City of Palo Alto (ID # 5347)

City Council Staff Report

Report Type: Action Items **Meeting Date: 1/12/2015**

Summary Title: Comment letter on VTA BRT's EIR

Title: Authorization for the Mayor to Sign a Letter Commenting on the Draft Environmental Impact Report/Environmental Assessment (DEIR) for the Valley Transporation Authority (VTA) Bus Rapid Transit

From: City Manager

Lead Department: Planning and Community Environment

Recommended Motion

Staff recommends that the City Council authorize the Mayor to sign the attached letter (Attachment A) providing comments on Valley Transportation Authority's (VTA's) El Camino Real Bus Rapid Transit Project Draft Environmental Impact Report/Environmental Assessment (DEIR).

Executive Summary

The Valley Transportation Authority's (VTA's) El Camino Real Bus Rapid Transit (BRT) project is intended to improve transit operations and increase transit ridership along the El Camino Real Corridor by providing faster, more reliable service with target stops and specialized transit vehicles and facilities. The El Camino Real BRT Corridor extends from Downtown San Jose (Arena Station) to Downtown Palo Alto (Palo Alto Transit Center) passing through the cities of Santa Clara, Sunnyvale, Mountain View and Los Altos.

Design alternatives being studied for the Palo Alto segment of the corridor include BRT operations in either dedicated bus lanes down the center of the street or mixed-flow, curb lane operations. Of the six project alternatives being considered in addition to the "no build" alternative, one – Alternative 4c – would include dedicated lanes within Palo Alto, and the others would include mixed-flow with curbside "stations" built on bulbouts. Based on the VTA's analysis, the dedicated lane alternative would result in significant and unavoidable impacts at intesections along El Camino and Alma that could be avoided with other alternatives.

VTA in partnership with the Federal Transit Administration (FTA) has prepared a Draft Environmental Impact Report/Envirionmental Assessment (DEIR) for the project in compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act

(NEPA). The Document was released on October 29, 2014 and the VTA has requested public and agency comments by January 15, 2015.

Background

The El Camino Real BRT Corridor extends from Downtown San Jose (San Jose Arena Station) to downtown Palo Alto via The Alameda to El Camino Real in San Jose and continues along El Camino Real through the cities of, Santa Clara, Sunnyvale, Los Altos, Mountain View to its terminus in Palo Alto at the University Transit Station. The El Camino Real Corridor is currently served by the Local 22 bus and the Rapid 522. The BRT project would replace and upgrade the Rapid 522 service by installing enhanced stations, branded vehicles with more comfortable executive-style seating, and more frequent, reliable service.

The City Council participated in a Study Session regarding the VTA's BRT project on November 17, 2014. This study session provided an opportunity for a presentation on the project by VTA staff. At that time, the VTA staff presented the seven proposed alternatives for connecting Downtown San Jose with Downtown Palo Alto through enhanced bus operations. The alternatives consider various locations and lengths of dedicated lane segments, wherein travel lanes would be removed for exclusive bus lanes. Where dedicated lanes are not proposed, transit vehicles would operate in "mixed-flow" and utilize "stations" that would be constructed on sidewalk bulb-outs in the curb lane. The alternatives analyzed in the DEIR are shown below.

