El Camino Real Bus Rapid Transit

Response to Agency Comments
Submitted on the
Draft Environmental Impact
Report/Environmental Assessment

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In Association with
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For submittal to
Santa Clara Valley Transportation Authority
El Camino Real Bus Rapid Transit

Response to Agencies

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1. INTRODUCTION

The El Camino Real Bus Rapid Transit (BRT) Project is an enhancement of Santa Clara Valley Transportation Authority (VTA) bus service from downtown San José to the Palo Alto Transit Center. The Project was proposed in the 2009 BRT Strategic Plan. After Conceptual Engineering and receiving comments from the public and cities served by the project, the VTA Board of Directors in November 2012 decided to proceed with environmental analysis of dedicated lane alternatives in Santa Clara and from Santa Clara to Mountain View. Additional dedicated lane alternatives, including one extending into Palo Alto, were requested by Mountain View and Los Altos during the environmental scoping period. Thus a range of alternatives underwent environmental analysis in accordance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The Draft Environmental Impact Report/Environmental Assessment (DEIR/EA) was issued October 29, 2014 and was available for public review and comment for 77 days, ending on January 14, 2015. VTA is now in the process of determining how to move the project forward.

1.1. Purpose of the Report

When the DEIR/EA public comment period closed on January 14, 2015, VTA had received over 700 comment letters, emails, cards or oral statements—more than any other transit project proposed by VTA. It will take a good deal of time to assemble all those comments, catalogue them, and respond to them in the Final EIR/EA. In the interim, VTA has developed preliminary responses to comments from the public agencies as requested so that they can indicate a preference for the Locally Preferred Alternative, and these are presented in this report. The comments from public agencies (Caltrans, Santa Clara County and the cities along the corridor) represent most of the concerns expressed in comments received from business, organizations and members of the public. All comments will be answered fully in the Final EIR/EA, but this report serves as a preliminary response to the most frequently expressed questions. VTA has taken this highly unusual step of providing responses in advance of the Final EIR/EA because it values the collaboration of its partners along the corridor and recognizes that only through partnership will the transportation issues be resolved.

1.2. Organization of the Report

Following this introduction, the report presents some general responses to many of the topics raised in the comments. These serve as partial responses to individual comments which will be answered more fully in the Final EIR/EA. The general responses are followed by specific responses to the comments by each agency. For brevity, each comment has been summarized in italics; the specific response follows each comment, although it sometimes refers back to one or more of the general comments. The full comment letters from state, regional and local agencies are included in the Appendix.

Section, table, and figure numbers in the responses refer to the DEIR/EA, unless otherwise noted.

1.3. Project Description

The El Camino Real Bus Rapid Transit (BRT) project is one of three potential BRT corridors being considered by the Santa Clara Valley Transportation Authority (VTA) to enhance transit service within the service area. The BRT Strategic Plan, completed in March 2009,
recommended implementation of the El Camino Real BRT corridor along with the Santa Clara-Alum Rock and Stevens Creek BRT corridors. The El Camino Real BRT corridor is 17.6 miles through the cities of Palo Alto, Los Altos, Mountain View, Sunnyvale, Santa Clara, and San José. It may include some portions of dedicated, center-running transit lanes and some portions where the transit vehicles run in mixed flow lanes with automobile traffic. There could be up to 16 stations constructed with the Project, spaced approximately one-mile apart. Figure 1 shows the Project corridor.

Seven alternatives have been studied in the environmental analysis to reflect the range of possibilities using three different conditions: no-build, building enhanced curbside bulbout stations with the bus operating in mixed flow traffic, or converting one lane in each direction to be used for buses (and emergency vehicles) only, with stations in the median. The alternatives differ in the application of these three conditions along the corridor, namely

- Alternative 1 – No Build
- Alternative 2 – Mixed flow with bulbout stations from San José to Palo Alto
- Alternative 3a – 3.0 miles of dedicated lanes from Lafayette Street in Santa Clara to Halford Avenue in Santa Clara, with bulbout stations in San José and no improvements west of Santa Clara
- Alternative 3b – 3.0 miles of dedicated lanes from Lafayette Street in Santa Clara to Halford Avenue in Santa Clara, with bulbout stations in San José and from Santa Clara to Palo Alto
- Alternative 4a – 7.0 miles of dedicated lanes from Lafayette Street in Santa Clara to SR 85 in Mountain View, with bulbout stations in San José and from Mountain View to Palo Alto
- Alternative 4b – 10.3 miles of dedicated lanes from Lafayette Street in Santa Clara to Showers Drive in Los Altos, with bulbout stations in San José and in Palo Alto
- Alternative 4c – 13.9 miles of dedicated lanes from Lafayette Street in Santa Clara to Embarcadero in Palo Alto, with bulbout stations in San José

1.4. Purpose and Need

The purpose of the Project is to:

- Provide a competitive transit alternative to the automobile in the Project corridor.
- Increase the reliability, frequency, and travel speed of transit along the Project corridor.
- Improve transit amenities and facilities to provide greater passenger comfort and safety.
- Enhance the multi-modal character of El Camino Real with street improvements for pedestrians and bicyclists.
- Provide the transit infrastructure to support the implementation of the transit goals and objectives of the Grand Boulevard Initiative (for El Camino Real).
- Provide the transit infrastructure to support city general and specific plans that call for a greater role for transit to complement their growth strategies.
- Improve efficiency and cost-effectiveness of transit services in the Project corridor.
Santa Clara County is expected to experience substantial growth between 2010 and 2040, with population increasing by 36 percent and the number of jobs increasing by 33 percent. Growth concentrated in Priority Development Areas, including El Camino Real, will enhance the connection between homes and jobs, but will also concentrate traffic growth and transit demand in the same corridors. Transit service must be improved to provide more efficient ways to move this growing population and work force.

The El Camino Real corridor currently has the highest bus ridership in the VTA system, carrying nearly one-fifth of all bus riders in Santa Clara County. In addition, these lines have similar ridership during midday and peak periods, which indicates that they serve a regular ridership with diverse needs. The all-day use along this corridor indicates that the corridor needs more frequent and higher quality service.

Existing and future transit travel speeds are not attractive in comparison with the automobile. As growth along the corridor increases, traffic volumes are also expected to increase substantially, resulting in decreased travel speeds and increased delay for transit riders under the current service. Travel times increased steadily from the introduction of the Rapid 522 limited stop service in 2005 until the economic downturn at the end of 2007. With the recent improvement in the economy travel times are once again increasing, negatively affecting trip reliability for all users.

Cities along the corridor, through their general plans and through the Grand Boulevard Initiative (GBI) collaboration, have expressed policies that encourage better coordination of land use, transportation and capital improvements along El Camino Real. The GBI vision is that “El Camino Real will achieve its full potential as a place for residents to live, work, shop and play, creating links between communities that promote walking and transit and an improved quality of life.” The Project would provide a concrete step toward realizing that vision and supporting regional and local planning efforts to address anticipated growth.
2. GENERAL RESPONSES

While this document provides individual responses to the comments submitted in letters from various agencies, several common themes appear. A great many of the comments focused on impacts to automobile traffic, but it must be remembered that El Camino Real BRT is a transit project and it is a project that will introduce elements of a “complete street” to El Camino Real, improving conditions for bicyclists and pedestrians. It is not intended to improve automobile traffic, or necessarily relieve automobile congestion. Neither does the Project add trips to El Camino Real in the way a development project does. Rather it redistributes trips to different modes and routes. An understanding of these broad issues may help the reader put the more detailed responses in context.

Both general and detailed responses to traffic and transportation comments rely heavily on the Traffic Operations Analysis Report (TOAR) that was prepared to support the environmental process, as well as to support the Caltrans approval process. The TOAR is included in the DEIR/EA as part of Appendix H. The TOAR is frequently cited in the responses below and can be found on the VTA website at [http://www.vta.org/sfc/servlet.shepherd/document/download/069A0000001fC26IAE](http://www.vta.org/sfc/servlet.shepherd/document/download/069A0000001fC26IAE). The appendices to the TOAR which are also cited below are also on the website at [http://www.vta.org/sfc/servlet.shepherd/document/download/069A0000001fC21IAE](http://www.vta.org/sfc/servlet.shepherd/document/download/069A0000001fC21IAE).

2.1. The Travel Demand Model

The VTA Countywide Travel Demand Model was used to generate transit and traffic forecasts. It is a traditional four-step model that uses the transportation network and socioeconomic inputs to predict future transportation conditions. The four steps include trip generation, trip distribution, mode choice, and transit and highway assignment. The base software used to create the model is CUBE, developed by CityLabs. This type of model has been used to analyze other BRT projects in the Bay Area, commuter rail projects, such as BART and Caltrain Electrification, and is used by most cities to assess the impacts of development projects.

Some key features of the model include:

- Covers the nine-county Bay Area plus four external counties (San Joaquin, Santa Cruz, Monterey, and San Benito) with more detailed zone structure and network in Santa Clara and San Mateo Counties;
- Uses the 2013 Association of Bay Area Governments (ABAG) Projections for estimates of households, population and employment;
- Generates trips associated with eight trip purposes (home-based work trips, home-based shop and other trips, home-based social/recreational trips, non-home-based trips, home-based school trips, internal to internal zone truck trips, air-passenger trips, and external truck trips);
- Includes a mode choice step during which the passenger-trips are distributed to different travel modes, including drive-alone auto, shared-ride auto (HOV/carpool), transit (submodes), bicycle, and walk, and peak mode choice is based on AM peak period travel times;
- Provides AM and PM peak hour, 4-hr AM and PM peak period, midday and evening highway assignments that produce vehicle volumes, speeds and travel times by link; and
- Includes a transit assignment step that provides boardings/alightings by station/stop for each transit route, and passenger trips by link/segment for each transit route.
The basic premise of the model is to provide the shortest duration trip for all users. Computer software allows it to quickly iterate multiple routings for thousands of trips to achieve this goal. The model was run for each of the horizon years (existing, that is, 2013; anticipated "opening day" in 2018; and the planning horizon of 2040) and for each of the seven alternatives.

2.2. Multi-level Traffic Analysis

The Draft EIR/EA incorporated an unprecedented level of analysis of potential transportation benefits and impacts that includes consideration of multiple modes and a wide range of performance measures. With respect to traffic, this included analysis at the corridor-wide, screenline/link, and intersection levels. The analysis was performed for two peak hours, three scenario years and seven alternatives. At the intersection level, 247 locations were analyzed for each condition resulting in over 8300 intersection level of service (LOS) calculations. The multi-level transportation analysis approach was undertaken in response to the nature (i.e. transit project) and scope (i.e. 17.6-mile long corridor) of the Project. This approach captures the broader impacts to travel demands and patterns resulting from the Project, but also looks in greater detail at locations in closer proximity to El Camino Real. VTA believes that this level of analysis is sufficient to make informed decisions about the effects of the various Project alternatives.

In addition, different transportation measures of effectiveness were developed at the three geographic levels: El Camino Real itself (including those segments on West Santa Clara Street and The Alameda), an expanded area including approximately ½ mile on either side of El Camino Real, and a broad corridor from US 101 to I-280 between downtown San José and Palo Alto. The following table, excerpted from the TOAR, indicates what parameters were examined at each of these geographic levels.

### Table 2-1 Transportation Analysis Measures of Effectiveness

<table>
<thead>
<tr>
<th>MOE</th>
<th>Description</th>
<th>Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Study Corridor Level</strong></td>
<td></td>
<td></td>
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<tr>
<td>Transit Ridership</td>
<td>The number of weekday boardings at each station (Lines 22 and 522).</td>
<td>Daily</td>
</tr>
<tr>
<td></td>
<td>Boardings generated by the travel demand model.</td>
<td></td>
</tr>
<tr>
<td>Travel Time</td>
<td>Time for auto and transit (Lines 22 and 522) to travel along the Project segment defined as University Ave to Cahill St.</td>
<td>AM and PM peak hour</td>
</tr>
<tr>
<td>Intersection Level of Service (LOS)</td>
<td>Average delay and LOS based on Highway Capacity Manual (HCM) 2000 Operational Method for signalized intersections along El Camino Real.</td>
<td>AM and PM peak hour</td>
</tr>
<tr>
<td>Parking</td>
<td>Number of available parking spaces using aerial photographs. Proposed plans determine the number of spaces being eliminated.</td>
<td>Midday</td>
</tr>
<tr>
<td>Bike and Pedestrian Environment</td>
<td>Qualitative assessment of the proposed changes along El Camino Real on cyclists and pedestrians.</td>
<td>Daily</td>
</tr>
<tr>
<td><strong>Expanded Geographic Area Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intersection Level of Service (LOS)</td>
<td>Average delay and LOS based on Highway Capacity Manual (HCM) 2000 Operational Method for selected intersections off of El Camino Real.</td>
<td>AM and PM peak hour</td>
</tr>
<tr>
<td><strong>El Camino Real Broader Corridor Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle Screenline(^1) Diversion Volumes</td>
<td>Traffic volumes across selected roadway segments and screenlines. Comes directly from the travel demand model.</td>
<td>AM and PM peak hour</td>
</tr>
<tr>
<td>Vehicle Miles Traveled (VMT)</td>
<td>Total VMT on all roadways within the area bounded by US-101, I-280, and Palo Alto to downtown San Jose. Comes directly from the travel demand model.</td>
<td>AM and PM peak hour</td>
</tr>
<tr>
<td>Vehicle Hours Traveled (VHT)</td>
<td>Total VHT on all roadways within the area bounded by US-101, I-280, and Palo Alto to downtown San Jose. Comes directly from the travel demand model.</td>
<td>AM and PM peak hour</td>
</tr>
<tr>
<td>Average Speed</td>
<td>Total VMT divided by total VHT.</td>
<td>AM and PM peak hour</td>
</tr>
</tbody>
</table>

\(^1\) A screenline is an imaginary line that cuts the area to determine how many vehicles pass through the corridor at that location.

Source: DKS Associates, 2014
2.3. Parking
A comprehensive parking survey and analysis was conducted providing an inventory of existing parking spaces on El Camino Real, on side streets within 500 feet of the corridor, and in off-street parking lots within 500 feet of the corridor. The inventory information was collected on the ground in segments on El Camino Real between major cross-streets, segregated by direction, and on the cross streets, also segregated by direction. The off-street parking facilities fronting The Alameda/El Camino Real that allow public parking were also surveyed. The survey included parking in shopping centers and other lots where the general public can generally find parking without a special permit. Occupancy was measured using aerial photographs taken at morning, noon, and early evening times; the highest occupancy period (noon) was reported in the DEIR/EA. Summary results are provided in the DEIR/EA that indicate overall parking spaces (total on- and off-street) were approximately 50 percent occupied. Parking spaces on El Camino Real experience an average occupancy level of 33 percent. Where individual segments reached high levels of occupancy, available spaces within the same segment could be found on cross-streets or off-street lots.

2.4. Other Alternatives

Lines 22 and 522 together have the highest ridership of any corridor in the VTA bus system. Consistent with the purpose and need for the project to improve bus service on El Camino Real, other corridors were not examined as alternatives; this level of alternatives analysis had been conducted through the BRT Strategic Plan in 2009. The Strategic Plan identified El Camino Real as the most promising corridor for improvements after the Santa Clara-Alum Rock segment which is also served by Lines 22 and 522.

The DEIR/EA also identified other alternatives that were considered, but not pursued in the environmental analysis. These included the possibility of light rail in the corridor, keeping six general purpose travel lanes and adding lanes for BRT, as well as other combinations of dedicated lane and mixed flow segments. Other suggestions that involved major new infrastructure on El Camino Real, such as monorail, tunnels, and grade separations were not included in early analysis for similar reasons as light rail—substantial right of way requirements and prohibitive costs.

2.5. North-South Routes and Connections

Several comments have indicated a need for more north-south transit. VTA recently completed a study to determine how routes that traveled north/south in the study area and connected with the El Camino Real corridor may need to be adjusted or improved to better connect with a future BRT service. The scope of the study was expanded to also analyze how VTA’s bus routes connect with new residential and office developments and to determine if changes in land use were shifting travel demand that would require an adjustment in VTA service. The results were published in the North Central County Bus Improvement Study, available on the VTA website at http://www.vta.org/projects-and-programs/transit/north-central-county-bus-improvement-plan. The study recommended several changes to north-south service, some of which will be implemented with the FY 16-17 Transit Service Plan, including the new Line 354 Limited service in the Sunnyvale/Saratoga Road-Mathilda Avenue corridor.

2.6. Landscaping/Trees

An inventory of trees along the corridor in the vicinity of proposed construction was conducted as part of the environmental analysis. The inventory included identification of the tree species,
size, and health. A total of 1,050 trees were catalogued; many trees would not be affected by the construction and were not included in the inventory. The analysis of potential tree removal has taken a conservative approach and identified trees for removal if they are adjacent to the construction. Detailed landscaping plans have not been developed, but there would be an opportunity for substantial new landscaping in the medians of dedicated lane segments. In mixed flow segments, the only construction occurs at the station locations, so existing trees and landscaping would remain outside of station locations. Trees removed by the Project would be replaced within the Project corridor, to the extent feasible. Trees with a diameter of less than 12 inches would be replaced at a 2:1 ratio. All trees with a diameter of 12 inches or more would be replaced at a 3:1 ratio. If urban trees (nonnatives and ornamentals) are replaced with native trees, a reduced mitigation ratio of 1:1 for all trees smaller than 12 inches in diameter, and 2:1 for all trees with a diameter of 12 inches or more, would be implemented. These trees would be irrigated and maintained for a period of not less than 3 years. With a more detailed design-level evaluation, many of the trees identified for removal may be able to be saved. In the design phase, VTA will work with each affected jurisdiction to develop a landscaping plan that provides details on locations of trees and other plantings to replace landscaping and trees removed during construction of the Project. A design exception may need to be approved by Caltrans to allow planting of trees in medians with less than five feet of horizontal clearance, as currently exists in some locations and has been done in Menlo Park under a recent demonstration project on El Camino Real, or closer than 100 feet from an intersection.

2.7. Selection of a Locally Preferred Alternative

VTA has conducted numerous public meetings and presentations to interested groups both before and after the formal public comment period on the DEIR/EA. The input received in these meetings, combined with the formal comments from stakeholders and the public, serve to inform the decision as to a Locally Preferred Alternative (LPA). In the federal environmental process, all viable alternatives are analyzed on an equal basis in the draft environmental document, and a preferred alternative is selected that becomes the basis for the final document. Over the summer, VTA staff will develop a recommendation to the VTA Board of Directors as to whether to proceed with the Project and, if a decision is made to proceed, which of the options analyzed in the DEIR/EA should be used as the basis for proceeding. This recommendation will be reviewed at the committee level and by VTA advisory bodies. After reviewing this input, the Board of Directors will make a decision. The Board may choose to proceed with one or another of the alternatives in the environmental document. If the choice is a Build alternative, staff would proceed to complete the environmental document on that basis.

If the Board selects a Build LPA, staff would also advance the application to the FTA for a rating in the Small Starts discretionary grant program. In addition, staff would complete a Project Report to obtain Caltrans’ approval of the Project.
Figure 1  El Camino Real Bus Rapid Transit Corridor
3. RESPONSES TO STATE AGENCIES

Only one state agency responded to the Draft EIR/EA—the California Department of Transportation (Caltrans). Caltrans owns and operates El Camino Real as State Route 82.

3.1. California Department of Transportation

S1-1. References to VTP 2035 should be updated to VTP 2040.

The Valley Transportation Plan 2035 (VTP 2030) was Santa Clara County’s current transportation plan at the time the Project’s Notice of Preparation (NOP) was released. The Valley Transportation Plan 2040 was adopted on October 2014, the same month that the Draft EIR/EA was released to the public. References will be updated in the FEIR/EA.

S1-2. Provide stop location analysis to ensure fewest stations necessary.

It is important to note that the service associated with this Project (Line 522) currently operates. The primary determinant for locating stations for the proposed BRT 522 service was based on the existing stop locations. Considerable planning, during the implementation of the Rapid 522 and through the 2009 BRT Strategic Plan, has previously gone into defining these locations, taking into account factors such as major destination/activity centers, transfer locations and accessibility to different communities. As part of the proposed Project, some refinements of the station/stop locations were identified based on design/geometric considerations. Additional station locations were examined and tested for ridership as requested during Project Scoping. One or more of these optional station locations may be implemented as part of the Project.

S1-3. Expand the Caltrain description and impacts to Caltrain ridership.

While Line 522/BRT and Caltrain services operate in the same general corridor, there are several factors that suggest they serve different markets. There is typically between 0.5 and 1.0 mile between the two services. While Line 522/BRT is a limited stop service, it does not go outside of Santa Clara County and is intended to serve land uses along El Camino Real. Conversely, Caltrain is designed primarily to serve longer-distance regional trips with less frequent stops. The two services are complimentary and are currently used to move passengers. For the above reasons, the analysis provided in the Draft EIR/EA focused on transit ridership change along the El Camino Real corridor and not on the Caltrain corridor.

S1-4. Alternative 4c will allow fastest and most reliable travel time; center-running dedicated lanes provide most separation for bicyclists.

The comment regarding the faster and more reliable travel times and the more lateral separation from traffic for bicyclists provided by Alternative 4c is noted.

S1-5. Within the project limits, the BRT project shall be required to bring El Camino Real into compliance with the Americans with Disabilities Act (ADA) design standards.

The Project will comply with ADA requirements. Where there is new construction at curb returns, appropriate ADA-compliant curb ramps would be installed. Details on construction of curbs would be part of final design.

S1-6. Clarify if landscaping will vary between the alternatives, per the depictions in the typical sections.

Detailed landscaping plans have not been developed and so it cannot be said that there are differences in landscaping between the alternatives, except conceptually. Because the extensive construction that would take place under dedicated lane alternatives offers an opportunity for transformation of the street, the depictions of how the corridor could look show
landscaping in the streetscape. In mixed flow segments, the only construction occurs at the station locations and thus no street trees are shown in the typical sections, although existing trees would remain outside of station locations.

S1-7. Revise cross-section titles to indicate all sections that include parking.

All mixed flow alternatives would include parking. Figure 3-4 of the DEIR/EA will be revised to show that the section in the lower right depicts mixed flow in San José.

S1-8. The Traffic Operations Analysis Report (TOAR) should include a queuing analysis.

It should be noted that the project does not add trips to El Camino Real or to the roadway network. Given the quantity of analysis in the multi-level transportation analysis described in the General Responses, a detailed queue analysis was not deemed necessary. The LOS gives a reasonable indication of the level of congestion and permits a comparison of the alternatives, whereas the amount of queuing would be evaluated for detailed design purposes. The outputs needed for queuing analysis were generated as part of the Synchro modeling and LOS analysis. This information would be utilized, as appropriate, in subsequent design stages after selection of the LPA. If the subsequent queuing analysis indicates that longer turn pockets are necessary, the design would be modified to accommodate that length, where feasible. At the current level of analysis, the impacts were captured in the LOS analysis by manually re-assigning trips from closed intersections to the adjacent intersections, as identified on the Project plans in Appendix B of the DEIR/EA. In 2018, the number of turns redistributed at an intersection was less than 60 in each AM peak hour scenario and in almost all of the PM peak hour scenarios. That number results in two or fewer cars added to a turn pocket in each signal cycle. There are four locations (WB at The Americana and EB at Maria Avenue in Sunnyvale, and EB at Flora Vista Avenue and WB at Calabazas Boulevard in Santa Clara) where more than 60 cars were reassigned, resulting in three or four cars added per cycle, and only in the PM peak hour under Alternative 4c. Given the small increase in the demand for left turns at project intersections, VTA will not be conducting a detailed queue analysis at this time.

S1-9. Include the demand for the eliminated left turns in the adjacent intersections.

The turning movements affected by left turn closings were manually redistributed to adjacent intersections prior to making the intersection LOS calculations and thus are included in the analysis presented in the Draft EIR/EA. The conceptual alignment drawings provided in Appendix B of the EIR/EA include notes indicating where these left turns were reallocated.

S1-10. Alternatives with bulbout stations should be examined for impacts to emergency vehicles.

While the implementation of bulbout stations to varying degrees under different build alternatives could increase the occurrence of bus blockages along El Camino Real, the following factors suggest that the impact to emergency vehicle circulation would be minimal:

- Up to 16 bulbouts would be added over the 17.6 mile corridor (approximately 1 per mile on average).
- At some of these locations, buses currently impede traffic flow in the right lane when stopped due to space constraints.
- There would be a maximum of 10 blockages per hour (1 every 6 minutes on average) with average dwell time of 36 seconds. This includes no discount for times when the adjacent signal is red and therefore the bus would not affect the movement of other vehicles.
• With exception of stations in San José, the majority of the Project corridor has three travel lanes which provide a high level of freedom for vehicles to maneuver around stopped buses.
• Blockages occur in the right lane, whereas emergency vehicles typically use the left lanes and all other traffic is required to move to the right and then stop. It is expected that cars would be able to behave in the required way during emergency vehicle operations, similarly to what they do today using the three lanes of traffic on El Camino Real.

S1-11. Discussion of fair share contribution should include difficulty of measuring incremental impacts since there is no incremental growth caused by the project on El Camino Real.

There are no feasible mitigation measures identified on El Camino Real for either 2018 or 2040 so “fair share” and “incremental growth” do not apply on El Camino Real. For intersections off El Camino Real, the concepts of “fair share” and “incremental growth” would apply to 2040 impacts and details of mitigation contributions would be negotiated with individual jurisdictions during the design phase after selection of the LPA. Since the intersections off of El Camino Real do not involve converting a lane of traffic, the “incremental growth” concept still applies. However, VTA recognizes that this concept is more applicable to land use projects than to transportation projects and may need to be adjusted accordingly.

S1-12. Tables should indicate type of intersection control (signal, all-way or two-way stop control).

Tables in the Final EIR/EA will be revised to denote the type of intersection control for each intersection.

S1-13. Mitigations should include signal timing and hardware upgrades.

For both 2018 and 2040, signal timing optimization was assumed as part of the LOS analysis for all alternatives. The impacted intersections are those where such improvements are not sufficient.

For 2018, new "opening day" (2018) timing plans, as well as appropriate hardware upgrades, would be funded and implemented as part of the Project for intersections along El Camino Real where dedicated lanes or transit signal priority (TSP) improvements are proposed. For locations along El Camino Real without dedicated lanes (where the Project is making no changes to the roadway) but which experience significant traffic impacts, optimization of signal timing would be funded as part of the project, but implemented as part of the responsible agencies' efforts to periodically update timings in response to growth and changing travel patterns. For the remaining locations unaffected by the Project, timing plans would be updated by the local agencies, separate from the Project, as part of these same efforts to periodically update timings.

For 2040, signal timing plans for signals along El Camino Real would be updated as part of the responsible agencies' efforts to periodically update timings in response to growth and changing travel patterns in the future with or without the Project.

S1-14. Mitigations should consider sliver takes of right of way as feasible.

VTA makes every effort to minimize the acquisition of right of way for a project. VTA carefully weighs the benefits to the public against the costs and injury to the property owners when deciding to use its powers of condemnation for acquiring property. In the case of the traffic mitigation for this project, VTA has decided not to take any right of way from property owners unless required to as a condition of a permit or approval authority over the project because it is not necessary to build or operate BRT and is not consistent with other project purpose and needs such as enhancing the multi-modal character of El Camino Real for pedestrians and
bicyclists. If the cities, county, or state requests that VTA take right of way for traffic mitigation, VTA will consider it only if there is no displacement or minimal hardship inflicted on property owners or their tenants, and the benefits of the mitigation to the public are substantial. In the case of the locations identified in the comment, property acquisition at El Camino Real/Embarcadero could include recreational facilities (triggering a Section 4f impact) which could be considered less beneficial to the public than the benefit of the mitigation.

Right of way acquisition at El Camino Real/Kiely Boulevard could impact parking and circulation that could be considered a hardship for the affected businesses.

At El Camino Real/San Tomas Expressway the likely elimination of parking spaces could be considered a hardship for the affected businesses.

S1-15. Mitigation impacts for El Camino Real/Scott Blvd. intersection have directions reversed.
Table 4.12-21 will be revised to correct the description of the El Camino Real and Scott Boulevard intersection mitigations.

S1-16. Bus blockage should be included in several additional intersections affected by a nearby bulbout station.

Bus stop locations were reviewed and several intersections near stop locations where blockage factors might need to be added were identified. In general, the added delay was small, on the order of 0.1 seconds, and many intersections experienced no change in delay. The largest changes in delay were at Bernardo Avenue during the 2040 AM period for Alternatives 2 and 3b which had an increase of 1.8 seconds. Alternative 2 had the greatest number of changes in delay, especially in the 2040 PM period with 0.1 to 0.3 seconds change in delay at most new bus-blockage intersections. Ultimately, there was no change in LOS for any of the intersections where bus blockage was added.

