

## CHAPTER 4 COMMENTS AND RESPONSES

Written comments on the Draft EIR and oral comments provided at the public hearings as well as responses to each comment are provided in this chapter. Comments received during the public review period on the Draft EIR are provided in their entirety and specific comments have been delineated in the margin of the letter. Each letter is immediately followed by responses keyed to the specific comments. Transcripts of the comments provided at the public hearings are also included in this chapter and specific comments are similarly delineated; responses to the comments follow each transcript.

Each commenter has been assigned a discrete comment letter number, as listed in Chapter 2, List of Commenters. The letters and comments are grouped by the affiliation of the commenting entity as follows: (A) federal and State of California (State) agencies; (B) regional and local agencies; (C) organizations and companies; (D) individuals; and (E) oral comments received at public hearings in both the city of Livermore (PH1) and the city of Dublin (PH2).

In some instances, the response supersedes or supplements the text of the Draft EIR for accuracy or clarification. New text that has been added to the Draft EIR is indicated as double-underlined text. Text that has been deleted is indicated with ~~striketrough~~. These revisions are provided in Chapter 5, Draft EIR Revisions.

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**A. FEDERAL AND STATE AGENCIES**

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Letter  
A1

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN Jr., Governor

**DEPARTMENT OF TRANSPORTATION**

DISTRICT 4  
OFFICE OF TRANSIT AND COMMUNITY PLANNING  
P.O. BOX 23660, MS-10D  
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*Making Conservation  
a California Way of Life*

October 16, 2017

SCH# 2012082104  
GTS # 04-ALA-2017-00169  
GTS I.D. 7263  
ALA580VAR

Mr. Andrew Tang  
Bay Area Rapid Transit District  
300 Lakeside Drive, 21<sup>st</sup> floor  
Oakland, CA 94612

**BART to Livermore Extension Project – Draft Environmental Impact Report**

Dear Mr. Tang:

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), Caltrans’ mission signals a modernization of our approach to evaluate and mitigate impacts to the State Transportation Network (STN). Caltrans’ *Strategic Management Plan 2015-2020* aims to reduce Vehicle Miles Traveled (VMT) by tripling bicycle and doubling both pedestrian and transit travel by 2020. Our comments are based on the Draft Environmental Impact Report (DEIR) dated July 2017. Previous comments on the project’s NOP are incorporated by reference.

***Project Understanding***

The Bay Area Transit District (BART) to Livermore Extension Project would extend transit service 5.5 miles east into eastern Alameda County from the existing Dublin/Pleasanton BART Station (Dublin/Pleasanton Station) within and adjacent to the Interstate (I-) 580 right-of-way (ROW), through the cities of Dublin and Pleasanton, to a proposed new terminus station located at the Isabel Avenue/I-580 interchange in the city of Livermore (referred to herein as Isabel Station). In addition, a new parking facility would be constructed at the new Isabel Station and a new BART storage and maintenance facility would be constructed beyond the Isabel Station, north of I-580. The Proposed Project includes new and modified bus routes, connecting the new Isabel Station to downtown Livermore, Lawrence Livermore National Laboratory (LLNL), the Vasco Road Altamont Corridor Express (ACE) station, and other areas east of the BART system. The overall performance of these bus routes would be improved via the implementation of transit priority infrastructure enhancements.

1

*“Provide a safe, sustainable, integrated and efficient transportation system to enhance California’s economy and livability”*

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**Lead Agency**

As the Lead Agency, BART is responsible for all project mitigation, including any needed improvements 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. This information should also be presented in the Mitigation Monitoring and Reporting Plan of the environmental document. Potential mitigation measures that include the requirements of other agencies such as Caltrans are fully enforceable through permit conditions, agreements, or other legally-binding instruments under the control of the Lead Agency.

2

**Project Analysis**

The DEIR should address major projects within the BART to Livermore Extension Project study area. Specifically, ACE has recently completed public review of their expansion project (ACE Forward). ACE annual ridership is forecast to nearly double from 2.25 million in 2020 to 5.15 million in 2025. The DEIR should study the VMT and GHG reductions of the project’s BART station versus a previously considered BART/ACE transfer station. Additionally, the DEIR should expand on the City of Livermore’s decision to change the terminus of the BART line. A comparison of the pros and cons between the Isabelle and Downtown Stations would clarify the decision to opt for the Isabelle Station.

3

**Project Coordination/Right-of-Way Risks**

Potential risks to cost and schedule resulting from ROW acquisition should be discussed. In addition, roadway widening may require bridge widening, reconstruction and/or the construction of retaining walls which may have unforeseen secondary impacts to the environment. Caltrans is currently in the project development process for the BART to Livermore Extension Project. In addition, please be advised that coordination between the Lead Agency and Caltrans will be required for the three projects described below.

4

- A Bridge Rehabilitation Project in the Project Approval & Environmental Document (PA&ED) phase along eastbound I-580 at the Greenville Overcrossing in Livermore (Post Miles (PM) R8.0, EA 04-0J520). Construction is scheduled for February 2020 through May 2022.
- Bridge Maintenance in the Plans, Specifications and Estimate (PS&E) phase on State Route 238 and I-580. Work on I-580 includes epoxy crack seal of the bridge culvert at Arroyo Seco Creek (PM 11.04, EA 04-4H080). Construction is scheduled from October 2019 to October 2020.
- A Capital Preventive Maintenance (CAPM) Project in PS&E phase (PM R30.8/R41.5, EA 04-27010) with construction scheduled for February 2019 through May 2021.

5

**Visual Quality**

We ask that the Lead Agency refer to I-580’s scenic status as an “Eligible State Scenic Highway” where the denomination is required to ensure consistency with Caltrans nomenclature. Additionally, we inform the Lead Agency that Caltrans does not base viewer sensitivity analysis solely on the roadway’s scenic route designation.

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Please provide simulations of the proposed sound wall and its visual impacts. The claim that motorists on East Airway Boulevard are not sensitive receptors because the Boulevard is not a locally designated scenic route, does not consider motorists’ sensitivity to the change in views from rolling hills and mature trees to the increased glare and shadows from the proposed raised multi-level parking garage (page 597, first paragraph). Additionally, the first paragraph on page 620 of the Visual Quality Section discussed the duration of the view obstruction along I-580, and states the “obstruction of views would be intermittent and minimal because of the speed of passing motorists.” However, the view obstruction would occur for an extended period of time under congested conditions.

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Please address the inconsistency of new BART structures with driver’s expectations, especially for motorists on westbound I-580 from Altamont Pass (page 598, fifth paragraph). The Livermore BART station and related installations will be visually and contextually inconsistent with the existing views; contrary to the Dublin BART station that is situated in an urban setting with commercial properties and tall office buildings adjacent to the freeway. The proposed BART station occurs in a more suburban area, with mature trees helping to screen commercial properties and views of grasslands and rolling hills.

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We remind the Lead Agency that the Caltrans Office of Landscape Architecture will need to review the proposed planting/irrigation plans and specifications for areas within State ROW. A Co-operative Agreement will need to be developed to establish who will maintain the planting on State and local ROW. The Visual Quality Section states that the Landscape Architect retained by BART will approve all landscaping plans for the area. We suggest replacing “approve” with “develop” on page 626, third paragraph, to identify this process more accurately. Please consult with Lydia Mac, Senior Landscape Architect, from the Caltrans’ Office of Landscape Architecture for proposed planting/irrigation plans and specifications for areas within State ROW.

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Caltrans District 04  
Office of Landscape Architecture  
111 Grand Avenue, MS 9D  
Oakland, CA 94612

The DEIR should also identify areas of tree removal and areas where replanting could occur. The mitigation measures should state the replacement ratios for the removed trees. The ratio is usually 1:1 for non-natives and 3:1 for native species such as oaks, redwood, black walnuts, etc. (page 624, second paragraph). Please consult with Christopher States, Senior Environmental Planner, from the Caltrans’ Office of Biological Sciences for replacement ratio details.

11

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**Multimodal Planning**

While most end-of-the-line BART stations are auto-oriented, we recommend the Lead Agency coordinate with BART to effectively design transportation oriented development (TOD) at the new BART location and ensure quality pedestrian, bicycle, and transit connections. Caltrans’ *Smart Mobility 2010: A Call to Action for the New Decade* recommends TOD with managed parking, and car and bike share programs where high capacity transit stops and stations are located. This includes high pedestrian and bicycle connectivity to surrounding transit stops, and linkages between the proposed BART extension and ACE. Additionally, surrounding the station with adequate housing and office space lessens the need for parking. A context sensitive TOD ensures a walkable community near the station with pedestrian and bicycle amenities that reduce VMT and GHG emissions.

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BART should continue to provide accessible and ADA-compliant features for pedestrians and bicyclists at the station. Along with the proposed extension, the surrounding transit features should be upgraded with bulb-outs, bus shelters, and transit signal priority. Fare integration and easy transfers among surrounding transit networks such as ACE as well as wayfinding signage and effective station planning should be implemented.

Lastly, please clarify the 2025 “Enhanced Bus Alternative” projections on Table 2-16 and Table 2-17 of the DEIR’s Project Description Section (page 188). Further discussion is needed to explain the zero net change in ridership between this alternative and the “No Project Alternative”.

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**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. The surrounding land use types are characterized as residential, and are primarily single family homes. The project site is best identified as **Place Type 4: Suburban Communities** (Dedicated Use Areas) in Caltrans’ *Smart Mobility 2010: A Call to Action for the New Decade*. This place type is typically characterized by large tracks of land used for commercial or recreational purposes such as business, industrial parks, warehousing, or golf courses. As such, location efficiency factors, such as community design are weak and regional accessibility varies.

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Given the transportation efficiency factors of this place type and its characterization as a PDA, the transportation project should include a Transportation Demand Management (TDM) Program to further reduce VMT and greenhouse gas emissions. Such measures will be critical in order to facilitate efficient transportation access to the proposed BART station and last mile connections. The measures listed below will promote smart mobility and reduce regional VMT.

- Project design to encourage walking, bicycling and transit access;
- Ten percent vehicle parking reductions;
- Transit, bicycle and trip planning resources such as a commute information kiosk;
- Charging stations and designated parking spaces for electric vehicles;

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- Carpool and clean-fuel parking spaces;
- Designated parking spaces for a car share program;
- Bike share program;
- Nearby walkable amenities;
- Secured bicycle storage facilities;
- Fix-it bicycle repair station(s);
- Bicycle route mapping resources and bicycle parking incentives; and

14 cont.

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>.

***Encroachment Permit***

Please be advised that any work or traffic control that encroaches onto the State ROW requires an Encroachment Permit that is issued by Caltrans. Traffic-related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process. To apply, a completed Encroachment Permit application, the adopted environmental document, and five (5) sets of plans clearly indicating State ROW must be submitted to the address below. Traffic-related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process.

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David Salladay, District Office Chief  
Office of Permits, MS 5E  
California Department of Transportation, District 4  
P.O. Box 23660  
Oakland, CA 94623-0660

See the following website for more information:

<http://www.dot.ca.gov/trafficops/ep/index.html>

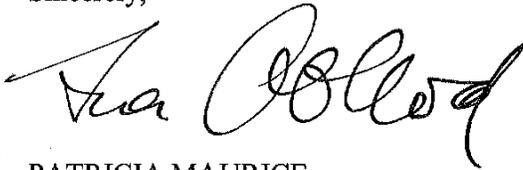
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Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Jannette Ramirez at (510) 286-5535 or [jannette.ramirez@dot.ca.gov](mailto:jannette.ramirez@dot.ca.gov).

15 cont.

Sincerely,



for PATRICIA MAURICE  
District Branch Chief  
Local Development - Intergovernmental Review

c: State Clearinghouse

**RESPONSE A1****Patricia Maurice, California Department of Transportation, District 4**

- A1-1 Thank you for providing comments on the Draft EIR. This comment is informational in nature and does not specifically address the adequacy of the EIR; no response is necessary.
- A1-2 When a project is adopted by the BART Board of Directors (BART Board), BART will prepare a Mitigation Monitoring and Reporting Program (MMRP) that identifies the mitigation actions (including any fair-share contributions), timeline for implementation of measures, and procedures for monitoring and reporting, consistent with CEQA Guidelines Section 15097.
- A1-3 The comment suggests that the Draft EIR should address the ACEforward Project proposed by the San Joaquin Regional Rail Commission (SJRRCC). Following the close of public comment on the ACEforward EIR, SJRRCC determined that it would not continue with the project and rescinded the EIR, proposing a different project instead. SJRRCC's Notice of Preparation of an EIR for an ACE Extension from Lathrop to Ceres/Merced, January 10, 2018, states that "the ACEforward project is not moving forward" and the "improvements envisioned in the ACEforward plan no longer represent the intention of the SJRRCC for ACE." The candidate ACE-BART connections and related improvements identified in the ACEforward EIR are not considered reasonably foreseeable future projects. Please see Master Response 11 for additional information regarding the ACEforward Project.

The Draft EIR studied the vehicle miles traveled (VMT) and greenhouse gas (GHG) reductions related to the Proposed Project and Build Alternatives, and included an evaluation of interrelated BART/ACE ridership patterns, including changes in VMT and GHG related to those patterns. However, direct BART-to-ACE rail connections were not a part of the Proposed Project or any of the alternatives, and were not considered for the VMT and GHG analysis of an extension to Isabel Avenue. The 2010 BART to Livermore Extension Program EIR also studied direct BART-to-ACE rail connections and provided estimates of VMT and GHG reductions (see the Air Quality section of that document). However, a direct BART-to-ACE connection would be part of a future extension farther east from the Isabel Avenue terminus of the Proposed Project and is not part of the Proposed Project or Alternatives evaluated in this EIR. Moreover, any comparison of the VMT and GHG analyses between the Program EIR and Project EIR must consider the longer rail alignments in the Program EIR, alignments with multiple stations, and changes in methodology and land use assumptions since the Program EIR was published.

The scope of the Livermore Extension Project evaluated in this EIR extends to Isabel Avenue in the Interstate Highway (I-)580 highway median, but that does not preclude a Downtown Livermore station as suggested by the commenter. Locating the terminus for this project at Isabel Avenue preserves both options for a future extension farther east, either continuing in the I-580 median or departing from the highway median and extending to Downtown Livermore. In 2010, the BART Board certified the BART to Livermore Extension Program EIR and adopted an alignment extending to Downtown Livermore with a terminus station at Vasco Road. The City of Livermore adopted the same downtown alignment in 2010, and then subsequently revised its adopted alignment to one entirely along I-580 to a terminus in Greenville. However, the City's preference regarding the alignment of a future extension farther east from the Isabel Avenue terminus of the Proposed Project is not applicable to the Proposed Project and Alternatives evaluated in this EIR, which do not extend east of the Isabel Avenue terminus. Please also see Master Response 4 for more information regarding an extension to Greenville.

