin, Livermore Valley, af/yr[(a)]	3,069	3,069	3,069	3,069	3,069
(a) Source: Cal Water Livermore District 2015 UWMP (June 2016), Table 6-9.					

5.3.3 Groundwater Basin Description

As defined in DWR Bulletin 118 Update 2003 (California's Groundwater), the Livermore Valley Groundwater Basin (DWR Basin 2-10) extends from the Pleasanton Ridge east to the Altamont Hills and from the Livermore Uplands north to the Tassajara Uplands. Surface drainage features include Arroyo del Valle, Arroyo Mocho, and Arroyo Las Positas as principal streams, with Alamo Creek, South San Ramon Creek, and Tassajara Creek as minor streams. All streams converge on the west side of the basin to form Arroyo de la Laguna, flowing south and joining Alameda Creek in Sunol Valley, and ultimately draining to the San Francisco Bay. Some geologic structures restrict the lateral movement of groundwater, but the general groundwater gradient is from east to west, towards Arroyo de la Laguna, and from north to south along South San Ramon Creek and Arroyo de la Laguna.

The entire floor of the Livermore Valley and portions of the upland areas on all sides of the valley overlie groundwater-bearing materials. The materials are mostly continental deposits from alluvial fans, outwash plains, and lakes. They include valley-fill materials, the Livermore Formation, and the Tassajara Formation. Under most conditions, the valley-fill and Livermore Formation yield adequate to large quantities of groundwater to all types of wells, with the larger supply wells being located in the Main Basin. The Main Basin is composed of the Castle, Bernal, Amador, and Mocho 2 sub-basins.

5.3.4 Groundwater Quantity

Zone 7 routinely monitors groundwater levels within the Main Basin. Two independent methods are used to estimate groundwater storage: (1) Hydrologic Inventory; and (2) Nodal Groundwater Elevation. The Main Basin is estimated to have a total storage capacity of 254,000 af, of which approximately 126,000 af are available for Zone 7 operational storage. Zone 7's goal is to maintain 128,000 af of groundwater in storage at all times, as discussed below.

5.3.4.1 Artificial Recharge

Before the construction of the SWP in the early 1960s, groundwater was the sole water source for the Livermore-Amador Valley. This resource has gone through several periods of extended withdrawal and subsequent recovery. In the 1960s, when approximately 110,000 af of groundwater was extracted, the Main Basin reached its historic low of 128,000 af. The Main Basin was allowed to recover from 1962 to 1983. It was during this era that Zone 7 first conducted a program of groundwater replenishment by recharging imported surface water via its streams ("in-stream recharge") for storage in the Main Basin, began supplying treated surface water to customers to augment groundwater supplies, and began regulating municipal pumping by contractually establishing GPQ as discussed further below.

Zone 7's operational policy is to maintain the balance between the combination of natural and artificial recharge and withdrawal. This ensures that groundwater levels do not drop below the historic level of 128,000 af.

5.3.4.2 Current Sustainable Yield and Groundwater Pumping Quotas

Long-term natural sustainable yield is contractually defined as the average amount of groundwater annually replenished by natural recharge in the Main Basin (through percolation of rainfall, natural stream flow, and irrigation waters, and inflow of subsurface waters) and which can therefore be pumped without lowering the long-term average groundwater volume in storage. In contrast, "artificial recharge" is the aquifer replenishment that occurs from artificially induced or enhanced stream flow, as described in the previous section. With artificial recharge, more groundwater can be sustainably extracted from the Main Basin each year.

The natural sustainable yield of the Main Basin has been determined to be about 13,400 af/yr, which is about 11 percent of the operational storage. This long-term natural sustainable yield is based on over a century of hydrologic records and projections of future recharge conditions. Based on this sustainable yield value, Cal Water-Livermore, DSRSD, the City of Livermore, and the City of Pleasanton (collectively referred to as the Retailers) are permitted to pump 7,245 af/yr. Each retailer has an established "Groundwater Pumping Quota" (GPQ), formerly referred to as the "Independent Quota" in the original Municipal and Industrial water supply contract between Zone 7 and each retailer. Pleasanton and Cal Water-Livermore pump their own GPQ; they are also permitted to pump groundwater in excess of their GPQ under a recharge fee paid to Zone 7. This fee covers the cost of importing and recharging additional water into the Main Basin. Zone 7 pumps DSRSD's GPQ. The City of Livermore has not had any groundwater pumping capability for the last five to six years, and has therefore not pumped their GPQ over this time period.

Zone 7's groundwater extraction for its treated water system does not use the natural sustainable yield from the Main Basin; instead, Zone 7 pumps only water that has been previously recharged as part of its artificial recharge program using its surface water supplies. During high demands, groundwater is used to supplement surface water supply delivered via the SBA and treated at one of the Zone 7's two surface water treatment facilities. Groundwater is also used when the SBA is out of service due to maintenance and improvements or when Zone 7's surface water treatment plants are operating under reduced capacity due to construction, repairs, *etc*. Finally, Zone 7 uses its stored groundwater (both local and non-local) under emergency or drought conditions, when there may be insufficient surface water supply available. Zone 7 also pumps groundwater out of

the Main Basin during normal water years to help reduce the salt loading in the Main Basin. To achieve additional salt removal, a demineralization facility has been in operation since 2009. Zone 7 plans to recharge 9,200 af/yr on average, which means that Zone 7 can pump an equivalent 9,200 af/yr on average from the Main Basin.

5.3.5 Groundwater Quality

In general, the Main Basin is characterized by relatively good quality groundwater that meets all state and federal drinking water standards. The pumped groundwater is chloraminated simply to match the disinfectant residual in the distribution system. However, there has been a slow degradation of groundwater quality as evidenced by rising Total Dissolved Solids (TDS) and hardness levels over the last few decades. To address this problem, Zone 7 developed a Salt Management Plan (SMP), which was approved by the Regional Water Quality Control Board in 2004 as a condition of the Master Waste Reuse Permit and incorporated into Zone 7's GMP in 2005.

Zone 7 implements a wastewater and recycled water monitoring program as part of the GMP. In 2014, about 27 percent of the recycled water produced in the service area was applied to landscapes over the Main Basin. Nitrates and salinity have historically been the primary water quality parameters of concern in recycled water, but nitrates have become less of a concern since 1995 when the City of Livermore Water Reclamation Plant (which, along with DSRSD, is one of the two largest wastewater agencies in the area) stopped nitrifying its effluent. In 2015, Zone 7 completed a Nutrient Management Plan which provides an assessment of the existing and future groundwater nutrient concentrations relative to the current and planned expansion of recycled water projects and future developments in the Livermore Valley. The Nutrient Management Plan also presents planned actions for addressing positive nutrient loads and high groundwater nitrate concentrations in localized Areas of Concern where the use of onsite wastewater treatment systems (i.e., septic tank systems) is the predominant method for sewage disposal. The Nutrient Management Plan was prepared as a supplement to the SMP; together, they are a Salt and Nutrient Management Plan and have been incorporated into the GMP.

To further manage the water quality in the Main Basin, Zone 7 also runs a Toxic Site Surveillance Program, documenting and tracking sites across the groundwater basin that pose a potential threat to drinking water supplies. Zone 7 works closely with the Regional Water Quality Control Board and Alameda County Environmental Health in these efforts. In general, there are two types of contamination threatening the Livermore Valley Groundwater Basin: petroleum-based fuel products and industrial chemical contaminants. In 2014, Zone 7 tracked the progress of 53 sites where groundwater contamination has been detected or contamination is threatening groundwater. More details on the affected sites and their remediation can be found in the Zone 7's *Annual Report for the Groundwater Management Program*.

5.4 Recycled Water

The Livermore Water Reclamation Plant treats all wastewater collected within the Livermore City limits. Wastewater transport out of the area is handled through the LAVWMA, a joint powers authority composed of DSRSD, City of Livermore, and City of Pleasanton.

The LWRP provides disinfected tertiary treated recycled water to the northwestern portion of the City. The distribution system consists of two above-ground reservoirs with a holding capacity of 1.88 million gallons each. There are approximately 20 miles of distribution pipeline ranging in size from 4- to 18- inches in diameter, with 110 meter connections. There are also 100 recycled water fire hydrants available for contractors to use during construction, and for firefighting and system maintenance. Recycled water is provided to commercial and industrial customers within the City's Zone 1 service area for several uses, including landscape and agricultural irrigation, fire protection, construction, street sweeping, toilet and urinal flushing, and additional irrigational purposes at the Las Positas College and Las Positas Golf Course.

Current 2015 recycled water use data is shown below in Table 5-3. Recycled water use between 2010 and 2015 increased by approximately 31 percent, from about 1,780 af/yr to about 2,330 af/yr. Approximately 55 percent of the recycled water supplied by the City was used for commercial irrigation, while about 19 percent was used for irrigation of the Las Positas Municipal Golf Course. An additional 23 percent was used for landscape irrigation of parks and public facilities, including the Livermore Water Reclamation Plant and the Livermore Municipal Airport. The remaining 3 percent was used for construction uses.

Table 5-3. City of Livermore Current and Projected Recycled Water Supplies

Water Source	2015, Actual[a]	2020[b]	2025[b]	2030[b]	2035[b]	2040[b]
Recycled Water, af/yr	2,332	2,685	3,087	3,551	4,082	4,082

(a) Source: City of Livermore 2015 UWMP (June 2016), Table 6-11. Supplies were converted from million gallons to acre-feet.
(b) Source: City of Livermore 2015 UWMP (June 2016), Table 6-12. Supplies were converted from million gallons to acre-feet.

In the City's 2015 UWMP, the City projects recycled water demands based on planned new facilities in the City's recycled water service area, as well as retrofitting existing facilities. In most cases, it may not be economically feasible for existing developments that are currently using potable water for irrigation to switch to recycled water, nor would it be economically feasible to extend pipelines to serve a small number of customers with limited demands. As described in this WSA, it is assumed that landscape irrigation demands for the Proposed Project within the City's water service area will be served with recycled water.

5.5 Summary of Current and Projected Future Water Supplies

Table 5-4 provides a summary of the City's current and project future water supplies under normal weather conditions.

The City's projected water supplies from Zone 7 are assumed to satisfy the City's 2017 Water Master Plan's projected potable water demand, assuming that the projected water demands for the Proposed Project are included. As described in Section 5.0 of this WSA, based on discussions with Zone 7, Zone 7 will be formally analyzing Livermore's updated demand projections and incorporating them into the preparation of the Zone 7 2020 UWMP, as appropriate. Zone 7's current estimates indicate that the requested increase in demand projections to meet the City's 2017 Water Master Plan projected potable water demand could likely be served by planned excess supplies as projected in Zone 7's 2015 UWMP. The additional demand from the Proposed Project, if approved by Livermore City Council, represents less than 1 percent of the demands for Livermore and Cal Water-Livermore combined, and is not considered significant enough to warrant interim analysis as it is well within the margin of error for water supply planning purposes. Documentation from Zone 7 supporting this water supply assumption is provided in Appendix A of this WSA.

The City's projected recycled water supplies are the same projections reported in the City's 2015 UWMP.

Table 5-4. City of Livermore Current and Projected Future Water Supplies

Water Source	2015, Actual[a]	2020[b]	2025[b]	2030[b]	2035[b]	2040[b]
Water Purchased from Zone 7, af/yr	4,554	6,392	6,867	7,343	7,817	8,292
Recycled Water[c], af/yr	2,332	2,685	3,087	3,551	4,082	4,082
Total, af/yr	6,886	9,077	9,954	10,894	11,899	12,374

(a) Actual 2015 supplies are from Table 6-11 of the City of Livermore 2015 UWMP (June 2016). Supplies are converted from million gallons to acre-feet.
(b) Projected potable supplies purchased from Zone 7 are assumed to satisfy the City's 2017 Water Master Plan's projected potable demand (including the additional projected water demand for the Proposed Project) as shown in Table 4-2 of this WSA.
(c) Projected recycled water supplies are from Table 5-3 of this WSA.

Table 5-5 provides a summary of the Cal Water-Livermore's current and project future water supplies under normal weather conditions, assuming that the projected water demands for the Proposed Project are included.

Cal Water-Livermore's projected water supplies from Zone 7 are slightly higher than those included in Cal Water-Livermore's 2015 UWMP to accommodate the additional projected water demands for the Proposed Project. As stated above, based on discussions with Zone 7, the additional demand from the Proposed Project, if approved by Livermore City Council, represents less than 1 percent of the demands for Livermore and Cal Water-Livermore combined, and is not considered significant enough to warrant interim analysis as it is well within the margin of error

for water supply planning purposes. Documentation from Zone 7 supporting this water supply assumption is provided in Appendix A of this WSA.

Table 5-5. Cal Water-Livermore Current and Projected Future Water Supplies

Water Source	2015, Actual[a]	2020[b]	2025[b]	2030[b]	2035[b]	2040[b]
Water Purchased from Zone 7, af/yr	4,463	8,913	9,433	9,493	9,413	9,350
Groundwater, af/yr	2,361	3,069	3,069	3,069	3,069	3,069
Total, af/yr	6,824	11,982	12,502	12,562	12,482	12,419

(a) Source: Cal Water-Livermore 2015 UWMP (June 2016), Table 6-8.
(b) Source: Cal Water-Livermore 2015 UWMP (June 2016), Table 6-9, with Zone 7 purchased water increased slightly to meet the additional projected water demand for the Proposed Project.

6.0 WATER SUPPLY RELIABILITY

10910 (c)(4) address "total projected water supplies available…during normal, single dry, and multiple dry water years during a 20-year projection…"

6.1 Potable Water Supply Reliability

6.1.1 Zone 7 Reliability Policy for Municipal & Industrial Water Supplies

The reliability of the City's and Cal Water-Livermore's potable water supply is largely dependent upon their water supply contract with Zone 7 and Zone 7's water supply reliability policy. On October 17, 2012, the Zone 7 Board of Directors approved a revised Water Supply Reliability Policy (Resolution No. 13-4230, included in Appendix B), which adopts the following level of service goals to guide the management of Zone 7's treated water supplies as well as its Capital Improvement Program (CIP):

- **Goal 1:** Zone 7 will meet its treated water customers' water supply needs, in accordance with Zone 7's most current Contracts for M&I Water Supply, including existing and projected demands as specified in Zone 7's most recent UWMP, during normal, average, and drought conditions, as follows:
  - At least 85 percent of M&I water demands 99 percent of the time
  - 100 percent of M&I water demands 90 percent of the time
- **Goal 2**: Provide sufficient treated water production capacity and infrastructure to meet at least 80 percent of the maximum month M&I contractual demands should any one of Zone 7's major supply, production, or transmission facilities experience an extended unplanned outage of at least one week.

This revised reliability policy provides Zone 7 with the additional flexibility and time necessary to evaluate, develop and implement cost-effective solutions necessary to allow Zone 7 to continue to provide a reliable, high-quality water supply to its customers in the face of an uncertain water supply future. Changing the second goal to reflect a prolonged outage based on the maximum month instead of the maximum day should allow Zone 7 to develop more cost-effective solutions to major, prolonged outages, while also providing the time necessary to communicate with and obtain a response from its customers.

6.1.2 Zone 7 Water Supply Reliability

The treated potable water that the City and Cal Water-Livermore receive from Zone 7 is blended from various sources. It meets all Federal and State drinking water requirements. The quality of water delivered to the City and Cal Water-Livermore depends on the blend of supplies available to Zone 7.

Table 6-1 lists the years that Zone 7 identifies as their historical average, single driest year, and driest multi-year period, also known as the "Base Years." Table 6-2 summarizes the volume of water supply expected by source and the total percentage of water supply expected if there were to be a repeat of the hydrology of that type of year. The water year basis varies depending on the

water source; explanatory details are included in Section 7.2 of Zone 7's 2015 UWMP, along with historical percentages of normal delivery.

Table 6-1. Basis of Water Year Data for Various Zone 7 Water Supplies[(a)]

Water Source	Average Year	Single Dry Year	Multiple-Dry Year		
			Year 1	Year 2	Year 3
Arroyo del Valle	1919	1977	1988	1989	1990
SWP - Table A	1964	2014	1990	1991	1992
SWP - Carryover	1964	2014	1990	1991	1992
SWP - Yuba Accord	1964	2014	1990	1991	1992
BBID	1964	2015	1990	1991	1992
From Storage					
Main Basin	1964	2014	1990	1991	1992
Semitropic	1964	2014	1990	1991	1992
Cawelo	1964	2014	1990	1991	1992

(a) Source: Zone 7 2015 UWMP, Tables 7-1 through 7-8.