S1-17. The project will need an encroachment permit from the State.

VTA would apply for an encroachment permit from the State at the completion of the design phase.
4. **RESPONSES TO SANTA CLARA COUNTY**

Two responses from regional agencies were received—both from departments within Santa Clara County.

4.1. **Santa Clara County Department of Health**

*R1-1. Recommend consider only dedicated lane alternatives since these allow for multi-modal transportation and complete streets, which promote good health. Ensure diversion causes no unintended impacts to bicycles and pedestrians on side streets.*

VTA acknowledges the County of Santa Clara Public Health Department’s recommendation to consider the dedicated lane alternatives and their support of the associated street improvements and more frequent transit connections.

Diversion to other routes is widely dispersed and generally no one route bears most of the diversion. Therefore, diversion impacts to bicycles and pedestrians on side streets are expected to be less than significant.
4.2. Santa Clara County Department of Roads and Airports

R2-1. Concern that the assumption of transit signal priority (TSP) at El Camino Real/San Tomas Expressway intersection would have negative impacts on San Tomas Expressway, and these have not been included in DEIR/EA.

For the purposes of the Draft EIR/EA, it was generally assumed that all build alternatives would include implementing transit signal priority (TSP) at all signalized intersections that do not currently have it. However, specific timing plans for TSP were not developed at this stage. During the design phase, a more detailed assessment of TSP at each location will be conducted.

R2-2. The DEIR/EA should clarify which updates to signal timing were included in the analysis. The TOAR should include detailed LOS calculations for County expressway intersections.

For all future year alternatives, the LOS analysis assumed updated signal timings, keeping cycle lengths constant but optimizing the amount of green time for any one movement. The specific updates vary by location, alternatives and time period, and are reflected in the Synchro models and reports generated for this effort. Because the intersection analysis included over 8300 LOS calculations, the detailed signal timing parameters and LOS calculations were not included in the TOAR or Draft EIR/EA. However, this information has been made available to agencies in electronic format.

R2-3. The County disagrees with the mitigation strategies at certain expressway intersections in 2018 and advises consulting the Comprehensive County Expressway Planning Study—2008 Update. VTA should contribute a fair share contribution to improvements.

The analysis has determined what improvements may mitigate Project impacts based on the particular volumes on intersection approaches. If these mitigations can be implemented without right of way acquisition, VTA will fund 100 percent of the cost for near-term (2018) feasible improvements.

R2-4. The County disagrees with the mitigation strategies at certain expressway intersections in 2040 and advises consulting the Comprehensive County Expressway Planning Study—2008 Update. VTA should contribute a fair share contribution to improvements.

The analysis has determined what improvements may mitigate Project impacts based on the particular volumes on intersection approaches. If these mitigations can be implemented without right of way acquisition, VTA will fund a fair share contribution for long-term (2040) feasible improvements. The more recently proposed 2040 Expressway Plan includes a widening of Foothill Expressway from San Antonio Road to El Monte Road, as well as intersection improvements at Springer Road which could help alleviate congestion in the future.

R2-5. The project will need an encroachment permit from the County.

VTA would apply for an encroachment permit from the County at the completion of the design phase.
5. **RESPONSES TO LOCAL CITIES**

Comment letters were received from each of the six cities through which El Camino Real passes. This report responds to the desire, expressed by several city council members, to know how the other cities had commented and how VTA would respond.

5.1. **City of Los Altos**


Responses to the City of Los Altos’ comments on the Draft EIR/EA from January 7, 2014 are incorporated into responses below.

*L1-2. Provide a tailored response and presentation to City.*

In response to this request, VTA made a presentation to the Los Altos City Council on March 10, 2015. Other cities have received similar presentations upon request. VTA will continue to coordinate with the City of Los Altos, as they have with all affected jurisdictions within the Project corridor, on their Project-specific questions and concerns.

*L1-3. Define the decision-making process VTA will use to arrive at a Locally Preferred Alternative (LPA).*

Selection of the Locally Preferred Alternative (LPA) will be informed by written comments and public testimony from local agencies and public, and a staff recommendation will be presented that will go through VTA advisory bodies. Ultimately, the LPA will be decided upon by the VTA Board of Directors.

*L1-4. Create a means for neighboring cities to work together to address common concerns about the Project.*

VTA met almost monthly in Project Development Team (PDT) meetings with planning and engineering staff from each of the cities throughout the conceptual development of the BRT alternatives. In addition VTA receives input from its advisory bodies which include elected officials and staff representatives from each corridor city, the County, and Caltrans, and will continue to do so as the Project moves forward.

*L1-5. How was diverted traffic determined? What is the current and projected growth in traffic? When does El Camino Real reach “full” capacity with the existing configuration? What data/assumptions were used to determine traffic diversion?*

The diverted traffic volumes were taken from the trip assignment step of the VTA's Countywide Travel Demand Model. Since the model assigns trips to routes by giving the shortest travel time to all trips, it finds equilibrium between congested routes. Thus, these diverted volumes reflect changes in travel time over the transportation network resulting from project alternatives (removal of mixed flow lanes, for example). Additional detail can be found in Section 6.3 of the TOAR.

It is difficult to specify when El Camino Real reaches "capacity" as volumes and capacities (which, for a signalized arterial, are largely determined by amount of green time provided) vary throughout the corridor. Indeed, based on the intersection analysis, portions of El Camino Real already operate at capacity. With the Project, it is expected that some traffic will divert off of El Camino Real, but that some locations will continue to operate at capacity. On the basis of the ratio of volume of traffic to the theoretical capacity of an urban arterial street, according to observed volumes, El Camino Real, in the evening eastbound commute direction, currently operates at approximately 91 percent of its three-lane capacity just west of Page Mill Road, at
approximately 94 percent just west of Shoreline Boulevard, at approximately 79 percent just west of Mathilda Avenue, and at approximately 57 percent of capacity just east of San Tomas Expressway. In 2018, according to the model, these same locations under Alternative 4c would operate at approximately 99 percent, 96 percent, 88 percent and 71 percent, respectively, of the two-lane capacity.

Tables 14 and 15 in the TOAR show the traffic volumes for the No Build Alternative on selected portions of El Camino Real. Detailed information on Average Daily Traffic (ADT) by vehicle class is included in Appendix D to the TOAR. Information on 2018 ADT by alternative is shown in Table 4.12-11, and will be augmented by 2040 ADT information.

The model operates on the principle that every trip should be made as short as possible. The model incorporates information regarding capacities and speeds on all facilities included in the model roadway network;

L1-6. **What mitigations are proposed beyond 2018? Will impacts be considered when VTA awards grants?**

Cities and transit users within the Project corridor would be the greatest beneficiaries of the Project. The Draft EIR/EA (Table 4.12-21 and Table 4.12-22) identifies mitigation measures for Project traffic impacts beyond 2018. VTA would provide fair share contributions for funding those feasible 2040 mitigations. The funds would be used to restripe and optimize signal timings as the need arises. VTA will work collaboratively with cities to evaluate grant applications and, where applicable, will consider the unmitigated impacts of the Project in this review.

L1-7. **Was field validation of travel time conducted? What assumptions were used to determine the impact on travel time?**

Limited automobile travel time runs were conducted along El Camino Real and used to check the reasonableness of model outputs against existing conditions. Existing transit travel times were derived from transit schedules which reflect actual operating conditions. For comparison of alternatives, existing and future automobile travel times were derived from the VTA Countywide Travel Demand Model. These values take into account assumed free flow speeds, roadway capacity, and forecasted travel demand (volume delay function). Transit operations in mixed flow were modeled by applying a factor to auto travel times that reflects the relationship between existing transit and existing auto travel times. Transit operations in dedicated lanes were computed based on average speed and dwell times.

L1-8. **Will VTA “test” the dedicated lane alternative by installing temporary barriers on El Camino Real to determine impacts and measure diversion?**

Possible scenarios for a demonstration project to test the effects of the dedicated lane alternatives were considered, but deemed impractical because of cost, inconvenience and inherent inability to accurately simulate the transit benefits while experiencing the automobile impacts. It is impractical to run buses in the median without median stations.

L1-9. **What is VTA’s approach to evaluating significant and unavoidable impacts?**

The DEIR/EA incorporated traffic analysis at the progressively more detailed corridor-wide, screenline/link, and intersection levels. Identification of mitigations also took a stepwise approach beginning with determination of significance of the impact. A significant impact at a signalized intersection is defined as 1) a decrease in level of service dropping below the standard (worse than LOS E for intersections in the Congestion Management Program [CMP], and worse than LOS D for non-CMP intersections), or 2) an increase in delay of 4 seconds or more for intersections already operating below the standard under No Build conditions. At an
unsignalized intersection, an impact was determined to be significant if 1) intersection operations deteriorated to LOS D and the intersection met the warrant for a traffic signal, or 2) at an intersection already operating at LOS D or worse, intersection delay increased by 4 seconds or more and the intersection met the warrant for a traffic signal.

After determining significance, potential mitigations were considered in order of least disruption. Signal optimization was considered first, then solutions that would restripe or otherwise make improvements within the existing curb-to-curb width, followed by improvements to widen the roadway or to install a traffic signal.

Significant impacts were deemed unavoidable if mitigations would require right of way or, at an unsignalized intersection, the intersection did not meet the signal warrant.

As noted, this analysis identifies significant and unavoidable impacts at numerous locations. Generally, these are locations where widening and right of way acquisition would be required. However, in the case of Springer Road at Cuesta Drive, the proposed mitigation measure is installation of a traffic signal. This measure would be fully funded by VTA as part of the Project and would reduce the impacts to less than significant. This applies only to Alternatives 4b and 4c. It should further be noted that while this measure is proposed to be funded as part of the Project, it would not be implemented without consultation with the cities of Los Altos and Mountain View.

L1-10. Will dedicated lanes result in an immediate gross imbalance in lane utilization causing vehicle traffic to divert during construction and stay diverted?

Converting one lane in each direction on El Camino Real to bus and emergency vehicle travel only would indeed result in some drivers choosing other routes. At the start of construction, the lane to be converted to a BRT lane would be closed to traffic and used as a construction area and staging area. Diversion of traffic would likely happen immediately upon the start of construction, and traffic would continue to divert during and after construction. While current projections suggest a 10-minute frequency would serve the demand in the corridor, if ridership increased faster than projected, as has been the case with the Orange Line BRT in Los Angeles and Eugene’s EmX, the interval between buses could be reduced without further impact to automobile traffic.

L1-11. Provide more information on current ridership including embark/disembark data, length of trips, peak hours, demographics.

Transit ridership forecasts were calculated by adding the change in ridership predicted by the Travel Demand Model to ridership data collected in November of 2013. The existing ridership data by station may be found in Appendix B of the TOAR. Ridership is measured in terms of boardings (embark data); disembark data is not available. Appendix C of the TOAR provides projected transit ridership in 2018 by line and station. In addition, general information on demographics and other parameters is available for core routes (which include Lines 22 and 522) and the entire VTA system, although not specific to El Camino Real. This information is reported in results from the system-wide ridership survey conducted by VTA in 2013, available on the VTA website at http://www.vta.org/sfc/servlet.shepherd/document/download/069A0000001OahEIAS. The average core route bus rider lives in a household of three to four people, and the household earns an average of $33,167 per year. The average age is 34.5 years old. VTA serves a diverse ridership. Nearly three-fourths (78 percent) are non-white, while 22 percent are white (only). When asked how well they speak English, 31 percent of riders say they speak it less than Very Well. Only 36 percent of VTA core bus riders have access to a vehicle.
L1-12. What alternatives has VTA considered for increasing ridership? What effect would lower fares and free transfers to other transportation systems have? More frequent, smaller buses? Providing wi-fi?

VTA service improvements are guided by several Board-adopted policy documents and criteria, including the Transit Sustainability Policy, Service Design Guidelines and the Valley Transportation Plan. Service enhancements and changes are further informed by the analysis done to support the Comprehensive Operations Analysis (COA). The Bus Rapid Transit (BRT) Strategic Plan evolved from the COA and was approved by the Board of Directors in 2009. The BRT Strategic Plan identified El Camino Real as one of the top three most promising corridors for implementation of BRT. In the course of conceptual engineering alternatives to BRT in the El Camino Real corridor were considered, but discarded as documented in Section 3.5 of the DEIR/EA.

VTA regularly reviews its services for possible refinements and changes to service and or fare policies. Regarding fare policy, VTA, like the great majority of bus service providers, does not use distance pricing because distance pricing makes fare collection more complex for customers as well as staff, requires additional fare collection equipment, and increases the cost of fare collection. Regarding free transfer to other transit systems, the FY16/17 proposed budget includes a revision to fare policy which would establish a uniform transfer credit. VTA currently runs community buses on some routes, as appropriate. While the ridership on El Camino Real varies along the corridor, the ridership warrants full-size and articulated buses. Buses that will be running in the El Camino Real corridor in early 2016 will be equipped with passenger wi-fi.

L1-13. Has VTA considered service concepts, as SamTrans did, to reduce travel time and increase ridership?

The SamTrans El Camino Real Bus Rapid Transit Phasing Study (December 2014) examined service concepts to move from existing local bus service on El Camino Real in San Mateo County to a full BRT service. The study recommended two service strategies for further study. Option 1 consists of adding a Rapid bus overlay to the existing local bus service, then in the future, replacing the Rapid bus with BRT while keeping the local bus. Option 2 would upgrade the existing local bus to reduce the number of stops (a “Hybrid Rapid”), then in the future, adding BRT. VTA has already instituted the Rapid bus service plan—it’s the Rapid 522 that runs in the corridor now in addition to the local service by Line 22. The next step in service improvement, as SamTrans has identified, and as VTA identified in the 2009 BRT Strategic Plan, is to implement BRT.

L1-14. Has VTA considered alternatives that use Caltrain, that have BRT on Foothill Expressway with shuttles providing north/south connections, or that have north/south connections to Caltrain?

Alternatives studied in the DEIR/EA were intended to provide improved service on El Camino Real, which service on Caltrain or along Foothill Expressway would not do. While Line 522/BRT and Caltrain services operate in the same general corridor, albeit often as much as a mile apart, they serve different markets. Line 552/BRT is an express service similar to Caltrain, but it does not go outside of Santa Clara County and is intended to serve longer-distance regional trips with less frequent stops. The 522/BRT fare is $2.00 for a single ride whereas Caltrain fares range from $3.25 to $13.25 without a Clipper card depending on the number of zones traveled. As a result, the two services are considered complementary and not duplicative. For the above reasons, alternatives that include improvements to Caltrain were not evaluated.

Usually BRT is an enhancement of existing transit service because of increased demand for faster, more frequent service. At the time of the 2009 BRT Strategic Plan which examined the
most promising corridors in Santa Clara County for implementation of BRT, Foothill Expressway did not have transit service that indicated potential for increased ridership with the implementation of BRT and it was not identified as a priority corridor for BRT. Foothill Expressway is not a Priority Development Area and is unlikely to develop the land uses necessary to support a BRT-level service.

North-south connections that intersect with El Camino Real, and thus could feed into and increase ridership in the El Camino Real corridor, have recently been studied in the North Central County Bus Improvement Plan, resulting in a new Line 354 service that is proposed to start in July 2016 and connect DeAnza College to business areas in north Sunnyvale. Numerous other existing bus lines provide north-south service across El Camino Real and serve Caltrain stations. Caltrain shuttles provide connections to and from major employment areas. VTA will continue to review the opportunity to increase and improve north-south connections before and after implementation of the BRT service.

L1-15. What are the projected and actual ridership and financial results of the Santa Clara-Alum Rock BRT project?

Ridership projections made during the environmental phase on the Santa Clara-Alum Rock BRT project indicated the BRT would increase weekday boardings by approximately 120 percent by opening year of 2030. Updated forecasts based on more recent employment and population data project SCAR BRT ridership growing from the 2008 ridership by approximately 20 percent by 2018 under an El Camino Real BRT No Build situation. The Santa Clara-Alum Rock BRT service is slated to begin in early 2016; actual ridership counts will be available shortly thereafter.

L1-16. What cost/benefit analysis has been done? What is the funding source?

VTA typically measures cost-effectiveness against standards described in the Service Design Guidelines adopted by the Board of Directors in 2007. The standards include average boardings per revenue hour, boardings per station, and average boardings per route mile. The El Camino Real BRT alternatives with more dedicated lane perform the best against these guidelines and so are deemed cost-effective. In addition, it is VTA policy to seek a 20-25 percent farebox recovery rate, that is, the ratio of farebox revenue to the cost of operating the service. In 2018, under a No Build condition, VTA would recover approximately 15 percent of the BRT operational costs, under Alternative 2 (mixed flow with bulbout stations), VTA would recover approximately 19 percent of the costs, and under any of the dedicated lane alternatives, this rate increases with increasing length of dedicated lane to a projected rate of approximately 42 percent with Alternative 4c.

Capital costs would be funded through the 2000 Measure A Transit Improvement Program. VTA would also apply for a Small Starts grant from FTA.

L1-17. What is the timeline for the Stevens Creek Boulevard BRT project? What were the considerations in deciding which project to do first?

The Stevens Creek BRT project will implement TSP improvements later this year and will increase the frequency of service likely by 2017. In addition, a new Rapid 523 service will be operational when BART opens in 2017, and will be very similar to the current 323 service. A determination of future improvements along the Stevens Creek corridor will be made upon evaluating the effect of TSP and increased frequencies.
L1-18. Trash receptacles shall have lids that are kept closed and prevent wind, animals or rain from transporting litter into the stormwater system.

Trash receptacles used at VTA’s transit facilities have lids. Trash receptacles installed as part of the Project will continue to have lids, which will prevent the wind, animals, or rain from transporting litter into stormwater systems, to the extent possible. Trash collection for VTA’s bus transit facilities along El Camino Real are the responsibility of VTA Bus Stop Maintenance, the local jurisdiction, or Clear Channel Communications, depending on agreements. Waste collected by VTA Bus Stop Maintenance is disposed of at VTA Operating and Maintenance Divisions.

L1-19. Trash receptacles shall be inspected and maintained to prevent overflow.

As described in the response to Comment L1-18, trash receptacle inspection and maintenance at new BRT stations constructed by the Project would continue to occur according to contractual agreements.

L1-20. VTA shall inspect the trash receptacles and stations daily to ensure that they are litter-free.

See the response to Comment L1-19.

L1-21. VTA shall coordinate with the City and the Santa Clara Valley Urban Runoff Pollution Prevention Program for litter/stormwater messaging at stations and bus stops.

VTA will continue to coordinate with the City of Los Altos and the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVUPPP) for litter/stormwater messaging at BRT stations, as it pertains to the Project.

L1-22. VTA shall provide a copy of the environmental document to SCVURPPP.

The EIR/EA was circulated to the appropriate agencies.

VTA specifically notified Santa Clara County, Santa Clara Valley Water District (SCVWD), and the six city jurisdictions (San José, Santa Clara, Sunnyvale, Mountain View, Los Altos, and Palo Alto) within the Project boundaries, of the circulation of the Draft EIR/EA. VTA also provided electronic copies of the Draft EIR/EA on VTA’s website to public agencies, and the public at large.

The Santa Clara Valley Urban Runoff Pollution Prevention Program did not comment or make recommendations on the Draft EIR/EA.

L1-23. VTA shall provide a construction schedule.

VTA will provide all jurisdictions along the Project corridor with a construction schedule prior to the commencement of construction activities. Construction schedules will be regularly updated.

L1-24. VTA shall coordinate with the City regarding sewer projects on El Camino Real and side streets.

VTA will coordinate with the City of Los Altos regarding Sewer Capital Improvement Program (CIP) Projects along El Camino Real and local side streets that are affected by the Project.

L1-25. What are the water quality impacts after construction (e.g., litter at stations)?

Impacts to hydrology and water quality during Project operation (after construction) are analyzed in Section 4.9, Hydrology and Floodplain/Water Quality and Storm Water Runoff of the DEIR/EA, and were determined to be less than significant. Specifically, there would be minimal permanent impacts on water quality because there would be a net reduction in paved area with
a landscaped median extended across certain intersections. Additionally, the Project contains provisions for permanent pollution prevention design that would address potential impacts on water quality during Project operation. The potential provision of trash capture devices may be explored if requested by Caltrans as part of its strategy to meet trash capture reduction provisions.

**L1-26. How will VTA select the Locally Preferred Alternative?**

Selection of the Locally Preferred Alternative (LPA) will be informed by written comments and public testimony from local agencies and public, and a staff recommendation will be presented that will go through VTA advisory bodies. Ultimately, the LPA will be decided upon by the VTA Board of Directors.

**L1-27. VTA shall provide and maintain trash cans at BRT stations and bus stops to prevent litter from entering the City storm drain system.**

VTA will provide and maintain all trash receptacles at BRT stations along El Camino Real either with its Bus Stop Maintenance staff or through contractual agreements with Clear Channel Communications, or local jurisdictions. VTA will continue to provide solid waste services at its transit facilities, consistent with existing conditions. See also the responses to Comments L1-18 and L1-19.

**L1-28. Provide a breakdown of utility impacts by city. Will there be impacts to the City by storm and sewer relocations?**

An additional table will be added to the EIR/EA to provide more detail on utility impacts, including a breakdown by city. Storm and sanitary sewer manholes and pipes for which access is required would be relocated at BRT stations. Drainage inlets would be relocated to accommodate curb line construction. Utility impacts, including storm drains and sanitary sewers, will be further defined and coordinated with the cities in the final design phase.

**L1-29. How will the BRT improvements impact access to sewer and storm drain manholes for pipe rehabilitation, repairs, maintenance, etc?**

If manholes are located in station areas, they have been identified for relocation, along with the adjoining pipes, to more accessible areas.

**L1-30. Replace “be” with “been” on page 3-27, Section 3.5.3 (last paragraph) of the DEIR/EA.**

The EIR/EA will be revised as noted (replacing “be” with “been”).

**L1-31. Should SCVURPPP be included in the list of regulatory agencies?**

The EIR/EA will be revised to appropriately list the SCVURPPP in the regulatory setting of Section 4.9, Hydrology and Floodplain/Water Quality and Stormwater Runoff.

**L1-32. The City of Los Altos does not support removing trees to accommodate bus facilities.**

The comment stating that the City of Los Altos does not support tree removal to accommodate bus facilities is noted. In the design phase VTA will work with each affected jurisdiction to develop a landscaping plan that provides details on locations of trees and other plantings to replace landscaping and trees removed during construction of the Project. Trees removed by the Project would be replaced within the Project corridor, to the extent feasible. Trees with a diameter of less than 12 inches would be replaced at a 2:1 ratio. All trees with a diameter of 12 inches or more would be replaced at a 3:1 ratio. If urban trees (nonnatives and ornamentals) are replaced with native trees, a reduced mitigation ratio of 1:1 for all trees smaller than 12 inches in diameter, and 2:1 for all trees with a diameter of 12 inches or more, would be
implemented. These trees would be irrigated and maintained for a period of not less than 3 years. With a more detailed design-level evaluation, trees identified for removal may be able to be preserved in place.

*L1-33. Correct the spelling of San Antonio Road.*

The spelling of San Antonio Road will be corrected (from San Antonia to San Antonio) on Figure 4.11-1.

*L1-34. Before and after project construction, VTA shall inspect sanitary sewers and storm drains to ensure construction vibration did not damage the facilities.*

VTA will determine the need for video inspection of subsurface facilities during the final design phase.

*L1-35. Haul routes should comply with municipal codes.*

VTA is not subject to municipal code requirements. However, to the extent feasible, VTA will coordinate with the City of Los Altos, and all other affected Project corridor jurisdictions, to eliminate potential conflicts with construction haul routes.

*L1-36. Fire department stations are missing from Table 4.13-1.*

The Almond Fire Station and the Loyola Fire Station in Los Altos are well over a mile away from El Camino Real and are not considered near to the corridor.

*L1-37. The City has concerns about diversion and impacts at additional intersections. VTA should conduct outreach regarding a signal at Cuesta Road/Springer Road.*

The Draft EIR/EA examined 247 intersections on and near El Camino Real. Intersections off of El Camino Real were analyzed for intersection level of service if they were in the model, within approximately ½ mile from El Camino Real, and experienced an increase in total intersection volume of 50 or more cars under any scenario. The particular intersections in the comment did not meet one or more of these criteria. If warranted, the analysis of additional intersections may be undertaken during the design phase.

It should further be noted that mitigation measures proposed to be funded as part of the Project, including signalization of the Cuesta/Springer intersection, would not be implemented without consultation with the relevant jurisdictions. Because the local jurisdiction is better able to ascertain the specific need, timing and public coordination for signal improvements, the implementation of this mitigation, although funded by VTA, would be the responsibility of the local jurisdiction.

*L1-38. The City has concerns that some streets will be cut-through routes for diversion traffic and residents may request traffic calming improvements. What mitigations will VTA provide if cut-through traffic increases?*

VTA would provide the mitigations identified in the FEIR/EA. Impacts to road segments adjacent to the affected intersections would need to be evaluated at the time the mitigation is readied for implementation, but impacts to the segments identified are expected to be less than significant. All of the locations cited, except Loucks Avenue between Los Altos Avenue and San Antonio Avenue are included in the VTA Countywide Travel Demand Model and it forecasts that the 2018 PM peak hour bi-directional volumes differ by less than 12 vehicles per hour between No build and Alternative 4c. If, after implementation of the Project, it is demonstrated that cut-through traffic resulting from the Project impacts neighborhood streets, VTA would work with cities to identify mitigation and VTA would fund mitigation.
L1-39. How will VTA address unforeseen mitigation measures needed for impacts to bicycles and pedestrians?

Concurrent improvements to bicycle and pedestrian facilities on streets connecting to and around El Camino Real would be taken into account during the design phases. If new impacts from the Project are identified to City facilities that were planned or programmed at the time of the Project environmental scoping, VTA would work with cities to identify mitigation and VTA would fund feasible mitigation.
5.2. City of Mountain View

L2-1. Diversion of traffic graphic does not account for all vehicles taken off El Camino Real.

The "screenline" traffic volumes shown in the Draft EIR/EA only include the changes on the major "through" roads that are alternatives to El Camino Real. The total volume of vehicles diverted to these streets does not necessarily add up to the reduction on El Camino Real because it does not include those trips that shift to transit or other trip changes such as shifts to biking/walking, shifts to other minor routes because of local access choices, and shifts to travel at different times. The relevant figures/tables in the TOAR and EIR/EA will be updated to include all trips and the numbers will balance.

L2-2. Diversion has not taken into account the capacity of the parallel routes and if they have remaining capacity to accommodate diverted traffic.

The screenline link analysis presented in the Draft EIR/EA summarized the change in demand volumes for all primary alternative routes for traffic diverting off of El Camino Real. This analysis was performed for two time hours, three scenario years and seven alternatives. While the screenline analysis does not specifically include volume-to-capacity ratios, the volumes used in this analysis were based on traffic forecasts derived from VTA's Countywide Travel Demand Model. The model takes into account the capacity and relative speed/travel times for alternative routes in assigning trips.

L2-3. Need a map showing how trips are distributed across the entire street network, beyond the 0.5-mile distance from the corridor to determine number of trips per lane.

The re-distribution or diversion of trips was determined using VTA's Countywide Travel Demand Model. The model was run for each alternative (for two peak hours, for three analysis years), and the resulting demand volumes for each build alternative were then compared to the No Build Alternative (Alternative 1) to identify the change in volume or diversion. The screenline diversion figures presented in the TOAR illustrate the change in volume (i.e., diversion) expected at select locations on other key routes. As both the TOAR and DEIR/EA contain extensive and comprehensive analysis results, showing further details would significantly expand the documentation. However, plots showing the "volume difference" between the No Build (Alternative 1) and each Build alternative are available upon request by the city. These plots, generated directly from the Travel Demand Model, include all links in the model network. However, not all streets are included in the model network since some streets are small and/or discontinuous and would not provide reasonable alternative routes.

L2-4. Middlefield Road should be analyzed.

The multi-level traffic analysis approach captures the broader impacts to travel demands and patterns resulting from the Project, but also look in greater detail at locations in closer proximity to El Camino Real. Intersections were selected for additional analysis based on their inclusion in the VTA travel demand model network, proximity to El Camino Real (generally within 1/2 mile), and an increase in total intersection volume of 50 or more cars.

With respect to Middlefield Road, the expected changes in volume (i.e., diversion) were examined as part of the screenline analysis. This provides insights into potential impacts on Middlefield Road. However, Middlefield Road is over a mile away from El Camino Real in Mountain View; thus, the intersections on Middlefield Road did not meet the 1/2-mile criteria for which intersections were evaluated for level of service. Although the intersection analysis did not include locations along Middlefield Road within the City of Mountain View, impacts to
Middlefield Road would be examined as part of subsequent phases if dedicated lanes in Mountain View are part of the LPA.