- A1-4 As noted by the commenter and described in the Draft EIR (Chapter 2, Project Description), relocation of the I-580 freeway lanes, realignment of surface roads, reconfiguration of I-580 on-/off-ramps, modifications to I-580 bridges and interchange/overcrossing decks and supports, and reconfiguration of retaining walls, would be required for the Proposed Project, as well as several of the Build Alternatives, to varying degrees. The potential impacts of these modifications, including secondary impacts where identified, have been analyzed and addressed in the Draft EIR. The timeline and cost for the Proposed Project and each alternative are also presented (see pages 168 and 190, respectively). Both the cost and schedule for the various alternatives have taken acquisition of right-of-way (ROW) into account.
- A1-5 Thank you for providing this information. These projects and potential for coordination with BART are noted.
- A1-6 Section 3.E, Visual Quality, of the Draft EIR describes the scenic status of I-580 on pages 571 and 623. I-580 is not officially designated as a State scenic highway. However, as the Draft EIR states, I-580 is identified as eligible for scenic status by the State Streets and Highways Code, which provides that highways identified by statute as eligible are considered to be part of the State Scenic Highway System. Therefore, the Draft EIR refers to I-580's scenic status consistent with the comment.

The comment regarding the Caltrans methodology for visual impact analysis is noted. As the lead agency, BART has the discretion to select its own

methodology. The Draft EIR describes the existing visual character and visual quality in the study area and provides photo-simulations from key vantage points to show the visual impacts of major project components from the perspective of representative viewer groups.

Sensitive viewers considered in the Draft EIR include not only viewers traveling along a roadway that is a designated scenic highway or scenic route or that has a designated public scenic viewpoint, but also viewers from pedestrian and bicycle trails, parks, and other publicly accessible open spaces, as described on page 586 of the Draft EIR. The Draft EIR further evaluates the visual impact within each geographic subarea by ranking the impacts high, moderate, or low according to the potential to affect existing visual quality. Viewer sensitivity is one of, but not the only, criteria used to assess the magnitude of the impacts. Other criteria include prominence of the project component, consistency with existing visual character, and existing visual quality of the geographic subarea.

A1-7 Although the Draft EIR mentions that drivers on East Airway Boulevard are not sensitive receptors, the analysis does not rely on this fact in its assessment of the impacts mentioned by the commenter. As described on pages 596 and 597 of the Draft EIR, the sound wall constructed as part of Mitigation Measure NOI-5 (Construct Noise Barrier along East Airway Boulevard) would be approximately 6 to 8 feet high and would obstruct the southward and southwestward views of drivers along East Airway Boulevard, resulting in secondary visual impacts. However, the sound wall would extend along a similar length of East Airway Boulevard (approximately 0.3 mile) as an existing wooden fence that is approximately 6 feet high, which already obscures drivers' and passengers' views to the south and southwest. In addition, this sound wall would not be inconsistent with the visual character along East Airway Boulevard, as there is already a sound wall on the north side of I-580 from Sutter Street east to the western border of the Sun Valley Mobile Estates. Nevertheless, the Draft EIR conservatively found that replacing the wooden fence with a solid sound wall would add a conspicuous new feature, and thus identified this impact as significant and unavoidable, even with the implementation of Mitigation Measure VQ-3.A (Include Architectural Treatments on Sound Wall). The magnitude of this visual impact has been adequately disclosed in the Draft EIR and visual simulations are not required to further assess it.

The Draft EIR identifies a significant and unavoidable visual quality impact related to the Isabel Station parking garage under the Proposed Project. Pages 619 and 620 state that the parking garage would be taller than permitted by City of Livermore view angle regulations and could obstruct views [Impact VQ-4

(Have a Substantial Adverse Effect on a Scenic Vista)]. This impact is identified as significant and unavoidable. Please also see the similar discussion for the DMU Alternative on pages 609 and 621 of the Draft EIR.

- A1-8 The comment relates to views to the north of I-580 that would be blocked by the Isabel Station’s pedestrian overcrossing and touchdown structure north of I-580. Please see visual video simulations prepared by the City of Livermore, which show both the proposed Isabel Neighborhood Plan (INP) as well as the proposed BART to Livermore Extension infrastructure, and are available at [http://www.cityoflivermore.net/citygov/cdd/bart/scenic\\_view\\_analysis.htm](http://www.cityoflivermore.net/citygov/cdd/bart/scenic_view_analysis.htm). Westbound drivers on I-580 traveling at about 60 miles per hour and looking north at an oblique angle would have their view partially blocked by the overcrossing for approximately 7 seconds. As stated on page 619 of the Draft EIR (Section 3.E, Visual Quality) and further confirmed by the above-referenced visual simulations, the obstruction of views would be minimal due to the speed of passing motorists along I-580 and thus less than significant.

While peak congestion on I-580 could decrease the speed of motorists and extend the duration for which the overcrossing would obstruct their view of scenic vistas—for example, at a speed of 30 miles per hour, the view would be blocked for about 14 seconds—the duration over which the view is blocked would remain brief. Any increase in the duration of view obstruction during congestion would likely not be substantial. In addition, the periods of heaviest congestion are typically limited to morning and evening commute times. Therefore, temporarily increased duration of view obstruction during congested commute times on I-580 would not substantially worsen this less-than-significant impact.

- A1-9 As described in the Draft EIR, to drivers along I-580, the forms and massing of the pedestrian overcrossings, north touchdown structure, and proposed Isabel Station would be visually prominent. The Draft EIR acknowledges that the proposed parking garage south of I-580 would have a potentially significant visual impact and Mitigation Measure VQ-3.B would be implemented to reduce this impact to less than significant.

As noted in the comment, the Isabel Station location is more suburban, with much lower density development around it than the Dublin/Pleasanton Station to the west. However, the proposed facilities would be consistent with driver expectations of the I-580 corridor, which features a succession of roadway overcrossings between Greenville and the I-680 interchange. Other station structures to the west of the proposed Isabel Station include the

Dublin/Pleasanton BART Station and the West Dublin/Pleasanton Station, which also has pedestrian overcrossings.

A1-10 BART will coordinate with Caltrans on landscaping as requested in the comment at the time a project is adopted and subsequent engineering is developed.

In response to this comment, Mitigation Measure VQ-5 (Revegetate Areas of Removed Landscaping), on page 626 of the Draft EIR, has been revised as follows:

BART shall revegetate areas where landscaping has been removed in kind to the greatest extent feasible. BART shall ensure that all landscaping plans are consistent with the existing vegetation of the area while serving sustainability goals. A qualified landscape architect retained by BART's contractors will ~~approve~~ develop all landscaping plans for the area.

Also, in response to this comment, Caltrans review and approvals are further clarified in Table 1-1 (Public Agencies with Possible Future Permit and/or Approval Authority) on page 72 of Chapter 1, Introduction, Public Agencies with Possible Future Permit and/or Approval Authority, which has been revised as follows:

Action/Approvals Required - Project reports and plans, including approval of proposed planting/irrigation plans and specifications for areas within the State ROW

A1-11 Currently, the project analysis is based on conceptual design and preliminary engineering, and specific trees have not been identified for removal. Section 3.I, Biological Resources, describes potential impacts related to the loss of protected trees identified in local policies or ordinances during construction. BART will conduct a survey of trees within the adopted project's footprint, identify trees to be removed and retained, and plant replacement trees as specified in Mitigation Measure BIO-15 (Conduct an Inventory of Protected Trees, Protect Trees that Remain, and Plant Replacement Trees) on page 938 of the Draft EIR. In general, the mitigation measure provides for planting replacement trees for trees that are removed, i.e., mitigation at a 1:1 ratio. Once the BART Board adopts a project and during the development of the final design, BART will coordinate with Caltrans regarding any tree removal and replanting within the State ROW, consistent with Caltrans' policy of higher replacement ratios applicable to specified tree species on the State ROW.

- A1-12 One of the objectives listed in the Draft EIR is to “Support the regional goals of integrating transit and land use policies to create opportunities for transit-oriented development (TOD) in PDAs in the Livermore area.” To this end, BART as the lead agency, is cooperating with the City of Livermore on the City’s INP, a new land use plan that would increase residential and commercial development in the Isabel Station area. BART and the City have worked together to ensure quality pedestrian, bicycle, and transit access to the Isabel Station. The City released its draft INP and related EIR for public review in January 2018 (available at [http://www.cityoflivermore.net/citygov/cdd/bart/inp\\_deir.htm](http://www.cityoflivermore.net/citygov/cdd/bart/inp_deir.htm)). As described in the Draft EIR (Chapter 2, Project Description), the Proposed Project and Build Alternatives all contain a bus component to provide improved transit access to the Isabel Station for the Proposed Project and DMU Alternative, or to the Dublin/Pleasanton Station for the Express Bus/BRT Alternative and Enhanced Bus Alternative. As suggested in the comment, these bus components include bulb-outs, bus shelters, transit signal priority, and other measures to upgrade local bus service. Also, the proposed new Isabel Station would be designed with ADA-compliant access and linkages. Figure 2-5 on page 100 of the Draft EIR illustrates the ADA drop-off areas at both the north-side pedestrian plaza and the south-side parking garage.
- A1-13 Existing and future BART ridership is shown in Table 2-16 (Existing and Future BART Systemwide Daily Ridership-Weekday) on page 188 and in Table 2-17 (Existing and Future Tri-Valley Area Daily Boardings-Weekday) on page 189 of the Draft EIR. The two tables show a net zero change in ridership between the No Project Alternative and the Enhanced Bus Alternative in 2025, and a limited increase in ridership and boardings in 2040. Under the Enhanced Bus Alternative, which does not involve construction of significant new infrastructure, increases in BART ridership are anticipated to arise primarily from projected changes in land uses. Due to the limited land use changes projected between 2013 and 2025, ridership growth is anticipated to be extremely limited (net zero). However, by 2040, the changes in land use are anticipated to result in a minor amount of growth in ridership. Overall, the analysis shows that there is a limited demand for additional bus access to the Dublin/Pleasanton Station under the Enhanced Bus Alternative.
- A1-14 BART is strongly supportive of improving station access by alternative modes. As described in Response to Comment A1-12 and page 227 of the Draft EIR (Section 3.A, Introduction to Environmental Analysis), BART is working with the City of Livermore on the INP, a land use plan that would increase TOD in the Isabel Station area and provide high-quality pedestrian, bicycle, and transit access to the proposed Isabel Station. BART will also design the station itself to

encourage access by alternative modes. The comment listed 11 measures recommended for reducing automobile travel. Of those, BART has a track record of implementing the following at its stations and expects to do so at Isabel Station:

- Project design to encourage walking, bicycling and transit access
- Transit, bicycle, and trip planning resources such as a commute information kiosk
- Charging stations and designated parking spaces for electric vehicles
- Carpool and clean-fuel parking spaces
- Walkable amenities in close proximity
- Secured bicycle storage facilities
- Bicycle route mapping resources

In addition, BART will consider implementing the remainder of the recommended measures if appropriate and feasible in the context of the final station design.

As described starting on page 261 of the Draft EIR (Section 3.B, Transportation), BART's Station Access Guidelines and Policy provides direction regarding multimodal access to BART stations and priorities for investments in station access improvements. As part of the policy, both the Dublin/Pleasanton Station and the proposed Isabel Station are designated as automobile-dependent stations. Even so, the proposed Isabel Station design provides and encourages alternative access by bus, pedestrians and bicyclists. While BART acknowledges the comment regarding the potential of parking reductions to encourage alternative modes, BART also recognizes that higher BART ridership, and the resulting environmental benefits, can also result from providing parking to meet the predicted demand at these stations. The point of BART's Station Access Guidelines is to balance the goal of maximizing BART ridership with the goal of encouraging alternative-mode station access by BART's riders.

- A1-15 BART will coordinate with Caltrans for all work within the Caltrans' ROW. Coordination with Caltrans is described throughout the Draft EIR and specifically on pages 72, 186, and 314. Page 314 specifies the traffic management plan during construction in Mitigation Measure TRAN-1 (Develop and Implement a Construction Phasing and Traffic Management Plan).

In response to this comment, Caltrans review and approvals are further clarified in Table 1-1 (Public Agencies with Possible Future Permit and/or

Approval Authority) on page 72 of the Draft EIR (Chapter 1, Introduction) as follows:

**Action/Approvals Required** – Project reports and plans, and encroachment permits for work or traffic control that encroaches into the State ROW.

Letter  
A2

**From:** Bouri, Issa@DOT [<mailto:issa.bouri@dot.ca.gov>]  
**Sent:** Wednesday, October 25, 2017 10:14 AM  
**To:** Andrew Tang <[ATang@bart.gov](mailto:ATang@bart.gov)>  
**Cc:** Tsung, Ronald@DOT <[ronald.tsung@dot.ca.gov](mailto:ronald.tsung@dot.ca.gov)>; Chiu, Bonnita@DOT <[bonnita.chow@dot.ca.gov](mailto:bonnita.chow@dot.ca.gov)>  
**Subject:** FW: BART to Livermore Extension Draft EIR---Design Review Comments

Hi Andrew,

Attached and included below in this email are additional DEIR review comments by our Design group that were not included in our official response to you last week. Your consideration of these comments is appreciated.

1

In addition to the comments included in the attached Comment Form and the attached mark-ups, we also have the following:

- If the selected alternative affects the existing freeway, then at least the same number of lanes will need to be perpetuated with standard geometric design features, including any structures and affected highway elements. 2
- Since the modification of I-580 is a part of the proposed project and DMU/EMU alternatives, more detail to each of the interchange modification should be included in the project description. 3
- Ensure the evaluation of land use impact take in consideration of the I-580 widening and the required interchange modification. 4
- Under the “Transportation” section should include the significance of right of way impact. 5
- Include in the cost estimates for Conventional BART and DMU/EMU the right of way needed for the wayside control systems and electrical service points. 6
- The relocation may not impact the use of the Livermore Municipal Airport but may impact the flight path and should be evaluated. 6
- Project description for the Conventional BART or the DMU/EMU alternative include propose improvement to the existing Dublin Station parking lot. More parking spaces would probably need to accommodate the additional BART riders. 7

If you need clarification regarding any of the comments, please email or call Bonnita at 286 -6156.