In the City's 2015 UWMP, projected Normal Year supplies are assumed to satisfy the City's projected Normal Year demands. However, as shown in Table 6-2, purchased supplies from Zone 7 may be subject to reductions during dry years. In the City's 2015 UWMP, and this WSA, the City's purchased supplies from Zone 7 during dry years assume the following supply reductions:

- During Single Dry Years, purchased supplies from Zone 7 are assumed to be 75 percent of Normal Year supplies (25 percent reduction in supplies); and
- During Multiple Dry Years, purchased supplies from Zone 7 are assumed to be 85 percent of Normal Year supplies (15 percent reduction in supplies).

In Cal Water-Livermore's 2015 UWMP, Cal Water-Livermore's projected potable water supply includes 3,069 af/yr of local sustainable groundwater and assumes that Zone 7 will have adequate purchased supplies to provide the remaining demand to the Cal Water-Livermore under all hydrologic conditions.

Table 6-3 shows the City's and Cal Water-Livermore's projected supplies during dry years based on the assumptions in their respective 2015 UWMPs.

Table 6-2. Zone 7's Water Supply Reliability[a]

Water Source	Average Year	Single Dry Year	Multiple-Dry Year		
			Year 1	Year 2	Year 3
Arroyo del Valle, af/yr	7,300-10,300	0	350	520	150
SWP - Table A, af/yr	50,000	4,000	21,800	12,900	19,300
SWP – Carryover, af/yr	10,000	10,000	10,000	10,000	10,000
SWP - Yuba Accord, af/yr	145	676	676	676	676
BBID, af/yr	2,000	0	2,000	2,000	2,000
From Storage					
Main Basin, afyr	9,200	28,000-34,400	12,400	16,100	13,500
Semitropic, af/yr	0	7,200	10,400	9,100	9,100
Cawelo, af/yr	0	7,800	10,000	10,000	10,000
Total	78,645	57,676	67,626	61,296	64,726
Percent of Average Supply		73.3%	86.0%	77.9%	82.3%

(a) Source: Zone 7 2015 UWMP, Table 7-11

Table 6-3. Projected Supplies from Zone 7 During Dry Years

Hydrologic Condition	% of Normal Year	2020	2025	2030	2035	2040
City of Livermore[a]						
Single Dry Year, af/yr	75	4,794	5,150	5,507	5,863	6,219
Multiple Dry Years, af/yr	85	5,433	5,837	6,241	6,645	7,048
Cal Water-Livermore[b]						
Single Dry Year, af/yr	107	9,567	10,116	10,179	10,095	10,028
Multiple Dry Year 1, af/yr	105	9,408	9,950	10,012	9,929	9,863
Multiple Dry Year 2, af/yr	105	9,365	9,905	9,967	9,884	9,819
Multiple Dry Year 3, af/yr	105	9,379	9,919	9,981	9,898	9,833

(a) Based on the percentage of Normal Year supplies assumed in the City of Livermore 2015 UWMP. Projected supplies are assumed to satisfy the Normal Year demands (with Proposed Project) projected in the City of Livermore 2017 Water Master Plan (May 2017). See Table 4-2 of this WSA for Normal Year projections in the City of Livermore 2017 Water Master Plan (with Proposed Project).

(b) Based on Cal Water Livermore 2015 UWMP (June 2016), Tables 7-3 and 7-4, adjusted to include the projected water demand for the Proposed Project. Cal Water-Livermore's total projected potable water supply includes 3,069 af/yr of local sustainable groundwater and assumes that Zone 7 will have adequate purchased supplies to provide the remaining demand to Cal Water-Livermore under all hydrologic conditions.

The following sections discuss the reliability of Zone 7's water supply sources and Zone 7's strategies for managing the risks associated with each supply. The descriptions provided below have been taken, for the most part, from Zone 7's 2015 UWMP, which was adopted in March 2016.

6.1.2.1 Imported Water: State Water Project

Imported surface water from the SWP is by far Zone 7's largest water source, providing over 80 percent of the treated water supplied to retail customers. Much of this imported surface water is derived from the Feather River watershed, in the northern part of California, and ultimately flows through the Delta before it is conveyed by the California Aqueduct and the SBA to Zone 7's water facilities. Zone 7's other imported surface water supply, BBID, is also diverted from the Delta and provides water to Zone 7 via the SBA.

The instability of the aging levees in the Delta (including their vulnerability to seismic events and climate change), regulatory uncertainty, water quality issues including saltwater intrusion, and the declining health of the Delta ecosystem all challenge the long-term reliability of the SWP and, more generally, the water conveyance capability of the Delta.

There are some important water quality considerations associated with the water that is conveyed through the Delta. In 1982, DWR formed the Interagency Delta Health Aspects Monitoring Program to monitor water quality in the Delta for human health protection. The program was renamed the Municipal Water Quality Investigations Program (MWQI Program) in 1990. From a municipal water supply perspective, water quality issues in the Delta are associated with salinity from seawater intrusion; wastewater effluent discharges; agricultural drainages from the islands; and recreational activities. Water quality issues of specific concern to Zone 7 include the following:

- Algal byproducts – Parameters of concern include components that cause taste and odor (T&O) and algal toxins. T&O is primarily a problem in the warmer months, when algal blooms may be present. It can affect supplies from the Delta and from Lake Del Valle. Algae produce geosmin and 2 methylisoborneol (MIB), which are key taste and odor causing compounds in surface water supply. Zone 7 currently treats T&O using powdered activated carbon (PAC), which is of limited effectiveness under high levels of algal byproducts. Adding ozonation, which is a more effective treatment process, is in Zone 7's CIP, see below. A switch to groundwater supplies may be necessary under high levels of algal byproducts in surface water.
- Total and Dissolved Organic Carbon (TOC/DOC) – Levels of organic carbon affect the amounts of coagulant and disinfectant chemicals used at Zone 7's water treatment plants (WTPs), and therefore result in higher costs. In addition, the formation of disinfectant byproducts (DBPS) is dependent upon the amount of TOC/DOC. Zone 7's WTPs have been able to manage high TOC/DOC by increasing coagulant dosages. However, this operational change results in greater sludge production and limits plant production. Ozone will reduce coagulant and chlorine demands, thus reducing typical chlorination DBPs, but will create other ozonation DBPs such as bromate.

- Turbidity – Like TOC/DOC, turbidity affects the amounts of chemicals used at the WTPs and Zone 7's ability to meet drinking water standards. It also can affect the production capacities of Zone 7's WTPs, requiring increased groundwater production under high demands. Planned ozonation facilities can help address settled water turbidity and reduce impacts on WTP production.
- Salinity or Total Dissolved Solids (TDS) – Salinity is a water quality parameter that has significant impacts on SWP operations and the availability of water. To meet the salinity objectives in the Delta, water exports from the Delta may be restricted, reducing the amount of water supply available during certain times of the year.
- Algal Blooms – In addition to T&O and the threat of algal toxins, algal blooms can significantly impact the performance of the filters through clogging, reducing plant production capacities, and requiring additional groundwater use.

Zone 7 plans to install ozonation facilities at DVWTP in 2019 and at PPWTP in 2020. These facilities will provide improved treatment of T&O, TOC/DOC, turbidity, and algal blooms. The facilities are expected to result in more reliable production capacities from the surface water treatment plants.

To protect water quality once the water from the Delta reaches the SBA, recipients of water from the SBA (ACWD, Santa Clara Valley Water District, and Zone 7, known collectively as the SBA Contractors) developed the SBA Watershed Protection Program Plan in 2008. The SBA Watershed Protection Program Plan is designed to protect the SBA system, including Lake Del Valle and Bethany Reservoir, from identified potential contaminant sources (e.g., septic tanks) for urban water supply purposes, as well as agricultural, recreational, and environmental uses.

6.1.2.2 Local Storage

Zone 7 has three options for local storage: storage in Lake Del Valle, storage in the Main Basin and, in the future, surface storage in the COL. The COL will also continue to be used for groundwater recharge.

The Main Basin is characterized by relatively good quality groundwater that meets all state and federal drinking water standards. Groundwater is chloraminated to maintain consistent disinfectant residual in the distribution system and to preserve delivered water quality. However, there has been a slow degradation of groundwater quality as evidenced by rising TDS and hardness levels over the last few decades. To address this problem, Zone 7 developed a SMP, which was approved by the RWQCB in 2004. As part of this SMP, Zone 7 completed construction of a wellhead demineralization facility in 2009.

The key constraint on the use of the COL for storage is the duration of the mining activities, which affects when the remainder of the COL will be transferred to Zone 7 ownership and how much storage is available over time. According to Zone 7's Water Supply Evaluation Update, Lake H is anticipated to be available in the next few years; however, the availability of Lakes A through G may extend well beyond 2030, and may be as late as 2060. Zone 7 continues to work closely with mining companies and quarry operators so planning efforts can be coordinated.

6.1.2.3 Non-Local Storage

In addition to local storage, Zone 7 also has storage contracts with two non-local groundwater banking districts in Kern County: Semitropic and Cawelo. There must be sufficient water flowing through the Delta to facilitate these exchanges, which could be a challenging condition to meet during a drought.

During the recent drought, access to banked water became uncertain because of the historically low Table A allocation, leading to minimal amounts of water moving through the SWP, and the potential cessation of pumping in the Delta to control salinity intrusion. Ultimately, DWR was able to manage salinity so that pumping in the Delta could continue, and with coordination among Zone 7, other SWP contractors, DWR, and banking partners, DWR prioritized the delivery of banked water to Zone 7 and other SBA contractors. Even during the serious drought conditions of 2014 and the minimal 5 percent SWP allocation, Zone 7 was able to successfully recover almost 15,000 AF, or approximately 78 percent of the maximum recovery requested by Zone 7. In 2015, Zone 7 recovered 17,400 AF from storage. Zone 7 will continue to coordinate closely with DWR, other SWP contractors, Semitropic, and Cawelo to ensure the future reliability of the banked water supplies.

Some of Semitropic's wells are affected by arsenic. This is currently being managed through treatment before the affected groundwater water is pumped into the California Aqueduct. Arsenic criteria have been established for this "pump in" by the DWR Facilitation Group to mitigate any impacts to the downstream SWP contractors. Semitropic and the banking partners have developed a coordination process for discussing arsenic treatment. While the presence of arsenic in the Semitropic groundwater bank is likely to increase the cost of this water storage option, it is not likely to affect its overall reliability.

6.1.3 Groundwater Supply Reliability

The Main Basin is characterized by relatively good quality groundwater that meets all state and federal drinking water standards. Groundwater is chloraminated to maintain consistent disinfectant residual in the distribution system and to preserve delivered water quality. However, there has been a slow degradation of groundwater quality as evidenced by rising TDS and hardness levels over the last few decades. To address this problem, Zone 7 developed an SMP, which was approved by the RWQCB in 2004.

As described in Section 5.3.1 (Groundwater Pumping Quota), Cal Water-Livermore has a GPQ of 3,069 af/yr from the Main Basin. According to Cal Water-Livermore's contract with Zone 7, Cal Water-Livermore is authorized to the following:

- The carryover of over any unused portion of its annual GPQ up to a total of 614 AF (20 percent of the annual GPQ);
- The production of groundwater in excess of the GPQ provided Cal Water pays a recharge fee for this additional water; and
- The implementation, as supply conditions permit, of a conjunctive use storage program.

GPQ's for the Main Basin were determined based on the natural sustainable yield of the Main Basin. As such, Cal Water's groundwater supply from its GPQ is considered reliable under all hydrologic conditions.

6.2 Recycled Water Supply Reliability

The City does not anticipate significant challenges in its ability to provide recycled water to its customers. The City anticipates no significant changes to the land uses in the City's wastewater service area; therefore, it does not anticipate any changes to the quality of the wastewater effluent that it treats to recycled water quality. Therefore, the City does not expect recycled water quality issues to impact its ability to reliably deliver recycled water to its customers. The City's recycled water supply is considered reliable under Normal, Single Dry, and Multiple Dry water years.

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7.0 DETERMINATION OF WATER SUPPLY SUFFICIENCY BASED ON THE REQUIREMENTS OF SB 610

10910(c)(4) If the city or county is required to comply with this part pursuant to subdivision (b), the water supply assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.

10911 (a) If, as a result of its assessment, the public water system concludes that its water supplies are, or will be, insufficient, the public water system shall provide to the city or county its plans for acquiring additional water supplies, setting forth the measures that are being undertaken to acquire and develop those water supplies.

7.1 City of Livermore Water Supply Sufficiency

As discussed in this WSA, the City's water supply includes purchased potable water supplies from Zone 7 and recycled water supplies. The City's potable and recycled water supply sufficiency, based on the requirements of SB 610, are discussed in the sections below.

7.1.1 Potable Water Supply Sufficiency

Pursuant to Water Code section 10910(c)(4), and based on the technical analyses described in this WSA, the City finds that the total projected water supplies determined to be available for the Proposed Project during Normal, Single Dry, and Multiple Dry water years during a 20-year projection will meet the projected water demand associated with the Proposed Project, in addition to existing and planned future uses. As described in Section 5.0 of this WSA, based on discussions with Zone 7, Zone 7 will be formally analyzing Livermore's updated demand projections and incorporating them into the preparation of the Zone 7 2020 UWMP, as appropriate. Zone 7's current estimates indicate that the requested increase in demand projections to meet the City's 2017 Water Master Plan projected potable water demand could likely be served by planned excess supplies as projected in Zone 7's 2015 UWMP. The additional demand from the Proposed Project, if approved by Livermore City Council, represents less than 1 percent of the demands for Livermore and Cal Water-Livermore combined, and is not considered significant enough to warrant interim analysis as it is well within the margin of error for water supply planning purposes. Documentation from Zone 7 supporting this water supply assumption is provided in Appendix A of this WSA.

As discussed in this WSA, Zone 7 is City's sole potable water supplier and Zone 7 is aggressively planning for water supply programs and projects to meet the water demands of its customers through buildout of adopted general plans. According to the Zone 7's 2015 UWMP, Zone 7 does not anticipate any water supply shortage during Normal, Single Dry, and Multiple Dry water years through 2035.

Table 7-1 summarizes the projected availability of the City's existing and planned future potable water supplies and the City's projected water demands in Normal, Single Dry and Multiple Dry years through 2040. As shown in Table 7-1, water demand within the City's water service area is not expected to exceed the City's water supplies during Normal, Single Dry, and Multiple Dry water years between 2020 and 2040.

The City plans to continue to manage and further reduce its potable water demands through additional conservation efforts and its recycled water program. If these shortages occur, the City may have to invoke its *Water Shortage Contingency and Drought Plan*, described in its 2015 UWMP.

Table 7-1. City of Livermore Summary of Potable Water Demand Versus Supply During Hydrologic Normal, Single Dry, and Multiple Dry Years

Hydrologic Condition		Supply and Demand Comparison, af/yr				
		2020	2025	2030	2035	2040
Normal Year						
Available Potable Water Supply[a]		6,392	6,867	7,343	7,817	8,292
Total Potable Water Demand (with Proposed Project)[b]		6,392	6,867	7,343	7,817	8,292
Potential Surplus (Deficit)		0	0	0	0	0
Percent Shortfall of Demand		-	-	-	-	-
Single Dry Year						
Available Potable Water Supply[c]		4,794	5,150	5,507	5,863	6,219
Total Potable Water Demand (with Proposed Project)[d]		4,794	5,150	5,507	5,863	6,219
Potential Surplus (Deficit)		0	0	0	0	0
Percent Shortfall of Demand		-	-	-	-	-
Multiple Dry Years						
Multiple-Dry Year 1	Available Potable Water Supply[c]	5,433	5,837	6,241	6,645	7,048
	Total Potable Water Demand (with Proposed Project)[d]	5,433	5,837	6,241	6,645	7,048
	Potential Surplus (Deficit)	0	0	0	0	0
	Percent Shortfall of Demand	-	-	-	-	-
Multiple-Dry Year 2	Available Potable Water Supply[c]	5,433	5,837	6,241	6,645	7,048
	Total Potable Water Demand (with Proposed Project)[d]	5,433	5,837	6,241	6,645	7,048
	Potential Surplus (Deficit)	0	0	0	0	0
	Percent Shortfall of Demand	-	-	-	-	-
Multiple-Dry Year 3	Available Potable Water Supply[c]	5,433	5,837	6,241	6,645	7,048
	Total Potable Water Demand (with Proposed Project)[d]	5,433	5,837	6,241	6,645	7,048
	Potential Surplus (Deficit)	0	0	0	0	0
	Percent Shortfall of Demand	-	-	-	-	-

(a) From Table 5-4 of this WSA.
(b) From Table 4-2 of this WSA.
(c) From Table 6-3 of this WSA.
(d) From Table 4-3 of this WSA.