**L2-5. What is the basis for the assumption that right of way would not be required for mitigation measures?**

The DEIR/EA indicates that right of way would be required for mitigations that add lanes. All mitigation measures were examined at a planning level in order to identify the need for right of way acquisition or whether the improvements could be implemented with simple striping or widening within the current right of way. VTA makes every effort to minimize the acquisition of right of way for a project. VTA carefully weighs the benefits to the public against the costs and injury to the property owners when deciding to use its powers of condemnation for acquiring property. In the case of the traffic mitigation for this project, VTA has decided not to take any right of way from property owners unless required to as a condition of a permit or approval authority over the project because it is not necessary to build or operate BRT and is not consistent with other project purpose and needs such as enhancing the multi-modal character of El Camino Real for pedestrians and bicyclists. If the cities, county, or state requests that VTA take right of way for traffic mitigation, VTA will consider it only if there is no displacement or minimal hardship inflicted on property owners or their tenants and the benefits of the mitigation to the public are substantial.

**L2-6. VTA should implement all mitigation measures and not rely on local jurisdictions.**

Because the local jurisdiction is better able to ascertain the specific need, timing and public coordination for street improvements off the El Camino Real corridor, the implementation of signal optimization, roadway striping and signal installations as mitigation, although funded by VTA, would be the responsibility of the local jurisdiction. These could be programmed in future cycles of capital improvement programs with the expectation of funding from VTA.

**L2-7. Need analysis of congestion if some vehicles don’t divert.**

The traffic forecasts are derived from VTA’s Countywide Travel Demand Model which takes into account the capacity and relative speed/travel times for alternative routes in assigning trips, striving to give the shortest travel time to all vehicles. Given the nature and scope of the Project, the countywide model is the most appropriate tool for determining the re-distribution trips, and its use is consistent with applicable analysis requirements.

Auto travel times, which reflect congestion, do not vary much across Project alternatives because vehicles divert and the volume to capacity ratio stays approximately the same along El Camino Real. Detailed information about travel time, broken down by segment, can be found in Appendix F of the TOAR.

If fewer vehicles divert than projected by the model, impacts along El Camino Real may be somewhat worse than identified, and impacts on other routes may be somewhat less than identified. If more vehicles divert than projected by the model, impacts along El Camino Real may be somewhat less than identified, and impacts on other routes may be somewhat worse than identified. But, given that the model has already balanced the travel times throughout the system, it is unlikely that deviation from the model prediction will be substantial.

**L2-8. Are remaining left turn pockets sufficient to handle additional U-turns due to removal of unsignalized and other left turns?**

Where applicable, median closures were incorporated into the Travel Demand Model to capture potential diversion. In these cases, potential impacts are accounted for in the model outputs, the screenline analysis, the identification of impacted intersections, and the LOS analysis of
those intersections. For minor streets and driveways not in the model, the turning movements affected by median closures were manually redistributed to adjacent intersections prior to making the intersection LOS calculations and thus are included in the analysis presented in the Draft EIR/EA.

Furthermore, details regarding LOS, delay, and queues by approach have been provided in the form of Synchro models and output reports to each city. However, given the quantity of analysis in the multi-level transportation analysis described in the General Responses, a detailed queue analysis in the DEIR/EA was considered impractical at this time. However, in 2018, the number of turns redistributed at an intersection was less than 60 in each AM peak hour scenario and in almost all of the PM peak hour scenarios. That number results in two or fewer cars added to a turn pocket in each signal cycle. There are four locations (WB at The Americana and EB at Maria Avenue in Sunnyvale, and EB at Flora Vista Avenue and WB at Calabazas Boulevard in Santa Clara) where more than 60 cars were reassigned, resulting in three or four cars are added per cycle, and only in the PM peak hour under Alternative 4c. Given the small increase in the demand for left turns at project intersections, VTA will not be conducting a detailed queue analysis at this time.

A more detailed examination of the remaining left-turn pockets, including queuing analysis, would take place during the design phase.

L2-9. Analyze impacts to cross streets beyond intersection LOS, including queuing on side streets and impacts to pedestrians and bicyclists crossing El Camino Real.

The extensive intersection LOS analysis included in the Draft EIR/EA is described in the General Responses. Due to the volume of this analysis, only the overall intersection LOS and delay was included in the documentation. The reporting of detailed LOS and queue results by approach and/or movement was considered unnecessary at this time for the purposes of CEQA. However, details regarding LOS, delay, and queues by approach have been provided to the stakeholder agencies along the corridor in the form of Synchro models and output reports. More detailed examination of operations by approach, including queuing analysis, would take place during the design phase.

L2-10. There will be aesthetic and noise impacts due to loss of trees. Does Caltrans approve of removal and replacement of trees?

Caltrans, as owner of El Camino Real and operator of the State Highway System—of which El Camino Real is State Route 82—would be responsible to review a Project Report which will describe the Project and any deviations from standard highway design, and incorporate the final EIR/EA as an attachment. Caltrans’ approval of the Project Report would represent approval of the impacts and mitigations identified in the final EIR/EA, including removal and replacement of trees. Caltrans will consider approval of the Project Report after the selection of a Locally Preferred Alternative and completion of the Final EIR/EA.

The visual analysis indicates that the potential long-term visual impacts associated with removal of a number of existing trees along the Project corridor would be addressed through replacement tree planting within medians and along sidewalks, where feasible. Trees removed by the Project would be replaced within the Project corridor, to the extent feasible. Trees with a diameter of less than 12 inches would be replaced at a 2:1 ratio. All trees with a diameter of 12 inches or more would be replaced at a 3:1 ratio. If urban trees (nonnatives and ornamentals) are replaced with native trees, a reduced mitigation ratio of 1:1 for all trees smaller than 12 inches in diameter, and 2:1 for all trees with a diameter of 12 inches or more, would be implemented. These trees would be irrigated and maintained for a period of not less than 3 years. Anticipated tree replacement could potentially result in an overall net gain of trees.
along the Project corridor and the long-term visual effect in some locations of trees and Project landscaping could result in an improvement of the visual character of the streetscape. Potential change in noise levels as result of tree loss, is anticipated to be negligible.

L2-11. Provide details of where the replacement trees would be located.

Trees would be replaced within the Project corridor, to the extent feasible. In the design phase, VTA will work with each City to develop a landscaping plan that provides details on locations of trees and other plantings to replace landscaping and trees removed during construction of the Project. With a more detailed design-level evaluation, many of the trees identified for removal may be able to be saved. With a net increase in pervious area/landscaped area, it is likely that all replacement trees can be planted within the corridor. A design exception may need to be approved by Caltrans to allow planting of trees in medians with less than five feet of horizontal clearance, as currently exists in some locations and has been done in Menlo Park under a recent demonstration project on El Camino Real, or closer than 100 feet from an intersection.

L2-12. Specific measures to protect existing planting and irrigation to remain should be included in the FEIR. What are impacts to existing planting and irrigation not removed and how will landscape maintenance be performed?

Specific measures for protection of existing facilities would be developed during design. In the design phase, VTA would examine in detail the connections and operations of the existing irrigation systems and ensure that irrigation design preserves existing systems, as appropriate. Construction specifications would require protection of facilities that are to remain in place. No impacts to plantings to remain are anticipated, as a very conservative approach was taken to identifying removals and areas where new landscaping would be placed.

The procedure for landscape maintenance and access would be similar to today—trucks deployed in the lane adjacent to the landscaping work. Where that lane is the BRT lane, the maintenance agency would need to coordinate with VTA to advise BRT drivers of work in the vicinity. BRT buses would need to leave the BRT lane for a short distance and reenter past the maintenance trucks. Landscape planting requiring immediately adjacent truck access (tree trimming) would not be installed within a certain distance of median stations to ensure that buses could get back into the BRT lane in advance of the station.

L2-13. What are the impacts to bicyclists from removal of left-turn pockets and to existing bicycle network crossings? How does the Project support City land use and policy related to pedestrians and bicyclists?

Under alternatives with dedicated lanes in the City of Mountain View, left turn pockets would be removed at a maximum of six locations (Crestview Drive, Dale Avenue, between Yuba Drive and State Route (SR) 85, between Mariposa Avenue and Pettis Avenue, Distel Drive, and Ortega Avenue). Of these, the first four of these involve turn bays for vehicles turning off of El Camino Real only (left turns onto El Camino Real and pedestrian crossing is currently prohibited), while at the last two existing signals would be removed. At the same time, new pedestrian crossings would be implemented at Crestview Drive and Mariposa Avenue/Pettis Avenue; and a new signal installed at Distel Circle between Distel Drive and Ortega Avenue. These improvements would minimize any impacts to bicyclists and improve pedestrian crossings. For locations where left turn bays are removed and a new pedestrian crossing is not provided, the distance to the nearest left turn is between 400 and 600 feet.

All of the alternatives include bicycle/pedestrian/streetscape improvements which would be generally supportive of bicycle/pedestrian goals in the relative policy documents. For example, the BRT vehicles would accommodate bicycles both inside and outside. New pedestrian
signals would be installed in Mountain View at Crestview Drive for Alternatives 4a-4c and at Pettis Avenue under Alternatives 4b and c. New bicycle lanes along El Camino Real would also be constructed. None of the alternatives would interrupt or otherwise impact bicycle facilities that cross or connect to El Camino Real.

L2-14. Provide exhibits to show shortened crossing distances and pedestrian enhancements.
See Figures in Section 4.2 of the DEIR/EA that provide photosimulations of the stations, including depiction of crossings. Any further development of exhibits demonstrating pedestrian crossing amenities would take place as part of a subsequent design phase.

L2-15. Need more detail on loss of parking and impact to parking on side streets.
The 336 on-street spaces along El Camino Real in Mountain View are supplemented by approximately 3,500 off-street public spaces. Midday parking occupancy was observed at 8 percent for the on-street spaces, 51 percent for the cross-street spaces, and 46 percent for the off-street spaces. Because of the remaining off-street capacity and low utilization of spaces on El Camino Real, there should not be significant impacts to cross street parking. A more detailed examination of parking impacts may be conducted during the design phase.
If a city determines that parking is essential, it may coordinate with VTA to exclude bike lanes from the Project construction and retain parking.

L2-16. Need more detail on impact to businesses of loss of parking and need more outreach.
While the displacement of existing parking spaces is not considered a significant impact under CEQA, an aggregate level assessment of impacts to the parking supply was conducted as part of the Draft EIR/EA to allow for the comparison of Project alternatives. More focused analysis may take place after the selection of the LPA.
If a city determines that parking is essential, it may coordinate with VTA to exclude bike lanes from the Project construction and retain parking.

L2-17. What is the coordination with Caltrans? The City would like to participate in that.
VTA met almost monthly in Project Development Team (PDT) meetings with planning and engineering staff from each of the cities throughout the conceptual development of the BRT alternatives. Caltrans was frequently invited to those meetings as well, and other coordination meetings with Caltrans have taken place at Caltrans District 4 offices in Oakland. Caltrans approved a Project Study Report (Project Development Support) in February 2014, which was provided to the cities. As a responsible agency, Caltrans has reviewed and provided comments on the DEIR/EA. Going forward, VTA would submit to Caltrans a Project Report. Approval of the Project Report by Caltrans constitutes approval of the Project, although detailed coordination would continue throughout design and Caltrans would need to issue an encroachment permit for construction work in the State highway right of way. It is anticipated that PDT meetings would continue throughout design and would involve both Caltrans and the cities, as appropriate.

L2-18. How does the Project support local planning, particularly the City of Mountain View 2030 General Plan?
The City of Mountain View 2030 General Plan is discussed in detail in Appendix E, Regulatory Setting, of the EIR/EA. Goals and policies from the Mountain View 2030 General Plan that are relevant to the Project are described on Page E-40. As noted in Appendix E, at the time of the Draft EIR/EA, the San Antonio Precise Plan and the El Camino Real Price Plan had not yet been adopted and were, therefore, not described in detail.
Similarly, the applicable General Plans of other jurisdictions along the Project corridor were included in Appendix E.

**L2-19. ABAG population and employment data does not match what the City has used in the 2030 General Plan and so the Project may have underestimated cumulative growth.**

As the Project is partially federally funded, it is required that the latest adopted regional forecasts be used in the forecast modeling process. Use of VTA’s Countywide Travel Demand Model, which uses the ABAG 2013 land use projections, is consistent with this requirement.

**L2-20. The Project should use the same assumptions for land use and development as the El Camino Real Precise Plan and 2030 General Plan.**

See the response to Comment L2-19.

**L2-21. Because it doesn’t use the same assumptions as the General Plan, the Project underestimates traffic volumes and intersection delays.**

See the response to Comment L2-19.

**L2-22. The Transportation Management Plan should describe specific details regarding maintaining access for all modes during construction.**

The Project includes the development of a Transportation Management Plan (TMP). The TMP will include measures to reduce the temporary construction impact to pedestrian and bicycle facilities, as well as to automobiles, to a less-than-significant level. The details of these measures will be developed during the design phase as which time the requirements listed in the comment will be taking into consideration.

**L2-23. Construction noise should be constrained to conform to the Mountain View City Code and specific measures are needed to protect nearby residential units from noise impacts.**

VTA is not subject to municipal code requirements such as Section 8.70.1 Construction noise (Mountain View City Code). However, to the extent feasible, VTA will coordinate with the City of Mountain View, and all other affected Project corridor jurisdictions, to eliminate potential conflicts related to construction noise.

**L2-24. Identify all “neighborhoods of concern,” including low-income block groups.**

The statement that “no neighborhoods or communities of concern have been identified” was made in the Socioeconomics section (Chapter 5.14) and refers to areas within the study area that are differ significantly with respect to demographic characteristics from the study area cities or region. This is based on 2010 census data. The study area for socioeconomic analysis is defined as the 46 tracts in the 2010 U.S. census located in or adjacent to the El Camino Real corridor.

Census data for income statistics is only available at the census tract level. As discussed in the Community Impact Assessment supporting the DEIR/EA, within the City of Mountain View the study area has lower levels of low-income residents than the city as a whole. Approximately 3 percent of the study area population in Mountain View would be characterized as low-income compared to approximately 4 percent for the entire City. These statistics are based on 2010 census data. Six census tracts in Mountain View are identified as having “low-income environmental justice populations” defined conservatively as having low-income populations higher than the City of Mountain View’s low-income population. Of these six tracts, only one (Census Tract 5094.03) has a low-income population that is greater than 10 percent (rather it is 12.8 percent), which is well below the 38.2 percent to 64.7 percent of households cited in the comment.
L2-25. VTA should clarify some of the varying ridership numbers expressed.

The transit ridership presented in Table 2-2 of the TOAR, taken from the VTA’s Transit Service Plan 2014-2015, is the average weekday ridership for July - November 2012 (first and second quarters of fiscal year 2013) for the entire route (Eastridge to Palo Alto).

The transit ridership presented in Table 4.12-8 represents the average weekday ridership within the Project corridor only (Cahill to Palo Alto) based on data from November 2013. Thus, the ridership totals are not directly comparable. Table 4.12-1, however, presents November 2013 ridership data for both the Project corridor (12, 512) and the entire route (20,792). In this case, the latter is directly comparable to the information presented in Table 2.2 of the TOAR.

The reference to ridership of over 100,000 on page 3-2 should correctly refer to total system ridership not combined ridership on Lines 22 and 522. The total system ridership presented in the Transit Service Plan 2014-2015 is 105,348, of which the combined ridership for Lines 522 and 22 represents about 19 percent. This will be corrected in the final EIR/EA.

Note: A typographical error has been noted and will be corrected in Tables 4.12-1 and 4.12-8 (the number for the Line 522 ridership should be 3,287 rather than 3,278 and the total Line 522 ridership should be 12, 521 rather than 12, 512).

L2-26. Lane geometry appears to be modeled incorrectly at the El Camino Real intersections with Rengstorff Avenue, Escuela Avenue, and El Monte Avenue. In addition, signal cycle lengths were modeled incorrectly.

The geometry of the identified intersections was checked using aerial photographs available on-line.

- El Camino Real/Rengstorff Avenue: The coded geometry is consistent with observed striping. It appears that the northbound driveway is wide enough to allow for two lines of vehicles; however, it is not striped as such. Given the low volume of traffic on this approach, any change would have minimal impact.

- El Camino Real/Escuela Avenue: The northbound driveway is coded as a single lane but was modified in late 2011/early 2012 to include 2 lanes (left through and right-turn). This changed occurred after the initial field investigations to verify geometry. However, counts at this location were updated after this change. The Synchro model will be updated accordingly to indicate a slight reduction in average delay.

- El Camino Real/El Monte Avenue: The coded geometry is consistent with observed striping. In the field, the eastbound right turn occurs upstream of the intersection and is therefore coded as a free right. This is consistent with the coding in the CMP TRAFFIX database. The southbound driveway was not included as it appeared to be "in" only, there were no observed exiting vehicles, and the approach does not have a signal head.

The intersection analysis was initiated in 2012 and all scenarios completed in early summer 2014. This analysis was conducted using the signal timing plans provided by Caltrans (and other responsible agencies where applicable) at the time that analysis was initiated. The timing parameters used in the Synchro models have been checked to ensure consistency with the provided timing plans. It is important to note that because many intersections operate as uncoordinated, actuated signals, the average cycle length varies and depends on actual traffic volumes.
L2-27. What is the current (2013 or 2014) travel speed for automobiles in the PM eastbound direction?

Current (2013) average travel speed for automobiles is 26.4 mph in the PM peak eastbound direction.

L2-28. The Grant Road “farm parcel” was developed for single family homes in 2008.

The description of historic and architectural resources in Santa Clara County in Section 4.5.2.2 will be revised to remove reference to the scattered areas of undeveloped land in Mountain View.

L2-29. The elevation on El Camino Real at Castro Street is approximately 106 feet above mean sea level.

Table 4.9-3 will be revised to show depth to water and groundwater elevation ranges based on information from the State Water Resources Control Board. These data accurately reflect the surface elevations in the area.

L2-30. The California Water Service Company serves a portion of the city of Mountain View.

The City provides water for the remainder, purchases water from the SFPUC and SCVWD, and uses local groundwater.

The description of water use in the City of Mountain View will be revised to accurately update water supply in Mountain View.

L2-31. The City provided copies of written correspondence from members of the public.

The comment regarding the enclosed copies of e-mails and other written correspondence that the City of Mountain View has received is noted. VTA is responding to comments sent directly to VTA received during the extended Draft EIR/EA public comment period (October 29, 2014 to January 14, 2015). The comments attached to the City of Mountain View’s comment letter are included in the administrative record as attachments, but have not been formally responded to.
5.3. City of Palo Alto

L3-1. Existing transit signal priority (TSP) equipment is not providing the benefit it was intended to provide. Queue Jump Lanes should be explored and tested.

To be effective in producing travel time improvements on a corridor-wide basis that are similar to dedicated lanes, it would likely be necessary to implement “true” queue jump lanes, as described in the comment, at many of the intersections along El Camino Real. Doing so would also involve many of the same trade-offs in terms of parking loss and conversion of existing travel lanes, such as the acquisition of right of way for additional lanes. Furthermore, the integration of the physical queue jump with TSP, or pre-emption as described in the comment, is likely to be unacceptable to those agencies responsible for traffic operations along the corridor. In developing the TSP parameters currently implemented, constraints were placed on the amount of “priority” (i.e. early green or extended green) allowed due to concerns about the impact to other vehicles. TSP was not implemented at some locations due to similar concerns. Based on this, further implementation of queue jump lanes and enhancement to TSP operations, within the likely constraints, would not produce the travel time improvements comparable to the dedicated lanes. It should be noted, however, that all Build alternatives do include enhancements to the current TSP system.

L3-2. The Project should not be limited exclusively to the El Camino Real corridor. Lower fares for shorter trips, free transfers to other systems and expanded use of the ECO Pass should be considered. VTA should take a leadership role in developing alternatives to private automobiles.

The Project purpose and need is essentially to improve bus service on El Camino Real. VTA completed the BRT Strategic Plan in 2009 which identified El Camino Real as one of the most promising bus corridors for improvements and therefore has limited the scope for this analysis to the El Camino Real corridor. VTA has also recently undertaken a study to examine north-south bus routes that cross El Camino Real and regularly reviews its service plan to identify other improvements. In addition, VTA has recently proposed to expand the youth discounted fares to include youths through age 18, to permanently reduce the standard pricing for bulk sales of Day Pass tokens, and provide a credit for transfers between transit systems that would be standardized throughout the Bay Area. While there are many worthy projects that could be considered, they are not the subject of this environmental analysis.

L3-3. Existing travel times for transit are overstated and for automobiles are understated.

The existing transit travel times reported are derived from the published transit schedules which are periodically revised based on actual travel times. The transit times in the base year Travel Demand Model are calibrated to these values.

L3-4. Request for raw data to validate travel times.

The auto travel times are derived primarily from the VTA Countywide Travel Demand Model, with limited validation to observed travel times. Because the objective was to use the expected difference in travel times (not necessarily the absolute travel time) as a basis for comparing alternatives, it was necessary to use a methodology that would allow for the forecasting of future year travel times. The model was validated at the countywide level.
L3-5. Some bicycle facilities are incorrectly classified; project should extend bicycle facilities along side streets to El Camino Real.

The descriptions/classifications presented in Table 4.12-5 refer to the bike facilities on those streets, not specifically to the type of facility right at the intersection with El Camino Real. Text will be edited to clarify this. With respect to future improvements, the Project will be responsible for implementing bike lanes on El Camino Real in areas of dedicated lanes as shown on the Project plans in Appendix B of the DEIR/EA; however, bicycle facility improvements to cross-streets are not proposed as part of the Project. If the city desires to implement bike lane improvements on cross-streets, VTA would coordinate with city staff on improvements that could possibly be completed at the same time as construction on El Camino Real.

L3-6. Clarify why ridership increases in the near-term and if buses can accommodate that many passengers. Existing and projected peak hour boarding data is missing.

A near-term increase in ridership between 2013 and 2018 even in the No Build condition would likely occur as a result of the planned improvement in frequency of Line 522. With the implementation of the SCAR BRT, Line 522 will change from a 15-minute frequency to a 10-minute frequency in 2016. An assessment of the hourly load factors for the proposed BRT 522 line at screenline locations was conducted for Alternative 4C under 2018 and 2040 AM and PM peak hour conditions. Hourly BRT capacity was calculated by multiplying the assumed transit vehicle capacity (108 including seated passengers plus standees) by the number of buses per hour (6 based on 10 minute headway). A range of hourly BRT capacities was calculated to reflect different possible vehicle specifications. Transit load factors for 2018 were found to be below 50 percent in all cases. For 2040, average hourly load factors were calculated to reach as high as 96 percent. This analysis indicates that the proposed BRT service would be able to accommodate the projected levels of demand.

VTA measures and evaluates ridership on the basis of daily boardings rather than peak hour boardings.

L3-7. Clarify why ridership increases so much from 2013 to 2040.

A substantial increase in ridership is expected between 2013 and 2016 when the increased frequency on Line 522 is implemented. Annual increases after that are comparable to increases seen in the years preceding the analysis. Transit ridership forecasts were derived from the VTA Travel Demand Model. Similar to the traffic volume forecasts, the model's forecasted growth in transit ridership was added to the observed transit counts to produce forecasted transit ridership for the study corridor. The Travel Demand Model takes into account assumptions about population and employment growth, traveler mode choice preferences, transit service improvements, and relative modal travel times in determining transit ridership forecasts. Additional detail regarding the specific Travel Demand Model mode choice functions can be provided upon request.

L3-8. How do population/employment forecasts, travel time, and distance influence ridership/dedicated lane relationship assumptions? How do the percentage increases in ridership compare with existing ridership in each city?

The underlying demographic data used in the VTA Countywide Travel Demand Model is based on ABAG 2013 projections and do not change between alternatives within a given year. Since VTA plans to apply for federal funding the Project must use the accepted regional forecasts for employment and population; these are the ABAG 2013 projections. The change in ridership between alternatives is a function of operating characteristics, notably travel time. The presence of BRT lanes produces increased transit ridership by reducing the BRT travel times.
relative to mixed flow travel times for auto and transit. This results in increasing numbers of
travelers choosing the BRT mode as the length of the dedicated lane segment increases. In
2018, BRT travel time decreases up to 45 percent in the eastbound direction during the PM
peak hour, between the No Build (Alternative 1) and Alternative 4C. Figures 23 through 26 in
the TOAR show the estimated 2018 westbound and eastbound travel times by mode for each
alternative during the AM and PM peak hours. Similar information for 2040 is presented in
Figure 34 through Figure 37 of the TOAR. Detailed information about travel time, broken down
into segments, can be found in Appendix F of the TOAR. Existing (2013) ridership on Line 522
by stop can be found in Appendix B of the TOAR.

L3-9. The DEIR/EA should provide a link level of service analysis.

The multi-level transportation analysis approach was undertaken in response to the nature (i.e.,
transit project) and scope (i.e. 17.6-mile long corridor) of the Project. This approach captures
the broader impacts to travel demands and patterns resulting from the Project, but also looks in
greater detail at locations in closer proximity to El Camino Real. While the screenline analysis
does not specifically include volume-to-capacity ratios, the volumes used in this analysis were
based on traffic forecasts derived from VTA's Countywide Travel Demand Model and volume-to-
capacity ratios can be calculated. The model takes into account the capacity and relative
speed/travel times for alternative routes in assigning trips. Furthermore, operations on arterial
streets are generally governed primarily by intersection operation and for that reason, the
analysis focused on intersection rather than link level impacts.

L3-10. The DEIR/EA should include a Traffic Impacts on Residential Environments (TIRE)
analysis.

Traffic Intrusion on Residential Environments (TIRE) analysis is most applicable to
neighborhood residential streets, where the length of trip is approximately one mile or less. The
average trip length of automobiles on El Camino Real is five to seven miles. Due to the non-
contiguous nature of local residential streets, the diversion of these longer-distance trips to local
streets, where TIRE analysis is applicable, is not expected. In addition, trips identified to take
another route, mode or time would be dispersed to many streets if not to bikes, walking or
transit. While a TIRE analysis might indicate perceptible levels of diversion on smaller streets, it
is likely the resultant volumes are well within the typically acceptable capacity of residential
streets.

L3-11. The DEIR/EA does not provide adequate mitigation for impacts along Alma Street and
El Camino Real.

Mitigation measures that would reduce impacts to less than significant levels are identified for
seven of the ten off-corridor Palo Alto locations listed in Table 4.12-22 (2040 impacts). Of these
seven, four locations are also impacted in 2018. The proposed mitigation measures at these
four locations would be funded for 2018 mitigation as part of the proposed Project and
implemented by the city. For the other three locations with identified mitigation measures, the
"fair share" approach was taken in recognition of the fact that the Project is but one factor in
cumulative growth in traffic at these locations. Indeed, multiple intersections on Alma are
forecasted to operate at LOS F under the 2040 No Build scenario. VTA has committed to
contributing a fair share to future traffic mitigations, for their implementation as the needs arise.
For the final three of ten locations, mitigation strategies are identified; however, the 2040
impacts are identified as "significant and unavoidable" because the potential strategies would
require acquisition of right of way.
L3-12. Mitigation on Alma Street should refer to Program T-39 rather than Policy T-8. The DEIR/EA should include a link level of service and progression analysis along Alma Street.

The statement regarding the current program of not adding traffic signals in certain segments of Alma Street will be revised to refer to Program T-39 instead of Policy T-8.

With respect to the request for additional analysis, specifically the link LOS, it is important to note that arterial operations are generally governed primarily by intersection operation. This intersection analysis was performed as part of the Draft EIR/EA to provide a means of comparing alternatives. Further study, including progression analysis, may be conducted, as appropriate, during future phases.

L3-13. The DEIR/EA should discuss grade-separating the Caltrain tracks at intersections along Alma Street to improve traffic operations and consider contributing to such projects as mitigation for cumulative impacts of the BRT and Caltrain Electrification projects.

The DEIR/EA does identify mitigations to address the impacts along Alma Street. As noted in the response to Comment L3-10, mitigation measures that would reduce impacts to less than significant levels are identified for seven of the ten Palo Alto locations listed in Table 4.12-22. For the final three locations, mitigation strategies are identified, however, the 2040 impacts are identified as "significant and unavoidable" because the potential strategies would require acquisition of right of way.

It should also be noted that several of the impacted intersections are currently unsignalized; therefore the LOS analysis methodology and results reflect the impact only to the minor street approach. In these cases, the primary Alma Street movements are not affected.

The consideration of possible grade separation along Alma Street to address long-term, cumulative growth is beyond the scope of the proposed Project. The Caltrain electrification project is included in the Travel Demand Model for cumulative (2040) impacts, but that project does not grade separate streets crossing the railroad.

L3-14. The DEIR/EA should include an analysis of Middlefield Road and Foothill Expressway as well as the cumulative impacts of the County project on Foothill Expressway.