Issa Bouri  
Regional Project Manager

Letter  
**A2**  
 cont.

SCH 2012082104  
 BART to Livermore Extension BLVX  
 04-CC-680-PM 13.9/22.7

<b>Agency:</b>	Caltrans	<b>Responded By:</b>			
<b>Review Unit:</b>	Design Contra Costa	<b>Date Responded:</b>			
<b>Comments By:</b>	Wing Lok	<b>JRT Meeting Date:</b>			
<b>Date Reviewed:</b>	August, October 2017				
<b>TECHNICAL COMMENT REVIEW AND RESPONSE</b>					
Title: <b>Draft EIR</b>			Submittal: <b>31 JUL 2017</b>		
Revision Action Code: <b>A</b> -Will Comply; <b>B</b> -Consultant to Evaluate; <b>C</b> -Will Not Incorporate; <b>D</b> -PDT to Evaluate					
Item No.	Review Comments	Design Responses	Revision Action	JRT Disp.	Final Disp.
1	General Volume 1: Two files downloaded from the BART to Livermore Extension DEIR Website forensically do not match the version as provided on the CD of the DEIR hard copies: <ul style="list-style-type: none"> <li>• \\Vol1\BLVX DEIR_Vol 1_3.B_TRAN.pdf</li> <li>• \\Vol1\BLVX DEIR_Vol 1_3.E_VQ.pdf</li> </ul>				
2	General Volume 3: A file downloaded from the BART to Livermore Extension DEIR Website forensically does not match the version as provided on the CD of the DEIR hard copies. <ul style="list-style-type: none"> <li>• \\Vol3\BLVX DEIR_Vol 3_Appendix_B.pdf</li> </ul>				
3	General Consistency: Cover illustration of all volumes of this DEIR: The photo with conceptual design overlay appears to be facing east just east of Fallon-El Charro OC, so WB traffic is shown on the left. There are four existing WB general purpose lanes with one express lane, with an auxiliary lane drops off at Fallon. Why are there five GP lanes shown pass the Fallon WB off-ramp?  See also comment on Table 3.B-13 regarding existing lane configuration.				

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Letter  
**A2**  
cont.

SCH 2012082104  
BART to Livermore Extension BLVX  
04-CC-680-PM 13.9/22.7

<b>Agency:</b>	Caltrans	<b>Responded By:</b>				
<b>Review Unit:</b>	Design Contra Costa	<b>Date Responded:</b>				
<b>Comments By:</b>	Wing Lok	<b>JRT Meeting Date:</b>				
<b>Date Reviewed:</b>	August, October 2017					
<b>TECHNICAL COMMENT REVIEW AND RESPONSE</b>						
Title: <b>Draft EIR</b>		Submittal: <b>31 JUL 2017</b>				
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Item No.		Review Comments	Design Responses	Revision Action	JRT Disp.	Final Disp.
4	General	<b>This Project is a major widening and infrastructure project with significant ROW acquisitions. The proposed design features of the reconstruction of I-580 are expected to meet federal and State standards and ACTC express lane infrastructure standards.</b>				
5	General	<b>Ensure sufficient ROW is acquired for the reconstrucion of I-580 to meet design standards without exceptions reflected in the DEIR and Appendix B.</b>				
6	Vol 1_3.B	Section 4a (a) Freeway Segments: Are there Caltrans standards of significance for freeway operations?				

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Letter  
**A2**  
 cont.

SCH 2012082104  
 BART to Livermore Extension BLVX  
 04-CC-680-PM 13.9/22.7

<b>Agency:</b>	Caltrans	<b>Responded By:</b>				
<b>Review Unit:</b>	Design Contra Costa	<b>Date Responded:</b>				
<b>Comments By:</b>	Wing Lok	<b>JRT Meeting Date:</b>				
<b>Date Reviewed:</b>	August, October 2017					
<b>TECHNICAL COMMENT REVIEW AND RESPONSE</b>						
Title: <b>Draft EIR</b>		Submittal: <b>31 JUL 2017</b>				
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Item No.		Review Comments	Design Responses	Revision Action	JRT Disp.	Final Disp.
7	Vol 1_3.B P. 275	<p>Table 3.B-13 and related section: existing lane configurations:</p> <ul style="list-style-type: none"> <li>Column “2014 Express Lane” : in 2014, the EB express lane was an HOV lane. Modify all columns (here and elsewhere in the EIR when such ambiguity between 2014 and “existing” arises?) to use generic term “Managed Lanes,” add footnote to explain “managed lanes,” which includes both HOV and HOT. Consider “managed lanes” as a replacement to “HOV/express lanes” throughout the DEIR.</li> <li>This table indicates a new WB GP lane would be constructed between Fallon-El Charro and First-Springtown between 2014 to 2040, but it isn’t listed in the bulleted list.</li> <li>Revise “(1) Freeway Segments passages to update completed projects. For example, aren’t “<i>Improve the I-580/San Ramon Road/Foothill Road interchange</i>” and “<i>Construct auxiliary lanes on I-580 eastbound... (includes widening the Arroyo Las Positas Bridge at two locations and providing additional improvements to accommodate future express lanes)</i>” completed?</li> </ul>				

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Letter  
A2  
cont.

SCH 2012082104  
BART to Livermore Extension BLVX  
04-CC-680-PM 13.9/22.7

<b>Agency:</b>	Caltrans	<b>Responded By:</b>				
<b>Review Unit:</b>	Design Contra Costa	<b>Date Responded:</b>				
<b>Comments By:</b>	Wing Lok	<b>JRT Meeting Date:</b>				
<b>Date Reviewed:</b>	August, October 2017					
<b>TECHNICAL COMMENT REVIEW AND RESPONSE</b>						
Title: <b>Draft EIR</b>		Submittal: <b>31 JUL 2017</b>				
Revision Action Code: <b>A</b> -Will Comply; <b>B</b> -Consultant to Evaluate; <b>C</b> -Will Not Incorporate; <b>D</b> -PDT to Evaluate						
Item No.		Review Comments	Design Responses	Revision Action	JRT Disp.	Final Disp.
8	P. 300	“In addition, the Isabel Station garage would be designed to accommodate the potential future construction of two additional levels of parking.” Ensure the parking garage, and these two level of potential additional levels, would be outside of the FAA minimum vertical clearance requirements at Livermore Municipal Airport.				
9	Appendix F F.1	The writeup describes the use of traffic counts from other studies for some intersections, ranging from January 2015 to April 2016, and new counts for others from April and May 2016. The Synchro printout, however, shows “2013 Existing.” Reconcile. Are the lane geometries accurately reflected in the analysis? For example, I-580 EB and WB projects have altered the ramps at N. Livermore Avenue.  Consider adding Figure 3.B 1 to this Appendix to aid reference.				

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Letter  
**A2**  
 cont.

SCH 2012082104  
 BART to Livermore Extension BLVX  
 04-CC-680-PM 13.9/22.7

<b>Agency:</b>	Caltrans	<b>Responded By:</b>			
<b>Review Unit:</b>	Design Contra Costa	<b>Date Responded:</b>			
<b>Comments By:</b>	Wing Lok	<b>JRT Meeting Date:</b>			
<b>Date Reviewed:</b>	August, October 2017				
<b>TECHNICAL COMMENT REVIEW AND RESPONSE</b>					
Title: <b>Draft EIR</b>		Submittal: <b>31 JUL 2017</b>			
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Item No.	Review Comments	Design Responses	Revision Action	JRT Disp.	Final Disp.
10	Summary; P. 404 Impact TRAN-5: HOV/express lane freeway segments operating at unacceptable LOS, under 2025 Project Conditions, Tables 3.B-60 and 3.B-61 and associated writeup; Appendix F F.2: LOS E on express lanes: Confirm with MTC's <i>Express Lanes Concept of Operations</i> if it is possible for an express lane to operate worse than LOS C/D (Sections 149.1 and 149.5 of Streets and Highways Code), or it is a theoretically shown. Add clarification or reconcile analysis.				

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Letter  
A2  
cont.

BART TO LIVERMORE EXTENSION PROJECT EIR  
SUMMARY

JULY 2017

TABLE S-5 SUMMARY OF SIGNIFICANT IMPACTS

Impact Summary	No Project Alternative	Conventional BART Project	DMU Alternative	EMU Option	Express Bus/BRT Alternative	Enhanced Bus Alternative	Mitigation Measure Title	Impact Significance after Mitigation
Impact TRAN-20(CU): Intersections operating at unacceptable LOS, under 2040 Cumulative Conditions		✓	✓	✓	✓	✓	<b>Mitigation Measure TRAN-20a:</b> Improvements for Intersections #1, #2, #17, #35, #38, #39, #45, #48, and #50 under 2040 Cumulative Conditions <i>(Conventional BART Project)</i> <b>Mitigation Measure TRAN-20b:</b> Improvements for Intersections #1, #2, #5, #17, #35, #39, #48, and #50 under 2040 Cumulative Conditions <i>(DMU Alternative/EMU Option)</i> <b>Mitigation Measure TRAN-20c:</b> Improvements for Intersections #1, #2, #5, and #50 under 2040 Cumulative Conditions <i>(Express Bus/BRT Alternative)</i> <b>Mitigation Measure TRAN-20d:</b> Improvements for Intersections #1, #2, #5, #17, and #50 under 2040 Cumulative Conditions <i>(Enhanced Bus Alternative)</i>	SU
<b>3.C LAND USE AND AGRICULTURAL RESOURCES</b>								
Impact AG-1: Directly convert Farmland		✓	✓	✓			<b>Mitigation Measure AG-1:</b> Provide Compensatory Farmland under Permanent Protection	SU
Impact AG-3: Conflict with zoning for agricultural use		✓	✓	✓			See <b>Mitigation Measure AG-1</b> (above)	SU
Impact AG-5(CU): Convert or result in conversion of Farmland		✓	✓	✓			No feasible mitigation measures	SU

Any impacts to public ~~off~~ golf course and local parks and playgrounds to accommodate the relocation of I-580?

JULY 2017

BART TO LIVERMORE EXTENSION PROJECT EIR  
 SUMMARY

TABLE S-5 SUMMARY OF SIGNIFICANT IMPACTS

Impact Summary	No Project Alternative	Conventional BART Project	DMU Alternative	EMU Option	Express Bus/BRT Alternative	Enhanced Bus Alternative	Mitigation Measure Title	Impact Significance after Mitigation
<b>3.B TRANSPORTATION</b>								
Impact TRAN-1: Result in a significant delay, safety hazard, or diminished access during construction		✓	✓	✓	✓		Mitigation Measure TRAN-1: Develop and Implement a Construction Phasing and Traffic Management Plan	LSM
Impact TRAN-3: General-purpose lane freeway segments operating at unacceptable LOS, under 2025 Project Conditions		✓	✓	✓	✓		No feasible mitigation measures	SU
Impact TRAN-4: General-purpose lane freeway segments operating at unacceptable LOS, under 2040 Project Conditions		✓	✓	✓			No feasible mitigation measures	SU
Impact TRAN-5: HOV/express lane freeway segments operating at unacceptable LOS, under 2025 Project Conditions			✓	✓			No feasible mitigation measures	SU

① Why would these proposed project and these alternative impact the freeway? The objective of the proposed project is to an alternative to traffic congestion

would relocate I 580 on I-580.

② ~~Impact~~ impact to the Livermore Municipal Airport flight path? ?

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TABLE S-1 KEY COMPONENTS OF THE PROPOSED PROJECT AND BUILD ALTERNATIVES

	Conventional BART Project	DMU Alternative (With EMU Option)	Express Bus/ BRT Alternative	Enhanced Bus Alternative
<b>Components of Proposed Project and Build Alternatives</b>				
<b>BART/Rail Facilities</b>				
Rail Service Extension	<ul style="list-style-type: none"> <li>Extend service 5.5 miles east to Isabel Avenue in I-580 median.</li> <li>Beyond Dublin/Pleasanton Station, convert 0.7 mile of existing tall tracks to mainline tracks, and extend track 4.8 miles to new station.</li> <li>Remove existing BART car storage in I-580 median and relocate to new storage and maintenance facility.</li> </ul>	<ul style="list-style-type: none"> <li>Extend service 5.5 miles east to Isabel Avenue in I-580 median.</li> <li>Beyond Dublin/Pleasanton Station, existing BART tall tracks remain.</li> <li>Install DMU track 5.5 miles from Dublin/Pleasanton Station to new Isabel Station in I-580 median.</li> </ul>	--	--
Dublin/Pleasanton Station	<ul style="list-style-type: none"> <li>No change.</li> </ul>	<ul style="list-style-type: none"> <li>New DMU transfer platform on north side of the Dublin/Pleasanton Station.</li> <li>New 0.3-mile tall track for BART car storage west of station (storage for approximately 20 additional BART cars).</li> </ul>	<ul style="list-style-type: none"> <li>New bus transfer platforms north and south of BART station platform.</li> <li>New direct bus-only ramps from I-580 express lanes to Dublin/Pleasanton Station.</li> <li>Extend tall track 0.1-mile east of station (storage for approximately 10 additional BART cars).</li> </ul>	<ul style="list-style-type: none"> <li>No change.</li> </ul>
Isabel Station	<ul style="list-style-type: none"> <li>BART platform in I-580 median, with pedestrian overcrossings to bus facility at Isabel North and station parking at Isabel South.</li> <li>New two-story end-of-line operations building (houses train supervisory booth and associated staff facilities).</li> </ul>	<ul style="list-style-type: none"> <li>Similar to Proposed Project.</li> </ul>	--	--