7.1.2 Recycled Water Supply Sufficiency

As described in this WSA, approximately 233 af/yr (Normal Year demand) of recycled water is needed to meet the landscape irrigation demands at buildout of the Proposed Project. The City's planned future recycled water supplies are sufficient to meet these recycled water demands. Furthermore, the City does not anticipate significant challenges in its ability to provide recycled water to its customers. The City's recycled water supply is reliable under Normal, Single Dry, and Multiple Dry water years.

Therefore, pursuant to Water Code section 10910(c)(4), and based on the technical analyses described in this WSA and the City's 2015 UWMP, the City finds that the projected recycled water demands for the Proposed Project can be met by the City during Normal, Single Dry, and Multiple Dry water years for a 20-year projection.

7.2 Cal Water-Livermore Water Supply Sufficiency

As discussed in this WSA, the Cal Water-Livermore's water supply includes purchased potable water supplies from Zone 7 and local groundwater supplies. Cal Water-Livermore's potable water supply sufficiency, based on the requirements of SB 610, is discussed in the section below.

7.2.1 Potable Water Supply Sufficiency

Pursuant to Water Code section 10910(c)(4), and based on the technical analyses described in this WSA, Cal Water-Livermore finds that the total projected water supplies determined to be available for the Proposed Project during Normal, Single Dry, and Multiple Dry water years during a 20-year projection will meet the projected water demand associated with the Proposed Project, in addition to existing and planned future uses. As stated above, based on discussions with Zone 7, the additional demand from the Proposed Project, if approved by Livermore City Council, represents less than 1 percent of the demands for Livermore and Cal Water-Livermore combined, and is not considered significant enough to warrant interim analysis as it is well within the margin of error for water supply planning purposes. Documentation from Zone 7 supporting this water supply assumption is provided in Appendix A of this WSA.

As discussed in this WSA, Zone 7 provides potable water supplies to Cal Water-Livermore and Zone 7 is aggressively planning for water supply programs and projects to meet the water demands of its customers through buildout of adopted general plans. According to the Zone 7's 2015 UWMP, Zone 7 does not anticipate any water supply shortage during Normal, Single Dry, and Multiple Dry water years through 2035.

Table 7-2 summarizes the projected availability of Cal Water-Livermore's existing and planned future potable water supplies and the City's projected water demands in Normal, Single Dry and Multiple Dry years through 2040. As shown in Table 7-1, demand within Cal Water-Livermore's water service area is not expected to exceed Cal Water-Livermore's supplies during Normal, Single Dry, and Multiple Dry water years between 2020 and 2040.

Cal Water-Livermore plans to continue to manage and further reduce its potable water demands through additional conservation efforts and its recycled water program. If these shortages occur, Cal Water-Livermore may have to invoke its *Water Shortage Contingency and Drought Plan*, described in its 2015 UWMP.

Table 7-2. Cal Water-Livermore Summary of Potable Water Demand Versus Supply During Hydrologic Normal, Single Dry, and Multiple Dry Years

Hydrologic Condition		Supply and Demand Comparison, af/yr				
		2020	2025	2030	2035	2040
Normal Year						
Available Potable Water Supply[a]		11,982	12,502	12,562	12,482	12,419
Total Potable Water Demand (with Proposed Project)[b]		11,982	12,502	12,562	12,482	12,419
Potential Surplus (Deficit)		0	0	0	0	0
Percent Shortfall of Demand		-	-	-	-	-
Single Dry Year						
Available Potable Water Supply[c]		12,636	13,185	13,248	13,164	13,097
Total Potable Water Demand (with Proposed Project)[d]		12,636	13,185	13,248	13,164	13,097
Potential Surplus (Deficit)		0	0	0	0	0
Percent Shortfall of Demand		-	-	-	-	-
Multiple Dry Years						
Multiple-Dry Year 1	Available Potable Water Supply[c]	12,477	13,019	13,081	12,998	12,932
	Total Potable Water Demand (with Proposed Project)[d]	12,477	13,019	13,081	12,998	12,932
	Potential Surplus (Deficit)	0	0	0	0	0
	Percent Shortfall of Demand	-	-	-	-	-
Multiple-Dry Year 2	Available Potable Water Supply[c]	12,434	12,974	13,036	12,953	12,888
	Total Potable Water Demand (with Proposed Project)[d]	12,434	12,974	13,036	12,953	12,888
	Potential Surplus (Deficit)	0	0	0	0	0
	Percent Shortfall of Demand	-	-	-	-	-
Multiple-Dry Year 3	Available Potable Water Supply[c]	12,448	12,988	13,050	12,967	12,902
	Total Potable Water Demand (with Proposed Project)[d]	12,448	12,988	13,050	12,967	12,902
	Potential Surplus (Deficit)	0	0	0	0	0
	Percent Shortfall of Demand	-	-	-	-	-

(a) From Table 5-5 of this WSA.
(b) From Table 4-4 of this WSA.
(c) From Table 6-3 of this WSA, plus 3,069 af/yr of local groundwater supply pumped in accordance with Cal Water-Livermore's GPQ.
(d) From Table 4-6 of this WSA.

8.0 WATER SUPPLY ASSESSMENT APPROVAL PROCESS

> *10910 (g)(1) Subject to paragraph (2), the governing body of each public water system shall submit the assessment to the city or county not later than 90 days from the date on which the request was received. The governing body of each public water system, or the city or county if either is required to comply with this act pursuant to subdivision (b), shall approve the assessment prepared pursuant to this section at a regular or special meeting.*

This WSA must be approved by the identified water suppliers for the Proposed Project. Therefore, this WSA must be approved by both the City and Cal Water-Livermore for the portions of the Proposed Project within their respective water service areas. The City of Livermore (City Council) and Cal Water-Livermore (Board of Directors) must approve this WSA at a regular or special meeting. Furthermore, this WSA must be included in the Draft Environmental Impact Report (EIR) being prepared for the Proposed Project.

SB 221 applies to residential subdivisions of over 500 dwelling units and requires that the water supplier provide a written verification that the water supply is sufficient, prior to issuance of the final permits. The Proposed Project would allow up to 3,318 new residential dwelling units in the City's water service area and up to 1,019 new residential dwelling units in Cal Water-Livermore's water service area; however, at this stage of the planning process, it is unclear if the proposed residential development will proceed in a manner which meets the definition of a residential subdivision and whether development of the Proposed Project will be subject to the requirements of SB 221. Therefore, this determination will be made at a later date. If SB 221 is determined to be applicable to the Proposed Project, a written verification of sufficient water supply, prepared in compliance with SB 221 requirements, will be required from the City of Livermore and Cal Water-Livermore prior to final approval of the Proposed Project within their respective water service areas.

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9.0 REFERENCES

California Water Service Company Livermore District, 2007 Water Supply and Facilities Master Plan, prepared by West Yost Associates, 2007.

California Water Service Company Livermore District 2015 Urban Water Management Plan, June 2016.

City of Livermore 2015 Urban Water Management Plan, prepared by the City of Livermore, June 2016.

City of Livermore 2017 Water Master Plan, prepared by West Yost Associates, Draft Report dated May 2017.

City of Livermore General Plan 2003-2025, adopted February 2004, last amended December 2014.

City of Livermore, Isabel Neighborhood Plan Notice of Preparation for Program Environmental Impact Report, prepared by City of Livermore Planning Division, April 6, 2016.

Zone 7 Water Agency 2015 Urban Water Management Plan, prepared by Zone 7 Water Agency, March 2016.

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APPENDIX A

Confirmation of Additional Water Supply Availability
from Zone 7 Water Agency (2017)

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ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7
100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551-9486 • PHONE (925) 454-5000

June 15, 2017

Helen Ling
Water Resources Division Manager
Livermore Water Resources/Public Works Division
101 West Jack London Boulevard.
Livermore, CA 94551

Subject: ***Response to Request for Input on WSA – Isabel Neighborhood Plan***

Dear Ms. Ling: Helen

This letter responds to your letter dated May 15, 2017 regarding *"Request for Input on Water Supply Assessment for Isabel Neighborhood Plan."*

We would like to respond to two separate issues raised in your letter:

1. ***Updated Demand Projections*** - The City of Livermore is currently completing a Draft Water Master Plan that includes updated demand projections based on Livermore's current General Plan. Based on Zone 7's understanding, the analysis indicates that the projected buildout demand will increase from the 6,966 acre-feet annually (AFA) of demand presented in Livermore's 2015 Urban Water Management Plan (UWMP) (Livermore, 2016) to 8,225 AFA, or an increase of 1,259 AFA.

   The UWMP, which is prepared every five years, documents analyses conducted to determine available water supplies for the following twenty years and is the formal document used by Zone 7 and other water agencies to communicate water supply conditions to the public; any updated demand projections provided by Livermore, and other retailers, will therefore be formally analyzed and incorporated, as appropriate, into the 2020 UWMP. Note, however, that Zone 7's projected water supplies as shown in Tables 7-12, 7-13, and 7-14 of Zone 7's 2015 UWMP show excess supplies available under normal and dry conditions. This is intended to include some conservatism for planning purposes, including accounting for extreme conditions and uncertainty in the demand projections. The additional demand estimated by Livermore could likely be served by these planned excess supplies. The requested increase in demand amounts to about 20% of the projected excess supply in 2035, the latest projection in Zone 7's 2015 UMWP (buildout is expected to be nearly complete at this time).

2. ***Isabel Neighborhood Plan*** – According to Livermore's analysis, incorporating the Isabel Neighborhood Plan (INP), a proposed development, into Livermore's General Plan would increase Livermore's total demand by 140 acre feet annually/AFA (67 AFA in the area served by Livermore and 73 AFA in the area served by Cal Water). For the area

served by Livermore, potable water will only be used to meet indoor demands and recycled water will be used provide landscape irrigation. Should the Livermore City Council approve this development, this demand increase is less than 1% of demands for Livermore and Cal Water combined and is therefore not considered a significant increase requiring any interim analysis since it is well within the margin of error for Zone 7's projected water demands and planned future water supplies.

As you know, Zone 7 strongly supports the use of recycled water for landscaping and encourages incorporation of water use efficiency in any future developments such as this one. If you have any questions, please contact either Amparo Flores or me.

Sincerely,

G.F. Duerig
General Manager

cc: Dan McIntyre, DSRSD
Kathleen Yurchak, Pleasanton
Frank Vallejo, Cal Water
Carol Mahoney
Amparo Flores

LIVERMORE
CALIFORNIA

May 15, 2017

Ms. Jill Duerig
General Manager
Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 94551

Subject: Request for Input on Water Supply Assessment for Isabel Neighborhood Plan

Dear Ms. Duerig:

The City of Livermore (City) is preparing a Water Supply Assessment (WSA) in accordance with SB 610 for the Isabel Neighborhood Plan (INP), a proposed development area located in the northwest portion of the City. To support the California Environmental Quality Act (CEQA) review of the INP, and due to the number of residential dwelling units that would be allowed under the proposed Plan, the WSA is being prepared to determine the responsible water system suppliers, the total water demand, and the availability and reliability of water supply specific to the INP. Since the source of the potable water for the INP would solely be from water wholesaler Zone 7 Water Agency (Zone 7), the City requests Zone 7's input on this matter.

Description of the Isabel Neighborhood Plan

The planning area for the INP covers approximately 1,138 acres and is entirely within the City's urban growth boundary. The INP will guide future development of the area surrounding the proposed BART station in the Interstate 580 median just east of Isabel Avenue, and is contingent upon the extension of BART to this location. Proposed land uses for the INP area are different from those currently included in the City's adopted General Plan and Development Code (zoning). Currently, most vacant lands are designated for business-park and commercial development, similar to what exists in the planning area today. Refer to Figures 1 and 2 for site maps of the INP area proposed land uses and change areas.

Buildout of the plan would result in approximately 4,200 new dwelling units in attached housing products, and 2.1 million square feet of net new commercial development in the form of office buildings and retail spaces. Buildout includes new development on vacant lands and some redevelopment of existing uses (collectively referred to as "change areas"). Buildout is anticipated to occur by 2040, for planning and environmental review

purposes, although it may take longer. Existing development in non-change areas is assumed to remain indefinitely and continue to generate demand for water.

Responsible Water System Suppliers

The City and the California Water Service Company (Cal Water) are the responsible water system suppliers since the INP lies within both water providers' service areas. The City is working with Cal Water on the WSA.

For the portion of the INP within the City water service area, potable water will be used to meet interior water uses and recycled water will be used to meet landscape irrigation demands. For the portion in the Cal Water service area, potable water will be used to meet all projected water demands as recycled water is not available in the service area. The source of potable water for the City and Cal Water in the INP area would solely be from Zone 7.

Projected INP Potable Water Demands

The table below provides a summary of the projected INP potable water demands at buildout for both the City and Cal Water.

Potable Water Demands for Buildout of INP

Service Area	Potable Water Demand, af/yr		
	Change Areas (New Development)	Non-Change Areas (Existing Development)	Total
City of Livermore(a)	441	395	836
Cal Water-Livermore(b)	153	36	189
Overall INP	594	431	1,025

(a) Does not include landscape irrigation. Landscaping demands assumed to be met with recycled water.

(b) Includes landscape irrigation. Landscaping demands assumed to be met with potable water.

For both the City and Cal Water, the INP potable water demands at buildout are higher than what was previously assumed for the same area when estimating potable water demands as part of the City's and Cal Water's 2015 Urban Water Management Plans (UWMPs). The tables below provide a comparison of this increase for both the City and Cal Water at a service area-wide level.

City of Livermore Total Potable Water Demands at Buildout, af/yr	
	Buildout (Approx. 2040)
2015 UWMP[(a)]	6,966
Draft Water Master Plan (based on General Plan)[(b)]	8,225
Draft Water Master Plan (based on General Plan with modifications for INP)[(c)]	8,292
Difference from 2015 UWMP, af/yr	**1,326**
Difference, %	**+ 19%**

(a) Source: City of Livermore 2015 Urban Water Management Plan (June 2016), Table 4-3
(b) Based on the buildout (2040) demand shown in Table 3-10 of the City of Livermore Draft Water Master Plan (October 2016).
(c) Replaces existing demands and projected demands for General Plan land uses with demands based on INP assumptions.

Note that the City is currently preparing a Water Master Plan that includes newly projected potable water demands at buildout, based on reasonably foreseeable projects and the development of vacant lands under the City's General Plan (i.e. does not include INP land use modifications). Draft results from the Water Master Plan are projecting system wide build out demands that are higher than that projected in the City's 2015 UWMP. To provide clarity, the above table shows what increases in buildout demands from the City's 2015 UWMP are due to the new citywide projections from the Water Master Plan, and which increases are due to the INP land uses changes to the City's General Plan and zoning.

Cal Water Total Potable Water Demand at Buildout, af/yr	
	Buildout (Approx. 2040)
2015 UWMP [(a)]	12,346
2015 UWMP with INP[(b)]	12,419
Difference from 2015 UWMP, af/yr	**73**
Difference, %	**+ 0.6%**

(a) Source: Cal Water-Livermore 2015 Urban Water Management Plan (June 2016), Table 4-3
(b) Replaces projected demands for the project area in the 2015 UWMP with demands based on INP assumptions.

For Cal Water, the increases in buildout demand are strictly based on changing the project area land use assumptions used in Cal Water's 2015 UWMP with that from the INP to generate a new potable water demand.

Written Input from Zone 7 Requested

Since the INP buildout water demand projections result in an increase in system wide buildout demand projections from that shown in the City's and Cal Water's 2015 UWMPs,

the City is requesting Zone 7's written input on whether it can reliably supply these increases. Input from Zone 7 on this matter would be the basis for confirming water supply adequacy as part of the WSA and CEQA review process.