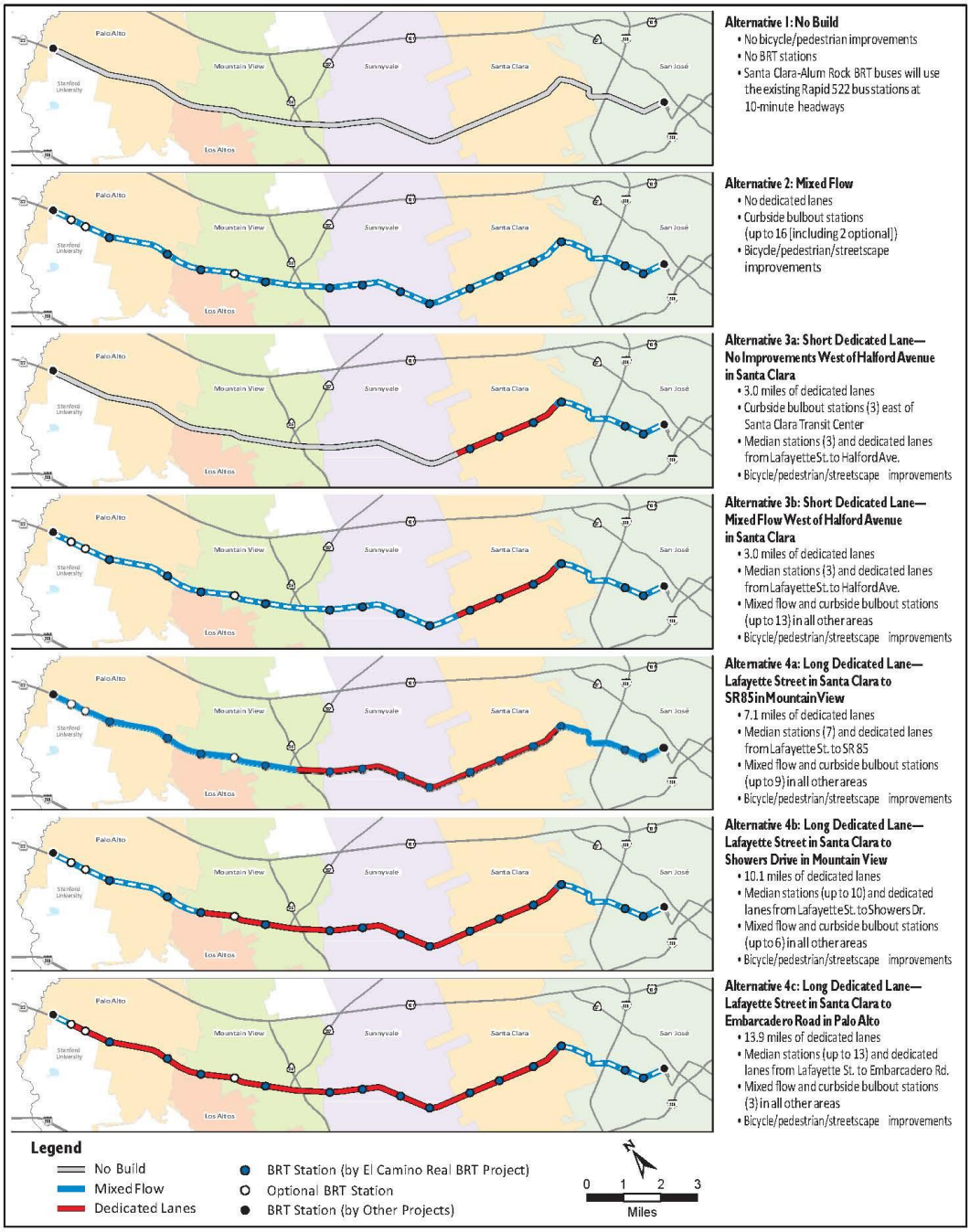

Figure ES-3
Project Alternatives
El Camino Real Bus Rapid Transit Project

During the Study Session the Council expressed concerns regarding potential impacts at key intersections and along affected corridors within Palo Alto. These include El Camino Real, Alma Street, and Middlefield. Councilmembers the methodology and assumptions related to traffic diversion onto Alma Street and travel times projections for the dedicated lanes vs mixed flow alternatives. Councilmembers also requested that staff to review the background report on traffic operations.

The El Camino Real is a State Highway, under Caltrans jurisdiction, and the VTA will require Caltrans support and approval, as well as Federal Transit Administration (FTA) support and approval to implement the BRT project. Cities along the corridor have limited jurisdiction, mostly when it comes to any mitigations or encroachments required outside the State right of way. To the extent cities are called upon to approve mitigations or encroachments, they would be acting as "responsible agencies" under CEQA, using the Final EIR that is certified by the VTA to inform their decisions.

Alternatives that include dedicated bus lanes would reconfigure El Camino Real to provide two dedicated bus-only lanes within the center of El Camino Real. Passenger platforms for boarding and de-boarding of the buses would occur at center-street platforms and new ticket stations to expedite boarding would be provided on the platforms similar to Light Rail Transit stations within the County also operated by the VTA.

Dedicated bus lane alternatives in general provides better travel time operations for transit by removing the buses from congested travel lanes similar to how High Occupancy Vehicle (HOV) lanes reduce travel times for carpoolers on freeways. However the number of automobile travel lanes on El Camino would be reduced to 2 lanes in each direction in order to accommodate the center dedicated bus lanes, increasing delays for automobiles, and diverting traffic onto parallel routes. Also, either on-street parking or bike lanes could be provided along dedicated lanes segments of El Camino Real, but providing both would not be feasible due to right-of-way constraints.