*contradicts?*

JULY 2017

BART TO LIVERMORE EXTENSION PROJECT EIR  
 SUMMARY

TABLE S-1 KEY COMPONENTS OF THE PROPOSED PROJECT AND BUILD ALTERNATIVES

	Conventional BART Project	DMU Alternative (With EMU Option)	Express Bus/BRT Alternative	Enhanced Bus Alternative
Parking	<ul style="list-style-type: none"> <li>At Isabel Station, total of 3,412 parking spaces: 2,835 in a seven-level parking structure and 577 parking spaces in two surface parking lots.</li> </ul>	<ul style="list-style-type: none"> <li>At Isabel Station, total of 2,428 parking spaces in a six-level parking structure.</li> </ul>	<ul style="list-style-type: none"> <li>At Dublin/Pleasanton Station, relocate approximately 210 existing parking spaces to either (1) a surface lot adjacent to existing lot south of I-580; or (2) a three-level parking structure on the existing BART lot south of I-580.</li> <li>At Laughlin Road, new surface parking lot with approximately 230 parking spaces.</li> </ul>	--
Storage and Maintenance Facility (for rail vehicles)	<ul style="list-style-type: none"> <li>Extend tail tracks 1.9 miles from Isabel Station to 68-acre storage and maintenance facility north of I-580.</li> <li>Capacity for storage of approximately 172 BART vehicles.</li> <li>Westbound I-580 underpass for tail tracks (from median to north of I-580).</li> <li>Bridges over Arroyo las Positas and Cayetano creeks and hillside tunnel for tail tracks.</li> </ul>	<ul style="list-style-type: none"> <li>Extend tail tracks 1.8 miles from Isabel Station to 32-acre storage and maintenance facility north of I-580.</li> <li>Capacity for approximately 12 DMU vehicles (six married pairs).</li> <li>Westbound I-580 underpass for tail tracks (from median to north of I-580).</li> <li>Bridges over Arroyo las Positas and Cayetano creeks and hillside tunnel for tail tracks.</li> </ul>	--	--
Wayside Facilities (power and communications support, such as power substations and switching stations)	<ul style="list-style-type: none"> <li>Wayside facilities along the project corridor at Croak Road and at Kitty Hawk Road/Isabel Avenue.</li> </ul>	<ul style="list-style-type: none"> <li>Wayside facilities along the project corridor at Croak Road and at Kitty Hawk Road/Isabel Avenue.</li> </ul>	--	--

*Discuss changes to existing parking @ Dublin station*

22

*Ensure these facilities propose outside state R/W*

23

BART TO LIVERMORE EXTENSION PROJECT EIR  
CHAPTER 3 ENVIRONMENTAL ANALYSIS  
B. TRANSPORTATION

JULY 2017

TABLE 3.B-68 INTERSECTION LEVEL OF SERVICE AND CHANGE IN DELAY, 2025 CUMULATIVE CONDITIONS

*Why is LOC worse with Conventional BART and DMU/EMU?*

#	Intersection	Time	No Project Alternative		Conventional BART Project		Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
12	Hacienda Drive & I-580 EB Ramps	AM	17.4	B	20.8	C	17.0	B	15.9	B	16.2	B
		PM	20.3	C	20.2	C	16.2	B	29.6	C	21.7	C
13	Hacienda Drive & Owens Road	AM	27.5	C	18.7	B	19.7	B	27.8	B	19.7	B
		PM	32.5	C	31.7	C	39.5	D	30.3	C	33.8	C
14	Tassajara Road & Dublin Boulevard <sup>a</sup>	AM	43.0	D	40.9	D	41.7	D	43.5	D	43.4	D
		PM	42.0	D	41.6	D	44.8	D	43.2	D	45.3	D
15	Tassajara Road & I-580 WB Ramps <sup>a</sup>	AM	8.8	A	9.5	A	8.8	A	10.1	B	10.2	B
		PM	9.5	A	9.4	A	10.0	A	9.5	A	9.7	A
16	Santa Rita Road & I-580 EB Ramps/Pimlico Drive	AM	17.8	B	18.3	B	17.9	B	18.3	B	18.3	B
		PM	30.6	C	30.6	C	37.5	D	32.9	C	32.8	C
17	Santa Rita Road & Valley Avenue	AM	21.7	C	21.7	C	21.9	C	21.8	C	21.8	C
		PM	45.8	D	50.2	D	48.8	D	49.5	D	49.9	D
18	Bernal Avenue/Valley Avenue & Stanley Boulevard	AM	37.4	D	37.3	D	37.3	D	37.4	D	37.4	D
		PM	32.8	C	32.7	C	32.5	C	32.8	C	32.8	C
19	Fallon Road & Dublin Boulevard <sup>a</sup>	AM	48.2	D	41.7	D	44.9	D	48.6	D	50.7	D
		PM	21.4	C	20.6	C	21.7	C	21.6	C	22.1	C
20	El Charro Road/Fallon Road & I-580 WB Ramps <sup>a</sup>	AM	8.0	A	8.2	A	8.1	A	9.0	A	9.0	A
		PM	9.4	A	9.4	A	9.1	A	8.8	A	9.1	A
21	El Charro Road & I-580 EB Ramps	AM	8.2	A	8.6	A	8.6	A	9.7	A	9.8	A
		PM	8.2	A	8.2	A	9.1	A	8.8	A	8.1	A
22	El Charro Road & Stoneridge Drive/Jack London Boulevard	AM	26.8	C	17.0	B	17.2	B	20.5	C	20.6	C
		PM	18.3	B	18.1	B	18.0	B	18.3	B	16.9	B
23	Stanley Boulevard & El Charro Road	AM	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>
		PM	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>
24	Airway Boulevard/Driveway & North Canyons Parkway	AM	78.7	E	53.9	D	130.4	F	84.4	F	86.4	F
		PM	13.6	B	12.2	B	26.5	C	14.0	B	14.8	B
25	Airway Boulevard & I-580 WB Ramps	AM	20.8	C	18.4	B	23.7	C	21.4	C	21.4	C
		PM	5.4	A	5.1	A	12.3	B	5.4	A	4.2	A
26	Airway Boulevard & I-580 EB Ramps/Kitty Hawk Road	AM	28.6	C	40.5	D	43.2	D	31.1	C	31.2	C
		PM	27.9	C	25.8	C	32.5	C	27.6	C	23.4	C

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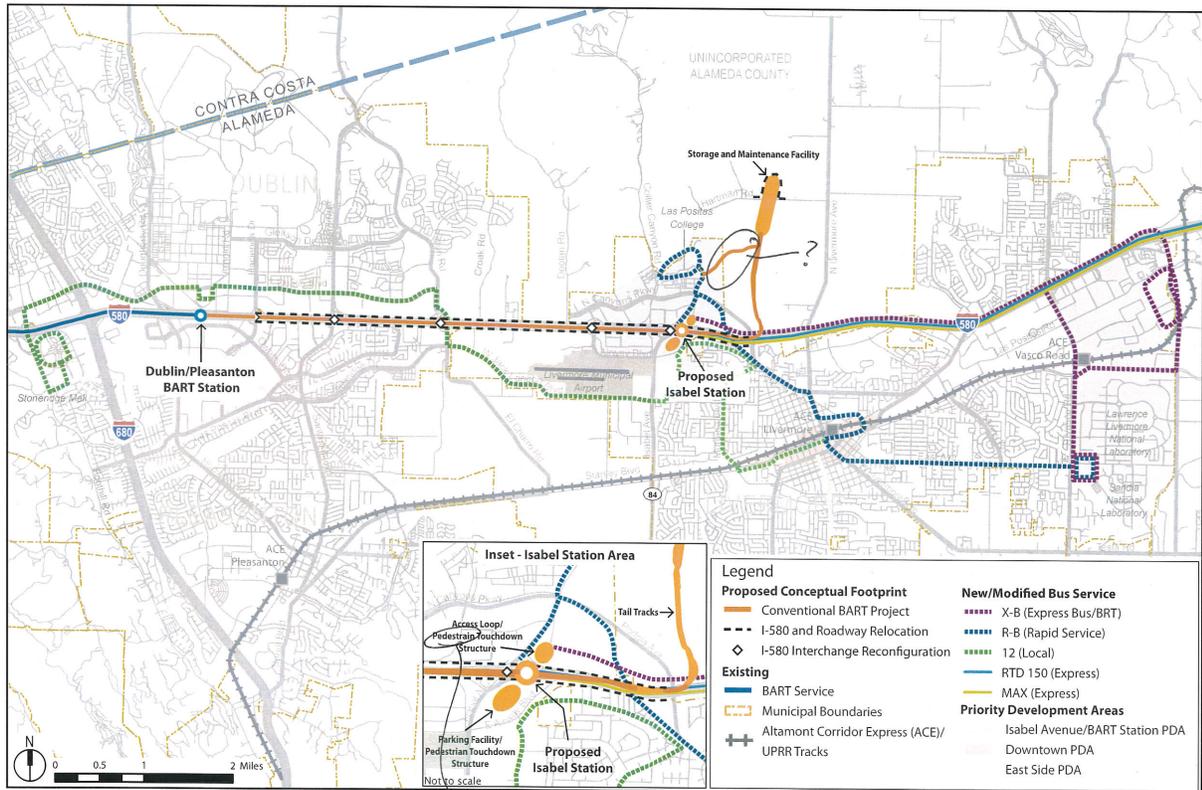
JULY 2017

BART TO LIVERMORE EXTENSION PROJECT EIR  
CHAPTER 3 ENVIRONMENTAL ANALYSIS  
B. TRANSPORTATION

TABLE 3.B-68 INTERSECTION LEVEL OF SERVICE AND CHANGE IN DELAY, 2025 CUMULATIVE CONDITIONS

#	Intersection	Time	DMU									
			No Project Alternative		Conventional BART Project		Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
27	Collier Canyon Road & North Canyons Parkway/Portola Avenue	AM	22.9	C	24.4	C	24.0	C	25.6	C	23.8	C
		PM	25.6	C	20.7	C	26.0	C	25.7	C	26.7	C
28	Isabel Avenue/Campus Hill Drive & Portola Avenue	AM	27.9	C	28.0	C	28.0	C	28.1	C	28.1	C
		PM	25.0	C	25.5	C	27.1	C	25.2	C	25.6	C
29	Isabel Avenue & I-580 WB Ramps	AM	10.8	B	17.1	B	16.2	B	11.3	B	11.3	B
		PM	9.9	A	9.8	A	9.7	A	9.9	A	12.6	B
30	Isabel Avenue & I-580 EB Ramps	AM	6.6	A	7.8	A	7.5	A	5.9	A	6.0	A
		PM	6.6	A	8.9	A	9.4	A	6.6	A	5.8	A
31	Isabel Avenue & Airway Boulevard	AM	26.7	C	51.7	D	28.7	C	26.9	C	27.4	C
		PM	31.7	C	67.2	E	41.4	D	30.7	C	30.5	C
32	Isabel Avenue & Jack London Boulevard	AM	37.1	D	34.5	C	34.7	C	34.4	C	34.3	C
		PM	43.1	D	51.7	D	45.8	D	42.4	D	46.5	D
33	Isabel Avenue Connector & Stanley Boulevard	AM	15.7	B	15.7	B	15.8	B	16.2	B	15.8	B
		PM	15.8	B	15.9	B	19.7	B	15.0	B	17.8	B
34	Murrieta Boulevard/Driveway & Portola Avenue	AM	14.1	B	20.5	C	14.9	B	14.1	B	14.1	B
		PM	20.2	C	44.2	D	28.5	C	20.3	C	22.2	C
35	Murrieta Boulevard & Jack London Boulevard	AM	17.9	B	17.9	B	17.9	B	17.8	B	17.8	B
		PM	20.5	C	27.7	C	26.1	C	20.5	C	23.4	C
36	Murrieta Boulevard & Stanley Boulevard	AM	40.3	D	38.3	D	37.7	D	40.3	D	37.9	D
		PM	29.3	C	29.4	C	29.4	C	29.3	C	29.4	C
37	Livermore Avenue & I-580 WB Ramps	AM	21.4	C	24.7	C	21.8	C	21.4	C	21.4	C
		PM	39.3	D	14.4	B	20.2	C	19.4	B	13.2	B
38	Livermore Avenue & I-580 EB Ramps	AM	17.5	B	10.9	B	17.8	B	17.5	B	17.5	B
		PM	108.2	F	117.1	F	102.2	F	109.8	F	107.7	F
39	Livermore Avenue & Portola Avenue	AM	39.3	D	46.9	D	42.6	D	40.8	D	41.9	D
		PM	37.3	D	52.3	D	44.1	D	36.3	D	40.5	D
40	First Street/Springtown Boulevard & I-580 WB Ramps	AM	16.3	B	12.4	B	11.7	B	16.3	B	16.3	B
		PM	7.5	A	7.5	A	12.7	B	7.4	A	5.2	A
41	First Street & I-580 EB Ramps	AM	9.8	A	9.9	A	10.1	B	9.9	A	9.8	A
		PM	30.4	C	32.0	C	36.0	D	30.5	C	37.6	D

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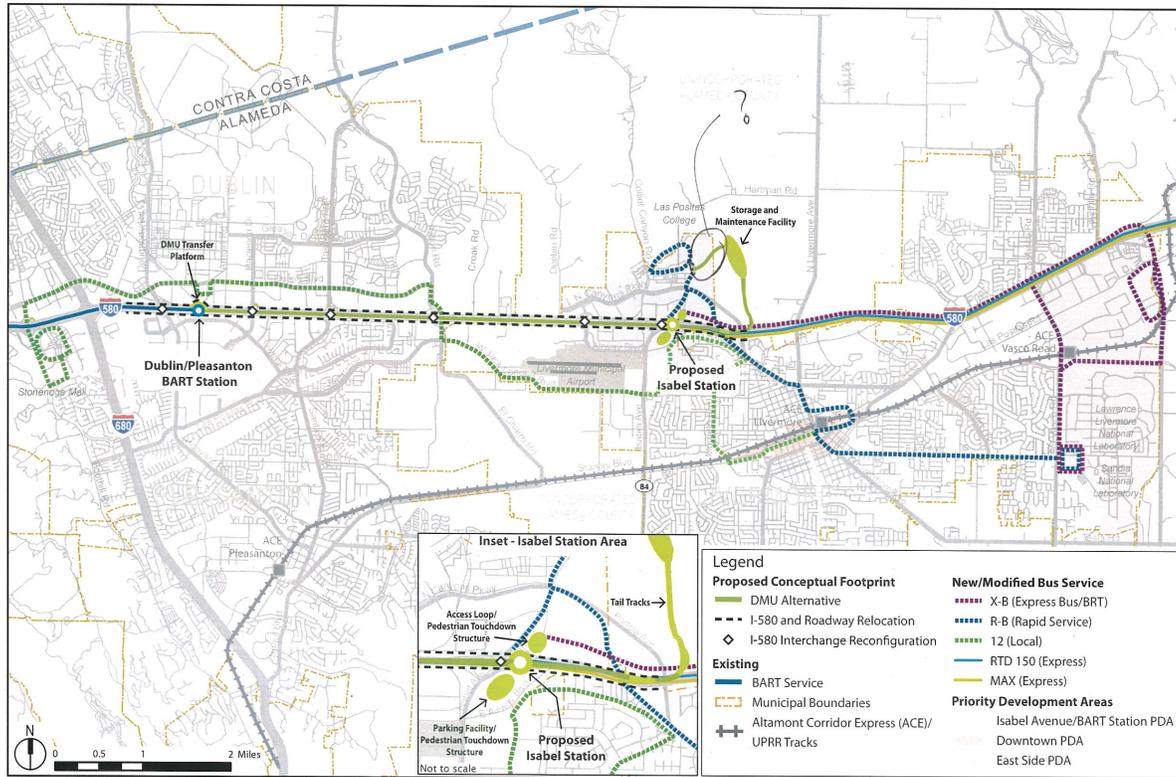
26

Source: Arup, 2017a,b

**BART** BART to Livermore Extension Project EIR

*Sip.*

Figure S-1  
Conventional BART Project  
Overview



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Source: Arup, 2017a,b.