Next Steps for the WSA
The next steps for the WSA are as follows:

1. City obtains written input from Zone 7 on availability of water supply.
2. City prepares Draft WSA.
3. City, Cal Water, and Zone 7 review Draft WSA.
4. City prepares Final WSA as part of the Draft Environmental Impact Report.
5. Livermore City Council and Cal Water Board of Directors adopt WSA.

If you have any questions regarding the above, please feel free to call me at (925) 960-8168. For additional background on the BART to Livermore and Isabel Neighborhood Plan, please see the project website at: www.cityoflivermore.net/BART or contact Lori Parks at laparks@cityoflivermore.net

Sincerely,

Helen Ling
Water Resources Division Manager

cc: Elizabeth Drayer, West Yost
Frank Vallejo, District Manager, California Water Service
Lori Parks, Associate Planner, City of Livermore
Todd Yamello, Associate Engineer, City of Livermore

Enclosure:
1. Figure 1. Isabel Neighborhood Plan Proposed Land Uses
2. Figure 2. Isabel Neighborhood Plan Land Use Diagram–Change Areas

Figure 1. Isabel Neighborhood Plan Proposed Land Uses

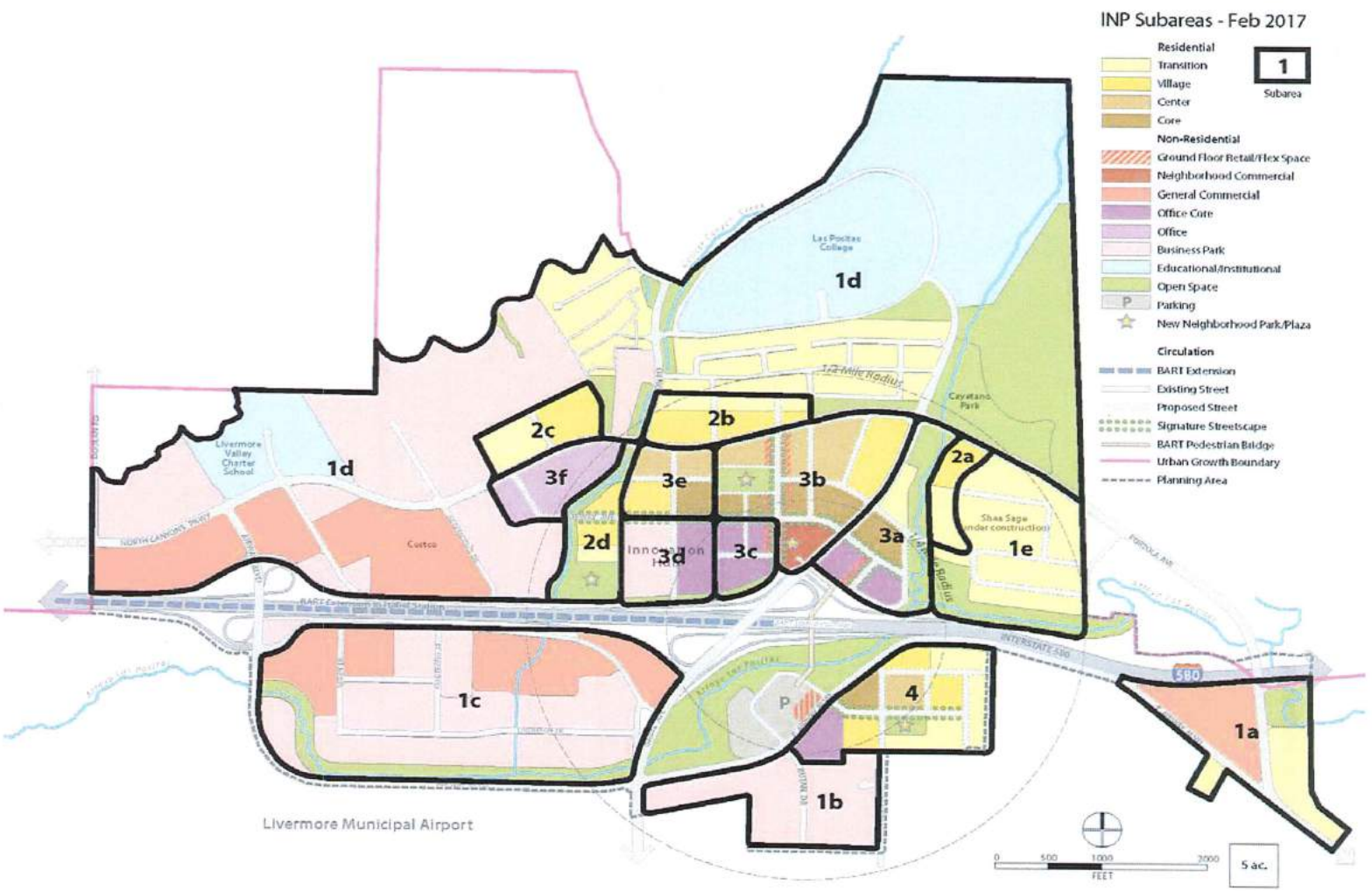
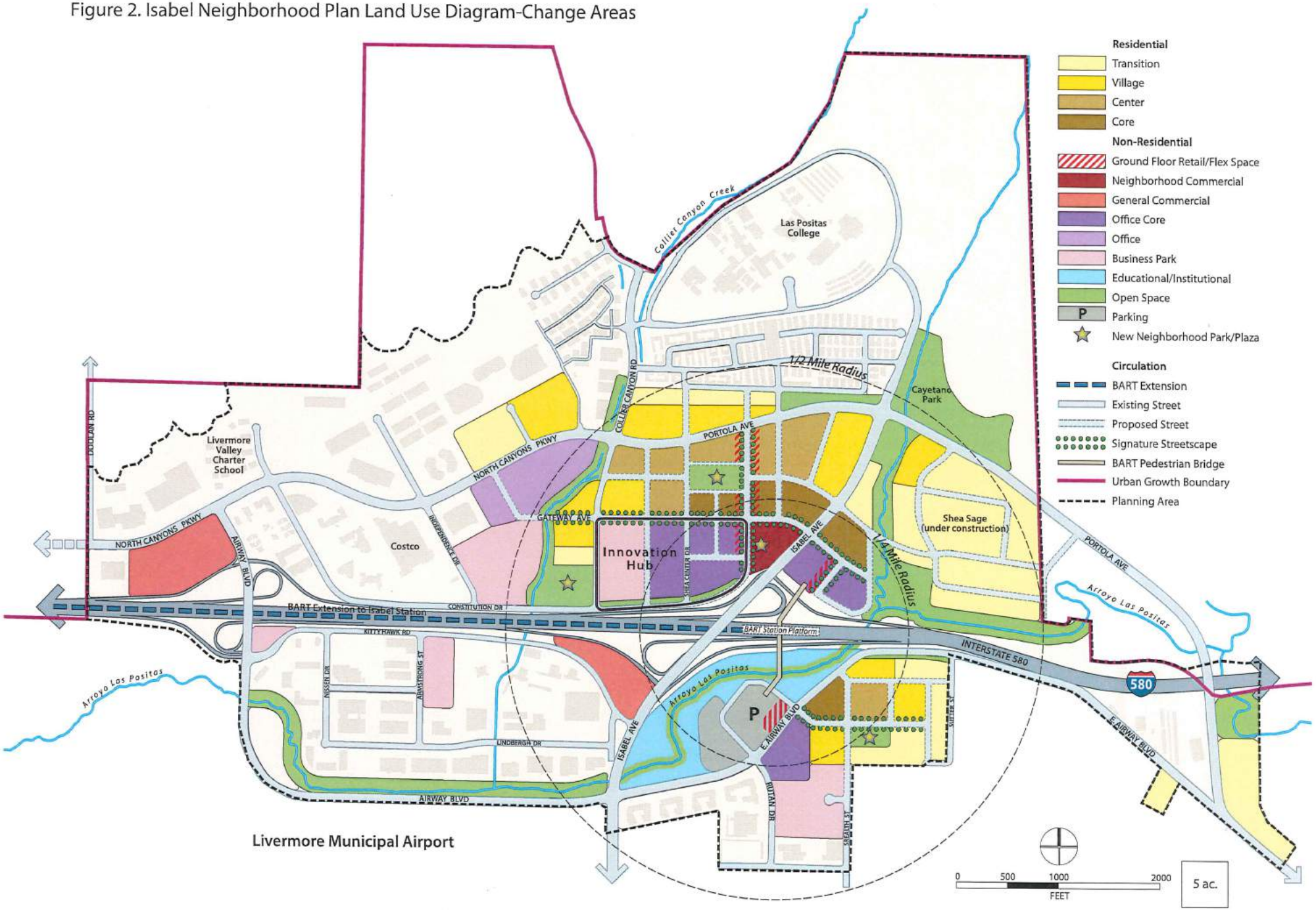


Figure 2. Isabel Neighborhood Plan Land Use Diagram-Change Areas



APPENDIX B

Zone 7 Water Agency Resolution No. 13-4230 Water Supply Reliability Policy (adopted October 17, 2012)

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ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO 13-4230

INTRODUCED BY DIRECTOR QUIGLEY
SECONDED BY DIRECTOR STEVENS

Water Supply Reliability Policy

WHEREAS, the Zone 7 Board of Directors desires to maintain a highly reliable Municipal and Industrial (M&I) water supply system so that existing and future M&I water demands can be met during varying hydrologic conditions; and

WHEREAS, the Board has an obligation to communicate to its M&I customers and municipalities within its service area the ability of Zone 7's water supply system to meet projected water demands; and

WHEREAS, the Board on August 18, 2004 adopted Resolution No. 04-2662 setting forth its Reliability Policy for Municipal & Industrial Water Supplies; and

WHEREAS, the Board desires to revise the Reliability Policy to reflect recent data, analysis, and studies.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby rescinds Resolution No. 04-2662 adopting the August 18, 2004 Reliability Policy for Municipal & Industrial Water Supplies; and

BE IT FURTHER RESOLVED that the Board hereby adopts the following level of service goals to guide the management of Zone 7's M&I water supplies as well as its Capital Improvement Program (CIP):

Goal 1.Zone 7 will meet its treated water customers' water supply needs, in accordance with Zone 7's most current Contracts for M&I Water Supply, including existing and projected demands as specified in Zone 7's most recent Urban Water Management Plan (UWMP), during normal, average, and drought conditions, as follows:

- At least 85% of M&I water demands 99% of the time
- 100% of M&I water demands 90% of the time

Goal 2:Provide sufficient treated water production capacity and infrastructure to meet at least 80% of the maximum month M&I contractual demands should any one of Zone 7's major supply, production, or transmission facilities experience an extended unplanned outage of at least one week.

BE IT FURTHER RESOLVED that to ensure that this Board policy is carried out effectively, the Zone 7 General Manager will provide a water supply status report to the Board every five years with the Zone 7 Urban Water Management Plan that specifies how these goals will be, or are being, achieved.

If the General Manager finds that the goals cannot be met during the first five years of the Urban Water Management Plan, then the Board will hold a public hearing within two months of the General Manager's finding to consider remedial actions that will bring Zone 7 into substantial compliance with the stated level of service goals. Remedial actions may include, but are not limited to, voluntary conservation or mandatory rationing to reduce water demands, acquisition of additional water supplies, and/or a moratorium on new water connections. After reviewing staff analyses and information gathered at the public hearing, the Board shall, as expeditiously as is feasible, take any additional actions that are necessary to meet the level of service goals during the following five-year period; and

BE IT FURTHER RESOLVED that the Zone 7 General Manager shall prepare an Annual Review of the Sustainable Water Supply Report which includes the following information:

(1) An estimate of the current annual average water demand for M&I water as well as a five-year projection based on the same information used to prepare the UWMP and CIP;
(2) A Summary of available water supplies to Zone 7 at the beginning of the calendar year;
(3) A comparison of current water demand with the available water supplies; and
(4) A discussion of water conservation requirements and other long-term supply programs needed to meet Zone 7 M&I water demands for single-dry and multiple-dry year conditions, as specified in the Zone 7's UWMP.

A summary of this review will be provided to M&I customers.

Definitions

Level of Service for Annual Water Supply Needs—the level of service is the percent of existing or projected water demand that Zone 7's water supply system can meet during two key conditions: (1) during various hydrologic conditions and (2) during unplanned outages of major facilities.
Capital Improvement Program (CIP)—the CIP is Zone7's formal program for developing surface and ground water supplies, along with associated infrastructure, including import water conveyance facilities, surface water treatment plants, groundwater wells, and M&I water transmission system to meet projected water demands.

Normal conditions—conditions that most closely represent median runoff or allocation from all normally contracted or available water supplies from the historic record.

Average conditions—conditions that most closely represent the average runoff or allocation from all normally contracted or legally available water supplies from the historic record.

Drought conditions—conditions that most closely represent reduced runoff or allocation level from the historic record from all normally contracted or legally available water supplies, including both single-dry and multiple-dry year conditions.

Single-dry year condition—a condition that most closely represents the lowest yield over a one-year period from the historic record from all normally contracted or legally available supplies.

Multiple-dry year condition—a condition that most closely represents three or more consecutive dry years from the historic record that represent the lowest yields from all normally contracted or legally available supplies.

Available water supplies—consist solely of (1) water supplies that Zone 7 has contracted for (e.g., listed under Schedule A of the State Water Contract, dry-year water options, special contracts with other water districts, etc.) and (2) water actually stored in surface and subsurface reservoirs.

Maximum Month—the largest monthly average water use.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS FIGUERS, GRECI, MACHAEVICH, PALMER, QUIGLEY, RAMIREZ HOLMES STEVENS

NOES: NONE

ABSENT: NONE

ABSTAIN: NONE

I certify that the foregoing is a correct copy of a Resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on October 17, 2012.

By _____
President, Board of Directors

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6 Appendix B: Isabel Neighborhood Plan Potable Water System Evaluation

Isabel Neighborhood Plan

Potable Water System Evaluation

Prepared for

City of Livermore

Project No. 438-12-15-05

Project Manager: Patrick Johnston, PE	5-3-17 Date
QA/QC Review: Elizabeth T. Drayer, PE	5-3-17 Date

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Sunnyvale, CA 94085
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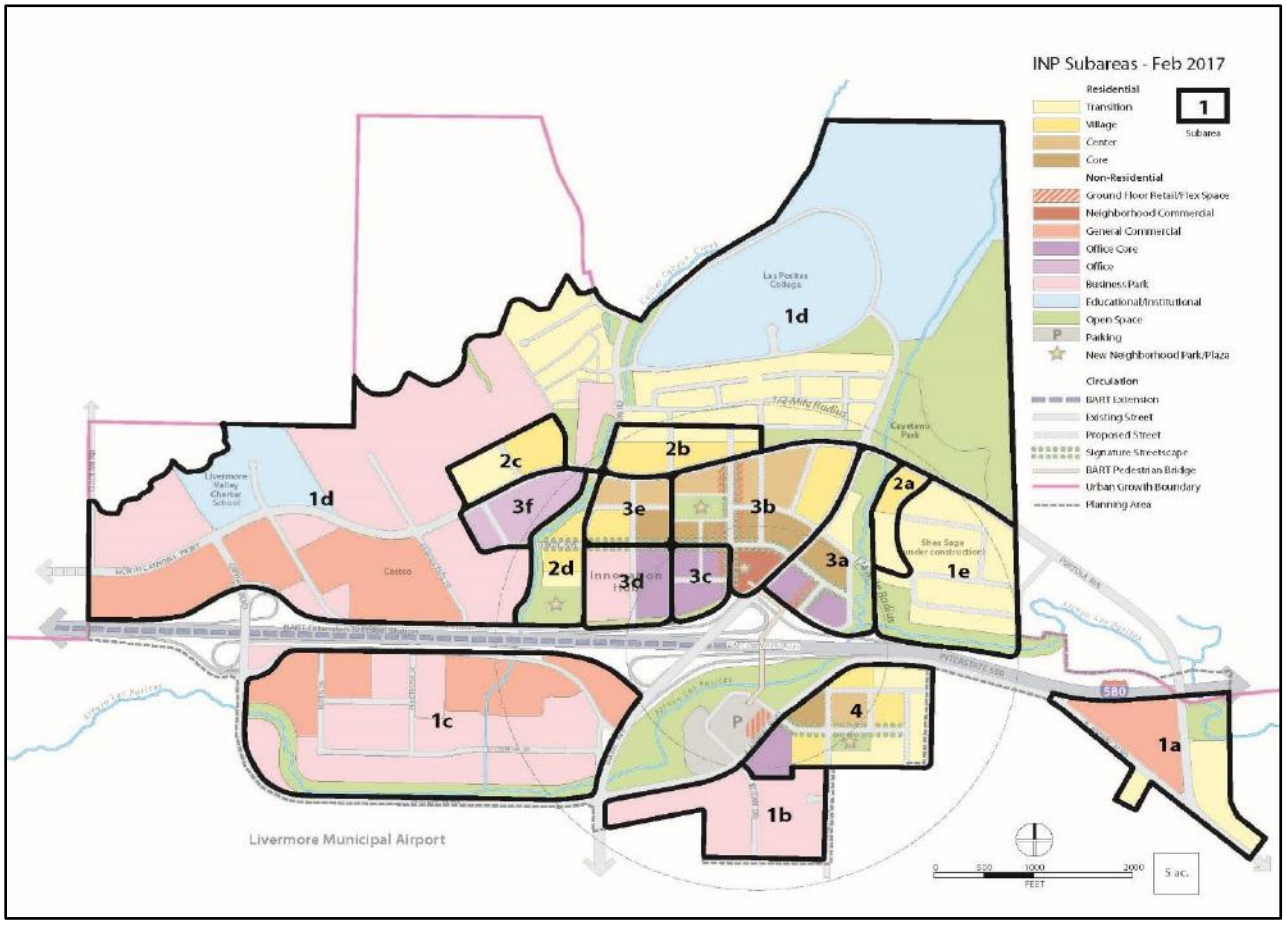
OVERVIEW

The Isabel Neighborhood Plan (INP) is a proposed development area located in the northwest portion of the City. The planning area for the INP covers approximately 1,138 acres, and is entirely within the City's urban growth boundary. The INP will guide future development of the area surrounding the proposed BART station in the Interstate 580 median, just east of Isabel Avenue and is contingent upon the extension of BART to this location.