The mixed-flow option would maintain bus operations similar to those that currently occur along El Camino Real through Palo Alto with buses operating within the curb lanes of the street. New BRT platforms would include ticketing, shelter, and streetscape elements, and would be built at "bulb-outs" allowing the bus to stop within the lane of traffic rather than pulling out of a lane of traffic into a parking aisle. The number of automobile travel lanes under this alternative would remain the same, with three lanes in each direction. Some on-street parking may be affected, but only near the bulb-out stations.

VTA is proposing two new BRT Stations in Palo Alto, one at El Camino Real & Arastradero Road-Charleston Road, and one at El Camino Real & California Avenue (see simulation below). The University Avenue Transit Station would serve as the final station in Palo Alto, but no upgrades at the station are proposed as part of the project. Each of the stations would include an off-board fare collection system where passengers would buy tickets so they could board the bus

through the front and rear doors without needing to show proof of payment, which would allow for faster boarding. The enhanced stations would be more substantial than regular bus stations by providing shelters for weather protection, more seating and better lighting for safety.

Simulation of Proposed Mixed Flow Lanes Curbside BRT Station at California Avenue

Source: BRT, EIR October 2014

Construction of the BRT project would result in the permanent removal of up to 94 trees in Palo Alto if the dedicated lanes option is selected. The mixed flow option would remove up to 18 trees. All urban trees that would be removed or lost as a result of the project would be replaced within the project corridor. Trees with a diameter 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 VTA cannot replace trees at the stated ratios, VTA would pay in-lieu fees.

Where bulb-out stations are constructed, parking spaces along El Camino Real will be removed and with the mixed flow configuration, it's estimated that only seven parking spaces would be removed in Palo Alto. In contrast, the dedicated lanes configuration could result in removal of 256 spaces.

Timeline

After the DEIR review period is completed, VTA's Board of Directors will select a Locally Preferred Alternative. While this will be a VTA decision, it will be influenced by the cities along the corridor and Caltrans. Caltrans must approve any changes to the El Camino corridor that are made by the BRT Project.

The VTA must also prepare a Final EIR for certification, and the FTA must adopt Finding of No Significant Impact (FONSI) or prepare an Environmental Impact Statement (EIS) and adopt a Record of Decision (ROD).

Project Schedule:

Final Design	December 2014 - September 2016
Construction	March 2017 - August 2018
First Day of Service	September 2018

Policy Implications

The proposed BRT project is generally consistent with the Comprehensive Plan, which contains the following policies:

- Policy T-1: Make land use decisions that encourage walking, bicycling and public transit use;
- Policy T-4: Provide local transit in Palo Alto.
- Policy T-6: Improve public transit access to regional destinations, including those within Palo Alto.
- Policy T-7: Support plans for a quiet, fast rail system that encircles the Bay, and for intra-county and transbay transit systems that link Palo Alto to the rest of Santa Clara County and adjoining counties.
- Policy T-10: Encourage amenities such as seating, lighting, and signage at bus stops to increase rider comfort and safety.

However the BRT project would have significant, unmitigable impacts at intersections along El Camino Real and Alma Street if the dedicated lane option is selected, which could conflict with the following policies:

- Policy L-66: Maintain an aesthetically pleasing street network that helps frame and define the community while meeting the needs of pedestrians, bicyclists, and motorists.
- Policy L-67: Balanc traffic circulation needs with the goal of creating walkable neighborhoods that are designed and oriented towards pedestrians.

Environmental Review

VTA in partnership with the Federal Transit Administration (FTA) has prepared a Draft Environmental Impact Report/Envirionmental Assessment for the project in compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). VTA is the lead agency for CEQA and FTA is the lead agency for NEPA. The City of Palo Alto will be considered a “responsible agency” under CEQA if the VTA is required to secure City

permits or approvals for any aspect of the project, including required mitigation at intersections/roadway facilities within the City's jurisdiction.

Attachments:

- **Attachment:** Attachment A: BRT Comment Letter (PDF)
- Attachment: Attachment B: Doc Letters 1-12-15 VTA El Camino #5347 (PDF)

City of Palo Alto
Office of the Mayor and City Council

Attachment A

January 12, 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). Palo Alto is excited to see the Valley Transportation Authority (VTA) pursuing improved transit alternatives for the region, although we were surprised to see that VTA is pursuing dedicated lanes on El Camino Real for BRT in Palo Alto (Alternative 4c), given the significant impacts that would result. 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. 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.

2. 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.

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3. 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.