Figure S-2  
 DMU Alternative  
 Overview

**RESPONSE A2****Issa Bouri, California Department of Transportation, District 4**

- A2-1 Thank you for providing comments on the Draft EIR. This comment is informational in nature and introduces other comments; responses to specific comments are provided in subsequent responses.
- A2-2 As noted in the comment and described in Chapter 2, the existing freeway lane configuration would be moved outward and relocated to Caltrans standards, and would have the same number of travel lanes and express lanes as under existing conditions.
- As described on page 77 of the Draft EIR (Chapter 2, Project Description), portions of Caltrans ROW and I-580 would be relocated to accommodate the new BART ROW in the median, depending on the project that is adopted. Existing freeway interchanges, on- and off-ramps, freeway structures such as overcrossings, and surface frontage roads would need to be reconfigured to accommodate the increased ROW width. The alignment of the I-580 relocation, as well as I-580 interchange and roadway reconfigurations, are described throughout the Draft EIR for the Proposed Project and each of the Build Alternatives.
- A2-3 Chapter 2, Project Description, of the Draft EIR provides sufficient detail for purposes of analyzing environmental impacts as required by CEQA, based on preliminary engineering design, which includes design of I-580 and other roadway modifications for the Proposed Project, the DMU Alternative/EMU Option, and the Express Bus/BRT Alternative. See the Related Documents section of the BART website at [www.bart.gov/about/projects/liv/environment](http://www.bart.gov/about/projects/liv/environment).
- Once the BART Board adopts a project based on its review of the Proposed Project and Alternatives, subsequent engineering design will be developed for the adopted project, including for the I-580 interchange modifications. It would be premature for BART to commit resources to completing detailed final design of a project prior to completion of CEQA review.
- A2-4 The significance of impacts associated with ROW acquisition for the relocation of I-580 and interchange/roadway modifications as well as other components of the project (rail alignment, storage and maintenance facility, etc.) is addressed in the Draft EIR (Section 3.D, Population and Housing). The Draft EIR further evaluated land use impacts in Section 3.C, Land Use and Agricultural Resources, including the relocation of I-580 and required interchange modifications. No significant land use impacts were identified. It is not

necessary to repeat this information in the transportation section. For additional information, Appendix B of the Draft EIR illustrates the footprint of the Proposed Project, DMU Alternative, and Express Bus/BRT Alternative. Appendix C provides ROW information by parcel for the Proposed Project, DMU Alternative, and Express Bus/BRT Alternative.

A2-5 Wayside facilities (including control systems and electrical service points) for the Proposed Project are described beginning on page 109 of the Project Description and on page 136 for the DMU Alternative/EMU Option. The ROW for wayside facilities is included in the ROW described for the Proposed Project and DMU Alternative/EMU Option in Appendix C. The cost of ROW acquisition for these facilities is included in the cost estimate presented in Chapter 2.

A2-6 Section 3.N, Public Health and Safety, of the Draft EIR analyzes potential impacts related to the operation of the Livermore Municipal Airport. As shown in Figure 3.N-2 (Livermore Municipal Airport Zones) on page 1329 of the Draft EIR, portions of the Proposed Project and DMU Alternative/EMU Option would be located within the airport's safety zones. Impact PHS-9 (Located within an Airport Land Use Plan and Result in a Significant Safety Hazard), starting on page 1378, provides an analysis of the potential impacts of the Proposed Project and DMU Alternative with respect to the airport land use plan and safety. Portions of Proposed Project and the DMU Alternative are in the following zones:

- The Airport Influence Area is the area in which current or future airport-related noise, overflight, safety, and/or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses. The majority of I-580 Corridor Area from Tassajara Road to Portola Avenue, Isabel North Area, Isabel South Area, and Cayetano Creek Area, including the DMU Alternative's storage and maintenance facility are located within the Airport Influence Area.
- The Airport Protection Area prohibits new residential land use designations, or the intensification of existing residential land uses, while non-residential land uses may be allowed as long as they are consistent with Livermore Municipal Airport Land Use Compatibility Plan criteria. Portions of the I-580 Corridor Area from Fallon Road to just past Isabel Avenue, Isabel North Area, and Isabel South Area are located within the Airport Protection Area.
- Zone 3, Inner Turning Zone, acknowledges potential risk associated with turn movements on landing or departure. The Isabel South Area is located within Zone 3.

- Zone 6, Traffic Pattern Zone, limits the types of land uses allowed. Portions of the I-580 Corridor Area from Fallon Road to just past Isabel Avenue, Isabel North Area, and Isabel South Area are located within Zone 6.
- Zone 7, Other Airport Environ/Horizontal Surface/Outer Conical Surface, prohibits hazards to flight through land use restrictions. The Cayetano Creek Area, including the DMU Alternative's storage and maintenance facility, is located within Zone 7. The storage and maintenance facility for the Proposed Project is located just outside of Zone 7.

The EIR describes the process for Airport Land Use Commission consistency review that is likely to be required. Based on the initial review of the proposed building heights and the building locations relative to the Airport Land Use Compatibility Plan (ALUCP) and Federal Aviation Administration regulations, the Proposed Project and DMU Alternative would not result in a safety hazard for people residing or working in the project area and would be consistent with the ALUCP, or consistent with the ALUCP and subject to compliance with conditions. As described in the Draft EIR, the Proposed Project and DMU Alternative would result in less-than-significant impacts related to airports and airport safety.

A2-7 The commenter appears to suggest that additional parking is necessary at the Dublin/Pleasanton Station to accommodate demand generated by the Proposed Project or DMU Alternative. On the contrary, the Proposed Project and DMU Alternative would have the effect of reducing demand in the first instance. This is because the parking structure proposed under the Proposed Project and DMU Alternative/EMU Option would absorb a substantial portion of the current parking demand originating from areas relatively close to the proposed Isabel Station. Accordingly, no additional parking is proposed at the Dublin/Pleasanton Station under the Proposed Project or the DMU Alternative/EMU Option.

Notwithstanding the reduction in demand, enough unsatisfied demand exists to absorb spaces freed up by the Proposed Project. Thus, parking analysis based on the BLVX Travel Demand Model demonstrated that demand would continue to be high and existing parking spaces at the Dublin/Pleasanton Station would continue to be fully occupied by BART patrons with the Proposed Project or Build Alternatives, as noted in the Draft EIR on page 300.

Under Cumulative Conditions, approximately 540 new parking spaces were assumed with implementation of the Dublin/Pleasanton Station Parking Expansion Project, described on page 226 and 292 of the Draft EIR. The Dublin/Pleasanton Station Parking Expansion was a separate project previously proposed by BART,

which is no longer under consideration, although a different garage project is under consideration by the County. See Master Response 9 for additional information regarding the Dublin/Pleasanton Station Parking Expansion.

A2-8 The comment does not identify any specific differences between the online BART web version and the CD version of the Draft EIR. BART reviewed the files noted (Section 3.B, Transportation, and Section 3.E, Visual Resources) and did not find any differences between the CD version and the web version of these documents.

A2-9 The comment does not identify any specific differences between the web and CD versions of the Draft EIR. BART reviewed the file noted by the commenter (Appendix B) and did not find any differences between the CD version and the web version of this document.

A2-10 The comment correctly notes that there currently are four existing westbound general-purpose lanes and one express lane as seen from the interchange of I-580 with Fallon Road/El Charro Road (view looking eastward). The visual simulations for the Proposed Project and DMU Alternative/EMU Option have been revised to show this lane configuration, as the proposed lane configuration will be the same as the existing lane configuration.

The cover illustrations for the Draft EIR and other images with this viewpoint have been revised to show these corrections. The revised cover illustration for Volume 1 of the Draft EIR is shown on the following page. The revised covers of Volumes 2 and 3 are provided in Section 5 of this document. See also Response to Comment A2-14 regarding Table 3.B-13 (I-580 Lane Configuration in 2014 and 2025/2040, No Project Conditions).

A2-11 The Proposed Project will meet applicable required federal and State standards. BART will coordinate with the Alameda County Transportation Commission (Alameda CTC) as needed regarding design and use of the express lanes.

A2-12 The current design is at a preliminary level of engineering, and the ROW needs identified reflect that level of design. BART will coordinate with Caltrans at the time a project is adopted and subsequent engineering is developed to ensure that the reconstructed I-580 meets applicable design standards or to request applicable design exceptions.

A2-13 As stated on page 260 of the Draft EIR (Section 3.B, Transportation), Caltrans endeavors to maintain a target level of service (LOS) at the transition between LOS C and LOS D on State highway facilities; however, Caltrans recognizes that achieving LOS C/LOS D may not always be feasible based on Caltrans 2002 Guide for the Preparation of Traffic Studies.

# BART TO LIVERMORE EXTENSION PROJECT DRAFT ENVIRONMENTAL IMPACT REPORT

Volume 1 of 3

Summary through Section 3.H Hydrology and Water Quality

State Clearinghouse No. 2012082104



San Francisco Bay Area Rapid Transit District

July 2017

Revised Draft EIR Cover

The analysis in the Draft EIR uses a standard of LOS E or better during peak hours as the planning objective for the evaluation of potential impacts on Caltrans facilities, as that is the standard set by Alameda CTC for Caltrans facilities in the study area based on the Alameda CTC 2015 Congestion Management Program.

- A2-14 Regarding the first bullet, Table 3.B-13 (I-580 Lane Configuration in 2014 and 2025/2040, No Project Conditions) on page 275 of the Draft EIR has been updated to identify the eastbound express lane as a high-occupancy vehicle (HOV) lane. Express lanes are defined on pages 235 and 275 of the Draft EIR as toll lanes allowing carpool users, defined as two or more people per vehicle, to access the lanes without paying a toll. This adequately captures the meaning of managed lanes noted by the commenter.

Table 3.B-13 on page 275 of the Draft EIR has been revised as follows:

**TABLE 3.B-13 I-580 LANE CONFIGURATION IN 2014 AND 2025/2040, NO PROJECT CONDITIONS**

#	To	From	2014		2014		2025/2040		2025/2040	
			General Purpose Lanes		Express Lanes <sup>1</sup>		General Purpose Lanes		Express Lanes	
			WB	EB	WB	EB <sup>2</sup>	WB	EB	WB	EB
1	Dougherty Road/Hopyard Road	Hacienda Drive	5	7	0	0	5	7	1	0
2	Hacienda Drive	Tassajara Road/Santa Rita Road	5	5	0	1	5	5	1	1
3	Tassajara Road/Santa Rita Road	Fallon Road/El Charro Road	5	5	0	1	5	5	1	1
4	Fallon Road/El Charro Road	Airway Boulevard	4	5	0	1	5	5	1	2
5	Airway Boulevard	Isabel Avenue	4	5	0	1	5	5	1	2
6	Isabel Avenue	Livermore Avenue	4	4	0	1	5	5	1	2
7	Livermore Avenue	Springtown Boulevard/First Street	4	4	0	1	5	5	1	2
8	Springtown Boulevard/First Street	Vasco Road	4	5	0	1	5	5	1	2
9	Vasco Road	Greenville Road	4	4	0	1	4	4	1	1
10	Greenville Road	Carroll Road/Flynn Road	4	4	0	0	4	5	0	0

Notes:

<sup>1</sup> Express Lanes is a generic term referring to both high-occupancy vehicle lanes and high-occupancy toll lanes.

<sup>2</sup> In 2014, the eastbound direction of I-580 included an HOV lane only; the conversion of that lane from HOV to express lane (i.e., allowing single drivers to pay a toll to use it), occurred in 2016.

EB = eastbound; WB = westbound.

Current and future freeway configuration assumptions were agreed upon by BART and Alameda CTC.

Source: Alameda CTC, BART, and City of Livermore, 2016.

Regarding the second bulleted comment, the list of I-580 freeway improvements on page 274 has been revised to include the new express lanes constructed between Fallon Road/El Charro Road and Vasco Road.

Page 274 of the Draft EIR has been revised to add a new bulleted item to the (1) Freeway Segments list :

- Construct new express lanes between Fallon Road/El Charro Road and Vasco Road in the westbound and eastbound direction

Regarding the third bulleted comment, the I-580/San Ramon/Foothill Road interchange and auxiliary lanes referred to in the comment were completed after the existing year (2013) used in the analysis, so the sentence on page 274 referenced by the comment is correct as written.

A2-15 As described in Chapter 2, Project Description and mentioned elsewhere in the Draft EIR, as referenced by the commenter, the Isabel Station parking garage would be designed to accommodate the potential future construction of two additional levels of parking for both the Proposed Project and DMU Alternative/EMU Option on pages 106 and 135, respectively. However, these additional two levels are not part of the Proposed Project or Build Alternatives and therefore are not analyzed in the Draft EIR. Rather, the garage is designed so as not to preclude BART's ability to add more levels in a later, separate project. Additional, subsequent environmental analysis, including evaluation of vertical clearance, would be undertaken if BART were to pursue construction of additional parking levels in a future project.

Pages 106 (end of first full paragraph) and 135 (end of third full paragraph) of the Draft EIR are revised to clarify this issue:

However, these additional two levels are not part of the Proposed Project or Build Alternatives and therefore are not analyzed in the Draft EIR. Additional environmental analysis would be undertaken if BART were to pursue construction of additional parking levels in a separate project at a later time.