Proposed land uses for the INP planning area are different from those currently included in the City's current adopted General Plan. The INP includes new residential areas both north and south of Interstate 580, as well as non-residential, employment generating, uses including ground floor retail, office and commercial. Three new neighborhood parks and open space buffers along the creeks are also proposed to provide recreational opportunities and access to natural areas.

Figure 1. Proposed Land Uses



The INP planning area includes both existing developed areas and proposed new development areas. Existing potable water system infrastructure is in place to serve the existing developed areas within the INP planning area. Evaluations were performed for the 2017 Water Master Plan and for the proposed INP to determine what, if any, water system improvements will be needed to serve buildout of the proposed INP planning area, both with and without the proposed INP land uses.

The following describes the INP proposed land uses, projected water demands, and required water system improvements to serve the proposed INP.

LAND USE ASSUMPTIONS

- Proposed INP land uses are based on information provided by the City of Livermore Planning Division.
  - Residential and Non-Residential acres by subarea and land use designation (INP Draft Plan Buildout 02/21/17).
  - Residential dwelling units by subarea (Preferred Plan Buildout – Residential Units INP Draft Plan Buildout by Subarea 02/16/17).
  - INP Subarea Map (February 2017).
- Proposed INP land uses are provided for both Change Areas (i.e., proposed new development) and Non-Change Areas (i.e., existing development).
- The proposed INP planning area lies partially within the City of Livermore water service area and partially within the California Water Service Company-Livermore District (CalWater) water service area.
  - INP Subareas 1a, 1b and 4 are in the CalWater water service area.
  - All other INP Subareas are in the City's water service area.
- The proposed INP land uses by subarea are summarized in Table 1.

Table 1. Proposed Land Uses by Subarea

Subarea	Existing vs. New[a]	Residential, acres						Non-Residential, acres								Total Acres	Subarea Total Acres	Notes
		Transition	Village	Center	Core	Total Residential Acres	Residential Dwelling Units (du)	Ground Floor Retail/ Flex Space	Neighborhood Commercial	General Commercial	Office Core	Office	Business Park	Public/ Institutional	Total Non-Residential Acres			
1a	New	11.2				11.2	224								-	**11.2**	**25.2**	INP Subarea 1a is in CalWater water service area
	Existing					-				14.0					14.0	**14.0**		
1b	New					-							10.2		10.2	**10.2**	**31.2**	INP Subarea 1b is in CalWater water service area
	Existing					-							21.0		21.0	**21.0**		
1c	New					-				7.0			4.8		11.8	**11.8**	**102.2**	
	Existing					-				30.9			59.5		90.4	**90.4**		
1d	New					-				12.4			7.4		19.8	**19.8**	**294.0**	
	Existing	53.8				53.8	907			59.3			80.9	80.2	220.4	**274.2**		
1e	New					-									-	**-**	**31.1**	Area is currently being developed; this is the Shea Sage development which is already approved and currently under construction; not yet "existing"
	Existing	31.1				31.1	476								-	**31.1**		
2a	New	3.5	3.2			6.7	182								-	**6.7**	**6.7**	
	Existing					-									-	**-**		
2b	New	4.6	7.7			12.3	361								-	**12.3**	**13.1**	
	Existing	0.8				0.8									-	**0.8**		
2c	New	5.5	6.2			11.7	328								-	**11.7**	**11.7**	
	Existing					-									-	**-**		
2d	New	1.7	4.0			5.7	174								-	**5.7**	**5.7**	
	Existing					-									-	**-**		
3a	New	2.8			3.8	6.6	507	0.9			6.4				7.3	**13.9**	**13.9**	
	Existing					-									-	**-**		
3b	New		6.4	10.8	7.9	25.1	1,278	2.5	4.1						6.6	**31.7**	**31.7**	
	Existing					-									-	**-**		
3c	New					-		0.5			6.9				7.4	**7.4**	**7.4**	
	Existing					-									-	**-**		
3d	New					-					5.9		8.0		13.9	**13.9**	**13.9**	Area is currently developed; does not reflect existing office buildings proposed to be replaced under INP project
	Existing					-									-	**-**		
3e	New		3.3	4.0	2.7	10.0	488								-	**10.0**	**10.0**	Area is currently developed; does not reflect existing office buildings proposed to be replaced under INP project
	Existing					-									-	**-**		
3f	New					-						6.2			6.2	**6.2**	**12.2**	Area is currently developed; does not reflect replacement of existing office building
	Existing					-						6.0			6.0	**6.0**		
4	New	10.3	7.5	3.1	2.6	23.5	795				5.2				5.2	**28.7**	**28.7**	INP Subarea 4 is in CalWater water service area
	Existing					-									-	**-**		
Outside of Subarea	New					-		0.9							0.9	**0.9**		
	Existing					-									-	**-**	**0.9**	
Totals	**New**	**39.6**	**38.3**	**17.9**	**17.0**	**112.8**	**4,337**	**4.8**	**4.1**	**19.4**	**24.4**	**6.2**	**30.4**	**-**	**89.3**	**202.1**		
	Existing	**85.7**	**-**	**-**	**-**	**85.7**	**1,383**	**-**	**-**	**104.2**	**-**	**6.0**	**161.4**	**80.2**	**351.8**	**437.5**		
	Total	**125.3**	**38.3**	**17.9**	**17.0**	**198.5**	**5,720**	**4.8**	**4.1**	**123.6**	**24.4**	**12.2**	**191.8**	**80.2**	**441.1**	**639.6**	**639.6**	**Does not include Parks and Open Space**

Source: INP Draft Plan Buildout 02/21/2017 (residential and non-residential acreages by subarea) and INP Draft Plan Buildout 02/16/2017 (residential dwelling units by subarea)

[a] "New" corresponds with "Change Areas" in the INP Land Use Plan; "Existing" corresponds with "Non-Change Areas" in the INP Land Use Plan.

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EVALUATION ASSUMPTIONS

- The INP potable water system evaluation will consider the projected water demands for both the Change Areas and the Non-Change Areas to evaluate overall City potable water infrastructure needs at buildout of the portions of the proposed INP which lie within the City's water service area.
- For the potable water system modeling for the INP within the City's water service area, existing metered consumption within the INP planning area will be removed and will be replaced with estimated total potable water demands for the INP project within the City's water service area. This approach has been used to accurately reflect the existing and proposed new development, and, in particular, the proposed redevelopment of existing developed parcels. This approach is different from that used in the 2017 Water Master Plan where existing demands for developed parcels (based on metered consumption) are added to projected demands for planned developments and vacant parcels to determine the total future demands.
- Evaluation of potable water infrastructure needs for the proposed INP planning area within the CalWater water service area will be performed by others.
- Evaluation of recycled water infrastructure needs for the proposed INP planning area within the City's water service area will be performed by others.

POTABLE WATER DEMAND ASSUMPTIONS

Water Service Area

- INP Subareas 1a, 1b and 4 are located in the CalWater water service area and will receive potable water from CalWater.
- All other INP Subareas are located in the City of Livermore water service area and will receive potable water from the City.

Use of Potable Water and Recycled Water Supplies

- City of Livermore water service area:
  - — Potable water will be used to meet interior water uses.
  - — Recycled water will be used to meet exterior/landscape irrigation demands.
  - — There are some existing potable water irrigation accounts within the INP planning area which may or may not be converted to recycled water in the future. To be conservative for the evaluation of potable water infrastructure requirements, the existing potable water irrigation accounts are assumed to continue to be served with potable water.
- CalWater water service area:
  - — Potable water will be used to meet all projected water demands as recycled water is not available within CalWater's water service area.

Potable Water Use Factors

- Potable water demand for INP residential land uses is based on the water use factor for Urban High Residential-4 (UH-4) of 1,880 gallons per acre per day (gpad) (based on the rebounded water use factors established for the 2017 Water Master Plan). This water use factor is equivalent to 94 gallons per day (gpd) per dwelling unit (du), assuming 20 du per acre.
  - This potable water use factor of 94 gpd/du has been assumed for all proposed INP residential land uses regardless of dwelling unit density as the proposed INP residential development has densities which are either equal to the UH-4 density or greater than the UH-4 density.
  - The potable water use factor of 94 gpd/du is considered appropriate for the UH-4 density, as well as higher density development, as the individual dwelling unit square footages and occupancy of the higher density development would be similar to UH-4 development, only with higher Floor Area Ratios (FAR) (e.g., additional stories) to provide for more dwelling units per acre.
- Potable water demand for INP non-residential land uses is based on the water use factor for Business/Commercial Park (BCP) of 690 gpad (based on the rebounded water use factors established for the 2017 Water Master Plan).
  - The proposed non-residential land uses within the proposed INP include Ground Floor Retail/Flex Space, Neighborhood Commercial, General Commercial, Business Park and Public/Institutional, which will have potable water use consistent with the BCP land use category.
  - Proposed Office Core and Office land uses are proposed to have multi-story office buildings (4 to 6 stories for Office Core and 3 to 4 stories for Office). The proposed FAR for Office Core and Office land uses are consistent with the proposed multi-story construction. To account for water use in Office Core and Office land uses, the BCP water use factor is scaled up for Office Core (3 times the BCP factor, or 2,070 gpad) and for Office (2 times the BCP factor, or 1,380 gpad).
- Potable water demand for the residential and non-residential landscaping and proposed parks in Subareas 1a and 4 (to be served by CalWater) are based on the Model Water Efficient Landscape Ordinance (MWELO) Maximum Applied Water Allowance (MAWA) for landscaping in residential and non-residential areas. The formula for calculating the MAWA is as follows:

  MAWA = (ETo) (0.62) [(ETAF x LA) + ((1-ETAF) x (SLA)]

  Where:

  MAWA = Maximum Applied Water Allowance, gallons per year

  ETo = Reference Evapotranspiration, inches (ETo for Livermore is 47.2 inches)

  ETAF = Evapotranspiration Adjustment Factor (maximum of 0.55 for residential areas and 0.45 for non-residential areas)

  LA = Landscape area, square feet (assumed to be 15 percent of the residential and non-residential areas)

  SLA = Special landscape area, square feet

  0.62 = Conversion factor that converts acre-inches per acre per year to gallons per square foot per year

Based on the MAWA formula, the MAWA for residential landscaping is 1,920 gpad (2.15 af/yr) and for non-residential landscaping is 1,570 gpad (1.76 af/yr).

These same factors have also been used to estimate the recycled water demand for residential and non-residential areas and parks in the City of Livermore water service area for discussion in the INP Water Supply Assessment. As for the CalWater water service area, the irrigated area within the City of Livermore water service area is assumed to be 15 percent of the overall residential and non-residential acres plus park acres.

Projected Potable Water Demand

- The projected potable water demand for the INP by subarea is provided in Table 2.
- A summary of the projected potable water demand for the INP is provided below in Table 3. It should be noted that the potable water demands shown below include demands for both existing and proposed land uses within the INP.

Incremental Additional Potable Water Demand for the INP

Potable water demands for the INP planning area with and without the proposed INP land uses are summarized in the table below (Table 4). As shown, the projected potable water demand for the INP planning area with the INP land uses is 67 af/yr (or approximately 9 percent) higher than the projected water demand based on the City's 2017 Water Master Plan assumptions, which are based on developed parcels and projected water demands for planned new development and vacant parcels based on General Plan land uses.

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Table 2. Projected Potable Water Use

Subarea	Existing vs. New[a]	Residential Demand, gpd	Residential Demand, af/yr	Office Core Demand, gpd	Office Core Demand, af/yr	Office Demand, gpd	Office Demand, af/yr	Other Non-Residential Demand, gpd	Other Non-Residential Demand, af/yr	Residential Landscaping, gpd	Residential Landscaping, af/yr	Non-Residential Landscaping, gpd	Non-Residential Landscaping, af/yr	Parks, gpd	Parks, af/yr	Total Potable Water Demand, gpd	Total Potable Water Demand, af/yr	Notes
Potable Water Use Factor		94		2,070		1,380		690		1920		1570		1570				
Unit		gpd/du		gpad		gpad		gpad		af/ac/yr		af/ac/yr		af/ac/yr				
1a	New	21,056	24	-	-	-	-	-	-	3,226	4	-	-	6,519	7	**30,801**	**35**	Landscaping demands to be met with potable water in CalWater service area
	Existing	-	-	-	-	-	-	9,660	11	-	-	3,297	4			**12,957**	**15**	
1b	New	-	-	-	-	-	-	7,038	8	-	-	2,402	3			**9,440**	**11**	Landscaping demands to be met with potable water in CalWater service area
	Existing	-	-	-	-	-	-	14,490	16	-	-	4,946	6			**19,436**	**22**	
1c	New	-	-	-	-	-	-	8,142	9							**8,142**	**9**	
	Existing	-	-	-	-	-	-	62,376	70							**62,376**	**70**	
1d	New	-	-	-	-	-	-	13,662	15							**13,662**	**15**	
	Existing	85,258	96	-	-	-	-	152,076	170							**237,334**	**266**	
1e	New	-	-	-	-	-	-	-	-							**-**	**-**	Not existing yet; Shea Sage currently under construction
	Existing	44,744	50	-	-	-	-	-	-							**44,744**	**50**	
2a	New	17,108	19	-	-	-	-	-	-							**17,108**	**19**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
2b	New	33,934	38	-	-	-	-	-	-							**33,934**	**38**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
2c	New	30,832	35	-	-	-	-	-	-							**30,832**	**35**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
2d	New	16,356	18	-	-	-	-	-	-							**16,356**	**18**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
3a	New	47,658	53	13,248	15	-	-	621	1							**61,527**	**69**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
3b	New	120,132	135	-	-	-	-	4,554	5							**124,686**	**140**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
3c	New	-	-	14,283	16	-	-	345	0							**14,628**	**16**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
3d	New	-	-	12,213	14	-	-	5,520	6							**17,733**	**20**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	Existing office park
3e	New	45,872	51	-	-	-	-	-	-							**45,872**	**51**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	Existing office park
3f	New	-	-	-	-	8,556	10	-	-							**8,556**	**10**	
	Existing	-	-	-	-	8,280	9	-	-							**8,280**	**9**	Existing office park
4	New	74,730	84	10,764	12	-	-	-	-	6,768	8	1,225	1	2,719	3	**96,206**	**108**	Landscaping demands to be met with potable water in CalWater service area
	Existing	-	-	-	-	-	-	-	-	-	-	-	-			**-**	**-**	
Outside of Subarea	New	-	-	-	-	-	-	621	1							**621**	**1**	
	Existing	-	-	-	-	-	-	-	-							**-**	**-**	
Totals for INP	**New**	**407,678**	**457**	**50,508**	**57**	**8,556**	**10**	**40,503**	**45**	**9,994**	**11**	**3,627**	**4**	**9,239**	**10**	**530,104**	**594**	
	Existing	**130,002**	**146**	**-**	**-**	**8,280**	**9**	**238,602**	**267**	**-**	**-**	**8,243**	**9**	**-**	**-**	**385,127**	**431**	
	Total	**537,680**	**602**	**50,508**	**57**	**16,836**	**19**	**279,105**	**313**	**9,994**	**11**	**11,869**	**13**	**9,239**	**10**	**915,230**	**1,025**	
City Water Service Area	**New**	311,892	349	39,744	45	8,556	10	33,465	37	-	-	-	-	-	-	**393,657**	**441**	All INP Subareas except 1a, 1b and 4
	Existing	130,002	146	-	-	8,280	9	214,452	240	-	-	-	-	-	-	**352,734**	**395**	
	Total	441,894	495	39,744	45	16,836	19	247,917	278	-	-	-	-	-	-	**746,391**	**836**	
CalWater Water Service Area	**New**	95,786	107	10,764	12	-	-	7,038	8	9,994	11	3,627	4	9,239	10	**136,447**	**153**	INP Subareas 1a, 1b and 4
	Existing	-	-	-	-	-	-	24,150	27	-	-	8,243	9	-	-	**32,393**	**36**	
	Total	95,786	107	10,764	12	-	-	31,188	35	9,994	11	11,869	13	9,239	10	**168,839**	**189**	

[a] "New" corresponds with "Change Areas" in the INP Land Use Plan; "Existing" corresponds with "Non-Change Areas" in the INP Land Use Plan.