The multi-level approach captures the broader impacts to travel demands and patterns resulting from the project, but also looks in greater detail at locations in closer proximity to El Camino Real. Although intersections along Middlefield and Foothill in Palo Alto were not included as part of the intersection analysis, since they did not meet all the criteria determining which intersections would be evaluated, these facilities are included in the screenline analysis. Intersections taken to the next level of the multi-level analysis had to be in the Travel Demand Model, be within approximately one-half mile of the El Camino Real corridor, and have an increase in total intersection volume of 50 or more cars. Middlefield Road is almost a mile away from El Camino Real in Palo Alto, and Foothill Expressway is over a mile away, so intersections on these facilities did not meet the distance criterion for evaluating intersections. Although the intersection analysis did not include locations along Middlefield Road and Foothill Expressway within the City of Palo Alto, impacts to these facilities would be examined as part of subsequent phases if dedicated lanes in Palo Alto are part of the LPA.

With respect to diversion from Alma, the assignment of trips was based on traffic forecasts derived from VTA's Countywide Travel Demand Model. The model takes into account the capacity and relative speed/travel times for alternative routes in assigning trips. As such, the model takes into account the level of congestion on various routes in re-assigning trips diverted from El Camino Real and seeks equilibrium among various congested routes.
L3-15. The DEIR/EA should model boarding times, including seniors, bicycles, and passenger lift deployment and quantify the level of service impact.

Boarding time was taken into account in two different stages of the analysis. First, an average boarding time at the stations was used when applying the VTA’s Countywide Travel Demand Model. Second, in the intersection operational analysis, boarding times were taken into account as bus blockage factors in order to evaluate the impacts to corridor traffic as part of those alternatives with bulbout stations. Boarding dwell time at median stations does not affect intersection level of service. Detailed modeling of boarding activity at individual stops is not appropriate at this phase.

L3-16. The DEIR/EA should include a weaving analysis to examine vehicles moving from the #3 lane around a bus at a curbside station.

As noted in the response to Comment L3-15, boarding activity was taken into account in the form of bus blockages in the Synchro intersection analysis. Based on the limited number of buses (six per hour for Line 522 and four per hour for Line 22) and typical dwell time (average of 36 seconds), the impact of these blockages was found to be limited. In general, the added delay was small, on the order of 0.1 seconds, and many intersections experienced no change in delay. Ultimately, there was no change in LOS for any of the intersections where bus blockages were added. Detailed modeling of boarding activity at individual stops is not appropriate at this phase.

L3-17. Final design should consider innovative pedestrian and bicycle intersection treatments and station amenities.

The Project would be responsible implementing bike lanes on El Camino Real in areas of dedicated lanes (only Alternative 4C for Palo Alto). Under Alternative 4C, a number of modifications would also be made at the El Camino Real /Charleston-Arastradero intersection. These include removal of the free right turn pork chop islands on the northeast and southeast corners, and extension of the sidewalk area at the northwest corner. These modifications are illustrated in the conceptual layout drawings provided in Appendix B. However, because no modifications will be made to the cross-streets, bicycle facility improvements to those streets are beyond the scope of the proposed Project. Nevertheless, final design would be coordinated with the City and would detail the specific intersection treatments determined to be appropriate. Site-specific station design would need to balance the cost of providing amenities such as water fountains or bike servicing facilities with the potential for their use when patrons are at the BRT stations for short intervals. Stations would be designed to be well-lit and have trash receptacles.

L3-18. Improved transit facilities are needed at Page Mill Road. The project should include dedicated northbound right turn lanes in mixed flow conditions that could be used as a queue jump lane for transit; a similar treatment could be applied to NB/SB left turn lanes.

Providing improvements to local bus stops would be part of a different project for the VTA, undertaken as part of any of several studies that examines improvements to current services, such as the Transit Passenger Environment Plan. Currently queue jump facilities are provided at the Page Mill Road location. In addition, improvement measures requiring right of way acquisition, such as the suggested right-turn lanes which were considered as mitigation for Project impacts, were deemed infeasible.
L3-19. **VTA should consider place-making measures at the California Avenue location including signs and treatments similar to recent Stanford Avenue intersection improvements.**

During the design phase, if the LPA includes construction of the California station, VTA would coordinate with the City to incorporate place-making measures undertaken by the City and to ensure that intersection improvements are consistent with the City’s other recent improvements and Caltrans standards, as appropriate.

L3-20. **City supports addition of the Churchill Station for future or seasonal BRT service.**

The comment regarding support for a future or seasonal Churchill BRT station is noted. A Churchill station would marginally increase ridership without detracting from ridership at other proposed BRT stations, but adds to the Project cost.

L3-21. **VTA should consider tiered pricing with lower fares in town to increase ridership.**

The Project proposes maintaining the same fares as the rest of the VTA transit system, which are some of the lowest in the Bay Area. However, VTA has recently proposed some modifications to the fares which would also apply to the BRT. VTA has recently proposed to expand the youth discounted fares to include youths through age 18, to permanently reduce the standard pricing for bulk sales of Day Pass tokens, and provide a credit for transfers between transit systems that would be standardized throughout the Bay Area.
5.4. **City of San José**

**L4-1. City prefers Alternative 4c.**

The City of San José’s preference for Alternative 4c and maximizing the length of dedicated lanes is noted.

**L4-2. The City would like to explore consolidating bus stops between McKendrie and University to a BRT station at Hedding.**

Station locations were chosen based on the level of use of the existing bus stops, proximity to major destinations, and concentration of commercial areas. These locations were confirmed in the 2009 BRT Strategic Plan and validated in the review of city general plans. Additional optional stations were examined as requested during the environmental document scoping process. The four bus stops between University Avenue and McKendrie Street serve as Line 22 stops. The ridership at each of these stops is not high and combined does not meet the Service Design Guidelines standards for BRT.

**L4-3. The City will be modifying the intersection of Hedding and The Alameda to remove pork chop islands.**

The comment regarding the modification to the intersection of Hedding and The Alameda with The Alameda Phase 2 Improvement Project is noted. Coordination with the city and refinements to specific intersection geometry to incorporate planned modifications would be undertaken during future design phases when detailed mapping is available.

**L4-4. The intersection at The Alameda/Hanchett Avenue has been modified to include curb bulbouts.**

The comment regarding the construction of the bulb-out at the intersection of Hanchett Avenue and The Alameda as part of The Alameda Phase I Project is noted. Coordination with the city and refinements to specific intersection geometry to incorporate planned modifications would be undertaken during future design phases when detailed mapping is available.

**L4-5. Refer to The Alameda Phase I improvement plans for current curb geometry from Stockton to Fremont.**

Drawings in Appendix B will be updated to reflect the as-built curb geometry from Stockton to Fremont.

**L4-6. The Alameda Phase 1 was completed on 10/14/14.**

The date that Phase 1 of The Alameda was completed (10/14/14) will be added to Chapter 3, *Project Alternatives*.

**L4-7. Edit text to refer to Alameda Phase 2**

The recommended text regarding The Alameda Phase 2 Improvements Project, indicating that the project is currently in design and that final design is anticipated to be complete by early 2015 and construction will begin in summer 2015, will be added to Chapter 3, *Project Alternatives*.

**L4-8. Edit text to refer to completed improvements from The Alameda Phase I project.**

Refer to Page 4.2-3. The recommended text regarding The Alameda Phase 1 will be added to Section 4.2, *Aesthetics*.

The comment regarding The Alameda Phase 2 extending improvements from Fremont Street to I-880 is noted.
L4-9. **Note that The Alameda west of I-880 was not relinquished to the City of San José and remains under Caltrans jurisdiction.**

The text will be revised to indicate that the portion of The Alameda west of I-880 has not been relinquished and is under Caltrans’ jurisdiction.

**L4-10. Verify whether or not the Project will install TVMs.**

VTA has recently determined that ticket vending machines (TVMs) would not be installed on station platforms as part of the Project, and sections of the EIR/EA will be revised accordingly. VTA would install Clipper card readers on station platforms to provide off-board fare collection as part of the Project to speed up boarding. Clipper card readers will also be present on the buses, and those patrons without Clipper cards would have the option of paying cash on the buses.

**L4-11. Please clarify the headways for operations.**

Line 522 would operate at 10-minute headways. This was identified as the preferred operating plan in the VTA Bus Rapid Transit Strategic Plan from 2009, which post-dates the FEIR for the Santa Clara/Alum Rock BRT. More recently, VTA has confirmed this frequency in the FY 16-17 Transit Service Plan for Line 522 from Palo Alto to Eastridge. VTA updates the Transit Service Plan frequently in response to changing demands and ridership patterns. Major service changes are preceded by public review and input and are enacted with the approval of the VTA Board of Directors.

**L4-12. Based on SCAR, City experience is that construction impacts are significant and largely unavoidable.**

A Transportation Management Plan would be developed to minimize impacts to businesses and turning movements, but some disruption due to construction will occur. Impacts at individual locations where access and turning movements are temporarily restricted would be unavoidable.

**L4-13. In Section 3, clarify the headways for operations**

Regarding the headways for BRT, see the response to Comment L4-11.

**L4-14. Recordation of the relinquishment of the subject portion of SR 82 to the City took place on December 28, 2011.**

The date that The Alameda was relinquished will be clarified to identify the date of recordation on December 28, 2011.

**L4-15. Edit text to be specific about coordination with individual jurisdictions.**

The text will be to indicate that bike lane striping, crosswalk striping, and additionally pedestrian crossings would be provided in coordination with local jurisdictions. VTA will coordinate with each affected jurisdiction during the final design phase to develop appropriate details.

**L4-16. The Project should consider shorter platform lengths through the design process.**

As described in Chapter 3, Alternatives, median BRT stations would have 90-foot-long platforms for exclusive BRT use. In mixed flow segments, BRT curbside bulbout stations would be located along the curb and have approximately 160-foot-long curbside bulbouts to allow simultaneous use by a 60-foot BRT vehicle and a 40-foot local bus. The active platform area (area where station amenities and canopies would be installed) would be 90 feet for most curbside platforms; platforms at California and Race/Julian stations would be shorter. Adjustments to the platform lengths may be considered during future design phases.
L4-17. What is the on-board payment system? Will on-board payment increase dwell times?
VTA has recently determined that ticket vending machines (TVMs) would not be installed on station platforms as part of the Project, and sections of the EIR/EA will be revised accordingly. VTA would install Clipper card readers on station platforms to provide off-board fare collection as part of the Project to speed up boarding. Clipper card readers will also be present on the buses, and those patrons without Clipper cards would have the option of paying cash on the buses. On-board fare collection is expected to be infrequent and, on average, would not affect the dwell times modeled.

L4-18. Is the acquisition of temporary construction easements included in the capital cost estimates?
Temporary construction easements have not been identified at this time. During final design, when elevation information is available, the need for and extent of temporary construction easements will be defined.

L4-19. The visual assessment should include that mature trees contribute to the character of the corridor.
The text regarding visual character of The Alameda will be revised to indicate that the mature trees contribute to the character of the corridor.

L4-20. To the extent possible, the Project should save as many trees as possible.
The comment regarding the City of San José’s request for the Project to save as many trees as possible within the station areas is noted. The analysis of potential tree removal has taken a conservative approach and identified trees for removal if they are adjacent to the construction. In the design phase, VTA will work with each affected jurisdiction to develop a landscaping plan that provides details on locations of trees and other plantings to replace landscaping and trees removed during construction of the Project. With a more detailed design-level evaluation, trees identified for removal may be preserved in place.

L4-21. Lafayette Street is in Santa Clara, not San José.
The text will be revised to indicate the Lafayette Street is in Santa Clara, not San José.

L4-22. Why are so many trees being removed for 74-foot platforms?
All eight trees would be removed between Shasta and Hanchett Avenues because the new BRT platform would also construct curbside bulbouts and curb improvements that would extend the length of the block in accordance with the City’s planned improvements on The Alameda. As identified in consultation with city staff, VTA would be responsible for construction of the bulbouts for the length of the block. Similarly, five trees would be removed at Julian Street to accommodate the curbside bulbout. However, in the design phase, VTA will work with each affected jurisdiction to develop a landscaping plan that provides details on locations of trees and other plantings to replace landscaping and trees removed during construction of the Project. With a more detailed design-level evaluation, trees identified for removal may be preserved in place.

L4-23. New bike lanes have been installed on Santa Clara Street and on Stockton Avenue, and are planned on Hedding Street.
Text will be revised to reflect that “new bike facilities have been installed in San José on Santa Clara Street between the Guadalupe River Trail and Stockton Avenue, and that bike lanes are planned on Stockton Avenue north of Santa Clara Street. An extension of the existing bike lane on Hedding Street, crossing The Alameda, is also planned.”
5.5. City of Santa Clara

L5-1. **City would prefer replacement of trees in proximity to the corridor rather than in-lieu payment.** Clarify how median landscape maintenance will be accomplished in dedicated lane configurations when truck/equipment access is needed from adjacent lanes.

VTA will coordinate with the City of Santa Clara, as it will with all affected Project corridor jurisdictions, to identify appropriate locations for tree replacement, ideally in proximity to the Project corridor per the jurisdiction's preference. The procedure for maintenance access would be similar to today—trucks deployed in the lane adjacent to the landscaping work. Where that lane is the BRT lane, the maintenance agency would need to coordinate with VTA to advise BRT drivers of work in the vicinity. BRT buses would need to leave the BRT lane for a short distance and reenter past the maintenance trucks. Landscape planting requiring immediately adjacent truck access (tree trimming) would not be installed within a certain distance of median stations to ensure that buses could get back into the BRT lane in advance of the station.

L5-2. **City requests that noise coordinator contact number be answered live 24 hours a day during construction.** City construction hours should be included in DEIR/EA.

VTA is not subject to municipal code requirements such as the Chapter 9.10 Regulation of Noise and Vibration (Santa Clara City Code). However, to the extent feasible, VTA will coordinate with the City of Santa Clara, and all other affected Project corridor jurisdictions, to eliminate potential conflicts related to construction noise. In addition, the DEIR/EA identifies that a Transportation Management Plan (TMP) would be developed for the Project in conjunction with Caltrans and each of the local municipalities prior to construction. The TMP would define the strategies to be used to keep the public informed during each stage of the project construction. Typical strategies that may be discussed in the TMP for reporting problems include a telephone hotline, a project website, and community meetings.

L5-3. **VTA should consider using VISSIM since Synchro does not model TSP.**

As the arterial operations are governed by the traffic controls at the intersections, Synchro was selected for evaluating arterial and local street traffic operations and potential impacts. Synchro is the industry standard for planning-level intersection LOS analysis. While TSP is not explicitly modeled in Synchro, TSP will have only an occasional effect on traffic as it is activated only when a bus approaches the intersection (6 times per hour per direction for BRT), only when needed, and only if it was not activated in a recent cycle (depending on final parameters). The number of bus blockages during each period was factored into the existing and future scenario models to reflect the number of buses per hour according to the respective service frequency for each scenario. A more detailed analysis, including visual simulation software such as VISSIM, may be provided during the design phase.

L5-4. **The diversion criterion of 50 vehicles per hour (vph) increase is not consistent with VTA guidelines of 10 vehicles per lane.**

The preliminary analysis investigated the increase of vehicle-trips per hour on intersections within the study area. The goal was to identify intersections along the main diversion routes, which were expected to serve the majority of diverting traffic. The Countywide Travel Demand Model was used for this preliminary analysis; however, the model is validated to reflect travel choices on a macroscopic scale. The criterion of 50 vph was developed in order to identify diversion routes. A more sensitive criterion would fall within the error percentage of the model and would not necessarily provide the needed information about diversion routes.

The study focused first on identifying major diversion routes, second on identifying intersections along those routes, and finally on conducting a detailed LOS analysis on those intersections.
Given that the level of analysis conducted was intended to facilitate comparison among Project alternatives, these criteria were considered adequate for the purposes of CEQA.

L5-5. Additional roadways should have been included in the intersection analysis, especially north-south routes. The DEIR should consider impacts of diversion trips on streets with schools and senior facilities.

The multi-level analysis evaluated Homestead Road at the screenline level, indicating that the volume on Homestead Road remains well below its capacity. Intersections were selected for additional analysis based on their inclusion in VTA’s Countywide Travel Demand Model network, proximity to El Camino Real (generally within 1/2 mile), and the increase in vehicle approach volumes (50 vehicles per hour or more). Because intersections on Homestead Road did not meet one or more of these criteria—it is mostly more than 1/2 mile from El Camino Real—intersections along this route were not analyzed. North-south routes were analyzed at the intersection level according to the criteria noted above. This analysis included intersections on each of the other streets mentioned in the comment. Level of service impacts in 2018 were very few on these streets, suggesting that the volume of traffic added to the north-south routes would not cause other impacts.

L5-6. Parking analysis should not be aggregated but should be presented on a block by block basis. Analysis should include night-time parking. Blocks are too long to expect mid-block business patrons to park on cross streets.

A comprehensive parking survey and analysis was conducted providing an inventory of existing parking spaces on El Camino Real, on side streets within 500 feet of the corridor, and in off-street parking lots within 500 feet of the corridor. The information was collected in segments between major cross-streets. Occupancy was measured at morning, noon, and early evening times; the highest occupancy period (noon) was reported in the DEIR/EA. Summary results are provided in the Draft EIR/EA; however, this information would be utilized, as appropriate, in subsequent design stages after selection of the LPA. Many of the businesses along El Camino Real provide off-street parking that is underutilized which allows an alternative to parking on the street.

L5-7. Explain how the No Build BRT ridership was forecasted.

The transit ridership forecasts were estimated using the VTA Countywide Travel Demand Model, which is used by the VTA to develop forecasts of transit ridership to support a variety of different planning projects, including the long-range Countywide transportation plan VTP 2040, major transit and highway corridor studies, environmental analysis and Federal Transit Administration supported New Starts and Small Starts projects. The VTA Countywide Travel Demand Model is sensitive to transit level-of-service changes for different modes of transit, such as BART, commuter rail, light rail and bus. The socioeconomic data used as inputs into the VTA models for the years 2013, 2018 and 2040 were developed from the ABAG Projections 2013 series census tract data. Once the models were validated to year 2013 ridership counts, future forecasts were prepared for year 2018 and 2040 scenarios. Input assumptions for El Camino Real BRT operations include the walk, waiting and in-vehicle times, travel speed, fare cost and service frequency. The increase in frequency that will occur with the opening of the SCAR BRT project in early 2016 accounts for a substantial increase in ridership in the near term. With the Line 522 buses arriving more frequently than the local Line 22, many riders will shift from Line 22 to Line 522, as indicated by the drop in Line 22 ridership, producing more than half of the Line 522 ridership gain.
L5-8. **The number of diverted trips does not balance.**

The diverted traffic volumes shown in the DRAFT EIR/EA plots reflect the trips shifting from El Camino Real to diversion routes because of the conversion of a lane of traffic to BRT operation. The positive and negative trips do not balance since the trips switching from auto to BRT are not shown. This switch makes up for the largest part of the difference. A small number of trips shifting to other modes (bicycle, pedestrian) or diverting to local streets not included in the model are also not shown and would make up the remaining balance. Figures 19 through 22 of the TOAR will be updated to include all diverted trips and the numbers will balance. The negative numbers on diversion routes show that more trips shift away from those routes than divert from El Camino Real. Some of these trips may shift to transit, other modes, other times, or to other routes that are faster as the model balances travel times for all users.

L5-9. **Analysis should include diversion on north/south streets as well as parallel streets.**

Similar to the 2018 diversion figures, Figures 30 through 33 of the TOAR will be updated to show diversion to transit and other trips so that the numbers balance.

Also, the study focused first on identifying major diversion routes, second on identifying intersections along those routes, and finally on conducting a detailed LOS analysis on those intersections. The level of analysis conducted facilitated comparison among Project alternatives. A more detailed analysis may be conducted in subsequent design stages after selection of the LPA. In addition, volume difference plots are available to agencies upon request.

L5-10. **Bicycle assessment should include an evaluation of the bicycling environment and impacts on bicycles due to reduction in intersection crossings.**

The analysis focused on the evaluation of bicycle circulation along El Camino Real for each alternative. The El Camino Real corridor does not currently have bicycle lanes and is not a classified bikeway, except on El Camino Real from Sunnyvale Avenue to Fair Oaks Avenue where Sunnyvale has recently striped bike lanes. The implementation of the project will reconfigure the streetscape to provide marked bike lanes in areas of dedicated BRT lane, consistent with the Grand Boulevard Initiative goal to make El Camino Real a multimodal corridor. In general, bike lanes are shown replacing on-street parking, but the choice between bike lanes and on-street parking is a city decision; bike lanes are not necessary for the transit project.

Working with staff from the City of Santa Clara early in the project, it was determined that dedicated lane configurations in Santa Clara would retain parking as well as provide bike lanes, achieved by reducing lane widths and median width. While the current environment is not inviting for bicyclists, the reduced width of lanes and the reduced number of general traffic lanes could contribute to a traffic calming effect. When coupled with striped bike lanes, these changes in the character of the roadway could lead to a better bicycle environment. Increased density along the El Camino Real corridor could also invite more cyclists to use available bike facilities as distances between home and work, shop, play destinations are decreased. Congestion on El Camino Real itself, as measured by LOS, is not expected to increase greatly. While curbside local buses present a conflict for bicycles, even with the provision of a bike lane, VTA’s Bicycle Technical Guidelines cite that bus routes should not prevent the implementation of bike lanes on that roadway. With dedicated lanes there would be only four buses an hour at curbside stops, rather than the current nine buses an hour (five local and four Rapid), so while there would be an overall increase of one bus per hour (to four local and six BRT), the increase in bus traffic would be segregated from bicycle traffic. El Camino Real has numerous driveways and cross-streets that do present potential conflicts for bicycles, but the provision of adequate...
sight lines would help alleviate this situation. A more detailed analysis may be conducted in subsequent design stages after selection of the LPA.

There is no indication that the project would cause an increase in parking turnover or that traffic conflicts would increase because of fewer parking spaces. The Urban Land Institute identifies the optimal parking occupancy level at approximately 85 percent to 90 percent. Optimal parking occupancy is achieved when the land devoted to parking is well-utilized, but not so well-used that drivers are circling looking for an open parking space. Parking utilization that would be just over 50 percent with the Project would be unlikely to produce traffic conflicts.

With the closure of some unsignalized intersections or left turns (others would be signalized), some additional travel would be necessary. In Santa Clara, the additional distance traveled to the adjacent intersection and back ranges from approximately 0.13 mile to 0.38 mile. In return the cyclist gains a signalized movement.

For information on queuing, see Response to Comment L5-11.

**L5-11. The TOAR is missing a queuing analysis.**

The TOAR evaluated the operational impacts from the increase in left-turn volumes at specific intersections as a result of intersection closures. These impacts were captured in the LOS analysis by manually re-assigning trips from closed intersections to the adjacent intersections, as identified on the Project plans in Appendix B of the DEIR/EA. In 2018, the number of turns redistributed at an intersection was less than 60 in each AM peak hour scenario and in almost all of the PM peak hour scenarios. That number results in two or fewer cars added to a turn pocket in each signal cycle. There are four locations (WB at The Americana and EB at Maria Avenue in Sunnyvale, and EB at Flora Vista Avenue and WB at Calabazas Boulevard in Santa Clara) where more than 60 cars were reassigned, resulting in three or four cars are added per cycle, and only in the PM peak hour under Alternative 4c. Given the small increase in the demand for left turns at project intersections, VTA will not be conducting a detailed queue analysis at this time. A more detailed analysis will be provided in subsequent design stages after selection of the LPA.

**L5-12. VTA should pay for all mitigations that result from the Project.**

VTA would be responsible for funding and implementing during the project construction phase 100 percent of feasible near-term (2018) mitigations within the project limits; no mitigations of this type have been identified. VTA would be responsible for funding 100 percent of feasible near-term (2018) mitigations outside the project limits, but because the local jurisdiction is better able to ascertain the specific need, timing and public coordination for these improvements, the implementation of these mitigations would be the responsibility of the local jurisdiction.

VTA would be responsible for funding and implementing during the project construction phase 100 percent of feasible long-term (2040) mitigations within the project limits; no mitigations of this type have been identified. VTA would be responsible for funding a fair share of feasible long-term (2040) mitigations outside the project limits. VTA is responsible for a fair-share because these improvements are largely the result of background growth and it is only the cumulative effect of the Project that causes an impact. Because the local jurisdiction is better able to ascertain the specific need, timing and public coordination for these improvements, the implementation of these mitigations would be the responsibility of the local jurisdiction.
L5-13. Removing unsignalized pedestrian crossings is contrary to the complete streets concept. The DEIR/EA should include a more detailed analysis of impacts to current and future pedestrian access.

Five unsignalized intersections, and one signalized left turn without a crosswalk, in Santa Clara will be eliminated within the dedicated lane segments, shifting pedestrians to adjacent signalized intersections. As existing unsignalized crossings on a major arterial facility are less safe than signalized crossings this is considered a positive impact. A figure summarizing the additional distance for pedestrians due to the elimination of the intersections will be provided in the TOAR. In addition, a signalized intersection would be added at Helen Avenue as part of the Project which will facilitate safe crossing for pedestrians. During the design phase more pedestrian crossings could be added. VTA would consider installing additional pedestrian signals if requested by the city.

L5-14. VTA should identify and implement feasible mitigations.

VTA has identified, and committed to undertake as part of the Project, feasible mitigations in many areas that reduce impacts of the Project to a level that is less than significant. In the area of traffic impacts, certain improvements that would mitigate a poor level of service were identified, but were conceptually identified as requiring right of way to construct. VTA makes every effort to minimize the acquisition of right of way for a project. VTA carefully weighs the benefits to the public against the costs and injury to the property owners when deciding to use its powers of condemnation for acquiring property. In the case of the traffic mitigation for this project, VTA has decided not to take any right of way from property owners unless required to as a condition of a permit or approval authority over the project because it is not necessary to build or operate BRT and is not consistent with other project purpose and needs such as enhancing the multi-modal character of El Camino Real for pedestrians and bicyclists. If the cities, county, or state requests that VTA take right of way for traffic mitigation, VTA will consider it only if there is no displacement or minimal hardship inflicted on property owners or their tenants, and the benefits of the mitigation to the public are substantial. At other locations, traffic impacts may be mitigated by installation of a traffic signal, possibly without the acquisition of right of way. Because the local jurisdiction is better able to ascertain the specific need, timing and public coordination for signal improvements, the implementation of this mitigation, although funded by VTA, would be the responsibility of the local jurisdiction. Since the implementation of such mitigation cannot be guaranteed, such an impact is considered significant and unavoidable.

L5-15. VTA should consider mitigating diverted trips to the freeway system through the voluntary contribution program.

VTA has considered this type of mitigation and determined that it would be an unwise use of public funds to administer this particular voluntary contribution in light of the small impact on the freeways, for example, the 16 cars added to over 7,500 cars on US 101 or the 6 cars added to nearly 8,000 cars on I-280 in the vicinity of San Tomas Expressway.

L5-16. VTA should consider funding traffic calming measures on diversion routes.

The analysis provided in the DRAFT EIR/EA identified several impacts and mitigations on the El Camino Real corridor and beyond. None of these mitigations involved traffic calming. If, after implementation of the Project, it is demonstrated that cut-through traffic resulting from the Project impacts neighborhood streets, VTA will work with cities to identify mitigation that could include traffic calming and VTA will fund mitigation.
L5-17. **Proposed optimization of traffic signals should be detailed.**

Where coordinated systems exist today, coordination parameters were coded in the Synchro model and thus, where signal timing was optimized, it was done in a coordinated manner. The analysis optimized green splits and maintained cycle lengths. A footnote with the above clarification will be added to the TOAR.

L5-18. **Project construction, mitigation implementation, and new operating costs should be borne by VTA. The DEIR/EA should discuss coordination required with Caltrans and local agencies.**

VTA would be responsible for all project construction and operations costs, and for those mitigation costs identified in the final EIR/EA, but because the local jurisdiction is better able to ascertain the specific need, timing and public coordination for mitigation improvements, the implementation of these mitigations would be the responsibility of the local jurisdiction.

VTA met almost monthly in Project Development Team (PDT) meetings with planning and engineering staff from each of the cities throughout the conceptual development of the BRT alternatives. Caltrans was frequently invited to those meetings as well, and other coordination meetings with Caltrans have taken place at Caltrans District 4 offices in Oakland. Caltrans approved a Project Study Report (Project Development Support) in February 2014, which was provided to the cities. As a responsible agency, Caltrans has reviewed and provided comments on the DEIR/EA. Going forward, VTA would submit to Caltrans a Project Report. Approval of the Project Report by Caltrans constitutes approval of the Project, although detailed coordination would continue throughout design and Caltrans would need to issue an encroachment permit for construction work in the State highway right of way. It is anticipated that PDT meetings would continue throughout design and would involve both Caltrans and the cities, as appropriate. Maintenance responsibilities would be the subject of modified or new maintenance agreements between the responsible parties. Details regarding maintenance would be defined during future design phases.