A2-16 The analysis used 2013 as the existing year to establish an environmental baseline. However, because analysis and documentation took place between 2016 to 2017, the analysis was supplemented by recent counts from 2015 and 2016 which confirmed that the representation of existing conditions was conservative. All intersection vehicle volume counts used to analyze existing conditions, including the recent counts, are reported in Appendix F1 of the

Draft EIR. Roadway configuration assumptions, accordingly, in the analysis are based on 2013 conditions.

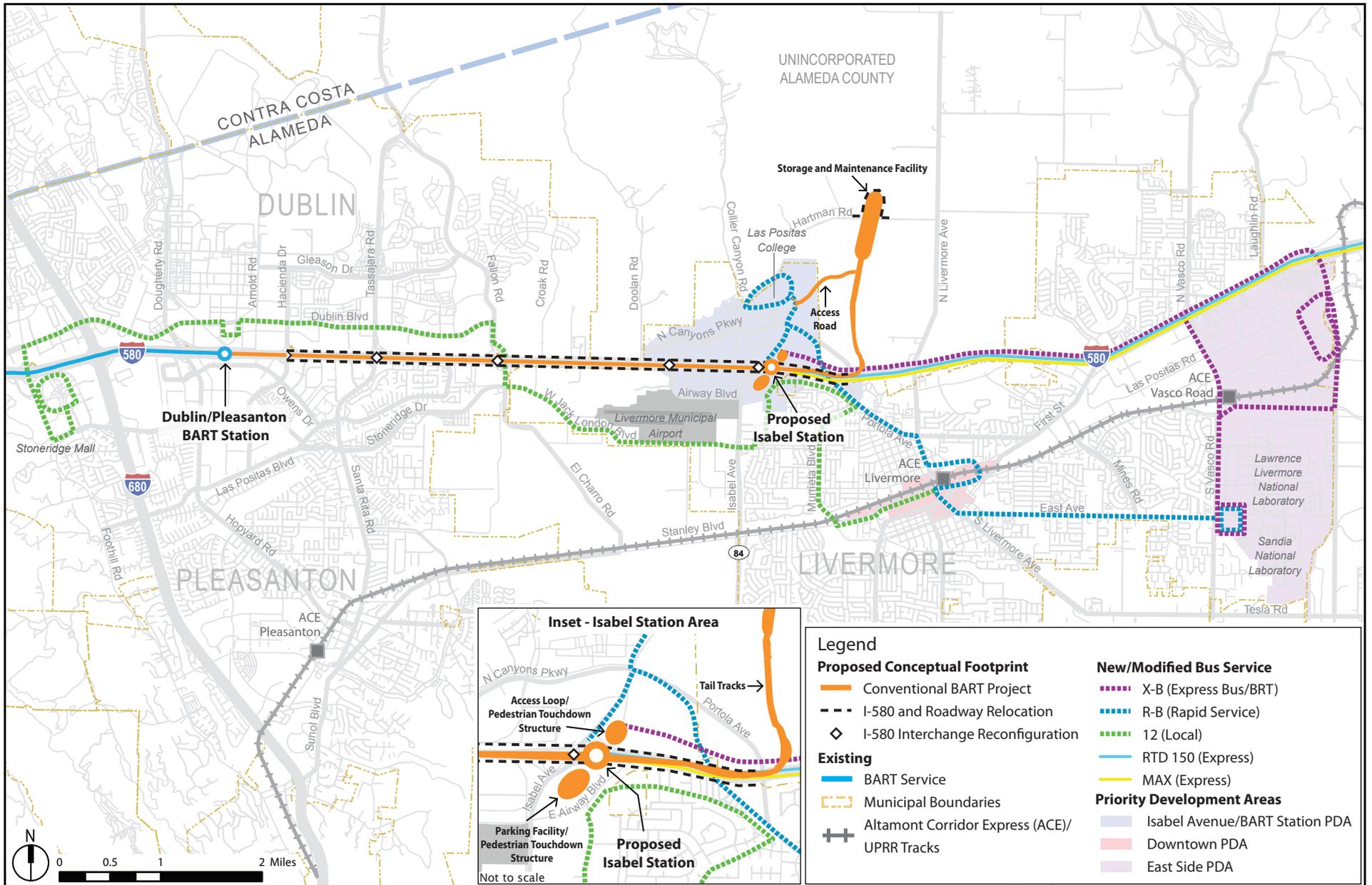
- A2-17 The Draft EIR used industry standard methodology for analyzing freeway LOS by adding projected levels of traffic based on demand and capacity. For express lanes, this standard methodology can produce results showing a worse LOS than would be expected to actually occur for express lanes because the methodology does not account for active management of the express lanes to guarantee a particular LOS. In practice, Caltrans may make operational adjustments in response to increased traffic levels.
- A2-18 Potential impacts to parks and recreational facilities are analyzed in the Draft EIR (Section 3.O, Community Services) and are described in Impact CS-2 (Cause Substantial Deterioration of Recreational Facilities or Require Construction or Expansion of Recreational Facilities) and Impact CS-4(CU) (Cause Substantial Deterioration of Recreational Facilities or Require Construction or Expansion of Recreational Facilities under Cumulative Conditions). The relocation of the I-580 ROW for the Proposed Project and the DMU Alternative/EMU Option would require approximately 17 feet of the northernmost area of Las Positas Golf Course. This area of the golf course consists of landscaping and is not part of the field of play. The reduction of open space in this area is not anticipated to affect the use or functionality of the golf course. Under the Express Bus/BRT Alternative, approximately 10 feet of the Dublin Sports Ground, at the southeast corner of the facility, would be required for the relocation of the I-580 ROW. This reduction of landscaped area within the recreational facility is not anticipated to affect its use or functionality. For each of these facilities, BART would be required to purchase the necessary ROW and compensate the cities. The Draft EIR determined that the Proposed Project and Build Alternatives would not result in any significant impacts related to recreational facilities.
- A2-19 The Proposed Project and Alternatives would result in significant impacts to some freeway segments. These impacts are described in Draft EIR Section 3.B, Transportation. See Impacts TRAN-3 (General Purpose Freeway Segments under 2025 Project Conditions), TRAN-4 (General Purpose Freeway Segments under 2040 Project Conditions), and TRAN-5 (HOV/Express Lane Freeway Segments under 2025 Project Conditions). The provision of BART service at the Isabel Station would attract new park-and-ride automobile trips from the San Joaquin Valley and from the city of Livermore. Drivers would access the Isabel Station via I-580, resulting in some freeway segments to the east between Isabel Avenue and the Altamont Pass experiencing an increase in traffic volumes. The project would reduce volumes on I-580 west of Isabel Avenue, because people

who would have otherwise driven to the Dublin/Pleasanton Station would modify their route and drive to the proposed Isabel Station. See page 322 of the Draft EIR and Figure 3.B-9 (Traffic Pattern Changes, AM Peak Period) on page 321 for further information.

- A2-20 See Response to Comment A2-6.
- A2-21 The DMU Alternative/EMU Option would not affect the existing BART tail tracks that are east of the Dublin/Pleasanton Station, which would remain for BART car storage. However, new BART car storage tracks would be added in the widened median between the two mainline tracks to the west of the Dublin/Pleasanton Station. The new storage tracks would extend approximately 0.3 mile to the west and accommodate the 20 additional BART cars necessary for the increased patronage expected under DMU Alternative operations. See Figure 3.E-15 (DMU Alternative – Dougherty Road Overpass) on page 604 of the Draft EIR, which provides a visual simulation of the proposed storage tracks west of the station.
- A2-22 See Response to Comment A2-7. The Proposed Project and DMU Alternative/EMU Option do not include additional parking at the existing Dublin/Pleasanton Station.
- A2-23 As the commenter noted in Comment A2-5, ROW will be needed for wayside facilities, such as the power and communication support and power substations. Major wayside facilities are outside of Caltrans ROW. A few wayside facilities are proposed on land owned by Caltrans, as depicted in preliminary engineering drawings previously shared with Caltrans.
- A2-24 The intersections noted in the comment, including Hacienda Drive & I-580 Eastbound Ramp (Intersection #12), Santa Rita Road & I-580 Eastbound Ramps (Intersection #16), and Airway Boulevard & I-580 westbound ramps (Intersection #25), are locations where a reduction in traffic volumes would be expected with implementation of the Proposed Project, as the model indicates the trips on this segment of I-580 would be attracted to the Isabel Station instead of the Dublin/Pleasanton Station, as described on page 322 of the EIR. The analysis, however, shows increases in delay at these intersections. There are multiple factors contributing to these increases, including cases where volumes have actually decreased but lack of signal timing optimization in the analysis led to reporting of higher delays, as well as cases in which volume increases predicted by the model at that particular location are within the model's margin of error but nonetheless register an increase in delay. The increases in delay for the intersections under 2025 Cumulative Conditions

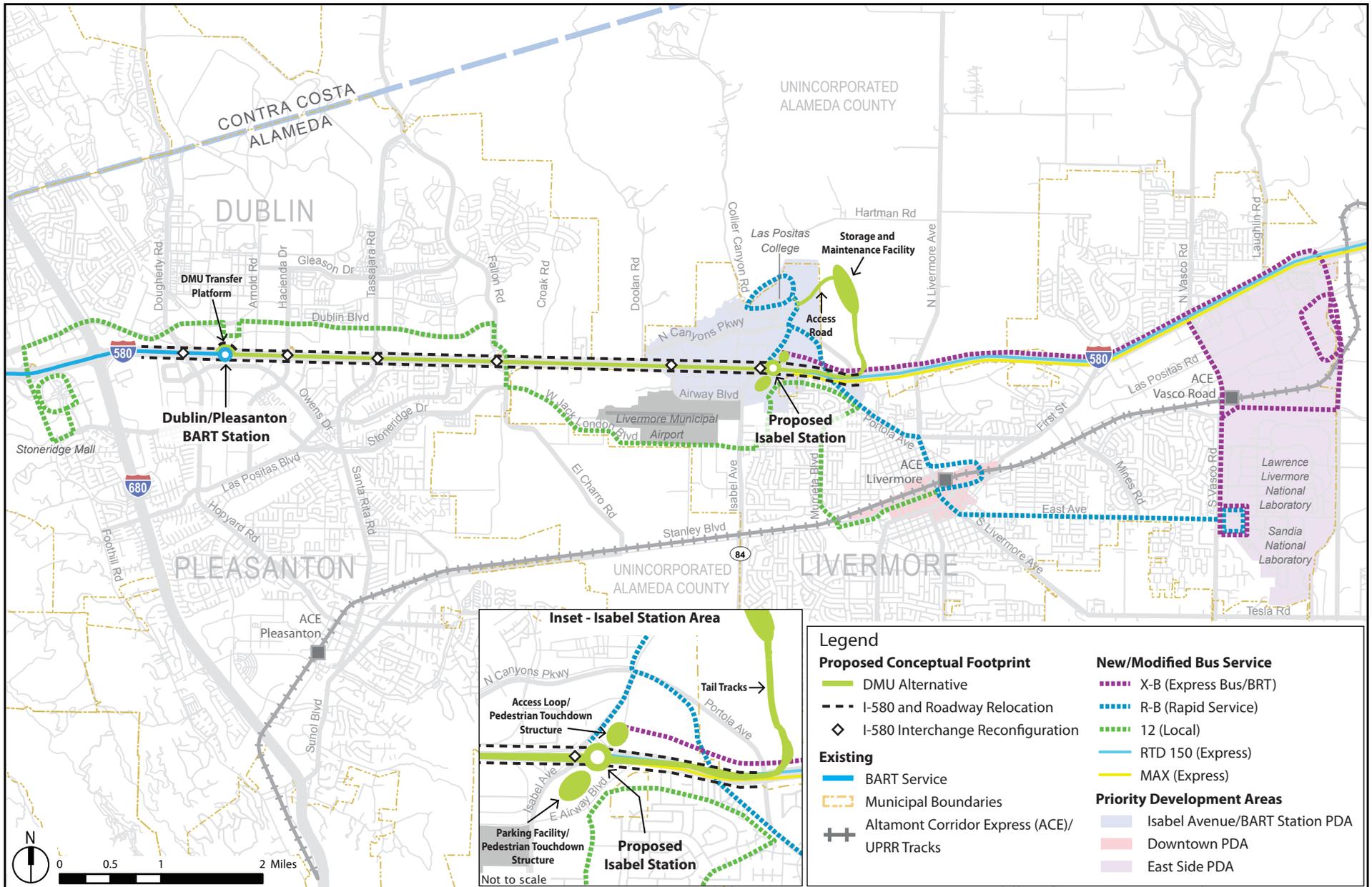
noted in the comment are small, and these intersections are not identified as having significant impacts.

- A2-25 The intersections noted in the comment—including Isabel Avenue & I-580 Westbound Ramps (Intersection #29), Isabel Avenue & I-580 Ramps (Intersection #30), Livermore Avenue & I-580 Westbound Ramps (Intersection #37), and Livermore Avenue & I-580 Eastbound Ramps (Intersection #38)—are located within the vicinity of the proposed Isabel Station for the Proposed Project or along the I-580 corridor east of the Isabel Station. At these locations, as described on page 322 of the Draft EIR, additional trips attracted to the Isabel Station would increase vehicle trips in this portion of the roadway network, resulting in higher intersection delays.
- A2-26 Thank you for your comment. Figure S-1 (Conventional BART – Overview) has been revised to fix the spelling error and add labels for the access road to the storage and maintenance facility.
- A2-27 Thank you for your comment. Figure S-2 (DMU Alternative – Overview) has been revised to add labels for the access road to the storage and maintenance facility.



Source: Arup, 2017a,b.

Figure S-1  
 Conventional BART Project  
 Overview



Source: Arup, 2017a,b.

Figure S-2  
 DMU Alternative  
 Overview

Letter  
A3



Edmund G. Brown Jr.  
Governor

STATE OF CALIFORNIA  
Governor's Office of Planning and Research  
State Clearinghouse and Planning Unit



Ken Alex  
Director

October 17, 2017

Andrew Tang  
San Francisco Bay Area Rapid Transit Authority  
300 Lakeside Drive, 22nd Floor  
Oakland, CA 94612

Subject: BART to Livermore Extension Project  
SCH#: 2012082104

Dear Andrew Tang:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on October 16, 2017, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan  
Director, State Clearinghouse

1

Letter  
**A3**  
 cont.