	Palo Alto Floating Car Study Data – Spring 2014			VTA DEIR Travel Time Findings	
	AM	Mid	PM	Transit	Auto
Northbound	11:42	12:35	13:35	22:00	10:06
Southbound	10:43	16:13	16:04		

1. No differentiation between travel direction or peak period of the day in VTA DEIR Findings.

4. T
able 4.12-5 of the DEIR identifies the existing *Bicycle Facilities Connecting to the Project Corridor*, yet several of the bicycle facilities at Palo Alter 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.

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

5. 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.

6. 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. How does this projection compare to historic ridership trends? Is today's ridership 73% greater than ridership in 1990? Please explain.

7. 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?

8. 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.

9. 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.

10. 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.

11. 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.

12. 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.

13. The DEIR currently lacks an analysis of the Middlefield Road corridor, which is unacceptable given the impacts shown on Alma Street. The analysis should be revised to provide trip distribution and analysis of traffic along Middlefield Road where traffic will invariable divert when the LOS along Alma Street degrades.

14. 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.

15. 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.

16. 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/I-280. In addition, hundreds of students travel through the intersection daily as part of their route to Gunn High School, Terman Middle School, and Juana 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.

17. 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.

18. 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.

19. 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 support 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.

20. During their 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 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 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-Arastradero Road but true Queue Jump lane facilities do not exist because the existing infrastructure does not support their implementation. True Queue Jump Lane facilities include traffic signal notification to bus operators that transit priority strategies are being implemented, including elements such as dynamic traffic signal phasing. Before more substantial roadway capacity solutions are considered, lower cost solutions such as Queue Jump Lanes should be explored and tested.

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,

[Name]
Mayor
City of Palo Alto

Attachment

Attachment A
City of Palo Alto Comments for the
El Camino Real bus Rapid Transit (BRT) Traffic operations Analysis Report

Impacts to LOS for Dedicated Lanes Option in Palo Alto, especially on Alma and El Camino Real:

Draft EIR claims travel time increases would be minimal, increasing from 10.2 minutes (existing current conditions), to 10.3 minutes for mixed flow and 11.1 minutes for dedicated lanes option. City of Palo Alto Staff conducted actual travel time study in 2013/14 that shows current travel times of approximately 16.6 minutes during the AM peak period and 18.8 minutes during the PM peak period. City requests the following:

- Modeled travel times should be calibrated to reflect measured travel times.
- Provide travel time estimate for Alma Street and Middlefield Road due to traffic diversion.
- Also include additional time as a result of proposed signalization of local cross streets (included as mitigation)

Number of cars removed/displaced with Dedicated Lanes Option

The 2013 Analysis assumes that transit ridership would more than double when going from existing conditions to a mixed flow scenario, and a 2.5 times increase with dedicated lanes. This seems like an unreasonable increase from the existing condition to a mixed flow scenario, in which minimal street configurations are proposed within Palo Alto.

The EIR shows that a majority of diverted traffic is in generally in the Southbound direction, yet at Middlefield Road , the report shows only 143 additional northbound car trips and 6 southbound car trips. Over 530 of the diverted 889 southbound trips are assumed to switch modes of travel to BRT; which seems highly unreasonable.

City requests the following clarification be made:

- Do the Daily Transit Ridership values presented in Tables C1 through C6 represent total ridership through this screenline, or are they boarding's and/or alighting's only?
- 2018 Analysis – When comparing Alt 4b and 4c, Palo Alto ADT is shown to decrease by approximately 2800 daily, 900 AM peak, 1000 PM peak trips by 2018 (pg 35). Please clarify.
- Figure 22 shows 903 PM peak cars (-724 SB ,-179 NB) diverted to other routes off of El Camino Real or switching travel modes which is approximately 100 to trips less than shown in Table 19.
- Figure 22 shows the screenline at Page Mill Road (near California Avenue) and diversion of 412 vehicles to other routes (confusing because some numbers are negative). **This this assumes 491-634 vehicles would be now using BRT instead of driving during the Peak Hour.** Table C-1 and C-2 show a **Combined Daily ridership** of 845 Ridership through California Avenue/El Camino.
- **Volumes used in Technical Synchro Analysis do not appear to be consistent with the volumes presented in Figure 33, and to vary by a significant amount (see below in LOS impact analyses).**
- 2040 Analysis – Figure 33 shows 889 less Eastbound trips on El Camino, and 352 added onto other streets. Net mode shift of 537 eastbound vehicles now using BRT during the PM peak hour, yet DAILY Eastbound ridership is expected to be 351 at the California Avenue screenline (Table C-4).