L5-19. **The DEIR/EA should discuss the process and responsiveness for reporting problems and concerns before, during and after construction, as well as recourse if VTA does not respond.**

The DEIR/EA identifies that a Transportation Management Plan (TMP) would be developed for the Project in conjunction with Caltrans and each of the local municipalities prior to construction. The TMP would define the strategies to be used to keep the public informed during each stage of the Project construction. Typical strategies that may be discussed in the TMP for reporting problems include a telephone hotline, a project website, and community meetings. In addition, VTA’s Board of Directors welcomes public comment at their monthly meetings.

L5-20. **The City reserves the right to make additional comments.**

VTA will continue to coordinate with the affected Project corridor jurisdictions throughout the design process.
5.6. City of Sunnyvale

L6-1. **The report does not provide LOS for all diversion routes.**

The multi-level transportation analysis included diversion to US 101 and Central Expressway in the screenline analysis, which indicated small volumes of traffic divert to those routes relative to their respective capacities. As these locations did not meet the criteria for the more detailed LOS analysis, being more than 1/2 mile from El Camino Real, LOS was not evaluated at these locations. However, a more detailed analysis may be provided in subsequent design stages after selection of the LPA.

L6-2. **Impacts on Evelyn and Fremont. Will traffic on congested diversion routes divert to other routes?**

The analysis provided in the EIR identified impacts along the major traffic diversion routes. These routes were evaluated with the assistance of the VTA Countywide Travel Demand Model. The model balances the assignment of trips to various routes to achieve the shortest travel times for all users of the roadway network. Thus, the congestion experienced on any particular route is tolerable in comparison to congestion on others routes. While there may be some shifting from one route to another, the system tends to reach equilibrium. Evelyn and Fremont may experience more diversion than other routes because they are currently underutilized in comparison to other routes.

L6-3. **Why would traffic divert to congested routes when El Camino Real is still functioning at an acceptable LOS?**

Using a dedicated lane on El Camino Real for BRT operations will lead to a capacity reduction on the corridor along the segment with dedicated lanes. That will lead to a redistribution of trips in the vicinity of the corridor, until the travel times on parallel routes and El Camino Real become similar. Existing (2013) volumes on Evelyn and Fremont suggest that these streets have more available capacity than El Camino Real. While certain intersections along these routes may experience congestion, as evidenced by a poor LOS, the routes themselves may be viable alternatives to El Camino Real which has many cross streets and driveways.

L6-4. **What north/south corridors will diverted traffic use and what is the LOS on these routes? Include Mathilda in analysis.**

See the response to Comment L5-5. North-south routes were analyzed at the intersection level according to the criteria noted above. Impacts, if any, on north-south routes are indicated by poor levels of service at intersections along those routes. None of the intersections on Mathilda met these criteria.

L6-5. **If diversion does not occur as modeled, what will be the LOS for intersections on El Camino Real?**

It is expected that the lane reduction on El Camino Real will lead people to change their travel routes, as they would not tolerate long delays. As seen in similar transportation projects, gradually, trip diversion will reach equilibrium, so that diverted drivers do not experience very long delays due to traffic or detours. The diversion included in the traffic analysis represents the likely result of implementing the Project. The diversion analysis was based on estimates from the VTA Countywide Travel Demand Model that assume that the transportation network has reached that equilibrium. The travel model comprises the best source of information for evaluating travel patterns and diversion for each scenario. The LOS analysis results are based on that information. If less traffic than modeled were to divert from El Camino Real, then LOS on roads with diverted traffic would function better and the LOS on El Camino Real would be
worse than estimated in the environmental document. However, this would only be a temporary effect before the transportation system would again reach equilibrium.

**L6-6. How many additional left turn movements will be added to each intersection? Will the queuing create safety issues?**

As part of the intersection analysis, turn movements were reallocated wherever there were intersection closures. The left-turning movements re-assigned to adjacent intersections will be shown in the TOAR. The traffic analysis takes into account the re-allocated turn movements and the mitigation measures identified in the Draft EIR/EA account for the additional left-turns added at intersections due to those closures. These impacts were captured in the LOS analysis by manually re-assigning trips from closed intersections to the adjacent intersections, as identified on the Project plans in Appendix B of the DEIR/EA. In 2018, the number of turns redistributed at an intersection was less than 60 in each AM peak hour scenario and in almost all of the PM peak hour scenarios. That number results in two or fewer cars added to a turn pocket in each signal cycle. There are four locations (WB at The Americana and EB at Maria Avenue in Sunnyvale, and EB at Flora Vista Avenue and WB at Calabazas Boulevard in Santa Clara) where more than 60 cars were reassigned, resulting in three or four cars are added per cycle, and only in the PM peak hour under Alternative 4c. Given the small increase in the demand for left turns at project intersections, VTA will not be conducting a detailed queue analysis at this time. A more detailed analysis would be provided in subsequent design stages after selection of the LPA.

**L6-7. What mitigation measures should be implemented to accommodate additional left- and U-turns?**

Study intersections on El Camino Real were evaluated for level of service while taking into account the additional left turns and U-turns that were reassigned from closures. The mitigation measures identified in the EIR already reflect improvements, where necessary, to lessen the impacts from those reassigned left turns as well.

**L6-8. Off-street parking lots should not be counted toward parking inventory.**

Off-street parking facilities fronting The Alameda/El Camino Real that allow public parking were included in the survey because these facilities serve the activities on the corridor. These included parking in shopping centers and other lots where the general public can generally find parking that does not require a special permit. However, lots associated with residential buildings or otherwise gated/signed for reserved use were excluded. The comment notes that off-street facilities are typically "designated" for corresponding employees and patrons. However, these groups (employees and patrons) are also those that are likely the primary users of on-street parking on El Camino Real.

**L6-9. Parking analysis should not be aggregated but should be presented on a block by block basis. Parking in residential neighborhoods should not be assumed to be available for commercial uses.**

The analysis conducted for the Draft EIR/EA aimed at facilitating comparison among Project alternatives rather than identifying every possible impact. A comprehensive parking survey and analysis was conducted providing an inventory of existing parking spaces on El Camino Real, on side streets within 500 feet of the corridor, and in off-street parking lots within 500 feet of the corridor. The information was collected in segments between major cross-streets. Occupancy was measured at morning, noon, and early evening times; the highest occupancy period (noon) was reported in the DEIR/EA. Summary results are provided in the Draft EIR/EA; however, we expect that the more detailed information will be utilized, as appropriate, in subsequent design stages after selection of the LPA.
L6-10. **Provide information on existing and projected ridership by station.**

Appendix C of the TOAR includes summary tables showing the existing and projected transit ridership for Line 522/BRT by station under each Alternative and study year.

L6-11. **Figure ES-2 does not identify all proposed stations.**

Figure ES-2 (and Figure 3-2) will be updated. This figure illustrates the Project corridor, and as such, does not need to include markers of the BRT stations. To be consistent with information provided in text, the San José Diridon Station (Arena) and Palo Alto Transit Center are still shown, and the legend will be revised accordingly.

L6-12. **The Hollenbeck station is an inferior location and the station should be moved closer to Sunnyvale Avenue.**

Section 3.2 of the EIR/EA describes the station locations. Locations were chosen based on the level of use of the existing bus stations, proximity to major destinations such as schools, grocery stores, or other popular commercial areas, such as Showers Drive, Flora Vista Avenue, and proximity to existing multi-modal transit areas, such as Santa Clara Transit Center and Palo Alto Transit Center, or connecting transit lines. During conceptual engineering, several refinements of the Hollenbeck Station were discussed with City staff, but locations closer to downtown/Sunnyvale Avenue would be on a curved alignment making level boarding more difficult, would not have the good connections to north-south routes available with the Line 54 on Hollenbeck Avenue, or would have required right of way acquisition. If any of these issues can be overcome, further examination of a station location closer to Sunnyvale Avenue could be considered during the design phase. If the LPA includes construction in Sunnyvale, VTA would reanalyze the location of this station to facilitate transfers to the new Line 354.

L6-13. **The Hollenbeck station is not within one of the nodes identified in the Sunnyvale Precise Plan for El Camino Real and should be moved. Enhanced north-south bus service should be considered for the Sunnyvale-Saratoga Avenue corridor.**

Regarding station locations, see the response to Comment L6-12. VTA has recently conducted a study of north-south routes, documented in the North Central County Bus Improvement Study. This study recommended a new Line 354 service that is included in the proposed FY 16-17 Transit Service Plan and runs along the Mathilda/Sunnyvale-Saratoga corridor. As noted above, if impediments to locating a BRT station closer to this new route can be overcome, a revised station location could be examined during the design phase. If the LPA includes construction in Sunnyvale, VTA would reanalyze the location of this station to facilitate transfers to the new Line 354.

L6-14. **Center-running dedicated lanes will have a visual impact on median landscaping.**

While the visual simulations in the EIR/EA portray Project-related visual changes at stations, the overall analysis also considers the broader visual effects of landscaping and tree removal within the entire stretch of roadway, including medians, within the Project corridor. With respect to effects of median tree and landscaping removal, the visual analysis indicates that the potential long-term visual impacts associated with removal of a number of existing trees along the Project corridor would be addressed through replacement tree planting within medians and along sidewalks, where feasible. Anticipated tree replacement could potentially result in an overall net gain of trees along the Project corridor and the long-term visual effect in some locations of trees and Project landscaping could result in an improvement of the visual character of the streetscape along the Project corridor, including the Sunnyvale community.
L6-15. The impact on aesthetics and visual quality of the corridor due to loss of trees should be determined.

The EIR/EA analysis considers visual effects associated with tree removal and states that the impact would be most noticeable during the initial period of construction. Within Sunnyvale potential visual effects of tree removal would be lessened to a degree because most of the trees to be removed are either a portions of larger clusters of trees to remain, and/or adjacent to areas of proposed new median landscaping that would include new trees. Mitigation would replace all urban trees that are to be removed or lost as a result of the Project. As a result, the Project could result in an overall net gain in the number of trees along the Project corridor in Sunnyvale. In addition, the tree inventory indicates that a portion of the existing trees to be removed are rated as being in either fair or poor condition and some of these trees would be among those replaced with new healthy trees. Finally, VTA would be responsible for irrigating and maintaining new trees for a period of not less than 3 years, which will ensure the beneficial visual effects of tree replacement in the longer term.

L6-16. Why are VTA TIA Guidelines not a regulatory document, but still used as guidance for some of the analysis?

The VTA Traffic Impact Assessment (TIA) Guidelines are used as guidance in some of the Draft EIR/EA analysis. However, the VTA TIA Guidelines are not a regulatory document applicable to this Project because they are intended for transportation analysis related to land development projects. The VTA TIA Guidelines have been used as a reference point for the analysis of transportation improvement projects. A number of the VTA TIA guidelines were applied in the Draft EIR/EA analysis, whereas certain guidelines were modified to better facilitate the purpose of the study. VTA staff has approved the applied methodology, which was reviewed with the cities at a Project Development Team meeting.

L6-17. Identify ridership by city.

For ridership by city, see the response to Comment L6-10.

L6-18. VTA bus 54 has connections at El Camino Real via Pastoria/Hollenbeck, not Mathilda.

A correction will be made to Table 4.12-3 to indicate connections at El Camino Real via Pastoria/Hollenbeck, not Mathilda. The proposed FY 16-17 Transit Service Plan includes realignment of Line 54 for 0.4 miles between Hollenbeck Avenue and Mathilda Avenue. The route would operate on El Camino Real instead of Olive Avenue to facilitate transfers with the planned Line 522 stop relocation.

L6-19. Why was the 2010 Highway Capacity Manual (HCM) not used rather than the 2000 HCM?

At the time the analysis was initiated in 2013, VTA was using the HCM 2000 methodology for impact analyses. The VTA TIA Guidelines call for HCM 2000 which was accepted practice within the county.

L6-20. Verify the variance between the VTA analysis and other recent studies at the El Camino Real/Mathilda Avenue intersection.

The variance in delay per vehicle between the VTA analysis and other recent studies is likely due to the fact that recently (June 2014) the signal timings at several intersections along El Camino Real were updated, while the VTA analysis was initiated prior to that time. The intersection analysis for the DEIR/EA was conducted using the signal timing plans provided by Caltrans at the time that analysis was initiated. It is recognized that signal plans were updated AFTER the analysis was completed. During the design phase this may be reevaluated.
L6-21. Are intersections near bus stops ADA-compliant?

For compliance with ADA at intersections near bus stops, see the response to Comment S1-5.

L6-22. Class II bike lanes on Mathilda Avenue exist only south of El Camino Real. Include bike lanes on Cezanne Drive. Identify bike routes.

The descriptions/classifications presented in Table 4.12-5 refer to the bike facilities on those streets, not specifically to the type of facility right at the intersection with El Camino Real. Text will be edited to clarify this. Bike lanes on Cezanne will be included. No bike routes were identified on VTA’s bikeways map to connect with El Camino Real in the City of Sunnyvale and thus none are reflected in Table 4.12-5.

L6-23. Is VMT measured regionally, locally, or on the project corridor only?

Measures of effectiveness were evaluated at a broader corridor level for a more comprehensive analysis of area-wide transportation impacts. VMT were measured within that broader corridor which encloses El Camino Real and extends from US-101 in the north to I-280 in the south.

L6-24. Identify the version of the CA MUTCD used for signal warrants.

The analysis used the 2012 CA MUTCD which incorporated 2009 MUTCD signal warrant analysis guidance; it was the latest version available at the time.

L6-25. Did intersections have to meet all three criteria to be analyzed? Were any intersections analyzed that met the 50 vph threshold, but not in the travel demand model?

Intersections have to meet all three criteria items to be analyzed. The 50 vph growth data was generated using the VTA Countywide Travel Demand Model and thus intersections not included in the model could not be evaluated for the 50vph growth. Therefore, there are no intersections that met the 50 vph growth criterion but are not in the model.

L6-26. Signal coordination optimization should be applicable to all affected coordinated signals, not just those that are closely spaced intersections.

The text in the Draft EIR/EA will be revised to say: "In addition, for coordinated intersections and closely spaced intersections, optimizing the offset and better signal coordination would also reduce delay."

L6-27. Do post-project estimated parking occupancy rates consider a possible increase in parking demand or for potential park-n-ride for BRT?

Most uniformly accepted parking generation data deal with site-specific land uses, rather than practices for forecasting future general on-street parking demand in an urban area. Typically, new developments along the corridor would be required to provide parking as well. Current occupancy levels, averaging less than 50 percent throughout the corridor, suggest that there is adequate parking available for some increased demand. However, as a transit project, BRT may act to decrease demand for parking. Prior analysis indicated that BRT service of the nature proposed would not generate park-n-ride demand. Those using the proposed service would generally access the service via walking or bicycle. The Project would not provide park-n-ride facilities.

L6-28. The proposed development at 871 E. Fremont Avenue (Butcher’s Corner) should be included as part of the cumulative analysis.

The land use assumptions included in the horizon year analysis are based on the ABAG 2013 land use projections and reflect an economically constrained scenario. As the Project is expected to be partially federally funded, it is required that the latest adopted regional forecasts are used in the forecast modeling. The ABAG projections were used because ABAG is the
comprehensive regional planning agency for the nine counties and 101 cities and towns of the San Francisco Bay region. Insofar as the proposed development at 871 E. Fremont Avenue in Sunnyvale (Butcher’s Corner) is consistent with ABAG 2013 land uses, it has been included in the cumulative project analysis.

**L6-29. Will there be any headway reductions beyond the five minute reduction implemented under SC-AR BRT? How do No build travel times and ridership compare to existing?**

The headway reduction to be implemented as part of the SCAR BRT project, and which is included in the VTA Transit Service Plan adopted by the Board in May 2105, would be the Project condition for the El Camino Real BRT for both No Build and Build scenarios; there would be no further reduction in the headways as part of the El Camino Real BRT. A footnote will be added to Table 2 of the TOAR to clearly state the following: "Because the SCAR BRT is the same service as El Camino Real BRT, there is no further headway change due to El Camino Real BRT."

Table 2 of the TOAR is used to compare the analysis results to the Project's purpose and thus provides only a comparison among alternatives. Segment travel times for the existing year as well as for future alternatives can be found under Appendix F of the TOAR. Existing and future transit ridership can be found in Tables 4.12-8 and 4.12-17 for 2018 and 2040, respectively. For Project purposes where there is a difference between 2018 and 2040, Table 2 of the TOAR provides separate lines for each analysis year; other purposes are addressed equally by either year.

**L6-30. The TOAR should include why VTA TIA guidelines were not used, why Synchro was used, why HCM 2000 was used, and why signal optimization was done as part of the analysis rather than afterwards.**

Explanations regarding the selected methodology are provided in Sections 4.12.1 and 4.12.2.3 of the Draft EIR/EA. VTA TIA Guidelines are used as guidance in some of the Draft EIR/EA analysis. However, the VTA TIA Guidelines are not a regulatory document applicable to this Project because they are intended for transportation analysis related to land development projects. A number of the VTA TIA guidelines were applied in the Draft EIR/EA analysis, whereas certain guidelines were modified to better facilitate the purpose of the study. An example of this application is the selection of Synchro, rather than TRAFFIX, as the software for intersection analysis (Synchro is better adapted to a corridor type analysis than is TRAFFIX), but the TIA Guidelines use HCM 2000 for level of service analysis criteria, in accordance with VTA practice.

Signal optimization was done as part of the analysis recognizing that signal timings are routinely updated to reflect changes in traffic patterns and volumes, and were expected to be updated by 2018 and 2040. This statement will be added in Section 2.3 of the TOAR.

**L6-31. Sunnyvale does use the 4-second threshold for determining LOS impacts.**

The Project team contacted the City to confirm their methodologies or requirements and was told at the time that the City of Sunnyvale does not use the 4-second threshold. However the sentence in question will be revised to reflect the comment. In any case, the 4-second threshold has been used to determine impacts.

**L6-32. Existing LOS should be field-verified.**

See the response to Comment L6-20. The variance in delay per vehicle between the VTA analysis and other recent studies is likely due to the fact that recently (June 2014) the signal timings at several intersections along El Camino Real were updated, while the VTA analysis was initiated prior to that time.
L6-33. VTA should fully fund all mitigation measures. VTA should conduct pre-project and post-project traffic studies, and if post-project studies identify unanticipated traffic problems, VTA should commit to providing mitigation.

The analysis has determined what improvements may mitigate Project impacts. If these mitigations can be implemented without right of way acquisition, VTA will fund 100 percent of the cost for near-term (2018) feasible improvements and VTA will fund a fair share contribution for long-term (2040) feasible off-corridor improvements. VTA would provide the mitigations identified in the Final EIR/EA. If, after implementation of the Project, it is demonstrated that cut-through traffic resulting from the Project impacts neighborhood streets, VTA will work with cities to identify mitigation and VTA will fund mitigation.
APPENDIX

Letter from California Department of Transportation
Letter from Santa Clara County Department of Health
Letter from Santa Clara County Department of Roads and Airports
Letter from City of Los Altos
Letter from City of Mountain View
Letter from City of Palo Alto
Letter from City of San José
Letter from City of Santa Clara
Letter from City of Sunnyvale
January 14, 2015

Ms. Christina Jaworski  
Senior Environmental Planner  
Santa Clara Valley Transportation Authority  
San Jose, CA 95134

Dear Ms. Jaworski:

Draft Environmental Impact Report/Environmental Assessment for the El Camino Real Bus Rapid Transit Project

Thank you for including the California Department of Transportation (Caltrans) in the review process for the project referenced above. We have reviewed the El Camino Real (ECR) Bus Rapid Transit (BRT) Draft Environmental Impact Report/Environmental Assessment (DEIR/EA) and have the following comments to offer.

System & Regional Planning Comments
Page ES-2 references the Valley Transportation Plan 2035. Update all references for this planning document to the current Valley Transportation Plan 2040 adopted in October 2014.

Page ES-5 and 6 provide alternative project descriptions. Please provide stop location analysis to ensure speed and ridership are maximized with the least amount of stops. Stop location analysis should consider major destination centers along the corridor.

Page 4.12-4 describes other transit systems in the project area. Given the close proximity and nearly identical service corridors of Caltrain and El Camino Real, the Caltrain description should be expanded to consider impacts to estimated ridership levels to both transit modes.

Bicycle and Pedestrian Planning Comment
Page 3-6, Alternative 4c - Long Dedicated Lane - Lafayette Street in Santa Clara to Embarcadero Road in Palo Alto will allow for the fastest and most reliable transit travel times because it has the longest dedicated bus lanes. Within Alternative 4c, the center-running dedicated lanes with the buffered bike lanes will also provide more lateral separation from traffic for bicyclists.
Traffic Safety Comment
Within the project limits, the BRT project shall be required to bring El Camino Real into compliance with Americans with Disability Act (ADA) design standards. Specific details will be addressed during the project development phase.

Highway Operations Comments
Figure 3-4, the cross-sections for dedicated lanes design on the left side of the figure have tree/landscape strips on sidewalk adjacent to curb; however, there are no trees on the top two cross-sections on the right for mixed flow design along the sidewalk. Alternative descriptions should clarify if landscaping will vary between the various designs.

Figure 3-4, all 3 cross-sections for mixed flow design option on the right side of the figure accommodate curb parking, but only the bottom one is labeled "with Parking." Revised the titles to include "with Parking" for all alternatives with this feature.

Section 4.12- Transportation and Traffic and Appendix H- Traffic Operations Analysis Report should have queuing analysis for traffic signals, AWSC (All Way Stop Control), and TWSC (Two Way Stop Control) intersections. Intersection queues due to traffic signal, AWSC and TWSC should be reported and compared to available storage distance to evaluate potential operational safety issues such as queue spill backs that cause through lane blockage or intersection grid lock for closely spaced intersections. As depicted in Table 4.12-13 and 4.12-20, several intersections are concluded to operate poorly, and the queuing analysis should be evaluated and disclosed in the environmental document.

Table 4.12-14- Locations of Existing Left-Tum Eliminated by Project Alternative. Because traffic forecast is prepared by regional model at a macro scale, efforts should be taken to ensure the demand of the eliminated left-turn is included in the left-turn movement of adjacent intersections.

Page 4.12-37, section on "Impact TRA: Result in inadequate emergency vehicle circulation," the analysis omitted potential impacts for Build with Mixed Flow lane alternatives with bulbout stations that push out curb to edge of travelled way. When transit buses dwell at the bulbout stations for boarding and alighting of passengers, the curb lane traffic would stop behind the bus and impede through traffic movement. The impediment of curb lane traffic will create a temporary choke point as vehicles attempt to move around the stopped bus. This traffic scenario should be examined for impacts to emergency vehicle travel time and should be addressed in the environmental document.

Page 4.12-45, the discussion on determining fair share contribution for cumulative impacts needs to address the difficulty in measuring incremental impact. Most of the cumulative impacts occur at intersections along El Camino Real with the dedicated lane alternatives. For dedicated lane alternatives, the projected volumes for build alternatives are lower than No Build due to traffic...
diversion. There is no incremental growth of volumes per se. The fair share contribution concept typically used for land use development does not apply to transportation projects. Incremental growth or impact for land use development can be measured, but it is difficult to measure incremental impact for the BRT project on El Camino Real. The fair share contribution for cumulative impacts needs to address this

Table 4.12-20 should add a column to denote type of intersection control (signal, TWSC, AWSC) for clarity.

Table 4.12-21, Summary of 2040 Intersection Mitigation Measures, should consider traffic signal timing and controller hardware upgrades as feasible mitigation measures. Signal timing and hardware upgrade may include signal coordination, timing optimization, and adaptive signal control panel. Wherever geometry improvements are considered infeasible, signal timing and hardware upgrade should be proposed and fully funded by the BRT project to reduce impacts on El Camino Real.

Table 4.12-21 shows all geometry improvement mitigation as not feasible based on existing ROW, without weighing in costs and secondary environmental impacts of ROW expansion and benefits of mitigation. The Department does not advocate or recommend ROW expansion when condemnation of homes or office buildings will cause displacement or hardship to residents or business. A cursory review suggests the following improvements could be feasible by moderate ROW takes without displacement or hardship, and should be evaluated as part of the scope of the BRT project in the DEIR:

a) El Camino Real/Embarcadero: additions of eastbound and westbound right turn lanes would only require expansion of ROW into landscaped areas. This could be feasible with moderate ROW expansion.

b) El Camino Real/Kiely/Bowers: additions of eastbound right turn lane can be implemented by expanding ROW into adjacent landscaped area of an oil change business. It is not clear why that will affect the business operations as asserted. This could be feasible with moderate ROW expansion.

c) El Camino Real/San Tomas: the potential loss of landscaping and parking may not be significant for EB and WB right turn lane improvements with proper design of parking lots and circulation. This improvement could be feasible.

Table 4.12-21 has the description in the comment column for El Camino Real/Scott reversed. The WESTBOUND right turn lane improvement may impact landscaping and a bank, and the EASTBOUND right turn lane improvement may impact a new shopping center under construction.

According to the Bus Blockage Factor in Synchro analysis, per HCM 2000, the bus blockage adjustment factor accounts for the impacts of local transit buses that stop to discharge or pick up
passengers at a near-side or far-side bus stop within 250ft of the stop line (upstream or downstream). Recognizing that bus blockage can impact traffic operations in both approaching leg (upstream), by a far-side station and receiving leg (downstream) by a near-side station, the following intersection analysis will need additional input of bus stoppage frequency to properly analyze reduced capacity in Mixed Flow alternatives:

a) WB at Cambridge/El Camino Real for the WB bulbout station at California/El Camino Real,
b) WB at Charleston/El Camino Real for the WB bulbout station at the intersection,
c) EB and WB at Los Altos Square (Showers)/El Camino Real for the EB and WB bulbout stations at the intersection,
d) WB at Bernardo/El Camino Real for the WB bulbout station at the intersection,
e) EB at Hollenbeck/El Camino Real for the EB bulbout station at the intersection, and
f) WB at Benton/El Camino Real and EB at Palm/El Camino for the EB and WB bulbout stations at Santa Clara Transit Center. The two intersections are closely spaced and the stations will impact both intersections.

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. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating State ROW must be submitted to the following address: David Salladay, District Office Chief, Office of Permits, California Department of Transportation, District 4, P.O. Box 23660, Oakland, CA 94623-0660. Traffic-related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process. See the website linked below for more information: [http://www.dot.ca.gov/hq/traffops/developserv/permits](http://www.dot.ca.gov/hq/traffops/developserv/permits).

Should you have any questions regarding this letter, please contact Wingate Lew at 510-622-5432 or wingate.lew@dot.ca.gov.

Sincerely,

PATRICIA MAURICE
Acting District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"
January 13, 2015

Honorable Members of the Santa Clara VTA Board of Directors
3331 North First Street
San Jose, CA 95134-1927

RE: Comments on Draft Environmental Impact Report for El Camino BRT Project

Dear Chairperson Kalra, Honorable Members of the VTA Board of Directors, and General Manager Fernandez,

The Santa Clara County Public Health Department (SCCPHD) welcomes the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the proposed El Camino Real (ECR) Bus Rapid Transit (BRT) Project, which will affect the cities of San Jose, Santa Clara, Sunnyvale, Mountain View, Los Altos and Palo Alto. As a member of the Grand Boulevard Initiative (GBI) Task Force, the Public Health Department recognizes that the El Camino Real BRT project aligns with the GBI vision as well as the air quality and transportation goals of Plan Bay Area.

Chronic disease, including obesity, diabetes, cardiovascular disease, cancer, and respiratory illnesses, are all affected by the environments that surround us. Healthy transportation and land use design can reduce injury and death, increase physical activity, decrease mental health stresses, strengthen community and reduce violence, provide fair access to services, education, and resources, expand access to healthy food, and minimize the effects of climate change. Complete streets support good health by providing safe and equitable access for all users, including walkers, bicyclists, transit users and drivers. They improve safety by reducing vehicular speeds and the risk of injury and fatalities. In 2012, 26% of motor vehicle collision deaths in Santa Clara County were among pedestrians, and 5% were among bicyclists. The number of motor vehicle traffic collisions involving bicyclists increased from 577 in 2002 to 825 in 2011, a 43% increase.¹

Research has shown an association between time spent in cars and obesity.² One Bay Area study concluded that active forms of transportation, including walking and bicycling, could substantially lower the burden of chronic disease.³ Nationwide, nearly one-third of transit users met the minimum daily requirement for physical activity during their commute.⁴ Walking and biking to school is an important source of routine physical activity for children and adolescents. Complete streets can increase levels of physical activity by encouraging active transportation, which in turn, helps to reduce air pollution (associated with cancer, heart disease, and respiratory illnesses such as asthma) and greenhouse gas emissions. Complete streets provide accessible connections between housing, schools, retail, community services, and recreation and improve economic conditions in a community. Low income populations, people of color, children, the elderly and the disabled are all more dependent on active modes of transportation, including public transportation. According to the VTA, large

Board of Supervisors: Mike Wasserman, Cindy Chavez, Dave Cortese, Ken Yeager, S. Joseph Simitian
County Executive: Jeffrey V. Smith
percentages of passengers walk to transit (51 percent) or walk from transit to their final destination (58 percent), and the ECR-BRT corridor (Rapid 522 and Local 22) has the highest bus ridership in the county transit system.