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Table 3. Summary of Projected Potable Water Demand			
Service Area	Land Use	Potable Water Demand	
		gpd	af/yr
City Water Service Area	Residential	441,894	495
	Non-Residential	304,497	342
	Landscaping	--(a)	--(a)
	Total City Service Area	**746,391**	**836**
CalWater Water Service Area	Residential	95,786	107
	Non-Residential	41,952	47
	Landscaping	31,102	34
	Total CalWater Service Area	**168,839**	**189**
	Overall INP	**915,230**	**1,025**

(a) Landscaping demands within the City's water service area to be met with recycled water. Estimated recycled water demands within the City's water service area are 208,132 gpd, or 233 af/yr.

Table 4. Potable Water Demands without Proposed INP Land Uses			
	Potable Water Demand for INP Planning Area, af/yr		
	City Water Service Area	CalWater Water Service Area	Total INP Area
Potable Water Demand without INP(a)	769(b)	116(c)	885
Potable Water Demand with INP(d)	836	189	1,025
Difference in Potable Water Demand with INP	**+67**	**+73**	**+140**

(a) Based on existing metered consumption and estimates of demand rebound for currently developed parcels, projected water demands for reasonably foreseeable development projects (not including the INP) and projected water demands for vacant parcel areas within the INP planning area based on planned land uses as specified in the General Plan.

(b) As included in the City's 2017 Water Master Plan, based on existing metered consumption for developed parcels (rebounded) and projected water demands for planned new development and vacant parcels based on General Plan land uses.

(c) Based on projected demands contained in CalWater's 2007 Water Master Plan and 2015 Urban Water Management Plan for the INP planning area.

(d) Based on proposed INP land uses, which include both developed parcels and planned new development based on the INP.

REQUIRED POTABLE WATER INFRASTRUCTURE TO SERVE THE PROPOSED INP

To evaluate the capacity of the City's future water system facilities to serve the portion of the proposed INP within the City's water service area, the following analyses were conducted:

- Pumping Capacity Evaluation,
- Storage Capacity Evaluation,
- Pressure Regulating Station Capacity Evaluation, and
- Pipeline Capacity Evaluation.

The results of the future water system facility capacity evaluation considering the potable water demands for the proposed INP are discussed below.

As mentioned in the section on Potable Water Demand Assumptions, there are some existing potable water irrigation accounts within the INP planning area which may or may not be converted to recycled water in the future. To be conservative for the evaluation of potable water infrastructure requirements, the existing potable water irrigation accounts are assumed to continue to be served with potable water. These accounts represent approximately 55 gpm of average day demand within the INP planning area. The demands developed separately for the INP planning area were added to the 55 gpm for the irrigation accounts. The total of these demands was then used to perform the pumping, storage and pipeline evaluations for the proposed INP project.

Pumping Capacity Evaluation

The pumping capacity in the City's future water system was evaluated to assess its ability to deliver a reliable firm capacity to serve the water service area. Firm capacity assumes a reduction in total pumping capacity to account for pumps that are out of service at any given time due to mechanical breakdowns, maintenance, water quality, or other operational issues. At each booster pump station (BPS), firm booster pumping capacity was defined as the total booster pump station capacity with the largest pump out of service.

As described in Chapter 4 Water System Planning and Design Criteria of the 2017 Water Master Plan, the firm pumping capacity must equal or exceed the maximum day demand in zones with storage. In zones with storage, maximum day plus fire flow and peak hour demands are met from a combination of zone supply and storage. The total pumping capacity must equal or exceed the flow required to fill the tank storage in a 24-hour period plus the maximum day demand.

Table 5 compares the existing firm capacity with required firm capacity for the future demand conditions developed for the INP. The left-hand side of the table shows the service zones supported by the Airway BPS and their associated water demands. The Airway BPS directly serves Zone 719, but must also have sufficient pumping capacity to supply Zones 605, 638 and 664 because they are supported by Zone 719. The right-hand side of the table shows the existing pumping capacity, the required firm pumping capacity based on the pumping capacity criterion, and the difference between the existing firm pumping capacity and the required firm pumping capacity for buildout with the INP. The analysis shows that when the INP demands are considered the Airway BPS has a capacity deficit of 179 gpm, when it is assumed that all supply into Zone 1 is from the Airway BPS. However, Turnouts 5 and 9 are capable of supplying Zones 638 and 605 by gravity, so the identified capacity deficit does not warrant an increase in the pumping capacity for the Airway BPS, as long as Zones 638 and 605 can be adequately supplied by Turnouts 5 and 9. This is discussed further in the pipeline evaluation

Table 5. Pumping Capacity Evaluation

Service Pressure Zone and Supported Upper Pressure Zones	Buildout Maximum Day Demand, gpm	Pump Stations	Existing Pumping Capacity, gpm		Required Total Pumping Capacity, gpm[b]	Required Firm Pumping Capacity, gpm[c]	Supply Capacity Surplus (Deficit), gpm
			Total, gpm	Firm, gpm[a]			
Zone 605	184	Airway	2,208	1,472	2,317	1,651	(179)
638	427						
664	948						
719	92						
Zone 1 Total	**1,651**						

[a] Firm pumping capacity is defined as the total pumping capacity of each pump station with the largest pump unit at each pump station out of service.
[b] Required total pumping capacity is the flow required to fill the tank fire storage in a 24-hour period plus the maximum day demand.
[c] For pressure zones with available storage, required firm pumping capacity is equal to maximum day demand.

Storage Capacity Evaluation

The primary advantages that storage provides for the water system are to provide: (1) operational storage to balance differences in demands and supplies; (2) emergency storage in case of supply failure; and (3) water to fight fires. The City's water storage capacity requirement is to provide an operational storage component equal to 25 percent of a maximum day demand, an emergency storage component equal to 50 percent of a maximum day demand (the required volume depends on the pressure zone), and a fire flow storage component equal to the highest fire flow and duration recommended in a particular pressure zone based on land uses within the pressure zone.

Table 6 compares the City's available water storage capacity with the required storage capacity for Zone 1 under the future demand conditions developed for the INP. Existing storage capacities reported in the table are based on nominal storage capacities calculated from tank geometry. The comparison between the City's available and required future storage capacities indicates that there is a surplus of 0.26 MG in Zone 1 even when the INP demands are considered.

Pressure Regulating Station Capacity Evaluation

The existing pressure regulating stations in the City's water system were evaluated to assess their ability to reliably supply the existing Zone 1 area under the demand conditions developed for the INP. Table 7 compares the existing available pressure regulating station capacity with the required pressure regulating station capacity for the pressure zones within Zone 1 that are completely dependent on pressure regulating stations for supply. The table shows that all of these pressure zones have sufficient pressure regulating station capacity to meet the required flows even when the INP demands are considered. The analysis assumes pressure zones are only supplied via the PRVs, and not directly from Turnouts 5, 9 or 11.

In addition, the flows through the PRVs under the projected future peak hour and maximum day plus fire flow demand scenarios in the hydraulic model were compared with the existing valve capacities to confirm that the flows were lower than the valve capacities. This is true in all cases, indicating that the existing valves are adequately sized to accommodate the future demand conditions developed for the INP.

Table 6. Required Storage Capacity Under Buildout Demand Conditions

Pressure Zone[a]	Storage Facility	Available Storage Capacity, MG		Maximum Day Demand, mgd	Required Storage Capacity, MG						Storage Surplus (Deficit), MG
					Operational Criteria[b]		Emergency Criteria				
		Reservoir Capacity	Total Available Storage		Percent of Maximum Day Demand	Operational	Percent of Maximum Day Demand	Emergency	Fire Flow[c]	Total Required Storage	
Zone 1	Doolan	3.00	3.00	2.38	25%	0.59	50%	1.19	0.96	2.74	0.26

(a) Average day demand is based on detailed billing records adjusted to reflect rebound from conservation and estimated demands for future buildout. Billing records from 2015 were spatially located, scaled to reflect expected demand rebound and then aggregated by pressure zone.

(b) Based on 25 percent of maximum day demand.

(c) Based on demand for the most severe fire recommended in the pressure zone multiplied by the corresponding recommended fire flow duration.

Table 7. Comparison of Existing and Required Pressure Regulating Station Capacity

Zone	Maximum Day Demand, gpm	Peak Hour Demand, gpm	Fire Flow Requirement, gpm[a]	Regulating Station	Valve Diameter, inches	Existing Valve Capacity, gpm[b]	Valve Capacity Requirement, gpm[c]	Valve Capacity Surplus (Deficit), gpm
605	184	287	4,000	Freisman	12	8,720	4,184	8,436
				Golf Course	8	3,900		
					Total	**12,620**		
638 (+605)	611	952	4,000	Kitty Hawk	10	6,150	4,611	7,689
				Doolan	10	6,150		
					Total	**12,300**		
664 (+605 & 638)	1,559	2,432	4,000	North Canyon	10	6,150	5,559	591
					Total	**6,150**		

(a) Based on demand for the most severe fire recommended in the pressure zone.
(b) Based on the intermittent maximum flow capacity for ClaVal model 90-01 PRV valves. However, actual flow capacity will vary depending on system conditions.
(c) For these zones, regulating stations must supply maximum day demand plus fire flow or peak hour demand, whichever is larger.

Pipeline Capacity Evaluation

The hydraulic model was updated with the buildout demands developed for the Isabel analysis, along with the demands for the existing irrigation accounts within the INP. The demands developed for the INP were assigned to the model nodes as shown on Figure 2. The existing water distribution facilities are also shown on Figure 2.

The model was run for peak hour demand conditions and maximum day plus fire flow demand conditions with the INP demands included under the scenarios that were developed for the Water Master Plan. For these scenarios, the system does not have enough hydraulic capacity to supply the fire flow demands for the industrial area south of the wastewater treatment plant when the Kitty Hawk PRV is closed. In the Water Master Plan, it is recommended that the Kitty Hawk PRV remain operational at all times, but with a lower setting so that it is available for high demand periods, such as fire flow conditions. When this recommendation is tested with the INP demands included, the system does have enough hydraulic capacity to supply the fire flow demands for the industrial area south of the wastewater treatment plant. Therefore, this operational recommendation still holds for this analysis. No other pipeline hydraulic issues were identified for either peak hour or maximum day demand plus fire flow conditions.

Regarding the pumping capacity deficit identified in the pumping capacity analysis, an additional analysis of the system using the hydraulic model was required to determine if the domestic demands in Pressure Zones 638 and 605 can be adequately supplied by Turnouts 5 and 9. As with the buildout demand conditions analysis performed for the Water Master Plan, the analysis for supplying Pressure Zones 638 and 605 from Turnouts 5 and 9 assumes that the hydraulic grade lines for these turnouts will be lower in the future. The hydraulic grade lines were obtained from the hydraulic model that was developed for Zone 7 planning work. While it is still recommended that the Kitty Hawk and Doolan PRVs remain operational at all times, as noted in the paragraph above, for the purposes of this analysis, it was also assumed that the Kitty Hawk and Doolan PRVs were closed to force the system to supply Pressure Zones 638 and 605 from Turnouts 5 and 9. Because this additional analysis is concerned with supplying the domestic demands for Pressure Zones 638 and 605 by Turnouts 5 and 9, the system was only tested for peak hour demand conditions. Fire flow storage would still be supplied from the Doolan Tank. When these assumptions are applied to the model, the results show that the system does have adequate capacity to supply Pressure Zones 638 and 605 from Turnouts 5 and 9 for peak hour demand conditions.

Infrastructure Requirements

The only deficiency identified when the system was analyzed with the demands for the INP planning area is the pumping capacity deficiency at the Airway BPS. However, because the system does not actually need to rely on this booster pumping station to adequately supply all of Zone 1, as Pressure Zones 638 and 605 can be adequately supplied by Turnouts 5 and 9, no infrastructure requirements are recommended as a result of the additional demands for the INP planning area.

Regarding the distribution pipelines, the existing distribution pipeline network within the INP planning area was analyzed for its capacity to adequately supply the INP area demands and found to be adequate. As the INP planning area is developed, additional distribution pipelines may be needed to serve new development. However, these additional distribution pipelines were not addressed in this analysis.