- Report says that minimal diversion would occur during the AM peak which seems unreasonable when compared to existing operations on El Camino Real during AM peak period which currently operate close to capacity. Table E-2 – 2018 at El Camino Real w/o Oregon/Page Mill – Shows diversion of approximately 700 PM peak trips, but only two vehicles diverted in the AM peak hour with Alt 4c (dedicated lanes). Table E-4 – 2040 at El Camino Real w/o Oregon/Page Mill – Shows diversion of approximately 900 PM peak trips, but only 73 vehicles diverted in the AM peak hour with Alt 4c (dedicated lanes).
- If ridership increase is anticipated increase by 500+ additional trips in the peak hour, what is the anticipated capacity of the BRT system during the peak hour, and can it handle 500 additional persons?

Identify LOS Analyses Impacts to Palo Alto Intersections

- Streets like Bryant Street (designated bicycle boulevard) have physical barriers to prevent through traffic so any diversion to Bryant is erroneous. Appendix A shows delay increases to local intersections on Bryant Street which implies traffic was assumed to shift to Bryant Street and travel through the physical barriers.
- Additional analysis of intersections on Middlefield Road should be included for analysis. At a minimum, the intersections of Middlefield/Oregon, Middlefield/Embarcadero, and Middlefield/Charleston should be analyzed. Figures 22 and 33 emphasize that a majority of diverted trips in Palo Alto will shift to Alma Street or Middlefield Avenue, yet no analysis was conducted on Middlefield Avenue despite well over 100 additional peak hour trips to the Middlefield Corridor. Analysis of parallel streets included residential streets to the east up to Cowper Street; however, most vehicles would shift to Alma or Middlefield (major arterial). Analysis of Middlefield is more important than the local residential streets that would not likely be used by diverted traffic.
- Westbound Ridership is anticipated to more than double between 2018 and 2040 for Alt 4C, with no additional changes other than annual growth (from 540 to 1275, westbound at California Avenue). Is this considered reasonable?
- 2040 Analysis – Impacts on Alma Street may be underestimated. Figure 33 shows a 2040 PM peak diversion of 440 vehicles to Alma Street, including 320 southbound trips. The Synchro Technical Analysis reports show an increase of only 44 southbound trips at the Alma/Charleston intersection when comparing Alt 2 to Alt 4c (increase from 1671 to 1715 SBT). A combined NB+SB through movement increase of only 188 trips at E. Meadow Drive (104 NB, 84 SB), and 369 trips at Alma Churchill (105 NB, 264 SB) also appears inconsistent.
- Tables 43 and 44 shows increases in delay of approximately 18 and 25 seconds during the AM and PM peak hours respectively due to Alt 4c diversion of traffic. Table 24 shows decrease of 26 seconds with Alt 4c (maybe a transpose error with Alt 4b).
- Any traffic diverted to other local streets could trigger local TIRE impacts which may be considered as Significant Traffic Impacts in Palo Alto.
- Hanover/Oregon – Connect to Page Mill Road as Oregon Expressway ends east of El Camino Real.

Clarify Mitigation Measures for Alma

- Install Traffic Signal at local approaches to Alma – Side Street traffic does not currently meet signalization warrants. Has a warrant analysis been conducted for these? (Side street approach traffic is minimal at most of these locations.)

- For Alma/Churchill and Alma/Charleston - Mitigation identifies Eastbound and westbound left turn bays (lanes) as mitigation. This is not possible in the right-of way without negatively impacting sidewalks, bike lanes, and private property acquisitions. The report assumes these intersections would improve with improvement measures, however the presentation assumes no mitigations would occur to the need for Right-of-Way acquisition.

Identify other impacts of dedicated lanes in PA (parking, trees, noise, air)

- Identify mitigation and locations due to loss of parking in Palo Alto. Moving commercial parking to nearby residential neighborhoods is not acceptable.
- Identify mitigation and locations of new trees due to loss of trees within Palo Alto.

Carnahan, David

From: Diane Solomon, CPA <diane_solomon@sbcglobal.net>
Sent: Tuesday, December 23, 2014 10:11 PM
To: Council, City
Subject: Comments to the VTA on the El Camino Real BRT DEIR/EA

Palo Alto City Councilmembers

Dear VTA,

I urge you and the Valley Transportation Authority to bring quick, efficient and heavily utilized public transportation to Silicon Valley with the El Camino Real Bus Rapid Transit Project.