After reviewing the ECR BRT Draft Environment Impact Report, the Santa Clara County Department of Public Health recommends that VTA only consider the dedicated lane alternatives, which would allow for multi-modal transportation and complete streets. In addition, VTA should also ensure that communities along the route do not suffer adverse impacts from diverted traffic and examine whether unintended impacts to traffic diversion might have adverse impacts on pedestrian and bicycle use of side streets. The street improvements that would accompany these alternatives, including signal infrastructure upgrades, shortened crosswalks, street trees, and bicycle lanes, would help to create a safer, healthier, and more livable environment along the El Camino Real corridor. More frequent transit connections and safer walking and biking infrastructure will also strengthen community cohesiveness and allow people to more easily and safely access schools, health services, and businesses such as grocery stores.

Sincerely yours,

Dan Peddycord, RN, MPH/HA
Public Health Director

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January 14, 2015

Christina Jaworski  
VTA Environmental Planning Department  
3331 North First Street, Bldg. B  
San Jose, CA 95134-1927

SUBJECT: El Camino Bus Rapid Transit  
Draft Environmental Impact Report/Environmental Assessment

Dear Ms. Jaworski:

The County of Santa Clara Roads and Airports Department appreciates the opportunity to review the DEIR/EA and is submitting the following comments.

Transit Signal Priority (TSP) Assumption

The DEIR states on pages ES-4, 3-8, and 3-9 that “TSP would be installed at signal locations that do not currently have TSP” and “additional TSP infrastructure would be provided throughout the Project corridor at signals in segments that do not currently have TSP”. The County requests clarification for the TSP assumption at the intersection of San Tomas Expressway and El Camino Real. San Tomas Expressway is a major thoroughfare providing freeway connections to US-101 and SR-17 and serves upward of 200,000 vehicle trips daily. The County employs state-of-the-art traffic responsive signal timing plans to facilitate the flow of traffic on San Tomas Expressway; and this is the critical intersection in the segment of San Tomas Expressway from Monroe Avenue to Moorpark Avenue. With existing operations the segment currently operates at LOS F, per the findings of the Expressway Plan 2040. The County is concerned that the assumption of TSP for San Tomas Expressway at El Camino Real would result in unrecoverable signal timing disruptions to the County signal timing system and that would have major repercussions on traffic flow along the length of San Tomas Expressway.

If the project scope includes implementing TSP at the San Tomas Expressway/El Camino Real intersection, the DEIR is inadequate in that it does not identify and analyze the potential impacts of the TSP on San Tomas Expressway traffic operations. As all signalized intersection operations between Monroe Avenue and Moorpark Avenue could be impacted by disruptions in signal coordination, significant impacts to these intersections and the entire San Tomas Expressway corridor should be identified with appropriate mitigation measures proposed.
Transportation and Traffic Methods

Page 4.12-20 Intersection Levels of Service Analysis states that “updates to signal phasing and timing” were factored into the existing peak hour Synchro models to reflect future conditions. The DEIR should clarify which updates to signal phasing/timing are being utilized in the model, i.e. TSP. Furthermore, the Traffic Operations Analysis should include detailed LOS calculations for County expressway intersections for all conditions and alternatives, as the County cannot confirm methodology or accuracy for impact analysis until we obtain this information.

Fair Share Contribution to Intersections Impacted in 2018

Table 4.12-15 Summary of 2018 Intersection Mitigation Strategies by Alternative identifies three expressway intersections with findings of significant and unavoidable impacts after mitigation:

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Impacted Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Camino Real at Page Mill Road/ Oregon Expressway</td>
<td>2018 Alt 4c</td>
</tr>
<tr>
<td>Cabrillo Avenue at Lawrence Expressway</td>
<td>2018 Alts 4a, 4b, 4c</td>
</tr>
<tr>
<td>Benton Street at San Tomas Expressway</td>
<td>2018 Alts 3a, 3b, 4a, 4b, 4c</td>
</tr>
</tbody>
</table>

The County disagrees with the mitigation strategies for the alternatives that would result in findings of significant and unavoidable impacts after mitigation. For the expressway intersections impacted in 2018, VTA should make fair share contributions to traffic improvements. The Comprehensive County Expressway Planning Study - 2008 Update adopted by the Board of Supervisors in March 2009 should be consulted for a list of mitigation measures for significant impacts to the expressways. Should the Expressway Study not include an improvement that would mitigate a significant impact, the DEIR should identify mitigation measures that would address the significant impact.

Cumulative Impacts and Mitigations - 2040

Table 4.12-21 Summary of 2040 Intersection Mitigation Measures – on Project Corridor and Table and Table 4.12-22 Summary of 2040 Intersection Mitigation Measures – off Project Corridor identifies seven (7) expressway intersections with findings of Significant and Unavoidable impacts after mitigation:

1. El Camino Real at Page Mill Road/Oregon Expressway
2. El Camino Real at San Tomas Expressway
3. Rengstorff Avenue at Central Expressway
4. Castro Street at Central Expressway
5. Cabrillo Avenue at Lawrence Expressway
6. Benton Street at Lawrence Expressway
7. Benton Street at San Tomas Expressway

According to the notes, “It is assumed that the potential mitigation would require ROW and is therefore
considered to be not feasible as part of this project”. The County disagrees with the mitigation measures and suggests that fair share offers be contributed for necessary improvements to address the impacts. The Comprehensive County Expressway Planning Study - 2008 Update adopted by the Board of Supervisors in March 2009 should be consulted for a list of mitigation measures for significant impacts to the expressways. Should the Expressway Study not include an improvement that would mitigate a significant impact, the DEIR should identify mitigation measures that would address the significant impact.

Permits

A County Roads and Airports Encroachment Permit is required prior to any work performed in the County Maintained Road Right of Way, including expressway intersections. The DEIR should update page 3-28, Table 3-6, “Anticipated Permits and Approvals” to include the County of Santa Clara as a permitting entity.

If you have any questions or concerns about these comments, please contact me at (408) 573-2465 or dawn.cameron@rda.sccgov.org.

Sincerely,

Dawn S. Cameron
County Transportation Planner

cc: Michael Murdter, Director
    Dan Collen, Deputy Director Infrastructure Development
    Masoud Akbarzadeh, County Traffic Engineer
    Ananth Prasad, Senior Traffic Engineer
January 14, 2015

Ms. Christina Jaworski
VTA Environmental Planning Department
3331 N. First Street, Building B-2
San Jose, CA 95134

Dear Ms. Jaworski,

The City of Los Altos would like to express our appreciation of VTA’s effort on the El Camino Real Bus Rapid Transit project. With the growth Santa Clara County is expected to experience in the next 25 years, transit clearly needs to play a role in addressing the heavy transportation demands that come with the job and housing growth. Additionally, a solution is needed that will balance the needs of the region as a whole and we will need to work together to make transit a more viable alternative along the El Camino Real (ERC) corridor while preserving the quality of life of communities along the corridor.

It is our desire to support a project alternative that is measured and strikes the needed balance. To achieve this, the Los Altos City Council requests VTA’s support and commitment to the following:

- Provide a response to our comments on the DEIR/EA dated January 7, 2014
- Meet with the City Council and residents of Los Altos – provide a tailored presentation and discuss specific impacts and potential solutions pertinent to the City, address questions and concerns as outlined below
- Clearly define the engagement and decision making processes that will be used by VTA and the VTA Board to arrive at a Locally Preferred Alternative (LPA)
- Create a means by which neighboring jurisdictions along the corridor (Sunnyvale, Mountain View, Los Altos, Palo Alto) can engage collectively with one another and VTA to address common concerns and work towards developing a common project alternative.

**Vehicular Traffic Impacts/Diversions** – Los Altos is already heavily impacted by cut-through traffic moving between the east-west corridors of I-280, Foothill Expressway, ECR and Hwy 101 resulting in congested city streets. Service levels at key intersections continue to erode and safe routes to school are compromised. Local staffing and financial resources are limited and the City is not in a position to take
on management or implementation of projects that are not currently part of our CIP or identified in our Bicycle Transportation Plan.

How was volume of diverted traffic determined? What is the current and projected growth in vehicular traffic in 2018 and 2040? When does ECR reach “full” capacity with existing configuration versus with proposed reduced lane configuration? What data/assumptions were used and how was the analysis done in determining impacts of traffic diverting from ECR onto intersections and residential streets and roadways?

With cities along the corridor having to absorb the greatest impact, what relief will be provided to mitigate the impacts beyond 2018? Will any additional consideration be given when VTA allocates grant monies?

Has a field validation of vehicle travel times been conducted? What assumptions/inputs were used in the model that determined the impact on travel time for the various alternatives?

Is VTA willing to “test” the dedicated lane alternative by installing temporary barriers/cones in the road to empirically determine the effect on transit and auto travel times of two less auto lanes on ECR, and measure the diversion onto other streets?

The DEIR identifies significant and unavoidable impacts at numerous locations, for example the intersection of Springer Road at Cuesta Drive in Los Altos/Mountain View. What is VTA’s approach to evaluating these impacts?

**Balancing growth rates of Transit Ridership and Vehicular Traffic** – Transit has to play a significant role in reducing the demand on existing transportation infrastructure. The transition from car dependency to transit preferred will not take place overnight. Los Altos is concerned that movement to dedicated bus lanes, without having a critical mass of ridership, will result in an immediate gross imbalance with respect to lane utilization thus causing vehicle traffic that diverts during construction and will remain diverted. Los Altos City Council believes a more measured approach is warranted.

Information that would provide a better understanding about current ridership would be helpful. Embark/Disembark data? Length of trips? Peak hours? Demographics?

What alternatives has VTA considered for driving up ridership? What effect would lower fares for shorter trips and free transfers to other transportation systems have? More frequent, smaller buses? Providing Wi-Fi?

In San Mateo County, SamTrans’ identified a number of service concepts that have the potential to reduce travel time and increase ridership along ECR. As a result they are deferring implementation of BRT in favor of piloting some of the service concepts. Has VTA considered a similar approach?

Did VTA consider alternatives that utilized CalTrain or Foothill Expressway? BRT on Foothill Expressway with shuttles providing north/south connections? North/south connections to CalTrain?
What has been VTA’s experience with the Santa Clara/Alum Rock BRT project? What were the projected and actual ridership and financial results of this project?

Financials – It is important for us to understand some of the financial aspects of the project as well as its relationship with the Stevens Creek Boulevard BRT project.

What cost/benefit analysis has been done? What are the funding sources?

What is the timeline for the Stevens Creek Boulevard BRT project? What were the considerations in deciding which project to do first – ECR or SCB?

Thank you for considering and responding to our comments and concerns. We have attached the technical comments prepared by Los Altos City staff submitted on January 7, 2015. We look forward to your response. In the meantime, if you have any questions on this letter, please contact me or Marcia Somers, Los Altos City Manager.

Sincerely,

[Signature]

Jan Pepper
Mayor
City of Los Altos
January 7, 2015

Ms. Christina Jaworski  
VTA Environmental Planning Department  
3331 North First Street, Bldg. B  
San Jose, CA 95134-1927

SUBJECT:   EL CAMINO REAL BUS RAPID TRANSIT PROJECT – DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL ASSESSMENT

Dear Ms. Jaworski:

We appreciate the opportunity to comment on the El Camino Real Bus Rapid Transit Project- Draft Environmental Impact Report/Environmental Assessment. We are concerned about the project’s impacts to the area and specifically potential traffic diversion in Los Altos.

Please consider the following concerns, questions and recommendations:

Executive Summary

1. Page ES-4, ES.4.1.2 (Stations): Trash receptacles shall have a lid that is kept closed and prevents the wind, animals or rain from transporting litter into the City’s stormwater system, which flows into the San Francisco Bay and then into the Pacific Ocean without treatment.

2. Page ES-4, ES.4.1.2 (Stations): Trash receptacles shall be inspected and maintained as often as needed to prevent overflow.

3. Page ES-4, ES.4.1.2 (Stations): VTA shall inspect the trash receptacles and stations in the City of Los Altos daily to ensure that they are litter free.

4. Page ES-4, ES.4.1.2 (Stations): VTA shall coordinate with the City and the Santa Clara Urban Runoff Pollution Program (SCVURPPP) for litter/stormwater messaging at the stations and bus stops.

5. VTA shall provide a copy of the Project Draft EIR to SCVURPPP for its comments and recommendations.

6. Page ES-8, ES.4.1.5: VTA shall provide the City of Los Altos with a construction schedule.

7. Page ES-8, ES.4.1.5: VTA shall coordinate with the City of Los Altos regarding Sewer Capital Improvement Program (CIP) Projects along El Camino Real and local side streets.

8. Page ES-21, last item on page (Hydrology and Floodplain/Water Quality and Stormwater Runoff): What are the impacts related to water quality after construction (e.g. litter at stations)?
Introduction

1. Page 1-2, Section 1.3: How is VTA going to select the Locally Preferred Alternative (LPA)?

Purpose and Need

1. Page 2-5, Section 2.2.2.5: VTA shall provide and maintain trash cans at all its BRT Stations and bus stops in the City of Los Altos to prevent litter from entering into the City’s storm drain system. Please refer to the City’s Long-Term Trash Load Reduction Plan.

Project Alternatives

1. Page 3-21, Table 3-3: “Utility Relocation Summary” shows estimated linear feet of utilities and estimated numbers of manhole/vaults that would need to be relocated. How many of these utilities are in the City of Los Altos? Will the City be impacted with storm and sewer relocations?
2. How are the proposed BRT improvements going to impact access to the City’s sewer and storm drain manholes for pipe rehabilitation, repairs, maintenance, etc?
3. Page 3-27, Section 3.5.3 (last paragraph): Replace the word “be” with the word “been” in the first sentence.

Aesthetics and Visual Quality

1. Page 4.2-1, Section 4.2.1 (Regulatory Setting): Should Santa Clara Valley Urban Runoff Pollution Prevention Program SCVURPPP (SCVURPPP) be included in the list?

Biological Resources

1. Page 4.4-6: The City does not support removing trees to accommodate bus facilities.

Noise and Vibration

2. Figure 4.11-1: Revise the street name from “San Antonia Road” to “San Antonio Road.”
3. Page 4.11-9 (Construction Vibration): Prior to commencing the project and after the project is complete, VTA shall CCTV inspect the City of Los Altos’ sanitary sewer and storm drain located within or adjacent to the work area to ensure that the construction vibration did not damage the City’s utilities.
5. Page 4.13-1: The Fire Department Station (Sequoia Station) located on Almond Avenue and the Fire Department Station (Loyola Station) are missing from Table 4.13-1.
Transportation and Traffic

1. **Study Intersections** – In addition to the identified study intersections, we have diversion concerns and impacts at the intersections of: Springer Road/El Monte Avenue; San Antonio Road/Almond Avenue; San Antonio Road/W. Portola Avenue; San Antonio Road/ Loucks Avenue; Foothill Expressway/El Monte Avenue; and Foothill Expressway/San Antonio Road.

In particular, per the County’s 2040 Expressway Plan, the intersection of El Monte Avenue/Foothill Expressway is operating at LOS F and the intersection of Foothill Expressway/San Antonio Road operates at LOS E during the PM peak time. Additionally, the close proximity of the intersection San Antonio Road/Cuesta Drive adds further complexity to the traffic impacts. This year a noticeable increase in traffic has placed additional strain at these locations. Additional diversion traffic from the BRT project to these areas will further compound the impact in and through Los Altos.

Note: The study intersection of Cuesta Road and Springer Road is shared between the City of Mountain View and Los Altos. Regarding the proposed signal mitigation at this location, outreach should be performed by the VTA to the residents in this area about the signal mitigation and its need.

2. **Road Segments** – Impacts to the intersections will have additional impacts to their adjacent road segments: Los Altos Avenue, Loucks Avenue (between Los Altos Avenue and San Antonio Road), Jordan Avenue (between El Camino Real and San Antonio Road), Marich Way (between Jordan Avenue and Distel Drive), N. Clark Avenue (between City Limit and Almond Avenue) Cuesta Drive (between Springer Road and El Monte Avenue), El Monte Road (between Covington Road and Foothill Expressway). The City has concerns that the roads identified above will act as cut-through or portions of cut-through routes to avoid any congestion on El Camino Real due to the BRT.

Impacts such as cut-through or associated speeding may trigger residents to request for traffic calming improvements, which have costs that are borne both by residents and the City. What mitigations will VTA offer if cut-through increases due to the BRT project?

3. **Impact TRA-3b**. The City has an adopted Bicycle Transportation Plan and is developing a Pedestrian Master Plan. There are identified/planned improvements along the road segments stated in #2 above. Many of these road segments serve as routes to school for Santa Rita and Almond Elementary schools, Egan Junior High School and Los Altos High School. An increase in school-related pedestrian and cyclists’ usage of these road segments is anticipated as improvements are made. We have concerns about the additional/potential conflicts cut-through traffic presents. For any unforeseen mitigation measures needed due to the BRT project, how will VTA address this?
Thank you for the opportunity to provide these comments. Please contact me at (650) 947-2626 or cnovenario@losaltosca.gov if there are any questions.

Sincerely,

Cedric Novenario, P.E.
Interim Public Works Director

cc: Community Development Director
    Planning Services Manager
    City Manager
January 2, 2015

Ms. Christina Jaworski
VTA Environmental Planning Department
3331 North First Street, Building B-2
San Jose, CA  95134

COMMENTS ON THE ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL ASSESSMENT FOR THE EL CAMINO REAL BUS RAPID TRANSIT (BRT) PROJECT

Dear Ms. Jaworski:

The City of Mountain View appreciates the opportunity to share its comments and concerns regarding the Draft Environmental Impact Report (DEIR)/Environmental Assessment (EA) for the El Camino Real Bus Rapid Transit (BRT) project (Project) dated October 29, 2014.

The Project proposes BRT improvements along 17.6 miles of West Santa Clara Street, The Alameda, and El Camino Real (ECR) between the Arena (SAP Center) in San Jose and the Palo Alto Transit Center, including exclusive BRT-dedicated lanes, mixed-flow lanes (lanes for BRT and vehicular travel), and 15 median or curbside BRT stations.

After reviewing the DEIR/EA at its meeting of December 16, 2014, the Mountain View City Council is concerned about the potentially significant right-of-way, aesthetic, biological resource, land use, noise, transportation/traffic, and other impacts the BRT will have on the quality of life in our community.

The City requests that VTA and Federal Transit Authority (FTA) carefully consider the comments contained in this letter and continue to work with the City as the environmental review process progresses to ensure that the City’s interests are addressed and proper mitigations are included in the Final EIR (FEIR).

DIVERSION OF TRAFFIC

The DEIR/EA evaluates seven alternatives that include combinations of no-build, mixed-flow lanes on ECR (BRT buses sharing lanes with other vehicles) and dedicated lanes on ECR for BRT buses. The DEIR/EA states that the dedicated lane BRT alternatives would not result in any significant traffic impacts along ECR despite
elimination of a lane in each direction because traffic from the eliminated lanes will divert to other routes. For the year 2040 p.m. peak-hour time period, about 900 vehicles are estimated to be diverted from southbound ECR. This is essentially the full capacity of one travel lane.

The DEIR indicates that traffic would be diverted to U.S. Highway 101 (via Shoreline Boulevard and Rengstorff Avenue), Central Expressway, California Street, Middlefield Road, Cuesta Drive, Foothill Expressway, and Interstate 280 (via Miramonte Avenue and Grant Road). The diverted traffic on these parallel roads adds up to about 400 vehicles. The DEIR is silent about the other 500 diverted vehicles and does not provide any information about where they would go. The City Council is especially concerned about diversion of traffic onto smaller residential side streets such as Latham and Church Streets.

City Comment: The analysis of traffic impacts must account for all vehicles that are diverted from ECR, including what routes they are expected to take and the anticipated impact of taking that new route.

City Comment: The DEIR/EA does not consider or examine the capacity of these parallel routes, including Central Expressway and Highway 101 to determine if these facilities have any remaining capacity to accommodate the diverted traffic.

The DEIR/EA should provide a figure and/or a summary showing how the trips were assumed to be distributed across the street network to allow a better public review and understanding of the Project impacts. This would help to determine if additional intersections beyond the 0.5-mile buffer should be studied based on the number of trips added per lane.

Middlefield Road is identified as one of the main routes for diverted trips; however, the DEIR/EA does not analyze any Middlefield Road intersections. Middlefield Road is a major east-west connection between Palo Alto and Sunnyvale and the effect of BRT diversion traffic should be presented in the FEIR.

City Comment: Project impacts to Middlefield Road should be analyzed.

The DEIR/EA analyzed 12 intersections along the diversion routes and determined that 8 of the 12 would experience significant traffic impacts. The DEIR/EA includes mitigation measures for these 8 intersections. In most cases, the mitigation consists of adding additional turn lanes. The DEIR/EA states that the mitigation measures would not require any right-of-way acquisition or road widening.
**City Comment:** Show the basis for the assumption that right-of-way acquisition or road widening is not necessary for the mitigation measures at the impacted intersections.

Page 4.12-30 of the DEIR/EA discusses MM TRA-A which describes local roadway improvements, including signal optimization, signal installation, and roadway striping improvements to improve the operations and to reduce or eliminate the localized significant impacts at the impacted intersections. The DEIR states that VTA will fund the full cost for feasible improvements to be undertaken by local jurisdictions for intersections impacted in 2018. However, the document goes on to state that “for improvements to be undertaken by local jurisdictions that involve minimal changes to the intersection, such as traffic signal optimization and roadway striping, there is strong evidence that the local jurisdiction can and should implement the mitigation since VTA is paying the full cost and the measure will benefit the community.”

Page 4.12-46 discusses MM TRA-A further, “VTA will fund its fair share of 2040 feasibly mitigation improvements as part of the Project so that local jurisdictions can undertake traffic improvements over time as the need becomes apparent and remaining funding becomes available.” Please clarify that the VTA will fund the construction, design, project management, and inspection costs for such improvements. Local staffing and financial resources are limited and the City is not in a position to take on management or implementation of projects that are not currently part of our approved Capital Improvement Program.

**City Comment:** The VTA should implement all mitigation measures required for the Project and not rely on local jurisdictions to implement mitigation measures.

**REMAINING ECR TRAFFIC AND CROSS STREETS**

The DEIR/EA assumes that all 900 p.m. peak-hour traffic (one lane capacity) will go somewhere else when one travel lane becomes a dedicated BRT lane. While some of the 900 peak-hour vehicles will find other routes, some may use other modes such as the BRT; staff is certain that some will stay on ECR. Therefore, traffic congestion on ECR will be negatively impacted as a result of the conversion of a travel lane to a dedicated BRT lane and congestion will increase in the remaining two lanes.

**City Comment:** The FEIR should adequately analyze and address additional congestion along ECR for those vehicles that choose not to divert to alternate routes.
The alternatives with a dedicated BRT would close seven existing median access openings along ECR in the City of Mountain View and would close two locations in Los Altos:

- Crestview Drive (closing two access openings)
- Dale Avenue
- Between Yuba Drive and State Route 85 (closing two access openings)
- Between Mariposa Avenue and Pettis Avenue
- Ortega Avenue (by removing existing traffic signal)
- Distel Drive (closing two locations in the City of Los Altos by removing existing traffic signal)

With the closure of these median openings, access to the impacted side streets and commercial and residential properties along ECR would be more difficult. Some motorists would need to make U-turns where under existing conditions they do not. The DEIR does not include analysis of the existing left-turn pocket and the queuing impacts on any of the remaining intersections and, therefore, no mitigation measures are included. The diversion of traffic onto side streets and small parallel streets (such as Church and Latham Streets) is not analyzed. More information and analysis of this issue must be incorporated into the FEIR.

**City Comment:** The FEIR should analyze the existing left-turn pockets which will remain to determine if they are sufficient to handle the additional U-turns necessary because of the removal of other left-turn lanes along the corridor and appropriate mitigation should be incorporated into the project.

The DEIR/EA analyzes the level of service (LOS) at 15 cross-street intersection along ECR in Mountain View. Hexagon examined the intersection LOS calculations in detail to isolate delays on the cross streets versus the delays along ECR. With the dedicated lane BRT Alternative, four intersections would experience negative impacts, defined as LOS E or LOS F operations (Jordan Avenue, Castro Street, Calderon/Phyllis Avenues, and Sylvan Avenue/The Americana.) Staff believes the FEIR should call out these negative impacts to give the public a better overall understanding of how full BRT lanes might impact them even if they do not travel along ECR.
Ms. Christina Jaworski  
January 2, 2015  
Page 5

City Comment: Include analysis of impacts to cross streets beyond intersection LOS to demonstrate local impacts to vehicles, including queuing on the side streets as well as pedestrians and bicyclists crossing ECR.

TREES

One of the City Council’s current three major goals is to preserve and enhance the City’s tree canopy. Many of the existing trees were planted in the early 1980s when ECR was improved in Mountain View to its current condition as part of an Assessment District. Even if the existing trees are replaced, it may take between 20-25 years to replace the lost canopy. This loss of canopy will have significant aesthetic and noise impacts on properties and land uses in Mountain View along ECR.

The DEIR/EA states that the VTA it is not subject to the City’s Heritage Tree Ordinance as a separate agency, but since the right-of-way is owned by Caltrans, the City requires some documentation from Caltrans that they are supportive of removal of these trees by VTA for this Project.

City Comment: Provide documentation that Caltrans, as owner of the trees, approves the removal and replacement plan.

The City is concerned that it will not be practical within the remaining Project area within the Cities of Mountain View and Los Altos to plant replacement trees (333 in Mountain View and 88 for Los Altos.)

The City is more concerned that the VTA may determine that it cannot replace the trees within Mountain View or Los Altos, that the trees may be replaced elsewhere along ECR far from our City, or worse yet, select to pay an in-lieu fee without any decision or input from our City.

City Comment: Revise Mitigation Measure BIO-B, Replace Trees Removed by the Project, to provide some detail of where the 333 replacement trees in Mountain View and 88 replacement trees in Los Altos would be located.

The City is concerned about the impact to the remaining trees, smaller plants, and irrigation system as trees are removed and construction progresses. Specific measures to protect other trees, existing plant materials, and ensure irrigation systems remain functioning during Project construction should be incorporated into the FEIR.

City maintenance crews need access to the medians to maintain and care for the trees, landscaping, and irrigation systems. Currently through a permit with Caltrans, they
close the center lane adjacent to the median to allow staff and vehicles to access the area during nonpeak hours. With dedicated lanes and buses every 10 minutes, the Project must be designed to allow City crews to close the lane and direct buses into the remaining travel lanes to do regular or emergency maintenance.

**City Comment:** The FEIR must address impacts to existing planting and irrigation systems and maintenance activities for median and other streetscape landscaping affected by the Project.

**PEDESTRIAN/BICYCLE CIRCULATION AND PARKING**

The ECR Corridor currently creates a barrier to the movement of pedestrians and bicycles and the Project must not further divide the Mountain View community physically or visually. The DEIR/EA does not adequately address:

- Impacts/mitigation for bicyclists currently using the corridor to commute, shop, etc. A number of the Project’s alternatives remove several left-turn pockets, eliminating the bicyclist’s ability to make left turns to access City services and facilities.

- Impacts/mitigation for bicycle facilities connected to the Project corridor, including Stevens Creek Trail and the City’s Bicycle Boulevard at Sylvan Avenue/The Americana. Access to both of these facilities is currently provided to and from ECR. This access must not be interrupted due to the Project or during construction.

- Coordination with Mountain View’s bicycle/pedestrian goals and objectives identified in the 2030 General Plan, Shoreline Transportation Study, El Camino Real Precise Plan, San Antonio Precise Plan, Shoreline Corridor Study, and the California/Shoreline Complete Street Study.

**City Comment:** The FEIR must specifically address impacts to bicyclists from the removal of left-turn pockets, existing bicycle network crossings at ECR, and provide analysis of how the Project supports the City’s various land use and policy documents related to pedestrians and bicyclists.

Reconfiguration of the streetscape for the BRT Project is expected to provide various enhancements to the pedestrian environment, including shorter crossing distances, improved amenities, and additional signalized crossings. The DEIR/EA does not provide any conceptual design drawings (plan view) for any locations in the City of Mountain View.
City Comment: Provide exhibits demonstrating how crossing distances will be shortened and what additional amenities will be provided.