**Document Details Report  
 State Clearinghouse Data Base**

**SCH#** 2012082104  
**Project Title** BART to Livermore Extension Project  
**Lead Agency** Bay Area Rapid Transit District

**Type** EIR Draft EIR  
**Description** Note: Extended

The BART District, in partnership with the City of Livermore, would extend transit service 5.5 miles along the median of Interstate 580 from existing Dublin/Pleasanton Station to a new station in the median of I-580 just east of Isabel Avenue. The Proposed Project also includes new and modified bus services linking BART to activity centers in Livermore. The Proposed Project includes storage and maintenance facilities.

**Lead Agency Contact**

**Name** Andrew Tang  
**Agency** San Francisco Bay Area Rapid Transit Authority  
**Phone** 510 874 7327 **Fax**  
**email**  
**Address** 300 Lakeside Drive, 22nd Floor  
**City** Oakland **State** CA **Zip** 94612

**Project Location**

**County** Alameda  
**City** Livermore, Dublin, Pleasanton  
**Region**  
**Lat / Long** 37° 42' 02" N / 121° 48' 03" W  
**Cross Streets** I-580 with Dougherty Dr., Hacienda Dr., Fallon Rd., Isabel Ave., Portola Ave.  
**Parcel No.** Multiple  
**Township** **Range** **Section** **Base**

**Proximity to:**

**Highways** I-580, SR 84  
**Airports** Livermore Municipal  
**Railways** ACE, UPRR  
**Waterways** Tassajara Creek, Las Positas Creek, Cayetano Creek  
**Schools** Las Posita College  
**Land Use** Multiple designations: commercial, mixed use, public/quasi-public, light industrial, agricultural, residential

**Project Issues** Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects; Aesthetic/Visual; Forest Land/Fire Hazard

**Reviewing Agencies** Resources Agency; Department of Fish and Wildlife, Region 3; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 4; Air Resources Board, Transportation Projects; Regional Water Quality Control Board, Region 2; Native American Heritage Commission; Public Utilities Commission

**Date Received** 07/31/2017 **Start of Review** 07/31/2017 **End of Review** 10/16/2017

Note: Blanks in data fields result from insufficient information provided by lead agency.

1 cont.

**RESPONSE A3**

**Governor's Office of Planning and Research, State Clearinghouse and Planning Unit**

A3-1      Thank you for your comment. This comment is informational in nature and does not specifically address the adequacy of the EIR; no response is necessary.

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Lawrence Livermore National Laboratory

October 9, 2017

San Francisco Bay Area Rapid Transit District  
300 Lakeside Drive  
Oakland, CA 94612

Re: BART to Livermore Extension Project

Dear President Saltzman and district directors

Thank you for this opportunity to comment on the BART to Livermore Extension Project Draft Environmental Impact Report.

Lawrence Livermore National Laboratory has been a fixture in the Tri-Valley region for nearly 65 years. It employs more than 6,000 individuals who commute to Livermore from all parts of the greater San Francisco Bay Area. These employees utilize all means of transportation, from automobiles to carpool vans, to rail, bicycles and buses. A BART extension to Livermore would be a welcome addition to these commuting options. It also would help address the area's long-held desire for extended service into the Tri-Valley to serve daily commuters and visitors, ease traffic congestion and accompanying air emissions in the I580 corridor, and potentially provide a key connection to regional Altamont Corridor Express service.

Your careful consideration of the alternatives in the Draft EIR, while in close consultation with regional stakeholders, will be greatly appreciated as this important decision process moves forward.

Sincerely,

Lynda Seaver  
Director, Public Affairs

1



**RESPONSE A4**

**Lynda Seaver, Lawrence Livermore National Laboratory**

A4-1 Thank you for providing comments on the Draft EIR. The comments supporting the Proposed Project (Conventional BART Project) are noted.

Letter  
A5

ERIC SWALWELL  
15TH DISTRICT, CALIFORNIA  
CO-CHAIR, DEMOCRATIC STEERING  
AND POLICY COMMITTEE  
CHAIR, FUTURE FORUM  
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Congress of the United States  
House of Representatives  
Washington, DC 20515

PERMANENT SELECT  
COMMITTEE ON INTELLIGENCE  
RANKING MEMBER,  
SUBCOMMITTEE ON CIA  
SUBCOMMITTEE ON EMERGING THREATS  
COMMITTEE ON JUDICIARY  
SUBCOMMITTEE ON COURTS, INTELLECTUAL  
PROPERTY, AND THE INTERNET  
SUBCOMMITTEE ON REGULATORY REFORM,  
COMMERCIAL AND ANTITRUST LAW

October 16, 2017

Bay Area Rapid Transit (BART)  
Attn: Livermore Extension Project  
300 Lakeside Drive, 21<sup>st</sup> Floor  
Oakland, CA 94612

**Re: BART to Livermore Draft Environmental Impact Report (DEIR)**

Dear Mr. Andrew Tang:

Thank you for the opportunity to comment on the Livermore Extension Project Draft Environmental Impact Report (DEIR). The San Francisco Bay Area Rapid Transit District (BART) is to be commended for thoughtfully evaluating a project that would extend transit service 5.5 miles into eastern Alameda County from the existing Dublin/Pleasanton BART Station to a proposed new terminus station located at the Isabel Avenue/I-580 interchange.

1

The DEIR is very thorough and shows the clear environmental benefits of the project through large increases in BART ridership and the reduction of greenhouse gas emissions. It also has helped spur other benefits such as much-needed transit-oriented development and affordable housing through the Isabel Neighborhood Plan. However, there are still issues which I believe should be examined further before the adoption of the Final EIR.

**Inter-Regional Connectivity**

As you are aware, a potentially game-changing breakthrough occurred on October 13, 2017 when Governor Brown signed AB 758 to create the Tri-Valley-San Joaquin Valley Regional Rail Authority. The purpose of the newly established Authority is for planning and delivering a cost-effective and responsive transit connection between BART and the Altamont Corridor Express (ACE) in the Tri-Valley. This presents an unprecedented opportunity to comprehensively plan for inter-regional rail connectivity in the I-580 corridor. The proposed BART extension may be an important element of this rail solution within the context of interregional connectivity consistent with the goals and objectives of the Governor, Legislature, and State Rail Plan. BART should consider this ultimate ACE connection during its planning as well.

2

The San Joaquin Regional Rail Commission (SJRRC) has already initiated some of this work by examining the feasibility of a number of alternatives to connect BART to ACE, as part of the ACEforward environmental review process that is currently underway. It is worth noting that a maintenance yard/shop site for this line is tentatively identified in the vicinity of Tracy – not the Tri-Valley location of EMU/DMU yard/shop that is identified in the BART DEIR. It is

Letter  
A5  
cont.

anticipated that this alternative will be studied further as the new AB758 mandated authority advances further study for the required project feasibility report.

2 cont.

**BART Storage and Maintenance Facility**

The storage and maintenance facility may be out of scale with the 36 vehicle capacity requirements of a one-station, 5-mile extension. The DEIR states that BART conducted an operations analysis to determine BART vehicle fleet and storage needs to effectively operate the Proposed Project – determining the need for a yard providing storage for approximately 172 cars. It then added a maintenance facility to meet the needs of not only the proposed Project but the entire Daly City-Dublin/Pleasanton Line. The result is a proposed 68-acre storage and maintenance facility to meet BART system-wide needs. The DEIR also states that the Proposed BART project cost estimate includes 25% of the cost of the storage and maintenance facility. This premise should be more closely evaluated, as the total cost should be attributed to the entire BART system and not just the Livermore Extension Project.

3

The proposed storage and maintenance facility is also located 1.9 miles from the main track on land zoned for agricultural uses. This facility will encompass approximately 100 acres and requires environmental mitigation on a 1 to 3 ratio – a total of approximately 400 acres. In addition, the storage and maintenance facility will require bridges over Arroyo Las Positas and Cayetano creeks as well as an approximately 450-foot-long, 20-foot high hillside tunnel for the trackway and a 2-lane access road from Campus Drive to the facility. Some grading of the existing hill slopes would also be required. The DEIR finds that there are a multitude of special status wildlife and plant species and serves as active movement corridors for large mammals and other wildlife crossings. The DEIR also does not appear to address how the facility will impact neighboring agricultural uses through its 24-hour operation. Further analysis may be warranted to look at moving the maintenance yard further east and closer to an ultimate ACE connection.

4

**EMU/DMU Connection to Dublin/Pleasanton BART Station**

The design of the EMU/DMU connection to the Dublin/Pleasanton Station has significant right-of-way impacts on the City of Dublin Corporation Yard and the Alameda County Fire facilities. The design also eliminates 110 parking spaces at the auto dealerships as well as an additional 105 parking spaces at other commercial sites. The auto dealerships have noted that this impact is significant to the viability of their operations, and the City of Dublin is concerned about a potential loss of sales tax revenue as these key businesses are impacted.

5

Alternative concepts for this EMU/DMU connection have been developed by AECOM Engineers, part of the *ACEForward* consulting team. These alternative concepts will avoid potential impacts on properties and displacements of parking and it is recommended that these design concepts be examined by BART staff to minimize business and community impacts.

6

**Bay Fair Connector Project**

The proposed BART project in the DEIR is described as an extension of the existing Daly City Line – and the impact methodology in the Transportation section of the DEIR appears to indicate that this operating assumption was used to forecast ridership. It does not appear that alternative operating scenarios were considered. It is worth noting that the BART Bay Fair Connector Project was approved by Alameda County voters in Measure BB and would provide the opportunity for a direct “one-seat, one-ride” from the Tri-Valley to Southern Alameda and Santa

7

Letter  
A5  
cont.

Clara County. BART staff has indicated that there are two other existing BART lines running in that corridor and there is inadequate capacity to add another line – but without an analysis of options, it is unclear if those two lines are in fact the most appropriate. Considering that the Bay Fair Connector Project was promised to the voters of Alameda County, would support existing commute patterns from the Tri-Valley to the South Bay, and could potentially have a dramatic increase in ridership and environmental benefits for the Livermore extension, I believe it warrants further study before adoption of the Final EIR.

7 cont.

**Capital Costs**

The capital costs estimate for the one-station 5.5-mile BART extension is estimated to be \$1.635 billion (estimated to mid-point of construction). The one-station DMU alternative in the DEIR is estimated to be \$1.599 billion. It should be noted that for the EMU/DMU project developed as part of the *ACEforward* project – extending from West Tracy through the Altamont Pass to the existing Dublin/Pleasanton BART Station - preliminary cost estimates are approximately \$1.4 to \$1.6 billion. I believe that BART should take a closer look at all of the project elements attributed to the project to determine if they are solely attributable to this one-station extension. Specifically, it may be worthwhile to take a closer look at the storage/maintenance facility, rolling stock fleet size, tail track length, soft costs, and contingencies that have been factored into the overall cost to determine if they are comparable to industry standards and practice.

8

**Core System Impacts**

The Comprehensive Agreement between VTA and BART for the Santa Clara County BART Extension outlines specific terms regarding the VTA obligation to mitigate core system modifications. This concerns all investments in core system facilities that are needed to support and maintain the expansion into Silicon Valley. VTA completed a Core System Impact Study in 2003 and a Core Stations Modification Study in 2011. This previous analysis indicated that Eastern Alameda County (Castro Valley, West Dublin & Dublin/Pleasanton Stations) would be areas of high parking demand for individuals wanting to ride BART to and from Santa Clara County. The potential for a total of 600 – 750 new parking spaces was identified for Eastern Alameda County to mitigate the impacts of Silicon Valley BART expansion. Although the Phase 1 project is nearly complete, there does not appear to be mitigation for parking displacement in Eastern Alameda County caused by the Silicon Valley expansion. It is important that the costs and impacts of Silicon Valley are not passed along to the Livermore Extension Project.

9

**Conclusion**

Thank you again for the opportunity to comment on the DEIR. I appreciate BART for its commitment to achieve expanded rail service, extensive public outreach, community engagement, and collaboration with local jurisdictions. I look forward to continuing to work with BART to advance transportation improvements in the future.

Sincerely,



Eric Swalwell  
Member of Congress

**RESPONSE A5**  
**Eric Swalwell**

A5-1 Thank you for providing comments on the Draft EIR. This comment does not specifically address the adequacy of the EIR; no response is necessary.

A5-2 Please see Master Response 10 for information about the new Tri-Valley-San Joaquin Valley Regional Rail Authority established by Assembly Bill 758.

It should be noted that the San Joaquin Regional Rail Commission has rescinded the ACEforward EIR and stated its intent not to pursue that project. The new Tri-Valley-San Joaquin Valley Regional Rail Authority may choose to incorporate elements from the ACEforward proposal into its own project, potentially including a maintenance yard location in the vicinity of Tracy.

A5-3 See Master Response 5 for information about and a description of the need, size and capacity, and cost and cost allocation of the storage and maintenance facility.

The second paragraph on page 192 of the Draft EIR (Chapter 2, Project Description) has been revised as follows to clarify the allocation of the costs of the storage yard and maintenance facility to the Proposed Project:

The capital cost for the Proposed Project includes 100 percent of the cost to include a storage yard and 25 percent of the cost to include a BART ~~storage and maintenance facility~~. A BART storage yard is directly and fully attributable to the Proposed Project, while a BART storage and maintenance facility is needed to service both the Proposed Project as well as the overall future needs of the Daly City-Dublin/Pleasanton Line.

Page 121 of the Draft EIR has been revised as follows (under subsection c. Fleet Size):

Based on the analysis, the Proposed Project would require an additional 36 BART cars to accommodate the anticipated increase in ridership and the longer route while maintaining a level of crowding similar to the BART systemwide average. In addition, two additional rush trains would be provided for the peak period to accommodate the additional passengers anticipated from the Tri-Valley Area. These two trains would provide three inbound runs to San Francisco and one outbound run in the AM peak period, with the reverse in the PM peak period. No additional buses would be needed to serve the Proposed Project.

Page 143 of the Draft EIR has been revised as follows (under subsection c. Fleet Size):

Based on the analysis, the DMU Alternative would require an additional 24 BART cars to accommodate the anticipated increase in ridership while maintaining a level of crowding similar to the BART systemwide average. In addition, two additional rush trains would be provided for the peak period to accommodate the additional passengers anticipated from the Tri-Valley Area. These two trains would provide three inbound runs to San Francisco and one outbound run in the AM peak period, with the reverse in the PM peak period. No additional buses would be needed to serve the DMU Alternative.

Page 161 of the Draft EIR has been revised as follows (under subsection c. Fleet Size):

Based on the analysis, the Express Bus/BRT Alternative would require an additional 12 BART cars to accommodate the increased ridership anticipated while maintaining a level of crowding similar to the BART systemwide average. In addition, one additional rush train would be provided for the peak period to accommodate the additional passengers anticipated from the Tri-Valley Area. This train would provide one inbound run to San Francisco in the AM peak period, and one outbound run in the PM peak period.