Without this Project, VTA will remain pokey, slow and under utilized. Please create fast, frequent, reliable, and convenient public transportation. A robust El Camino Bus Rapid Transit (BRT) project will transform this important commercial and residential corridor into a more balanced street with drastically improved bus service. BRT on El Camino Real will also promote a safe and inviting space for people who walk, bike, ride public transportation, or drive.

I strongly urge VTA to:

- Incorporate bus-only lanes in the El Camino Real plan,
- Invest in buffered bike lanes and greater bike carrying capacity on transit vehicles, and
- Ensure that there are sufficient left turns, more crosswalks, upgraded pedestrian refuges, and sidewalk extensions (bulb-outs).

Please take the initiative and get us into the 21st century. Compared to Tokyo, NYC, DC, London and many other world class cities, our public transportation is SLOWwwwwww. Because it's slow and inconvenient, it's under utilized. Please think different like regions with MUCH better public transportation.

Please make our region a safer, better, more vibrant place for us all to get around with the El Camino Real Bus Rapid Transit Project.

Sincerely,

Diane Solomon, CPA
917 Chabrant Way
San Jose, CA 95125

Carnahan, David

From: John Brazil <Jmbrazil@sbcglobal.net>
Sent: Tuesday, December 23, 2014 1:48 PM
To: Council, City
Subject: Comments to the VTA on the El Camino Real BRT DEIR/EA

Palo Alto City Councilmembers

I urge you and the Valley Transportation Authority to approve a high-quality, user-friendly Bus Rapid Transit System on El Camino Real.

To attract users like me, please include 1. dedicated bus-only lanes (preferably center-running); and 2. Quality bike facilities on El Camino (preferably protected bike lanes aka cycle tracks)

These two key elements will make me much more likely to use El Camino BRT by significantly reducing travel time and by providing bicycling last-mile connections to BRT stops.

Fast, frequent BRT connected by bikeways is the transportation solution to our growing El Camino corridor. We cannot fit many more cars on El Camino. BRT will accommodate more people with less traffic.

Sincerely,
John Brazil

John Brazil
307 Loreto St
Mountain View, CA 94041

Carnahan, David

From: Jonathan Schuppert <Jonathan.Schuppert@gmail.com>
Sent: Tuesday, December 23, 2014 11:58 AM
To: Council, City
Subject: Comments to the VTA on the El Camino Real BRT DEIR/EA

Palo Alto City Councilmembers

We have an opportunity to create a true boulevard that can be safe for all users, attractive, and rejuvenate the local economies. In order for this to succeed, we need continuous bus lanes and protected bike lanes. It has been proven time and time agin that safe, continuous, and connected routes for transportation options encourages greater use. With more young people opting to live car-free or car-lite and with the rapidly aging demographics of our country, the time is NOW to take steps which will create better, healthier, and more sustainable communities for our next generation.

Without the improvements, we will continue to have a freeway dividing our cities and will encourage ugly strip development that has plagued this historic street. Please act now to help improve this street for ALL users. This is a regionally significant street that can be a world famous boulevard that will be attractive for users and future development. No one remembers the ugly streets lined with shopping centers, but they do remember the beautiful boulevards and pedestrian paseos. Think of your travels and the streets that stand out to you as models.

I recently went to Buenos Aires, home of Avenida Nueve de Julio which is one of the widest streets in the world. They added new bus only lames with rapid and frequent service. It has dramatically changed the way people view this street which at one time could have been a freeway. The future of our communities is your hands and I hope you make the right decision to improve this street. You will be known in history for either fostering improvements or stopping progress and creating a bigger mess for our future generations.

I urge you and the Valley Transportation Authority to bring excellent public transportation to Silicon Valley with the El Camino Real Bus Rapid Transit Project.

I support a safe and vibrant environment along El Camino Real with fast, frequent, reliable, and convenient public transportation. A robust El Camino Bus Rapid Transit (BRT) project will transform this important commercial and residential corridor into a more balanced street with drastically improved bus service. BRT on El Camino Real will also promote a safe and inviting space for people who walk, bike, ride public transportation, or drive.

I strongly urge VTA to:

- Incorporate bus-only lanes in the El Camino Real plan,
- Invest in buffered bike lanes and greater bike carrying capacity on transit vehicles, and
- Ensure that there are sufficient left turns, more crosswalks, upgraded pedestrian refuges, and sidewalk extensions (bulb-outs).