ECR does not currently have bicycle lanes and is not a classified bikeway under existing conditions within the City of Mountain View. Reconfiguration of the streetscape for BRT may positively affect the bicycle environment. Alternative 4c includes marked bike lanes in each direction throughout Mountain View.

With the dedicated lane, the BRT Project would remove all on-street parking along ECR. Within the City of Mountain View, this represents the loss of approximately 336 parking spaces. While the project is not removing any parking on the side streets, removal of parking on ECR would impact parking on the side streets. The DEIR/EA does not adequately address the impact of diversion of parking to the side streets (especially those that have residential uses).

City Comment: The FEIR must more specifically address impacts of loss of street parking on ECR and on existing residential side streets.

On Page 3-9, the DEIR/EA states “Dedicated lane segments would include bicycle lanes in place of parking.” In Mountain View, bicycle lanes would be appropriate east of Calderon Avenue and in key segments connecting cross-corridor routes, but local businesses are dependent on street parking between Calderon Avenue and Mariposa Avenue. More analysis and outreach is necessary prior to removal of these spaces.

City Comment: While removing on-street parking to provide for bike lanes is an appealing concept for some, the reality is that many small businesses on ECR depend on the street parking as their parcels are too small to support on-site parking. This has been the basis for not converting parking to bike lanes in our community as we try and balance competing needs. The FEIR should include a more robust analysis of the impacts to these small businesses and more targeted outreach should be done to identify specific economic and community issues and impacts, so that appropriate and adequate mitigation measures can be identified and discussed in the FEIR.

CALTRANS COORDINATION

One of the items specifically mentioned in our March 7, 2013 letter in response to the Notice of Preparation (NOP) of the DEIR/EA was regarding Caltrans coordination:

“Caltrans Coordination. The EIR/EA should provide information on how the BRT Project is being coordinated with Caltrans and the City of Mountain View, including the
City’s concurrence regarding the Project description, design, and environmental analysis.”

The DEIR/EA has no discussion of any coordination with Caltrans. Given that the DEIR/EA (Page 4.12-6) indicates that the section of ECR at Bush Street in Mountain View carries the highest average daily traffic (ADT), or nearly 53,000 vehicles per day with an average trip of 5 to 6 miles, not coordinating or discussing the Caltrans involvement in the process or allowing the City to participate in such coordination or discussions when considering removal of a travel lane in each direction of an existing State Route with such high vehicle usage is unusual. Caltrans support any of the proposed BRT improvements, including the removal of vehicular travel lanes, removal of left turns, or addition of bicycle lanes along the ECR Corridor is fundamental to the Project.

City Comment: The FEIR should describe VTA’s coordination with Caltrans and if there is additional coordination prior to the release of the FEIR, the City requests to participate in those discussions.

Other issues of concern include:

**LAND USE ASSUMPTIONS/CONSISTENCY**

Under DEIR/EA Section 2.2.1 – Project Purpose, the document discusses the need to provide the transit infrastructure to support the implementation of the transit goals and objectives of the Grand Boulevard Initiative (for ECR). The DEIR/EA also often cites the Grand Boulevard Initiative (GBI) when discussing land use and planning for the corridor. While the City supports and works with the GBI, the GBI is not a replacement for the City of Mountain View’s General Plan 2030 or the El Camino Precise Plan and San Antonio Precise Plan. A later portion of this Chapter, Section 2.2.2.6, neglects to discuss Mountain View’s General Plan or the General Plans of any of the other cities along the Project corridor. This is repeated in other sections of the DEIR/EA. The need to reference our General Plan and other planning documents/studies was discussed in our March 7, 2013 scoping comments. The DEIR/EA has not adequately considered local land use plans or policies.

City Comment: The DEIR/EA has not adequately considered the City of Mountain View’s 2030 General Plan which was approved in 2012 and, therefore, has not adequately considered local land use plans or policies as required. The VTA should review the City’s 2030 General Plan and address how the Project supports or does not support local planning policies in the FEIR.
On Page 11 of Appendix H—Traffic Operations Analysis Report, the study states that the analysis “Uses the 2013 Association of Bay Area Governments (ABAG) Projections for estimates of households, population and employment.” The table below compares the ABAG projections with the City’s growth projections. The ABAG model projects significantly lower job growth and marginally lower housing growth than the City. Since the BRT EIR was begun after Mountain View’s 2030 General Plan update, this EIR should study a cumulative growth scenario consistent with that General Plan.

<table>
<thead>
<tr>
<th></th>
<th>ABAG*</th>
<th>Mountain View 2030 General Plan</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Growth 2013 to 2030</td>
<td>8,860</td>
<td>17,000 to 25,000**</td>
<td>+8,000 to 16,000</td>
</tr>
<tr>
<td>Housing Unit Growth 2013 to 2030</td>
<td>5,330</td>
<td>6,770</td>
<td>+1,440</td>
</tr>
</tbody>
</table>

* ABAG data is to 2010 to 2040—growth shown is an interpolation.
** Variation is based on a range of possible employment densities.

**City Comment:** The DEIR/EA does not adequately address the cumulative growth scenario, may be understating cumulative impacts, and, therefore, the FEIR should study a cumulative growth scenario consistent with our 2030 General Plan.

The BRT DEIR does not report the land use data that was used in the travel demand forecasting model. We have found discrepancies between the City of Mountain View ECR Precise Plan (ECR-PP) future traffic volume data and the BRT DEIR data. While both studies used VTA travel demand forecasting model to develop forecasts of future year traffic on ECR and side streets, the future traffic volume (year 2030) in the ECR-PP is shown to be higher than future traffic volume (year 2040—without Project) in the BRT DEIR/EA. As a result, the future intersection LOS and delays are much worse in the 2030 ECR-PP than 2040 BRT DEIR.

**City Comment:** VTA should use the ECR-PP land use and development assumption (which are the same as the City’s 2030 General Plan which was approved in 2011) for forecasting future traffic volume and intersection delay and LOS calculations for the DEIR/EA.

**City Comment:** Because the DEIR/EA does not adequately address the cumulative growth consistent with the City’s 2030 General Plan, the DEIR/EA underestimates traffic volumes, intersection delay, and LOS calculations. The FEIR should include updated analysis and necessary mitigation measures.
CONSTRUCTION IMPACTS

Pedestrians use ECR both to travel and, in many instances, cross ECR. Some bicyclists also use ECR, but many more cross ECR as part of their daily commute. There are a large number of students that also cross ECR on their way to and from middle schools in our community. The DEIR/EA should include the following mitigation measures for all Project-related construction activities within the City of Mountain View to ensure pedestrian/bicycle safety.

Access during construction:

- Pedestrian access, including for people with disabilities compliant with the Americans with Disabilities Act (ADA), must be maintained throughout the duration of construction. Safe, clearly marked routes must be maintained through and around the construction activity at all time, 24/7.

- The use of temporary walkways with the width, slope, and cross-slope, compliant with ADA, must be incorporated within the Project. Surfaces must be firm, stable, and slip-resistant.

- Barricades and channelizing must be used to separate pedestrians from vehicular traffic. Proper barricading must be provided to prevent visually and/or hearing impaired pedestrians from entering work zones, 24/7.

- All proposed alternate pedestrian detour routes must have appropriate signage and be accessible to people who use mobility aids (wheelchairs, walkers, scooters, etc.). The alternate detour routes shall be a minimum width of 3' and be parallel to the disrupted pedestrian access routes to the maximum extent feasible.

- Accommodations for bicycles crossing ECR must be provided 24/7 in those locations where bicycle facilities exist on side streets. Bicycles should not be made to share access with pedestrians.

**City Comment:** The mitigation measure describing the required Transportation Management Plan (TMP) must have specifically defined parameters to adequately address access for all modes during construction, both through the corridor and to individual properties.
Construction Noise:

MM NOI-A states that VTA will employ best practices to reduce outdoor noise levels at noise-sensitive land uses to ensure that construction noise levels do not exceed 80dB(A) \( L_{eq} \) (8 hours) during daytime hours (7:00 a.m. to 10:00 p.m.) and 70 dB(A) \( L_{eq} \) (8 hours) during nighttime hours (10:00 p.m. to 7:00 a.m. and comply with all applicable local construction noise standards to the maximum extent practicable.

The Mountain View City Code Section 8.70.1 — Construction Noise, restricts construction activities to 7:00 a.m. to 6:00 p.m. Monday through Friday. Exceptions must be given in writing by the Building Official. There are existing residential units directly on ECR and mostly single-family homes on parcels immediately behind those on ECR. Some of the ECR lots are extremely shallow, placing these residences in close proximity to the proposed construction. More specific and detailed mitigation measures should be provided to ensure that residential uses along ECR are adequately protected.

City Comment: Mitigation Measure NOI-A, Employ noise-reducing practices during construction, should be updated to reflect the Mountain View City Code Section 8.70.1. Additional measures to reduce the construction noise at nearby residential units beyond those identified in the DEIR/EA must be developed and incorporated into the Project.

ADJACENT NEIGHBORHOODS

Section 5.14.2 of the DEIR/EA discusses the Affected Environment and identifies existing conditions related to socioeconomics in the Project corridor and surrounding area. The document goes on further to state..."Furthermore, no neighborhoods or communities of concern have been identified.” Page 5-111 also discusses cumulative impacts on Environmental Justice (EJ) populations.

Mountain View is an extremely diverse community. There are 15 Lower-Income Census Tract/Block Groups within the City of Mountain View based on a Bay Area Economics 2012 Map of Lower-Income Block Groups for the Community Development Block Grant (CDBG) and Home Investment Partnership (HOME) Programs. These Census Tract/Block Groups indicate the percentage of lower-income households living within those block groups. The number of lower-income households within these identified block groups range from 64.7 percent of the households to 38.2 percent. All but four of these block groups are located along ECR or are in close proximity to ECR. Please ensure that the DEIR/EA has identified or reviewed these Census Tracts to make sure the remaining analysis is correct.
City Comments: Please identify the source of the DEIR/EA’s “neighborhoods of concern” to ensure that all appropriate populations are identified and considered.

OTHER TECHNICAL INCONSISTENCIES WITHIN THE DEIR/EA DOCUMENT

City Comments: Please make technical corrections to the following sections as discussed below:

City Comments: Table 2-2 gives a total existing ridership of 20,396 and a total VTA core ridership of 78,186. Page 3-2 states that Rapid 522 and Route 22 have a ridership of 100,000 or nearly 20 percent of VTA’s daily ridership. Table 4.12-8 Weekday Transit Ridership within the Project Corridor by Alternative gives existing ridership of 3,278 for Rapid 522/BRT and 9,234 for Local 22, for a total of 12,512. The Alternative with the most ridership in 2018 has a total of 18,616, which is less than the current ridership given in Table 2-2. Such large inconsistency in the document for such a central number does not instill confidence in the consistency or accuracy of other numbers or figures. Please correct this discrepancy.

<table>
<thead>
<tr>
<th></th>
<th>Existing Route 22</th>
<th>Existing 522</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 2-2 (2013)</td>
<td>14,511</td>
<td>5,885</td>
<td>20,396</td>
</tr>
<tr>
<td>Page 3-2 (2013)</td>
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<td></td>
<td>100,000</td>
</tr>
<tr>
<td>Table 4.12-8 (2013)</td>
<td>9,234</td>
<td>3,278</td>
<td>12,512</td>
</tr>
<tr>
<td>Table 4.12-8 Alternative 4c (2018)</td>
<td>5,512</td>
<td>13,104</td>
<td>18,616</td>
</tr>
</tbody>
</table>

City Comments: The City believes that the lane geometry of the following intersections were modeled incorrectly:

- ECR/ Rengstorff Avenue
- ECR/Escuela Avenue
- ECR/El Monte Avenue

Also, all signal cycle lengths on ECR within the City of Mountain View and Los Altos were incorrectly modeled. VTA should contact Caltrans to obtain the correct lane geometry and signal cycle lengths.
Ms. Christina Jaworski  
January 2, 2015  
Page 13

City Comments: Page 2-4, last sentence states that the forecasted travel speeds will be 25.9 mph in 2018 and 20.1 mph in 2040. What is the current (2013 or 2014) travel speed (average speeds for automobiles) in the p.m. eastbound direction?

City Comments: Page 4.5-6 describes “scattered areas of undeveloped land such as the Grant Road “farm parcel” in the City of Mountain View still remain.” This parcel was developed for single-family homes in 2008. Please update this section to reflect existing conditions.

City Comments: Page 4.7-3, Table 4.7-1 Water Table Information in the Project Study Area. In Mountain View, it states the depth to water is 9.8’. It gives the Groundwater Elevation (feet above mean sea level) at 39.5’ (39.5’+9.8’ would indicate a ground elevation of 49.3’ above mean sea level). The elevation on ECR at Castro Street in Mountain View is approximately 106’ above mean sea level. Please correct this table as appropriate and the assumptions and conclusions from this section as necessary.

City Comments: DEIR/EA Page 4.13-2 incorrectly states that Mountain View obtains water from California Water Service Company (commonly known as Cal Water or CWSC per DEIR/EA). Cal Water serves a portion of the City of Mountain View as a private water provider. This includes some parcels on ECR. The City provides water for the rest of the City and purchases wholesale water from the SFPU and SCVWD, as well as using local groundwater. Please correct this section as appropriate.

PUBLIC COMMENTS

The City has enclosed with this letter, copies of e-mails and other written correspondence that has been received by the City of Mountain View from the members of the public during the Public Comment period up to and including December 16, 2014. Any additional written correspondence will be forwarded under separate cover prior to the close of the public comment period.
Ms. Christina Jaworski  
January 2, 2015  
Page 14

Please contact Transportation Planner, Helen Kim (helen.kim@mountainview.gov) or Transportation and Business Manager Linda Forsberg (linda.forsberg@mountainview.gov) to coordinate future City participation and input for the proposed ECR BRT Project.

Sincerely,

Christopher R. Clark  
Mayor

CRC/JAS/7/PWK/001-12-18-14L-E

Enclosures:  
1. Memo from Hexagon Dated December 3, 2014  
2. Copies of Correspondence from Public Received as of December 10, 2014

cc: City Council  
   CM, PWD, CDD, APWD—Solomon, TBM, PCE—Arango, TP, TE, STE—Lopez, ACDD/PM, ZA, AP—Anderson, AP—Shapiro, POSM, F/c
January 13, 2015

Valley Transportation Authority
Environmental Program and Resources Management
Attn: Christina Jaworski
3331 N First Street, Building B-2
San Jose, CA 95134

RE:  Comments to the Draft Environmental Impact Report/Environmental Assessment for the El Camino Real Bus Rapid Transit Project

Dear Ms. Jaworski,

Thank you for the opportunity to provide comments on the El Camino Real Bus Rapid Transit (BRT) project Draft Environmental Impact Report (DEIR). Although Palo Alto is excited to see the Valley Transportation Authority (VTA) pursuing improved transit alternatives for the region, due to the lack of proposed mitigation to serious impacts to Palo Alto traffic, Palo Alto opposes dedicated lanes in Palo Alto. The City requests that the VTA consider the following suggested alternatives and respond to the requests for clarifications of the DEIR. We support efforts to expand transit service, but only if significant impacts within our City can be effectively mitigated.

The City’s comments on the Draft EIR are provided below:

1. During the presentation to the City Council on November 17, 2014, VTA staff indicated that only the Dedicated Lane Concept would justify the level of effort/expense to implement the BRT program. This perspective is extremely troubling to the City of Palo Alto given the ridership increases projected even with small segments of dedicated lanes south of Palo Alto. VTA can make significant improvements to their service and the El Camino Corridor while remaining sensitive to the community context.

Many transit agencies around the world have implemented successful BRT projects that do not require the reduction of roadway capacity for other travel modes. Also, although technology solutions have been introduced by the VTA along El Camino Real, the technology has not been adequately maintained (specifically the Transit Signal Priority solution utilizing Emtrac radios and receivers along the corridor). The assertion in the DEIR that existing travel times restrict future growth of the system is unacceptable given that existing solutions are not being properly maintained. Also, additional solutions can be considered, including roadway geometry that...
introduces Queue Jump Lane facilities for transit to move transit vehicles through congested intersections without impacting other travel modes. The DEIR indicates the use of Queue Jump lane facilities at locations in Palo Alto including Page Mill Road and Charleston-Arastadero Road but true Queue Jump lane facilities do not exist and the existing infrastructure does not support their implementation. True Queue Jump Lane facilities include special traffic signal phasing that moves transit vehicles through signalized intersections via “slip lanes” that is activated using preemption equipment with notification to bus operators. Before more substantial roadway capacity solutions are considered, lower cost solutions such as Queue Jump Lanes should be explored and tested.

2. The Peninsula is in great need of enhanced transit service, and VTA should be considering a suite of programs rather than defining a project purpose that is exclusive to the El Camino corridor (DEIR p. 2-1). Limiting the project purpose to the El Camino Real means that VTA and its federal partner have ignored very real alternatives that are likely to enhance transit ridership without significantly impacting travel (by transit, auto, rideshare, etc.) on El Camino Real and other corridors. For example, programs that would offer lower fares for shorter trips and free transfers to other transportation systems should be analyzed to see if they would result in similar ridership increases without the impacts.

Also, Palo Alto and adjacent jurisdictions are investing in their own shuttle systems and development of Transportation Management Associations (TMAs) to develop and fund alternatives to the private automobile. The VTA should be playing a leadership role for the region and participating in these efforts in a meaningful way. For example, VTA could offer the ECO pass at a volume discount for employees and residents to increase overall transit ridership.

3. The City believes that the existing travel times for transit are overstated and that the existing travel times for automobiles are understated, calling into question the “baseline” used for evaluating impacts and benefits of the various alternatives. The 2013 existing travel time for the project corridor is identified as 71 minutes for the Rapid 522/BRT and 90 minutes for the Local 22 route with an average of 85 minutes (Table 4.12.18). Also, during VTA staff presentations to the City Council, the travel time for transit through Palo Alto was identified as 22.0 minutes under existing conditions for transit and 10.2 minutes for automobiles.

4. The City conducted a “Floating Car” study of all major corridors in the Spring 2014 including El Camino Real. The City’s findings (see below) are not consistent with findings or assumptions of the DEIR. The City requests that the raw data upon which the DEIR was based be made available for comparison. If the travel times identified by the DEIR are derived strictly from traffic models without Floating Car study validation, the City requests validation and revisions to the analysis.
5. Table 4.12-5 of the DEIR identifies the existing Bicycle Facilities Connecting to the Project Corridor, yet several of the bicycle facilities at Palo Alto intersections are incorrectly classified. (See below.) Proper identification of side street bicycle facilities along the project corridor is critical to ensure that the design properly accommodates the priority travel modes from adjacent residential neighborhoods. At locations where bicycle facility deficiencies exist, such as Class II bicycle lane terminating prior to the intersection, the project should identify improvement options to extend those facilities to the intersection as part of the project resulting in a better connections for all travel modes.

<table>
<thead>
<tr>
<th>No.</th>
<th>Intersecting Street</th>
<th>DEIR Classification</th>
<th>Bicycle Lane Classifications – Corrections Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Charleston Rd-Arasstradero Rd</td>
<td>Class II Bike Lane</td>
<td>Bike Lanes at the El Camino Real Intersection do not exist. Classify as Class III Bike Route.</td>
</tr>
<tr>
<td>2</td>
<td>Hansen Way</td>
<td>Class II Bike Lane</td>
<td>Bike Lanes existing westbound away from El Camino Real. Classify as Class III Bike Route.</td>
</tr>
<tr>
<td>3</td>
<td>Page Mill Road</td>
<td>Class II Bike Lane</td>
<td>Bike Lanes are dropped prior to the intersection. Classify as Class III Bike Route.</td>
</tr>
<tr>
<td>4</td>
<td>California Avenue</td>
<td>Class II Bike Lane</td>
<td>No Bike Lanes exist on California Avenue. Classify as Class III Bike Route.</td>
</tr>
<tr>
<td>5</td>
<td>Stanford Avenue</td>
<td>Class II Bike Lane</td>
<td>Bike Lanes eastbound are dropped prior to El Camino Real. No bike lanes existing westbound. Classify as Class III Bike Route.</td>
</tr>
<tr>
<td>6</td>
<td>Galvez Street-Embarcadero Road</td>
<td>Class II Bike Lane</td>
<td>Bike Lanes eastbound are dropped prior to El Camino Real. No bike lanes existing westbound. Classify as Class III Bike Route.</td>
</tr>
<tr>
<td>7</td>
<td>El Camino Way-Maybell Av</td>
<td>No Listed</td>
<td>Classify as existing Class III Bicycle Boulevard</td>
</tr>
</tbody>
</table>

6. The technical study that supports the DEIR presents projections of future ridership that raise multiple questions. First, we question the assumption that there will be a near-term increase in projected transit boardings from 12,512 in 2013 to 18,616 boardings in 2018 for a dedicated lane concept. Specifically, in Palo Alto, the DEIR assumes 2,519 boarding’s in the City in 2013 and increases by 19% to 2,987 (Mixed Flow operations) or by 71% to 4,315 (Dedicated Lane operations) in 2018.
The City requests that the VTA clarify the basis of these projections, particularly assumptions regarding the capacity of the BRT and Local 22 transit fleet. Table 4.12-8 discuss the existing and forecast weekly ridership data but the existing and projected peak hour boarding estimates are missing from the DEIR. This information is critical in helping local agencies properly evaluate assumptions regarding trips being removed or diverted from the project corridor by the project alternatives. The City seeks to validate the combined BRT/Local 22 seat and standing room capacity to determine whether the projected ridership can actually be met. On the surface, it appears that the mode shift assumed from automobile single occupant trips exceeds the capacity being introduced by the BRT Program.

7. The projected increase in ridership between 2013 and 2040 also requires further explanation. Under the No Project alternative, it appears that VTA is projecting a 73% increase in ridership (from 12,512 to 21,678), which we find to be quite remarkable.

8. The relationship between ridership assumptions and dedicated lanes also needs to be better explained. Based on the data in Table 4.12-17, adding dedicated lanes in Santa Clara will increase ridership by 8.5%, adding dedicated lanes in Sunnyvale will increase ridership by another 5.7%, adding dedicated lanes in Mountain View will increase ridership by another 10.3%, and adding dedicated lanes in Palo Alto will increase ridership by another 10.8%, for an overall increase of 40% over the No Build Alternative and 37% over the fully mixed flow option (Alternative 2). How do population/employment projections, travel times, distance, and other variables influence these assumptions? And how do these percentages compare to the existing ridership along the corridor in each jurisdiction?

9. The DEIR provides a Level of Service (LOS) analysis for study intersections but lacks a more comprehensive and pertinent Link LOS analysis to clearly demonstrate how corridors will be impacted by the project. A Link LOS would analyze the Volume to Capacity (V/C) of roadway segments and help the public understand how fluctuations in vehicle volumes may impact the operations of a roadway. Along key vehicle arterials such as El Camino Real and Alma Street in Palo Alto, the use of Link LOS for segments is critical.

10. Both intersection and link LOS are often insufficient to help residents understand the potential impacts of a project. A more appropriate tool is the Traffic Impact on Residential Environments (TIRE) Analysis. The TIRE analysis applies quantitative measures to public perception of traffic increase on residential streets. On streets in Palo Alto such as Olive Avenue or Pepper Avenue where the potential for cut-through traffic for access to streets such as Alma Street or Middlefield Road, the TIRE analysis would better analyze the impacts of the project alternatives, particularly the dedicated lane concept.

11. The DEIR identifies significant traffic congestion along the Alma Street corridor and significant increases in delay along the El Camino corridor in the dedicated lane alternative, and yet fails to
propose any mitigation measures to resolve these impacts. (Mitigation proposed in Table 4.12-22 would not resolve the impacts and is left up to the local agencies to fund and implement, with a “fair share” contribution by VTA.) This is unacceptable and makes it impossible for members of our community to support what could be a transformational project for our region. VTA should give more thought to alternatives and mitigations, and ultimately present at (modified) project that addresses a (revised) purpose and need without significantly and adversely affecting other modes of travel.

12. The DEIR discusses Policy T-8 within the existing Palo Alto Comprehensive Plan, and suggests that this policy restricts the installation of new traffic signals (or other mitigation) along Alma Street. The actual reference should be to Program T-39 of the Roadways section of the plan, which states as follows:

"Maintain the current program of not adding traffic signals on Alma Street north of Lytton Avenue and south of Channing Avenue to Churchill Avenue; and on Middlefield Road north of Lytton Avenue and south of Channing Avenue to Embarcadero Road."

The City acknowledges the recommended mitigations included in Table 4.12-22, but we request further analysis of these recommendations, including a more comprehensive Link LOS and Progression Study to determine how additional traffic signal installations would impact progression of the Alma Street corridor.

13. With the conclusion that the already congested Alma Street corridor (with multiple intersections at LOS F in the 2040 No Build scenario) will be further impacted if the dedicated lane option (Alternative 4c) is selected, the absence of effective mitigation is particularly troubling. At a minimum, the DEIR should discuss the potential benefits of grade separating the Caltrain tracks at Alma/Meadow and Alma/Charleston by depressing the tracks south of Oregon Expressway as suggested in a recent report to the Palo Alto City Council. Mitigation measures at these intersections could include a contribution to engineering and design of the grade separation which we expect would dramatically improve traffic operations at these locations.

The recently adopted Caltrain Electrification DEIR discusses similar impacts along the Alma Street corridor from the addition of increased rail service. Rather than considering the El Camino Real BRT project independent of the Caltrain Electrification project, the City requests that the VTA and Caltrain coordinate to consider and fund mitigation measures for their cumulative impacts within the Palo Alto community.

14. The DEIR currently lacks an analysis of the Middlefield Road and Foothill Expressway corridors, which is unacceptable given the impacts shown on Alma Street. The analysis should be revised to provide trip distribution and analysis of traffic along both Middlefield Road and Foothill Expressway where traffic would likely divert when the LOS along Alma Street

L3-11, cont.  L3-12  L3-13  L3-14
degrades. In addition, the DEIR should consider and discuss cumulative impacts in conjunction with improvements planned along Foothill Expressway as part of the County of Santa Clara Expressway 2040 Plan.

15. The DEIR should estimate and model boarding activities to determine the time duration of vehicle stops and queue lengths generated behind the transit vehicles. This analysis should consider the needs of various riders and model different board time scenarios, including those involving standard passengers, senior passengers, accessible operations with passenger lift, bicycle boarding and bicycle rack mounting and various combinations. If there would be LOS delay associated from the transit boarding activities, this should be identified along with appropriate mitigation, along with potential additional diversions of traffic onto Alma Street and/or through nearby neighborhoods.

16. BRT Station designs for the Mixed-Flow operation require additional detail and we are concerned that even without a dedicated lane, BRT may have negative impact on travel through Palo Alto. The analysis of boarding activities and their impacts should include a weaving analysis to determine impacts from vehicles moving from the #3 lane to the adjacent travel lanes.

17. The El Camino Real and Charleston Road- Arastradero Road intersection is a critical intersection for the City serving transit along El Camino Real and east-west commuters between South Palo Alto/Highway 101 and the Stanford Research Park/1-280. In addition, hundreds of students travel through the intersection daily as part of their route to Gunn High School, Terman Middle School, and Juanita Briones Elementary School. As part of the final design, the VTA should consider bicycle and pedestrian treatments that support connections with transit using innovative intersection improvements.

The City has active planning and design project for the Charleston Road-Arastradero Road corridor and can provide additional information regarding community-indicated preferences for treatments at the intersection. The most important design criterion should be preservation of roadway capacity for all movements and expansion of bicycle lanes facilities from both the Charleston Road and Arastradero Road approaches. (As noted earlier, the DEIR currently identifies these streets as providing Class II Bicycle Lanes to the intersection but they do not exist as bicycle lanes end prior to the intersection.) To ensure the proper integration of the project to the community the Class II Bicycle Lanes should be extended to the intersection.

Other measures that could be considered include reconfiguring the intersection to remove the free right turn pork chops island; expanded sidewalk refuge areas for pedestrians; enhanced crosswalk striping; guiding bicyclists through the El Camino Real intersection using treatments such as “intersection through markings;” and pedestrian-scaled lighting to provide a safe environment at all periods of the day. Amenities at the stations should include treatments that support a comfortable environment for users such as illuminated shelters, drinking
fountains, trash/recycle receptacles, electrical outlets for powering of personal devices, and bicycle-service stations with tools and air pumps to help service bicycles.