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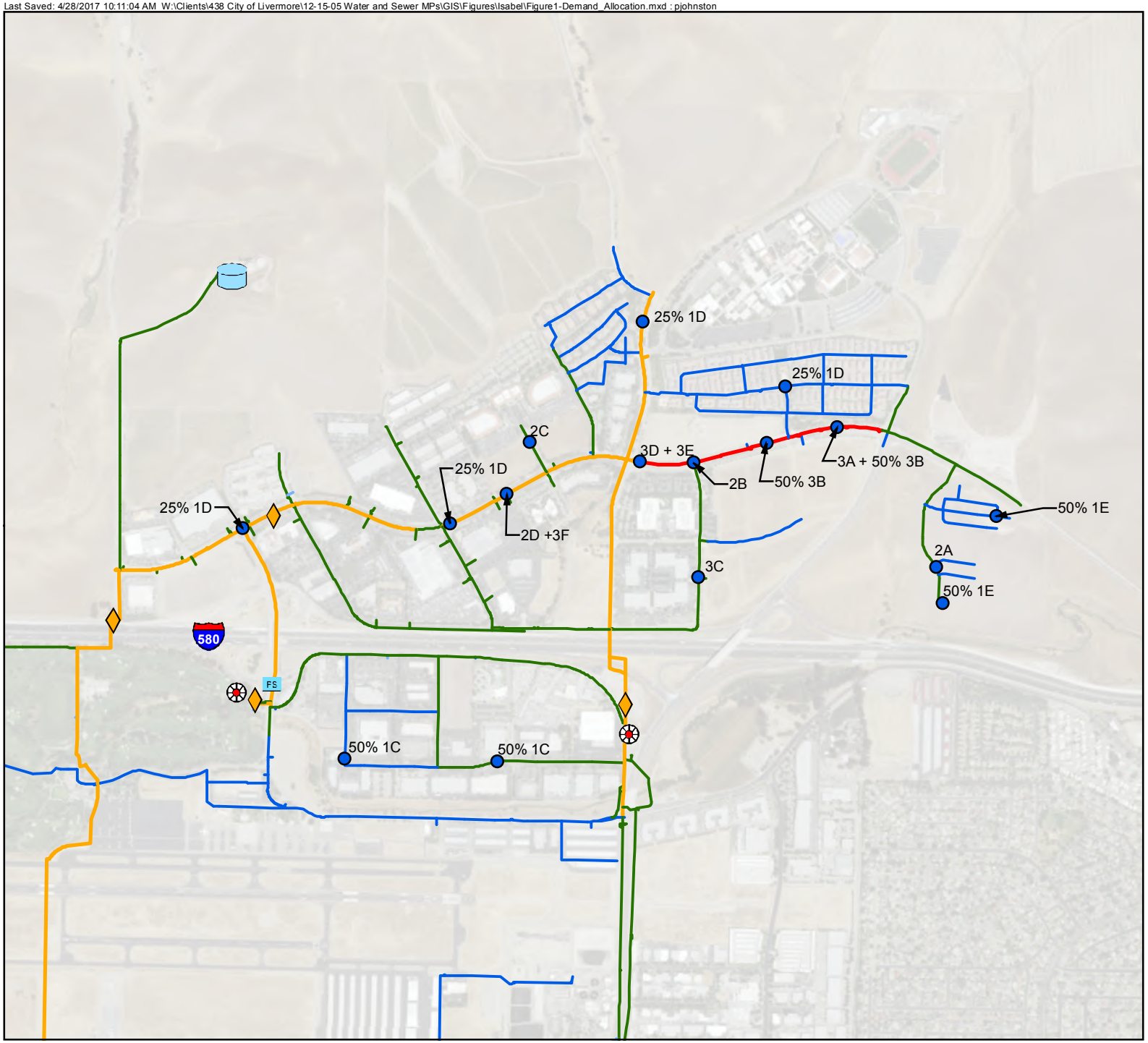

N

0 700 1,400

Scale in Feet

- Zone 7 Turnout
- PR VALVE
- Airway Pump Station
- Potable Storage Tank
- Junctions with Isabel Demands

Water Mains

- Unknown
- 8-inch or less
- 10-inch to 12-inch
- 14-inch to 18-inch
- 20-inch to 24-inch

LIVERMORE CALIFORNIA

WEST YOST ASSOCIATES

Figure 2

Demand Allocation by Sub Area

City of Livermore
Isabel Neighborhood Plan

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7 Appendix C: Isabel Neighborhood Plan Sewer System Evaluation

REPORT | MAY 2017

Isabel Neighborhood Plan
Sewer System Evaluation

Prepared for

City of Livermore

Project No. 438-12-15-05

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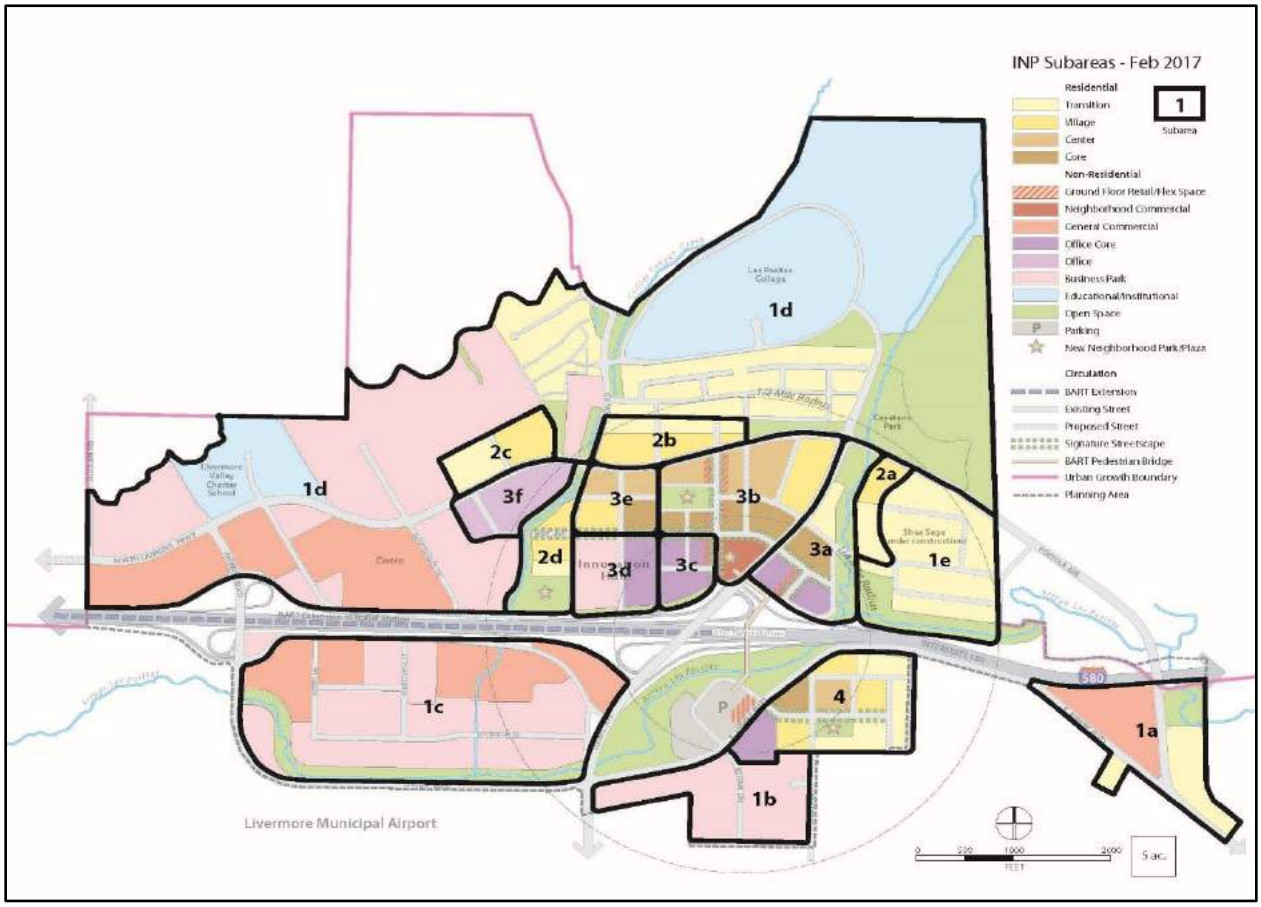
OVERVIEW

The Isabel Neighborhood Plan (INP) is a proposed development area located in the northwest portion of the City. The planning area for the INP covers approximately 1,138 acres, and is entirely within the City's urban growth boundary. The INP will guide future development of the area surrounding the proposed BART station in the Interstate 580 median, just east of Isabel Avenue and is contingent upon the extension of BART to this location.

Proposed land uses for the INP planning area are different from those currently included in the City's current adopted General Plan. The INP includes new residential areas both north and south of Interstate 580, as well as non-residential, employment generating, uses including ground floor retail, office and commercial. Three new neighborhood parks and open space buffers along the creeks are also proposed to provide recreational opportunities and access to natural areas.

Figure 1. Proposed Land Uses



The INP planning area includes both existing developed areas and proposed new development areas. Existing collection system infrastructure is in place to serve the existing developed areas within the INP planning area. However, as described in Chapter 5 of the 2017 Sewer Master Plan, improvements will be needed to serve future buildout of the INP planning area, even under current General Plan land uses, without development of the proposed INP land uses. And, as described below, some of those improvements would need to be modified to accommodate the development of the proposed INP.

The following describes the INP proposed land uses, projected collection system flows, and required collection system improvements to serve the proposed INP.

LAND USE ASSUMPTIONS

- Proposed INP land uses are based on information provided by the City of Livermore Planning Division.
  - Residential and Non-Residential acres by subarea and land use designation (INP Draft Plan Buildout 02/21/17).
  - Residential dwelling units by subarea (Preferred Plan Buildout – Residential Units, INP Draft Plan Buildout by Subarea 02/16/17).
  - INP Subarea Map (February 2017).
- Proposed INP land uses are provided for both Change Areas (i.e., proposed new development) and Non-Change Areas (i.e., existing development).
- The entire proposed INP planning area lies within the City of Livermore sewer service area.
- The proposed INP land uses by subarea are summarized in Table 1.

EVALUATION ASSUMPTIONS

- The INP sewer system evaluations to be performed by West Yost Associates (West Yost) will consider the projected sewer flows for both the Change Areas and the Non-Change Areas to evaluate overall City sewer infrastructure needs at buildout of the portions of the proposed INP which lie within the City's sewer service area.
- For the collection system modeling for the INP, existing sewer flows within the INP area will be removed and will be replaced with estimated total sewer flows for the INP project. This approach has been used to accurately reflect the existing and proposed new development, and, in particular, the proposed redevelopment of existing developed parcels. This approach is different from that used in the 2017 Sewer Master Plan where existing sewer flows for developed parcels are added to projected flows for planned developments and vacant parcels to determine the total flows.

Table 1. Proposed Land Uses by Subarea

Subarea	Existing vs. New[a]	Residential, acres						Non-Residential, acres								Total Acres	Subarea Total Acres	Notes
		Transition	Village	Center	Core	Total Residential Acres	Residential Dwelling Units (du)	Ground Floor Retail/ Flex Space	Neighborhood Commercial	General Commercial	Office Core	Office	Business Park	Public/ Institutional	Total Non-Residential Acres			
1a	New	11.2				11.2	224								-	**11.2**	**25.2**	INP Subarea 1a is in CalWater water service area
	Existing					-				14.0					14.0	**14.0**		
1b	New					-							10.2		10.2	**10.2**	**31.2**	INP Subarea 1b is in CalWater water service area
	Existing					-							21.0		21.0	**21.0**		
1c	New					-				7.0			4.8		11.8	**11.8**	**102.2**	
	Existing					-				30.9			59.5		90.4	**90.4**		
1d	New					-				12.4			7.4		19.8	**19.8**	**294.0**	
	Existing	53.8				53.8	907			59.3			80.9	80.2	220.4	**274.2**		
1e	New					-									-	**-**	**31.1**	Area is currently being developed; this is the Shea Sage development which is already approved and currently under construction; not yet "existing"
	Existing	31.1				31.1	476								-	**31.1**		
2a	New	3.5	3.2			6.7	182								-	**6.7**	**6.7**	
	Existing					-									-	**-**		
2b	New	4.6	7.7			12.3	361								-	**12.3**	**13.1**	
	Existing	0.8				0.8									-	**0.8**		
2c	New	5.5	6.2			11.7	328								-	**11.7**	**11.7**	
	Existing					-									-	**-**		
2d	New	1.7	4.0			5.7	174								-	**5.7**	**5.7**	
	Existing					-									-	**-**		
3a	New	2.8			3.8	6.6	507	0.9			6.4				7.3	**13.9**	**13.9**	
	Existing					-									-	**-**		
3b	New		6.4	10.8	7.9	25.1	1,278	2.5	4.1						6.6	**31.7**	**31.7**	
	Existing					-									-	**-**		
3c	New					-		0.5			6.9				7.4	**7.4**	**7.4**	
	Existing					-									-	**-**		
3d	New					-					5.9		8.0		13.9	**13.9**	**13.9**	Area is currently developed; does not reflect existing office buildings proposed to be replaced under INP project
	Existing					-									-	**-**		
3e	New		3.3	4.0	2.7	10.0	488								-	**10.0**	**10.0**	Area is currently developed; does not reflect existing office buildings proposed to be replaced under INP project
	Existing					-									-	**-**		
3f	New					-						6.2			6.2	**6.2**	**12.2**	Area is currently developed; does not reflect replacement of existing office building
	Existing					-						6.0			6.0	**6.0**		
4	New	10.3	7.5	3.1	2.6	23.5	795				5.2				5.2	**28.7**	**28.7**	INP Subarea 4 is in CalWater water service area
	Existing					-									-	**-**		
Outside of Subarea	New					-		0.9							0.9	**0.9**		
	Existing					-									-	**-**	**0.9**	
Totals	**New**	**39.6**	**38.3**	**17.9**	**17.0**	**112.8**	**4,337**	**4.8**	**4.1**	**19.4**	**24.4**	**6.2**	**30.4**	**-**	**89.3**	**202.1**		
	Existing	**85.7**	**-**	**-**	**-**	**85.7**	**1,383**	**-**	**-**	**104.2**	**-**	**6.0**	**161.4**	**80.2**	**351.8**	**437.5**		
	Total	**125.3**	**38.3**	**17.9**	**17.0**	**198.5**	**5,720**	**4.8**	**4.1**	**123.6**	**24.4**	**12.2**	**191.8**	**80.2**	**441.1**	**639.6**	**639.6**	**Does not include Parks and Open Space**

Source: INP Draft Plan Buildout 02/21/2017 (residential and non-residential acreages by subarea) and INP Draft Plan Buildout 02/16/2017 (residential dwelling units by subarea)

[a] "New" corresponds with "Change Areas" in the INP Land Use Plan; "Existing" corresponds with "Non-Change Areas" in the INP Land Use Plan.

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SEWER FLOW ASSUMPTIONS

Sewer Service Area

- All INP subareas are located in the City of Livermore sewer service area.

Sewer Flow Factors

- The average dry weather flow (ADWF) factor for all proposed INP residential land uses is assumed to be 80 gallons per day (gpd) per dwelling unit (du), (consistent with the ADWF factor for UH-4 residential land uses in the 2017 Sewer Master Plan). This ADWF factor is considered appropriate for the UH-4 density, as well as higher density development, as the individual dwelling unit square footages and occupancy of the higher density development would be, similar to UH-4 development, only with higher Floor Area Ratios (FAR) (e.g., additional stories) to provide for more dwelling units per acre.
- The ADWF for non-residential land uses is based on the ADWF factor for Business/Commercial Park (BCP) of 510 gallons per acre per day (gpad) (based on the ADWF factors established for the 2017 Sewer Master Plan).
  - The proposed non-residential land uses within the proposed INP include Ground Floor Retail/Flex Space, Neighborhood Commercial, General Commercial, Business Park and Public/Institutional, which will have sewer flow consistent with the BCP land use category.
  - Proposed Office Core and Office land uses are proposed to have multi-story office buildings (4 to 6 stories for Office Core and 3 to 4 stories for Office). The proposed Floor Area Ratios (FAR) for Office Core and Office land uses are consistent with the proposed multi-story construction. To account for ADWF in Office Core and Office land uses, the BCP ADWF factor is scaled up for Office Core (3 times the BCP ADWF factor, or 1,530 gpad) and for Office (2 times the BCP ADWF factor, or 1,020 gpad).

Projected Sewer Flow

- The projected ADWF sewer flow for the INP by subarea is provided in Table 2.
- A summary of the projected ADWF for the INP is provided in Table 3.

Incremental Additional ADWF for the INP

Sewer flows for the INP planning area with and without the proposed INP land uses are summarized in the table below (Table 4). As shown, the projected ADWF with the INP is approximately 37 percent higher than the projected ADWF based on the City's 2017 Sewer Master Plan assumptions, which are based on developed parcels and projected sewer flows for planned new development and vacant parcels based on General Plan land uses. The ADWF projected for the INP grew by a higher percentage than the average daily water demands for the INP. The higher percentage of ADWF growth is a result of existing and planned non-residential General Plan land uses in the CalWater water service area, which have a relatively low return-to-sewer ratio because of irrigation uses, being replaced with higher return-to-sewer ratio land uses proposed in the INP.