A5-4 The comment correctly notes the details regarding the design of the storage and maintenance facility and tail tracks connecting to the facility. These elements of the project are described in Chapter 2, Project Description, of the Draft EIR. Agricultural and biological resource impacts associated with the facility are described in Section 3.C, Land Use and Agricultural Resources, and Section 3.I, Biological Resources, respectively. The Draft EIR discloses the significant agricultural and biological resource impacts, provides mitigation measures to avoid or reduce them where feasible, and acknowledges that some impacts would remain significant and unavoidable even with implementation of feasible mitigation measures. See Master Response 7 for a summary of the significant impacts associated with the storage and maintenance facility. As discussed in Master Response 6, BART considered several locations for the storage and maintenance facility, and the site proposed in the Draft EIR was the best available site.

The storage and maintenance facility would operate 24 hours, 7 days a week. The land surrounding the proposed storage and maintenance facility is

primarily grazing land. In addition, land north of Hartman Road and east of the facility has been in use for row crops. BART operation would not impinge on these adjacent agricultural operations, and the Draft EIR did not identify any impacts on neighboring agricultural uses. As described in the Draft EIR, there would be significant and unavoidable impacts related to light and glare. This is due to the facility's location in a rural area (with few existing sources of illumination) rather than to a proximity to sensitive receptors (Draft EIR, page 627). Noise impacts from the storage and maintenance facility were analyzed and determined to be less than significant (Draft EIR, page 1012) based on the proximity to sensitive receptors (the closest receptor is a ranch house approximately 920 feet to the west). Neither noise nor light and glare would have effects on agricultural operations. Furthermore, large-scale industrial uses often are located next to agricultural uses, as both types of uses entail similar impacts and generally are not compatible with residential or commercial development.

A5-5 Impacts to businesses are analyzed in Impact PH-3 (Displace Substantial Numbers of Existing Businesses during Construction) on pages 542 to 544 of the Draft EIR. To mitigate this impact, the Draft EIR identified Mitigation Measure PH-2 (Acquisition of Property and Relocation Assistance), which would require BART to implement an acquisition and relocation program. This program would provide compensation at fair market value as well as relocation assistance. Apart from this analysis, economic impacts on businesses and revenue impacts to local jurisdictions are not considered to be significant adverse environmental impacts and are not required to be analyzed, pursuant to CEQA Guidelines Section 15064(e), which states that economic and social changes resulting from a project shall not be treated as significant effects on the environment.

As described on pages 1428 and 1429 of the Draft EIR (Section 3.O, Community Services), BART completed a preliminary assessment of the relocation of Scarlett Court and determined that adequate access to the Alameda County Fire Department maintenance facility/City of Dublin Corporation yard would be maintained during construction and operation of the Proposed Project, DMU Alternative, and Express Bus/BRT Alternative.

Please see Response to Comment B3-5 for additional information regarding impacts on businesses in the city of Dublin.

A5-6 As noted in the comment, AECOM Engineers developed an alternative concept for connecting the DMU/EMU system to the BART system at the Dublin/Pleasanton Station. (See the attachment to comment letter B2 from the

Alameda-San Joaquin Regional Rail Working Group.) The design recommendations based on the ACEforward concepts for the DMU/EMU design, intended to reduce the ROW impacts of the DMU Alternative, are considered below.

### **At-Grade DMU Station Design Concept**

Please see comment B8-8 which provides the specific design recommendations noted here for this concept.

- **Shift the 30-foot DMU platform 75 feet east.** The position of the DMU platform in the BART design was determined by the location of the Caltrans bridge abutment supporting I-580 over the Iron Horse Trail and bus access road. The DMU platform would be constructed on top of a new below-grade structure, located to the north and immediately adjacent to the existing station concourse. This new structure would have new openings to connect to the existing concourse level and would provide the necessary vertical circulation between the DMU platform and the BART platform (see Figure 2-17 of the Project Description, DMU Transfer Platform Cross Section). Caltrans has requested that any below-grade structures provide a 46-foot setback from the bridge abutment. Pushing the platform and underlying connecting structure farther to the east could compromise the abutment. Reducing the size of the connecting structure supporting the platform could have potential implications for emergency egress (see Sheet 3A103 of the DMU engineering drawings).<sup>1</sup> Therefore, this design recommendation is considered infeasible.
  
- **Begin curving the I-580 westbound mainline immediately at the western edge of the 30-foot DMU platform.** The DMU design illustrated in the Draft EIR includes an approximately 400-foot-long tail track immediately to the west of the DMU platform at the Dublin/Pleasanton Station. The tail track is designed so that a disabled DMU can be pushed onto the tail track and not block the DMU platform. Without the tail track, a failed DMU could block the platform and would halt all DMU operations. Curving the westbound I-580 lanes starting at the western edge of the DMU platform would preclude any DMU tracks west of the platform. This could impair operations due to vehicle failure. Therefore, this design modification is infeasible.

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<sup>1</sup> Arup and Anil Verma Associates, Inc., 2017. BART to Livermore Extension Contract Drawings, 10 Percent Preliminary Engineering (Draft). July.

- **Submit a Caltrans Design Exception at I-580 for a 5-foot median shoulder and a 2-foot buffer.** The Proposed Project and Build Alternatives, including the DMU Alternative, were designed to limit the number of design exceptions from Caltrans. This recommendation depends on Caltrans granting a design exception. The standard governing median shoulder width is a Mandatory Standard, requiring a higher level of internal Caltrans review and approval than an Advisory Standard. This standard calls for an inside shoulder wide enough such that broken-down vehicles would fit on the shoulder without blocking the travel lanes, and improves the freeway's ability to continue to provide vehicle throughput in case of incidents. With a 5-foot shoulder as suggested, incidents in the left-most travel lanes in which disabled vehicles may not be able to move all the way to the right (outside) shoulder would result in a blocked travel lane, which defeats the purpose of the standard.

Previous known experience with Caltrans on similar design issues indicates that Caltrans has only granted this kind of exception generally where major existing right-of-way constraints apply, such as multi-story buildings or overpass structures. And in this case, high traffic volumes and a high percentage of truck traffic on I-580 also reduce the likelihood that Caltrans would grant the exception. The proposed DMU Alternative design and the Draft EIR therefore could not assume that this exception would be granted and needed to design and analyze a reasonably conservative scenario. Therefore, the lane, shoulder, and buffer widths along I-580 were maintained to Caltrans' standards for the EIR evaluation. Thus, this design option is infeasible.

- **Eliminate the sidewalk on the south side of Scarlett Court, which has no abutting uses.** The DMU design proposed by BART for Scarlett Court includes a 34-foot roadway and a 5-foot setback along the south side of Scarlett Court (see engineering drawing 3RW-202, Section F).<sup>2</sup> The Caltrans ROW edge is immediately adjacent to the south edge of Scarlett Court. The 5-foot setback is the required distance between the Caltrans ROW line and Caltrans improvements (westbound I-580). While this setback appears to be a sidewalk, its purpose for Caltrans is access for any needed maintenance of the retaining wall structure separating the slightly-elevated freeway from the surrounding land which is at a lower grade. This setback also serves as the location for needed road signage. While it may be possible to negotiate a smaller setback with Caltrans to reduce the ROW needed via a joint

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<sup>2</sup> Arup and Anil Verma Associates, Inc., 2017. BART to Livermore Extension Contract Drawings, 10 Percent Preliminary Engineering (Draft). July.

easement agreement, past experience with Caltrans indicates that Caltrans would likely require the setback for maintenance purposes in this case. The DMU Alternative design and Draft EIR were required to look at reasonably conservative scenarios and did not assume this setback could be reduced. Therefore, this design option is infeasible.

### **Aerial DMU Station Design Concept**

In addition to an at-grade BART/DMU station, the attachment also shows an aerial concept, with the DMU transfer platform on another level above the existing BART platform. The BLVX project explored a similar aerial DMU/BART connection concept for Dublin/Pleasanton Station and rejected that concept. The reasons included: high expected costs for an aerial station; new columns required to support the platform on both the north and south sides of the BART right-of-way would require widening on both sides of the freeway; and the complexity and disruption to existing BART operations of construction over a live end-of-line station. The concept proposed by ACEforward appears to utilize a structural wall, added to the existing station structure, instead of building new columns. It is unclear whether that the existing station structure would withstand that additional load.

- A5-7 The BART Bay Fair Connector is a component of Measure BB and will provide the infrastructure to allow direct trains between the Tri-Valley to Santa Clara County. BART is advancing the project design for the Bay Fair Connector. However, BART has not committed to carry out the project and it is not considered a reasonably foreseeable project for purposes of the Draft EIR.

The ridership analysis in the Draft EIR was based on BART's Revenue Vehicle Management Plan (July 2012), which is based on the existing BART lines and does not include a BART line directly between the Tri-Valley and Santa Clara County (one-seat ride). BART did a preliminary analysis of the potential ridership if a one-seat ride was offered between the Tri-Valley and Santa Clara County.<sup>3</sup> The relatively low ridership (approximately 600 daily riders) compared to the existing lines did not justify the additional line. However, BART regularly updates its service plans to make the best use of its resources and if ridership patterns change, BART operations could be modified to accommodate them.

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<sup>3</sup> Cambridge Systematics, 2016. BART to Livermore Ridership Forecast with Direct Trains to Santa Clara. October 31.

A5-8 The ACEforward Project (which SJRCC has withdrawn as noted above) explored a wide range of alternative rail extensions, including two DMU (or EMU) to BART alignments in the I-580 corridor:

- 1) DMU rail line from a new Greenville Road ACE/DMU station to the existing Dublin/Pleasanton Station with an intermediate station at Isabel, under the assumption that the BART to Livermore Extension Project would not be constructed
- 2) DMU rail line from a new Greenville Road ACE/DMU station to the proposed Isabel Station, under the assumption that the BART to Livermore Extension Project analyzed in the Draft EIR would be constructed

Thus, both the ACEforward Project and the BART to Livermore Extension Project analyzed a DMU rail extension between Dublin/Pleasanton Station and the proposed Isabel Station (as a segment of a line from Greenville Road to Dublin/Pleasanton in the case of ACEforward).

A comparison of the ACEforward cost estimate and the BART DMU cost estimate for the Dublin/Pleasanton to Isabel Avenue DMU segment is provided below. As described in Table 2-18 (Estimated Capital Costs for the Proposed Project and Build Alternatives) on page 191 of the Draft EIR, the cost estimate for the DMU Alternative is \$1.04 billion (in 2016 dollars) without a maintenance facility.<sup>4</sup> The ACEforward estimate for a comparable extent of the rail segment is \$540 million.<sup>5</sup>

Overall, the cost estimate and project design completed for the DMU Alternative in the Draft EIR is more comprehensive and more detailed than that provided for the ACEforward Project. Key differences are noted below.

The following project features and costs associated with the DMU Alternative were not accounted for in the ACEforward Project, thus reducing its costs:

- Double-track DMU system (ACEforward proposed a single-track system)
- Isabel Station parking garage

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<sup>4</sup> The cost of the maintenance facility is not included here in the overall cost of the DMU Alternative to provide a more direct comparison with ACEforward, which did not include a maintenance facility within the alignment segment from Dublin/Pleasanton Station to Isabel Station.

<sup>5</sup> San Joaquin Regional Rail Commission, 2017. ACEforward Draft Environmental Impact Report: Appendix F – ACEforward Opinion of Probable Cost Report, May.

- Additional BART train cars to provide service supporting the higher BART demand created by the extension
- Roadway bridges over I-580 that were identified in the DMU Alternative as needing to be re-built
- DMU control system items, including: central control room, communication line connections, fare collection system and equipment

In addition, while the BART DMU cost estimate is greater than the ACEforward Project estimate for the following project features, the BART costs are based on 10 percent engineering design and are appropriate for this level of design. Information regarding ACEforward's cost methodology or level of engineering design for these features is not readily available at this time.<sup>6</sup>

- DMU station items at Dublin/Pleasanton Station and Isabel Station, including the pedestrian overcrossing at Isabel Station<sup>7</sup>
- ROW acquisition cost
- Contingency allowance

Therefore, the ACEforward Project does not represent an equivalent cost comparison to the BART DMU Alternative and the differences in estimated cost appear to be justified. The BART Board will consider the costs of the Proposed Project and Build Alternatives as part of the decision to adopt a project.

The \$1.635 billion (year of expenditure dollars) cost estimate in the Draft EIR for the extension of conventional BART to Isabel Avenue was based on preliminary engineering, and the level of detail in the estimate is consistent with the level of engineering. The estimate was based on Federal Transit Administration (FTA) Standard Cost Categories. The BART assumptions for soft costs are either within or below the FTA's recommended range. For example, professional services were estimated at 30 percent (the FTA recommended range is 25 to 35 percent) and program reserve was estimated at 10 percent (the FTA recommended range is 5 to 15 percent). The contingency for construction, ROW, vehicles, and professional services ranged from 5 to 25 percent (the FTA recommended a range of 30 to 40 percent).

Regarding the tail track length, the tail tracks west of the Dublin/Pleasanton Station are needed for the storage of the BART cars required to serve the

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<sup>6</sup> It is unclear what level of design the ACEforward Project has completed as the basis for its estimates. Without a similar level of design, a comparison of costs is less informative.

<sup>7</sup> It is unclear if the ACEforward Project included a pedestrian overcrossing at Isabel Station.

increased ridership under the DMU Alternative. Please see Response A5-3 above regarding the need for 24 additional BART cars.

A5-9 BART and the Santa Clara Valley Transportation Authority (VTA) have entered into a comprehensive agreement that governs VTA's obligation to mitigate any impacts to BART's core system due to the extension to Santa Clara County. BART and VTA are currently negotiating the details of what VTA's contribution will be, and how those impacts will be mitigated, taking into account (among other things) the two studies referenced by the commenter. The comprehensive agreement provides in part that VTA will have full financial responsibility for project costs, which include:

- Modifications to the BART core system necessary for operation of the project
- Modifications to the BART core system necessary to mitigate resulting impacts of the project

BART intends to enforce and apply the comprehensive agreement terms. Note that ongoing operations and maintenance and capital costs are discussed separately in the comprehensive agreement and are currently under negotiation for revision in the operations and maintenance agreement.