18. The City understands that the BRT project proposes a station at the intersection of El Camino Real & California Avenue. However improved transit facilities are also warranted at the intersection of El Camino Real and Page Mill Road and should be considered as part of the project. The Page Mill Road-Oregon Expressway east-west corridor is one of five east-west alternatives for the community and Page Mill Road-Oregon Expressway provides the most roadway capacity. Ensuring that safe convenient transit facilities are provided at this intersection can help to promote and stimulate additional transit routes along the Page Mill Road-Oregon Expressway corridor. At a minimum, the City requests VTA work with Caltrans to introduce a dedicated northbound right turn lanes to the intersection as part of the project under a Mixed-Flow operation. Such a treatment would allow for the introduction of Queue Jump facilities for transit operations. Similar solutions can be considered from NB/SB left turn lanes if split-phase traffic signal operations were studied and analyzed as part of the project.

19. There is significant transit ridership, bicycle, and pedestrian activity at the El Camino Real and California Avenue intersection due to connections to Caltrain (California Avenue Station) and the vibrant California Avenue Business District. In addition to the planned BRT Station Amenities, the City requests that the VTA also consider place-making measures at the station to support a strong tie with the California Avenue Business District both at the station and along El Camino Real. Strong place making measures could include monument signs developed through public outreach/public art process and extension of the planned treatments from the active California Avenue Transit Hub Corridor Project. Intersection improvements should also be consistent with the recently improved El Camino Real and Stanford Avenue intersection, including decorative traffic signal facilities, enhanced pedestrian-scaled lighting, intersection bulb-outs, and decorative crosswalks and median island refuge areas across El Camino Real.

20. The City of Palo Alto is interested in the potential for an additional mixed flow BRT station at El Camino Real and Churchill Avenue and requests that the VTA at a minimum include improvements to support future or seasonal usage for BRT operations. This intersection supports ties with the Seasonal Caltrain Stanford Platform used during regionally significant events at Stanford University. The Churchill intersection currently supports VTA bus operations with strong ridership from Stanford University, Palo Alto High School, Town & Country Shopping Center, and Palo Alto Medical Foundation. In-lane transit facilities at this location introduce opportunities for increased ridership and more efficient intersection operations for the community.
21. Another alternative that needs to be considered includes the use of alternative pricing methodologies. Currently the single price methodology does not benefit transit users in Palo Alto that are traveling in-town only. Tiered Pricing solutions similar to the Zone Pricing used by Caltrain may stimulate transit ridership within Palo Alto by offering lower price fares for in-town trips.

Thank you for considering and responding to the comments on the DEIR provided above. We have also attached comments on the background technical report about transportation for your consideration. Please do not hesitate to contact Hillary Gitelman, the City’s Director of Planning and Community Environment, if you have any follow-up questions.

Sincerely,

KAREN HOLMAN
Mayor
City of Palo Alto

Attachment
January 14, 2015

Ms. Christina Jaworski  
VTA Environmental Planning Department  
3331 North First Street, Bldg. B  
San Jose, CA 95134-1927  

SUBJECT: DRAFT ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL ASSESSMENT FOR THE EL CAMINO BUS RAPID TRANSIT PROJECT

Dear Ms. Jaworski:

The City of San José appreciates the opportunity to comment on the Draft Environmental Impact Report/Environmental Assessment (DEIR/EA) for the EL Camino Bus Rapid Transit (BRT) Project. In the City of San José General Plan, Envision 2040, the City adopted ambitious goals for changing the way that people get around, including a goal that 20% of trips be made on transit. Extending the Santa Clara/Alum Rock BRT corridor (currently under construction) along El Camino Real has the potential to significantly advance this goal not only for the City, but for our region.

The City offers the following comments on the DEIR.

Preferred Alternative

Maximizing the length of the dedicated lanes (Alternative 4) is the preferred alternative for the City of San José. Today, it takes more than twice as long to travel the 17-mile corridor via bus rather than in a car (85 minutes on bus versus 40 minutes in a car). With dedicated lanes, transit could be time-competitive with the car, nearly halving the time required to take transit while adding less than 4 minutes to expected car travel times (48 minutes on BRT versus 43.7 minutes in a car, according to projections for 2018). Given our interest in improving transit access to, from and within San José, we urge VTA to proceed with the dedicated lane option for El Camino Real BRT.

Conceptual Drawings

1. Drawings, pages L-60MED and L-61MED. The City would like VTA to evaluate the section between McKendrie St and University Ave. There are existing four bus stops within this section. The project should investigate deleting the four bus stops and consolidating them to two BRT station platforms at Hedding St.
2. Drawings, page L-61MED. Please note, the intersection of Hedding and The Alameda will be modified (removal of pork chops and installation of bulbouts) with The Alameda Phase 2 Improvements Project.

3. Drawings, p. L-63MED. At the intersection of Hanchett Avenue and The Alameda, the bulb-out was constructed as part of The Alameda Phase 1 Project. Please see the attached figure.

4. Drawings, generally. Curblines shown in the Alternative within the San José segment do not currently show existing conditions. Please refer to The Alameda Phase 1 Improvements Plans, from Stockton Ave to Fremont St.

If VTA would like to view the record drawings for The Alameda Phase 1 Improvements Plans, please contact David Wong (david.wong@sanjoseca.gov).

**EIR comments**

5. Page 3-7: The Alameda Phase 1 was completed on 10/14/14.

6. Page 3-7: Include the following information regarding The Alameda Phase 2 Improvements: The Alameda Phase 2 Improvements Project from Fremont St to I-880 is currently in design. Final design is anticipated to be complete by early 2015 and construction begin in Summer 2015.

7. Page 4.2-3: Landscape Unit 1, The Alameda. Please revise the second to last sentence in the first paragraph as below:

"Recent streetscape improvements on The Alameda between Stockton Avenue and Fremont Street constructed by Phase 1 of The Alameda: A Plan For The Beautiful Way improvement project include...."

Note that the Phase 2 of the project will extend the same type of improvements from Fremont Street to I-880. Phase 2 is scheduled to begin construction in 2015.

8. Page ES-1: Section ES.2, Project Location. Note that The Alameda west of I-880 was not relinquished to the City of San José and remains under Caltrans jurisdiction. This comment applies to other sections of the DEIR/EA that discuss the project location.

9. Page ES-4: Section ES.4.1.2, Project Features - It is noted that the installation of ticket vending machines were removed from the Santa Clara/Alum Rock Bus Rapid Transit project. Please verify whether or not the project will install TVM's.

10. Page ES-5: Alternative 1: No Build states that BRT will operate at 10-minute headways. This is inconsistent with the FEIR for the Santa Clara/Alum Rock which states 12-minute headways. Please clarify.

11. Page ES-16 and page 4.12-20: States that traffic impacts during construction would be less than significant. Our experience with the construction of the Santa Clara/Alum Rock BRT project is that
the impacts are significant and largely unavoidable, particularly as access to businesses and turning movements that are either temporarily, permanently and/or repeatedly restricted.

12. Page 3-1: Section 3-1 - See comment #10 regarding headways.

13. Page 3-3: Footnote 3 - Recoordination of the relinquishment of the subject portion of SR 82 to the City took place on December 28, 2011.

14. Page 3-7: 4th paragraph, first sentence states that "The Project would provide bike lane striping, enhanced crosswalk…". This should be revised to state that "In accordance with each jurisdiction's applicable bicycle and pedestrian improvement plan, the Project would provide...". The statement is too general as there are locations along the corridor that will not have bike lanes, enhanced crosswalks, etc.

15. Page 3-9: 5th bullet, Parking - states that bus bulbouts would be approximately 160-feet long to simultaneously accommodate a 60-foot and 40-foot bus. It is requested that the project consider shorter platform lengths through the design process.

16. Page 3-9: 1st bullet, BRT vehicles: states buses will be equipped with on-bus payment system. Does this refer to the Clipper card? If TVM’s are removed from the platform, as with the Santa Clara Alum Rock BRT project, then will patrons also have the option of paying upon boarding? If so, then this could potentially increase the dwell time at the stations and overall travel times.

17. Page 3-22: Capital Costs - states that "no right of way acquisition is required for the project." Please clarify whether the acquisition of temporary construction easements for construction of the project was considered.

18. Page 4.2-3: Landscape Unit 1; The Alameda – The last paragraph of the section should include the fact that the mature trees significantly contribute to the character of the corridor.

19. Page 4.2-9: Summary of Simulation, Landscape Unit 1: The Alameda - states that the visual effect of the removal of trees "represents a noticeable and minor incremental change…" The tree canopy is a significant element of the character of the corridor. To the extent possible, the Project should save as many of the trees within the station areas as possible. This has been achieved in the Santa Clara/Alum Rock BRT project.

20. Page 4.2-15: Continuing the sentence from previous page, note that Lafayette Street is in Santa Clara, not San José.

21. Page 4.4-7: Table 4.4-1 indicates that 21 trees will be removed in the City of San José. Why are all eight trees, five of which are classified as Heritage trees, being removed between Shasta and Hanchett for a 74-foot long platform? Similarly, why are all five trees for the WB station area being removed when the platform is only 74-feet long? See also Comment # 19.

22. Page 4.12-11: Table 4.12-5, Note that new bike facilities have been installed on Santa Clara Street between the Guadalupe River Trail and Stockton Avenue, and that bike lanes are planned on
Ms. Christina Jaworski  

SUBJECT: DRAFT EIR FOR THE EL CAMINO BUS RAPID TRANSIT PROJECT  
January 14, 2015  
Page 4

Stockton Avenue north of Santa Clara Street. An extension of the existing bike lane on Hedding Street, crossing The Alameda, is also planned.

The City of San José appreciates the opportunity to review and comment on the DEIR for this important project. If you have questions concerning our comments, please contact me at (408) 535-7895.

Sincerely,

John Davidson, Senior Planner  
Planning, Building and Code Enforcement

L4-23, cont.
Letter L5

January 14, 2015

Ms. Christina Jaworski
VTA Environmental Planning Department
3331 North First Street, Building B-2
San Jose, CA 95134

Sent Via Email

Subject: City of Santa Clara Comments on the Draft Environmental Impact Report/Environmental Assessment for the El Camino Real Bus Rapid Transit (BRT) Project

Dear Ms. Jaworski:

The City of Santa Clara appreciates the opportunity to provide comments on the Draft Environmental Impact Report (DEIR)/Environmental Assessment (EA) for the El Camino Real Bus Rapid Transit (BRT) Project, dated October 2014.

City staff has reviewed the document and consolidated comments for consideration and inclusion in the Final EIR/EA, as provided below:

1. The DEIR MM BIO-B states that the VTA will replace the 183 trees removed by the project at specified ratios, which the City finds acceptable. However, it states that if trees cannot be replaced within the Project’s corridor area, a tree in-lieu fee will be paid. The City would like to have trees replaced in areas in proximity to the Project corridor area wherever possible, rather than the payment of in-lieu fees. The City will assist in finding appropriate replanting areas and secure any encroachment permits as necessary.

If the City maintains the median, City landscaping maintenance crews will need access to all newly planted median landscaping. This includes access internally and from the adjacent traffic lanes, particularly as the replanted trees reach heights beyond ground level reach. Clarify as to how future landscape maintenance operation will occur when truck access or other large equipment is required from the adjacent travel lanes.

2. The DEIR MM NOISE-B states that there will be an assigned noise disturbance coordinator and contact number posted during construction. The City requests that contact number would be answered live up to 24-hours a day, any time construction is occurring. This way Santa Clara residents can reach Project personal at times when the coordinator may be unavailable (i.e. weekends and nighttimes).

The City’s allowed construction hours within 300 feet of any residential property are between 7:00am-6:00pm Monday-Friday, 9:00am-6:00pm Saturday, and not allowed Sunday and Holidays. The Project should reflect this regulation for construction activities within the City.
3. Section 2.3, TIA uses Synchro to analyze LOS for the corridor, and works well for closely spaced, coordinated, congested arterials, but the software does not model impacts due to TSP or transit to side streets, and left turn traffic on main street or main street traffic due to curbside bus stops. VTA should consider using analysis software such as VISSIM, which is capable of identifying transit caused impacts since this is a transit project.

4. Section 2.3, the diversion criteria of 50 vph increase on streets in order to be studied off ECR is not consistent with VTA’s CMP Guidelines of studying intersections with increase of 10 or more vehicles per lane.

5. Figure 7, Diversion study intersections; Homestead Road is a regionally significant roadway that connects San Jose, Santa Clara, Sunnyvale, and Los Altos. This roadway should have been included in the study intersections. Project should also consider north/south roadways to be included in the study, such as Pomeroy Avenue, Kiely Boulevard, Lincoln Street, Calabazas Boulevard, Lawrence Expressway, San Tomas Expressway, Scott Boulevard, Monroe Street and Lafayette Street. Traffic will need to travel north/south to get to diversion streets. Diverted trips will be placed onto streets with residential frontages, elementary and middle schools, senior facilities, and libraries. VTA should consider impacts to these sensitive areas.

6. Section 3.5 and 9.1, parking inventory and use should not be aggregated into an entire segment within a City as it does not adequately show use and or impacts. Parking analysis should be presented in a block by block basis. Also, identify study periods, as some peak usage for some businesses in Santa Clara are at night when residential parking is heavily used. Expecting mid-block business patrons to park on cross streets will be unrealistic since ECR blocks are so long.

7. Section 5, the No Build Travel Forecast shows a 148% increase in 522/BRT ridership. Please explain how this estimate was forecasted.

8. Section 6.3 Figure 19, Diversion in Santa Clara, the number of diversion trips does not balance. It appears that there are approximately 30 northbound ECR diverted trips and approximately 200 southbound ECR diverted trips that are missing. Also, please clarify why some streets (Scott Boulevard and Walsh Avenue) have negative diverted trips. Saratoga Avenue is shown to have 23 diverted southbound trips; however, they are not assigned to any parallel streets further to the south. Please identify where these trips would be distributed.

9. Section 7.3, Figure 30, recheck diversion numbers. Assignments to parallel streets do not balance diverted trips. Also, analysis should show diversion expected on north/south streets. Many of these streets have residential frontages, schools or other uses that are not tolerant to increases in diverted trips.
10. Section 9.3, Bicycle Assessment should include an evaluation of the bicycling environment due to increase in density, congestion, bus stops, associated turning traffic into properties, increase in parking space turnover traffic conflicts due to decrease in parking spaces overall, and increase in bus traffic. Assessment should also discuss impacts to bicyclists due to reduction in intersection crossings and increase of queuing at remaining left turn pockets.

11. The TIA is missing a discussion on queuing analysis due to reduction in number of cross street intersections to make U-turns or places to cross ECR. This analysis would potentially identify safety problems associated with overflow of left turn pockets. We request that a queuing analysis be done for all ECR intersections and diverted trip intersections.

12. The DEIR MM TRA-A states that VTA will be responsible for major intersection and roadway improvements, but that local jurisdictions will be responsible for minimal changes such as signal optimization or restriping that results from the project. The City believes that VTA should pay for all Mitigation Measures or improvements that result from the Project. The City does not have funding budgeted for any future improvements related to BRT.

13. The DEIR TRA-3b states that there will be a beneficial impact on pedestrian safety and environment. From Appendix H, it appears that seven existing pedestrian crossings (unsignalized) will be removed as part of the Project. The City’s 2010-2035 General Plan has identified El Camino Real as a Focus Area for redevelopment to mixed-use and multifamily residential (19-50 units per acre). Development has been initiated and continues to further this vision and with it there has been a corresponding increase in pedestrian traffic. The City is concerned that removing existing pedestrian facilities will substantially impact pedestrian movement now and in the future, and that removing crossings is contrary to the Complete Streets (Full Service Streets) concept identified for El Camino Real in the City’s General Plan. VTA should prepare a more detailed analysis of how removal of these crossings affect current and future pedestrian ability to cross El Camino Real as well as consistency with the City’s General Plan. The analysis should include data on existing and future pedestrian travel time, study of existing and future pedestrian desire lines, study of signalizing pedestrian crossings, and study of potential safety issues resulting from illegal crossings on large blocks without mid-block pedestrian access.

14. Section 10, we encourage VTA to work with the City and Caltrans to identify feasible mitigation and to mitigate all impacts caused by the proposed BRT project. The City has not been provided any information regarding potential mitigation, so we cannot concur with VTA’s statement of whether or not potential mitigations are feasible or not. It is essential that all feasible mitigations be identified and included to ensure that impacts from the project on the transportation network are reduced or eliminated. This will be important to the success of the project. We request that VTA work with the City and Caltrans to identify and implement feasible measures for construction and/or implementation.
15. VTA should also consider mitigating diverted trips to the freeway system through VTA’s own voluntary contribution program to help mitigate for increases in delay on the freeway system. As a regional agency, VTA should implement all mitigation measures identified and not rely on the local agency to implement identified measures.

16. The diversion of vehicle trips onto streets with residential frontage or schools will cause potential safety problems. It will also increase requests from residents for implementation of the City’s Traffic Calming Program. VTA will need to consider funding the implementation of traffic calming measures on sensitive roadways impacted by the Project.

17. Proposed optimization of traffic signals should be clearly described as all signals are already coordinated and optimized. Optimization of one signal will impact the entire corridor. This should be indicated in the mitigation.

18. Project construction, mitigation implementation, and new operating costs should be borne by VTA. The EIR should discuss coordination required with Caltrans and local agencies. Implementation of the Project will cause an increase of responsibility and maintenance costs for Caltrans and local agencies (maintenance of pavement, BRT lanes, landscaping, storm laterals/catchbasins, striping, new traffic signals, street sweeping, etc.). This should be discussed detail.

19. The EIR should discuss the process and responsiveness of Project implementer to any reports of problems or concerns before, during and after construction of Project. Reported problems and concerns should be addressed in a defined timely manner and alternative options should be identified if VTA does not respond.

20. The City reserves the right to make additional comments on the Project as further analysis and project design raises new issues.

Should you have questions or require additional information, please contact Debby Fernandez at 408-615-2450 or Dennis Ng at 408-615-3000.

Respectfully,

Julio J. Fuentes
City Manager
January 13, 2015

VTA Environmental Planning Department
3331 North First Street, Bldg. B
San Jose, CA 95134-1927
Attn: Christina Jaworski


Dear Ms. Jaworski:

Thank you for providing the City of Sunnyvale with the opportunity to review and comment on the Draft Environmental Impact Report of the El Camino Real Bus Rapid Transit Project Released October 29, 2014.

Enclosed are the comments that need to be addressed as part of the Final Environmental Impact Report for this project. The final response to comments is necessary to assure that the City has sufficient information to ultimately support a specific project alternative. We also request that the comments be addressed for all project alternatives. If you would like to discuss these comments or have any questions, you may contact me at (408) 730-7415.

Sincerely,

[Signature]

Manuel Pineda, P.E.
Director of Public Works


C: Hanson Horn, City of Sunnyvale Community Development Department Director
Deanna J. Santana, City of Sunnyvale City Manager
City of Sunnyvale Comments on the Draft Environmental Impact Report of the
El Camino Real Bus Rapid Transit Project

General Comments

Traffic Analysis
As part of the dedicated lanes alternatives, the traffic analysis states that current traffic on El Camino will divert to other routes within Sunnyvale. These routes include Central Expressway, US 101, I-280, Fremont Avenue, Remington Drive, Evelyn Avenue, and Maude Avenue. Please address the following comments:

- The report does not provide LOS for all the diversion routes such as US-101 and Central Expressway. Please disclose LOS for all diversion routes and analyze possible impacts by diverted traffic.
- The project has significant impacts along Evelyn and Fremont. Will this traffic use other streets instead of corridors that become congested?
- Please explain why vehicles would choose to divert to congested routes such as Evelyn, Fremont, US-101, and Central expressway if the analysis shows that El Camino Real within Sunnyvale would still function at an acceptable LOS.
- Disclose what North-South corridors diverted traffic will use and provide the LOS analysis. Mathilda should be included as part of this analysis.
- If the diversion does not occur as modeled, what will be the LOS for intersections along El Camino?

Operations
The project is proposing existing mid-block left turn closures. These closures will make access to properties more difficult. Please analyze the following:

- How many additional left-turns will be added at each intersection? Will this create queuing safety issues?
- What mitigation measures should be implemented to accommodate additional left and U-turns?

Parking
Off-street parking lots should not be counted towards parking inventory as they are typically designated for corresponding employees and patrons only and should not be considered as “unrestricted parking”.

Parking analysis and availability should be completed on a block-by-block basis, not for the entire corridor within Sunnyvale. This will disclose the actual available parking within a reasonable walking distance. Also do not assume parking in residential neighborhoods as available parking for commercial uses.

Transit Ridership
Provide information on existing and projected ridership numbers for all Sunnyvale stations.
Specific Comments

Page: Figure ES-2
Section: Figure ES-2
Comment: This map does not identify all BRT stations as noted in the legend. This comment is also applicable to all other similar maps.

Page: ES-3
Section: ES.4.1 Project Description
Comment: Station Locations. There is little discussion about where the stations will be located. The document assumes the existing 522 station locations will be maintained, but these are not all at the most effective locations along the corridor. For instance, the City of Sunnyvale staff and VTA consultants worked together to identify a better location for the Hollenbeck station location, but the EIR and project assumes the station locations will not change from the existing locations.

The Hollenbeck station is an inferior location along the corridor in Sunnyvale and should BRT be implemented, the station should be moved closer to a far more active and better connected location closer to Sunnyvale Avenue. In its current location at Hollenbeck/Pastoria Avenues, the station would not provide an easy connection to the Downtown area, nor the Caltrain station, and would be further from the busiest part of Sunnyvale along El Camino Real. A location near Sunnyvale Avenue would:

- Place the station with a direct connection to be able to walk, bike or shuttle to the Caltrain station, multi-modal station and downtown area;
- Be located closer to three existing large retail centers and multi-family residential developments; and,
- Provide better service for employees and patients of the Palo Alto Medical Foundation complex.

Page: 3-10
Section: 3.2 Alternatives Considered
Comment: This section describes how stations were chosen, and it states, in part: "Locations were chosen based on level of use of the existing bus stations, proximity to major destinations such as schools, grocery stores, or other popular commercial areas...and proximity to existing multi-modal transit areas..."

Given these facts, the station should be located closer to Sunnyvale Avenue, or closer to Mathilda Avenue to provide maximum service to an active area of Sunnyvale. Additionally, enhanced north/south bus service improvements should be considered for the Sunnyvale-Saratoga Avenue corridor, and extending down Sunnyvale Avenue towards the downtown area and Caltrain station. Having the BRT station close to the Sunnyvale Avenue/El Camino Real intersection along with the future enhanced bus service along that corridor would ensure the important shopping, employment and multi-modal areas are included in the planning of the stations.

Although the Hollenbeck station provides a better separation between stations along the corridor, that aspect should not preempt a more important location in serving the Sunnyvale community. Moving the station closer to Sunnyvale Avenue or Mathilda Avenue would place access to BRT in the Downtown Node, as designated by the
Precise Plan for El Camino Real. The Hollenbeck location is not located inside one of the four nodes as identified in the Sunnyvale Precise Plan for El Camino Real.

The Implementation section of the Precise Plan for El Camino Real supports this change as shown below:

5.8.1 Strengthening the Physical, Visual and Functional Connections Between El Camino Real and Downtown Sunnyvale. It reads (in part), “Physical linkage could include shuttle service or increased bus service, or enhanced sidewalks connecting the two areas along Mathilda Avenue and Sunnyvale Avenue.”

Page: 4.2-1
Section: 4.2 Aesthetics and Visual Quality
Comment: This section considers the effect BRT stations would have on visual impacts to the area. The impact from the stations has been the only aspect considered as part of this review. One aspect that remains a concern for the Sunnyvale community would be the visual impact a dedicated middle lane would have on median landscaping along the entire stretch of roadway, not just at stations.

Page: 4.4-7
Section: Table 4.4-1 Total Number of Trees Removed by Alternative and City
Comment: This table details 130 trees removed as part of the Alternatives 4a, 4b and 4c. Although the biological impact may be reduced through replanting of trees or the payment of in-lieu fees, the loss could represent a significant impact to the visual quality of an important element of the look and feel of El Camino Real in Sunnyvale. This section should be revised to determine the effect the loss of trees will have on the aesthetics and visual quality of the corridor through Sunnyvale.

Page: 4.12-1
Section: Regulatory Setting
Comment: This section should note why the VTA TIA Guidelines are not a regulatory document applicable for this project, but are still used as guidance for some of the analysis.

Page: 4.12-3
Section: Table 4.12-1 Rapid 522 and Local 22 Weekday Ridership (Year 2013)
Comment: This table should identify ridership by City.

Page: 4.12-5
Section: Table 4.12-3 Transit Connections within Project Corridor
Comment: VTA bus 54 has connections at El Camino Real via Pastoria/Hollenbeck, not Mathilda.

Page: 4.12-7
Section: Intersection Traffic Operation
Comment: Note why 2010 Highway Capacity Manual was not used for traffic analysis rather than the 2000 Highway Capacity Manual.

Page: 4.12-8
Section: Table 4.12-4 Existing (2013) Level of Service for Study Intersections along the Project Corridor
Comment: This table identifies the intersection of Mathilda Avenue at El Camino Real as having an existing LOS F during the morning commute hour. Recent studies done for Sunnyvale developments identify this intersection as having an LOS D during the morning commute hours. There is a variance of 20-30 second delay per vehicle between VTA analysis and other recent studies. Please verify this variance.

Page: 4.12-10
Section: Pedestrian Facilities at Bus Stop Areas
Comment: Are intersections near bus stops ADA compliant?

Page: 4.12-11
Section: Table 4.12-5 Bicycle Facilities Connected to Project Corridor
Comment: Class II bike lanes on Mathilda Avenue only exist south of El Camino Real. Include bike lanes on Cezanne Drive. Please also identify bike routes.

Page: 4.12-14
Section: Transit Service
Comment: This section notes that the project would have a beneficial impact on the performance of the transportation system if the project results in a decrease in VMT. Is this VMT measured regionally, locally, or on the project corridor only?

Page: 4.12-15
Section: Traffic Operation
Comment: Identify the version of CA MUTCD used for signal warrants (e.g. 2010, 2012, 2014)

Page: 4.12-19
Section: Study Intersections Selection
Comment: Did intersections have to meet all three criteria items to be analyzed? Were any intersections that met the 50 vph threshold, but not already in the travel demand model not analyzed?

Page: 4.12-35
Section: MM TRA-A: Implement signal optimization, traffic signal installation, and roadway striping improvements at impacted intersections.
Comment: Signal coordination optimization should be applicable to all affected coordinated signals, not just those that are closely spaced intersections.

Page: 4.12-41
Section: Parking Occupancy
Comment: Do post-project estimated parking occupancy rates consider a possible increase in parking demand of for potential park-n-ride for BRT?

Page: 4.14-6
Section: Table 4.14-2 Projects considered for Potential Cumulative Impacts
Comment: The proposed development at 871 E Fremont Ave, Sunnyvale, CA (i.e. The Butcher’s Corner) should be included as part of the cumulative project analysis. The estimated construction schedule for this project is unknown, likely before 2018.
Section: Table 2 Summary of Results Compared to the Project's Purpose
Comment: This table notes that there will be a five minute headway reduction as a result of SCAR BRT. Does this mean that there will be no further headway improvements as part of ECR BRT? Furthermore, how is the Alternative 1 travel time compare to current travel times (please include percentage)? This same question applies to transit ridership. Please clarify whether these measures are relative to 2018 or existing 2013 as noted in the text.

Page: Appendix H, TOA, p.13
Section: 2.3 Traffic Operations Analysis Methodology
Comment: This section should note the following:
- Explanation of why the VTA TIA Guidelines are not followed for analysis.
- Explanation of why the analysis was performed using Synchro instead of Traffixx (VTA's designated standard software package).
- Explanation of why the analysis was done per HCM 2000 rather than the latest version (HCM 2010).
- Explanation of why signal optimization was done prior to, rather than after, the analysis.

Page: Appendix H, TOA, p.17-18
Section: 2.3 Traffic Operations Analysis Methodology
Comment: This section notes "However, Sunnyvale does not use the 4-second threshold." Sunnyvale does use the 4-second threshold.

Page: Appendix H, TOA, p.21 & TOA Appendix B
Section: Existing Level of Service
Comment: Existing Level of Services need to be field verified. Staff found some intersections that are not consistent with other analyses or observed conditions. (e.g. AM LOS at Mathilda Avenue and El Camino Real is noted as “F” with an 80.2 sec/veh delay. This is inconsistent with recent analyses with significantly less calculated and observed delay [approximately 30 seconds/veh less]).

Page: Appendix H, TOA, p.96
Section: 10.2 Diversion Route Intersections
Comment: VTA shall fully fund all measures needed to mitigate impacts of the project. As a matter of fact, because all traffic models have limitations, particularly in determining what new routes motorists would select, staff recommends that VTA conduct pre-project and post-project traffic studies be performed to measure the effects of the project. If post-project studies identify unanticipated traffic problems, VTA should commit to provide additional traffic mitigation.