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Table 2. Projected Sewer Flow (ADWF)

Subarea	Existing vs. New [a]	Residential Sewer Flow, gpd	Residential Sewer Flow, af/yr	Office Core Sewer Flow, gpd	Office Core Sewer Flow, af/yr	Office Sewer Flow, gpd	Office Sewer Flow, af/yr	Other Non-Residential Sewer Flow, gpd	Other Non-Residential Sewer Flow, af/yr	Total ADWF, gpd	Total ADWF, af/yr	Notes
	ADWF Factor	80		1530		1020		510				
	Unit	gpd/du		gpad		gpad		gpad				
1a	New	17,920	20	-	-	-	-	-	-	**17,920**	**20**	
	Existing	-	-	-	-	-	-	7,140	8	**7,140**	**8**	
1b	New	-	-	-	-	-	-	5,202	6	**5,202**	**6**	
	Existing	-	-	-	-	-	-	10,710	12	**10,710**	**12**	
1c	New	-	-	-	-	-	-	6,018	7	**6,018**	**7**	
	Existing	-	-	-	-	-	-	46,104	52	**46,104**	**52**	
1d	New	-	-	-	-	-	-	10,098	11	**10,098**	**11**	
	Existing	72,560	81	-	-	-	-	112,404	126	**184,964**	**207**	
1e	New	-	-	-	-	-	-	-	-	**-**	**-**	
	Existing	38,080	43	-	-	-	-	-	-	**38,080**	**43**	
2a	New	14,560	16	-	-	-	-	-	-	**14,560**	**16**	
	Existing	-	-	-	-	-	-	-	-	**-**	**-**	
2b	New	28,880	32	-	-	-	-	-	-	**28,880**	**32**	
	Existing	-	-	-	-	-	-	-	-	**-**	**-**	
2c	New	26,240	29	-	-	-	-	-	-	**26,240**	**29**	
	Existing	-	-	-	-	-	-	-	-	**-**	**-**	
2d	New	13,920	16	-	-	-	-	-	-	**13,920**	**16**	
	Existing	-	-	-	-	-	-	-	-	**-**	**-**	
3a	New	40,560	45	9,792	11	-	-	459	1	**50,811**	**57**	
	Existing	-	-	-	-	-	-	-	-	**-**	**-**	
3b	New	102,240	115	-	-	-	-	3,366	4	**105,606**	**118**	
	Existing	-	-	-	-	-	-	-	-	**-**	**-**	
3c	New	-	-	10,557	12	-	-	255	0	**10,812**	**12**	
	Existing	-	-	-	-	-	-	-	-	**-**	**-**	
3d	New	-	-	9,027	10	-	-	4,080	5	**13,107**	**15**	
	Existing	-	-	-	-	-	-	-	-	**-**	**-**	
3e	New	39,040	44	-	-	-	-	-	-	**39,040**	**44**	
	Existing	-	-	-	-	-	-	-	-	**-**	**-**	
3f	New	-	-	-	-	6,324	7	-	-	**6,324**	**7**	
	Existing	-	-	-	-	6,120	7	-	-	**6,120**	**7**	
4	New	63,600	71	7,956	9	-	-	-	-	**71,556**	**80**	
	Existing	-	-	-	-	-	-	-	-	**-**	**-**	
Outside of Subarea	New	-	-	-	-	-	-	459	1	**459**	**1**	
	Existing	-	-	-	-	-	-	-	-	**-**	**-**	
Totals for INP	**New**	**346,960**	**389**	**37,332**	**42**	**6,324**	**7**	**29,937**	**34**	**420,553**	**471**	All INP Subareas
	Existing	**110,640**	**124**	**-**	**-**	**6,120**	**7**	**176,358**	**198**	**293,118**	**328**	
	Total	**457,600**	**513**	**37,332**	**42**	**12,444**	**14**	**206,295**	**231**	**713,671**	**799**	

[a] "New" corresponds with "Change Areas" in the INP Land Use Plan; "Existing" corresponds with "Non-Change Areas" in the INP Land Use Plan.

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Table 3. Projected ADWF			
Service Area	Land Use	Average Dry Weather Flow (ADWF)	
		gpd	af/yr
Overall INP	Residential	457,600	513
	Non-Residential	256,071	287
	Total INP	**713,671**	**799**

Table 4. Planning Area Sewer Flows without Proposed INP Land Uses	
	ADWF for INP Area, gpd
ADWF without INP[(a)]	519,000
ADWF with INP[(b)]	714,000
Difference in ADWF with INP	**195,000**

(a) As included in the City's 2017 Sewer Master Plan, based on developed parcels and projected sewer flows for planned new development and vacant parcels within the INP planning area based on General Plan land uses.

(b) Based on proposed INP land uses, which include both developed parcels and planned new development based on the INP.

Assumed ADWF Loading Locations for the INP

Because the development of the INP may result in the abandonment of existing collection system infrastructure and in the development of new gravity mains to serve the new development, it cannot be assumed that parcels within the INP will load to the same point in the future as they do currently. The future loading points will depend on the individual development projects, on the laterals that are designed to connect these projects to the collection system, and on the layout of the gravity mains designed to serve the projects.

Assumed ADWF loading locations for INP subareas were provided to West Yost based upon the current best estimates of future development patterns. Some subareas did not have assumed flow loading points provided, so for these subareas, West Yost assumed a ADWF loading point based upon the existing collection system. Gravity mains in the collection system that are upstream of the assumed ADWF loading points, either currently existing or proposed, are not evaluated for capacity in this study, and should be evaluated for capacity as part of the development design. The assumed ADWF loading locations are shown on Figure 2.

Peak Dry Weather Flow and Peak Wet Weather Flow for the INP

Consistent with the 2017 Sewer Master Plan, Peak Dry Weather Flow (PDWF) was calculated by applying appropriate, calibrated diurnal patterns to the ADWF from each land use in the INP. Peak Wet Weather Flow (PWWF), which is the design flow used for hydraulic evaluation of the collection system, was calculated by applying acreage-based Rainfall Dependent Inflow and Infiltration (RDII) factors to the INP subareas, consistent with the methodology of the 2017 Sewer Master Plan.

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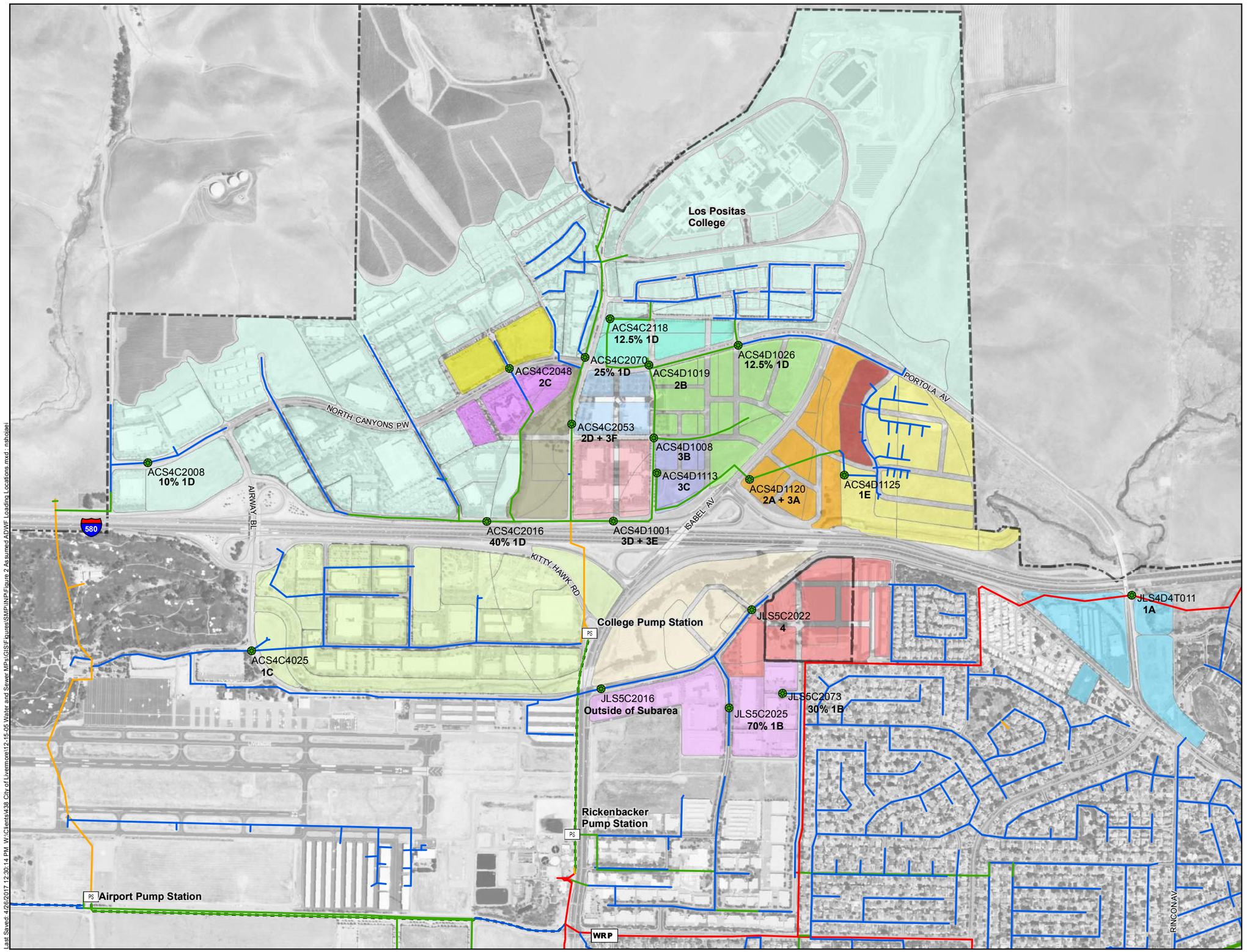

0 500 1,000

Scale in Feet

Symbology

- WRP Water Reclamation Plant
- PS Pump Station
- Manhole with INP Flow Allocation

Existing Gravity Main Diameter

- 8-inch or less
- 10-inch to 12-inch
- 15-inch to 18-inch
- 21-inch to 61-inch
- Force Main

SubArea

- 1A
- 1B
- 1C
- 1D
- 1E
- 2A
- 2B
- 2C
- 2D
- 3A
- 3B
- 3C
- 3D
- 3E
- 3F
- 4
- Outside of Subarea
- Sewer Service Boundary

LIVERMORE CALIFORNIA

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Figure 2

Assumed ADWF Loading Locations

City of Livermore
Isabel Neighborhood Plan

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REQUIRED COLLECTION SYSTEM INFRASTRUCTURE TO SERVE THE PROPOSED INP

The collection system to which the INP is tributary was evaluated using the design and performance criteria developed for the 2017 Sewer Master Plan. The tributary collection system, which includes a multitude of gravity mains, the College Pump Station, the Airport Pump Station, and the force mains associated with these two pump stations, has no hydraulic deficiencies identified in the hydraulic model under existing PWWF design conditions. However, under existing PWWF design conditions, the existing tributary collection system has very little surplus capacity, and increased future flows trigger hydraulic improvements, both when the Isabel INP is considered and when it is not.

The following collection system infrastructure improvements are required to serve the proposed INP. These improvements are in addition to required collection system improvements for Build-Out design flows described in the 2017 Sewer Master Plan. The improvements required for Build-Out design flows without considering the INP are presented in conjunction with the INP improvements to facilitate comparisons between the two future conditions. The gravity main improvements required to serve the proposed INP can be found in Table 5. As can be seen in the table, two out of the five required gravity main improvements are required to serve Build-out conditions without the INP being considered as well. Three out of the five improvements are required only for the INP.

The results of the hydraulic evaluation for collection system pump stations that serve the INP area are shown in Table 6. As shown in the table, the College Pump Station has enough hydraulic capacity to serve both the Build-out and INP design flows. The INP design flow utilizes nearly the full capacity of the College Pump Station and would leave little capacity in reserve. The Airport Pump Station is hydraulically deficient under Build-out conditions both when the INP is considered, and when it is not. The results of the INP hydraulic evaluation can be seen on Figure 3.

The force main for each pump station was hydraulically sufficient under all conditions.

Estimated costs for the additional collection system improvements to serve the proposed INP are shown in Table 7 below. The estimated costs are developed using unit costs for construction to which a 30 percent planning contingency and a 30 percent factor for engineering, administration, and management are then applied. Unit cost and contingency assumptions from the 2017 Sewer Master Plan were used to develop the estimated capital costs shown in the table.

It should be noted that downstream of MH ACS4C4003, which is the downstream boundary of the gravity main improvements in Clubhouse Drive required to serve the INP, there remains a single 8-inch diameter gravity main that dumps into the 18-inch diameter gravity main that flows south toward the Airport Pump Station. If the gravity mains in Table 7 are upgraded to 10-inch diameter as recommended, this single 8-inch diameter gravity main will remain between a 10-inch diameter gravity mains upstream and a 15-inch diameter gravity main downstream. Although this 8-inch diameter gravity main is not technically deficient by performance criteria standards and thus has not been recommended for improvement in this analysis, the City should consider increasing the diameter of this gravity main to 10-inch diameter as part of the Clubhouse Drive project to maintain continuity of diameters for operations and maintenance purposes.

Table 5. Gravity Main Improvements Required to Serve INP

Upstream Manhole ID	Downstream Manhole ID	Length, LF	Current Dia., in	INP Proposed Dia., in	Maximum q/Q with Current Diameter[a]			Maximum q/Q after Improvement		
					Existing Design	Build-out Design	INP Design	Existing Design	Build-out Design	INP Design
ACS4C2013	JLS5C2015	236	15	18	0.624	0.984	**1.067**	0.384	0.607	0.658
ACS4C4007	ACS4C4006	276	8	10	0.673	0.986	**1.024**	0.371	0.547	0.565
ACS4C4006	ACS4C4005	285	8	10	0.684	**1.007**	**1.041**	0.377	0.556	0.574
ACS4C4005	ACS4C4004	189	8	10	0.686	**1.009**	**1.043**	0.378	0.557	0.575
ACS4C4004	ACS4C4003	287	8	10	0.671	0.982	**1.022**	0.370	0.545	0.564

[a] A gravity main is judged to be deficient when the maximum q/Q value exceeds 1.0 under the design condition for that gravity main.

Table 6. Pump Station Improvements Required to Serve INP

Pump Station Name	Pump Station Data		Existing Design		Build-out Design		INP Design	
	Firm Capacity, gpm	Existing Force Main Diameter, in	Design Flow, gpm	Available Firm Capacity, gpm	Design Flow, gpm	Available Firm Capacity, gpm	Design Flow, gpm	Available Firm Capacity, gpm
College Pump Station	1,180	12	630	550	990	190	1,070	110
Airport Pump Station	1,145	10	680	465	1,480	**(335)[a]**	1,510	**(365)[a]**

[a] Negative values show deficient capacity.

Table 7. Estimated Costs for Improvements Required to Serve INP[a]

Improvement Type	Improvement Description	Estimated Cost[b], Build-out Requirements	Estimated Cost[b], INP Requirements
Gravity Main Upsize	Replace 236 lf of 15-inch diameter gravity main with 18-inch diameter between MH ACS4C2013 and MH JLS5C2015 under I-580. Jack and Bore installation assumed because of location.	-	$313,000
Gravity Main Upsize	Replace 276 lf of 8-inch diameter gravity main with 10-inch diameter between MH ACS4C4007 and MH ACS4C4006 in Clubhouse Drive. Open cut replacement is assumed.	-	$103,000
Gravity Main Upsize	Replace 285 lf of 8-inch diameter gravity main with 10-inch diameter between MH ACS4C4006 and MH ACS4C4005 in Clubhouse Drive. Open cut replacement is assumed.	$106,000	$106,000
Gravity Main Upsize	Replace 189 lf of 8-inch diameter gravity main with 10-inch diameter between MH ACS4C4005 and MH ACS4C4004 in Clubhouse Drive. Open cut replacement is assumed.	$71,000	$71,000
Gravity Main Upsize	Replace 287 lf of 8-inch diameter gravity main with 10-inch diameter between MH ACS4C4004 and MH ACS4C4003 in Clubhouse Drive. Open cut replacement is assumed.	-	$106,000
Pump Station Capacity Increase	Provide required capacity for design flow at the Airport Pump Station. This improvement is assumed to be an upgrade using existing facilities where possible, and not a full replacement.	$1,254,000	$1,273,000
	Total	**$1,431,000**	**$1,972,000**

[a] Based on March 2017 ENR CCI of 11609.44 (San Francisco Average).
[b] Estimated costs include a 30% planning contingency and a 30% factor for engineering, administration, and management.

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N

0 500 1,000

Scale in Feet

Symbology

WRP Water Reclamation Plant

Pump Station Capacity Results

PS No Capacity Deficiency

PS Capacity Deficiency Under Both General Plan Build-Out and INP Scenarios

Manhole

Gravity Main Capacity Results

No Deficiency

Deficiency Under INP Scenario Only

Deficiency Under Both General Plan Build-out and INP Scenarios

Force Main

Sewer Service Boundary

Note:
1. Labels shown are upstream and downstream manholes' ID of gravity main capacity deficiencies.

LIVERMORE CALIFORNIA

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Figure 3

Hydraulic Evaluation Results

City of Livermore
Isabel Neighborhood Plan

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