If we don't bring these critical aspects of BRT to El Camino Real, we are missing a huge opportunity to bring an innovative and important change to this increasingly congested and dangerous corridor.

Thank you for your work to make our region a safer, better, more vibrant place for us all to get around.

Sincerely,

Jonathan Schuppert

Carnahan, David

From: Mary Poffenroth <mpoffenroth@gmail.com>
Sent: Tuesday, December 23, 2014 8:23 AM
To: Council, City
Subject: Comments to the VTA on the El Camino Real BRT DEIR/EA

Palo Alto City Councilmembers

I urge you and the Valley Transportation Authority to bring excellent public transportation to Silicon Valley with the El Camino Real Bus Rapid Transit Project.

I support a safe and vibrant environment along El Camino Real with fast, frequent, reliable, and convenient public transportation. A robust El Camino Bus Rapid Transit (BRT) project will transform this important commercial and residential corridor into a more balanced street with drastically improved bus service. BRT on El Camino Real will also promote a safe and inviting space for people who walk, bike, ride public transportation, or drive.

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If we don't bring these critical aspects of BRT to El Camino Real, we are missing a huge opportunity to bring an innovative and important change to this increasingly congested and dangerous corridor.

Thank you for your work to make our region a safer, better, more vibrant place for us all to get around.

Sincerely,

Mary Poffenroth
140 A Churchill Ave
Palo Alto, CA 94301

Carnahan, David

From: Pat Marriott <patmarriott@sbcglobal.net>
Sent: Saturday, December 27, 2014 8:38 PM
To: Council, City
Subject: FW: Comments on El Camino BRT EIR

From: Pat Marriott [mailto:patmarriott@sbcglobal.net]
Sent: Saturday, December 27, 2014 8:36 PM
To: ecrbrt@vta.org
Subject: Comments on EIR

I read the draft EIR at http://www.vta.org/sfc/servlet.shepherd/document/download/069A0000001fFdAIAU

I also attended the evening meeting in Mountain View on November 20th. I appreciated the brevity of the presentations and the opportunity for so many members of the public to speak.

With respect, I offer these comments on the EIR:

(1) Much of the data is theoretical rather than empirical.

Prior to the meeting I spoke to a representative from the VTA and told him that if he wanted to see the impact of cutting car lanes, all he had to do was drive through Menlo Park, where El Camino narrows from 3 car lanes in each direction to 2. He asked if that was because of construction. He was completely unaware that Menlo Park narrowed El Camino several years ago in order to add median strips.

The resulting congestions means that drivers like me use Middlefield Road in Palo Alto or divert through Menlo Park neighborhood streets west of El Camino.

CONCLUSION: EVERY member of the VTA board and VTA staff should be REQUIRED to drive up and down El Camino – from San Jose through Redwood City – during morning rush hour, during evening rush hour, and during the time kids get out of school.

Only then will you all understand existing congestion problems.

(2) Much of the data is just not plausible.

The claim that elapsed drive time from San Jose to University Avenue in Palo Alto would increase by only 3 minutes if bus lanes replace car lanes is impossible to believe. It took me 12 minutes just to get from El Camino at Showers Drive to Castro Street for the meeting!

In December 2004, one of Palo Alto's traffic officials thought it would be a good idea to reduce Middlefield Road in the midtown shopping district from 4 lanes to 2. He set up a 3-hour test with cones one evening, but traffic slowed so badly – with honking horns and irate drivers – that the test was cut short and the plan to narrow the road was abandoned.

Simple logic indicates that narrowing the path significantly increases travel time.

CONCLUSION: Theories that defy logic are probably wrong.

(3) Fewer lanes cannot handle more cars.

One member of the public said that Castro Street in Mountain View carries more traffic since it was narrowed from 4 lanes to 2. That's clearly impossible.

I was in Mountain View about 2:00 pm on a November weekday. I exited Central Expressway at Castro, which was so backed up that I had to wait on the Central side through a light change to avoid stopping on the RR tracks. Traffic was

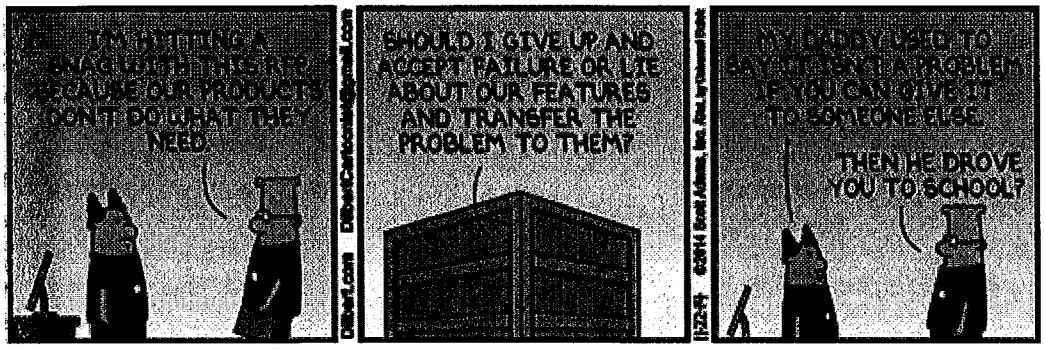
stop-and-go the entire length of Castro. I turned off at Church Street to look for a parking place. Ten minutes later I finally found a spot 4 blocks south of Castro. Elapsed time from exiting Central Expressway to a parking place: 20 minutes.

So yes, there is more traffic on Castro Street now because of more high-end restaurants and other business development. But that traffic is more congested because in addition to removing a lane, parking places have been given over to restaurants for outdoor seating.

CONCLUSION: Fewer lanes and fewer parking spaces increase congestion and greenhouse gases, as drivers circle the neighborhoods.

(4) Replacing El Camino car lanes with bus lanes doesn't solve a problem. It diverts the problem to someone else's patch.

Dilbert nails this perfectly:



Traffic is like water: it looks for the path of least resistance. If you dam up the main artery, drivers will shunt through residential areas.

You have studied diversion problems at intersections, but not general traffic flow through neighborhoods where children play and ride their bikes and people feel safe crossing streets.

Frustrated drivers are not safe drivers. They tend to speed and neglect stop signs. In addition to driving dangerously, cars will spend more time on the roads, spewing fumes around homes, parks and schools – adding to the increased greenhouse gases from stalled traffic on El Camino and at F-rated intersections.

CONCLUSION: As one speaker noted, "Don't make my neighborhood your collateral damage."

(5) The last mile problem has not been addressed.

Several people spoke about wheelchair travelers getting ON a bus. What was not mentioned was the problem of those people getting TO and FROM the bus.

Not everyone lives and works along the El Camino corridor, so must drive or bike to a bus stop (assuming it's too far to walk). The EIR says drivers can park on side streets. But most cities already have huge parking problems.

And once I get off the bus, how do I get to my final destination if my car is back where I boarded?

CONCLUSION: Without efficient connectors to jobs, schools, shopping, etc. off El Camino, the bus is impractical.

(6) Planned development along the El Camino corridor will significantly increase traffic.

Just two examples, just from Mountain View:

- Mountain View City Council approved the second phase of the redevelopment of San Antonio Shopping Center. The project includes a 50,000-square-foot movie theater, 167-room hotel and a parking garage with over 1,300 spaces. It also plans for restaurants and shops ... and office space likely to leased by LinkedIn, with space for about 2,000 employees. http://www.mv-voice.com/news/2014/12/03/council-oks-san-antonio-center-project-milk-pail-market-saved

- Santana Row's developer is set to buy most of Mountain View's largest shopping center. The 33-acre purchase includes nearly all of the shopping center that's still developed with single-story buildings: the sites of Trader Joe's, Walmart, Kohl's, 24-Hour Fitness, Fresh Choice and JoAnn fabrics. http://www.mv-voice.com/news/2014/12/17/santana-row-developer-makes-deal-to-buy-san-antonio-shopping-center

CONCLUSION: Recent development over the past 2 years has significantly increased travel time on El Camino. Additional projects, large and small, will cause gridlock up and down the corridor.

(7) Costs are high, benefits are dubious, disruption is guaranteed.

Mountain View "Council member Ronit Bryant noted that San Mateo County decided against a similar system and questioned whether it was worth the increase in ridership of 4,000 riders a day over the 522 line." http://www.mv-voice.com/print/story/2014/12/19/el-camino-bus-lanes-win-praise-from-public-concern-from-council

The EIR states capital cost estimates up to $232.7M for Alternative 4c.

CONCLUSION: Spending millions on a project for a short stretch of El Camino – with serious consequences and arguable benefits – is not a good use of taxpayer dollars.

We need a comprehensive plan that incorporates BART, Caltrain, light rail, the possibility of High Speed Rail, as well as new technologies like self-driving cars and Elon Musk's Hyperloop.

Thank you for the opportunity to comment.

Pat Marriott Los Altos