

Caltrans is aware of challenges that the region faces in identifying viable solutions to alleviating congestion on State and Local facilities. With limited room to expand vehicular capacity, this development should incorporate multi-modal and complete streets transportation elements that will actively promote alternatives to car use and better manage existing parking assets. Prioritizing and allocating space to efficient modes of travel such as bicycling and public transit can allow streets to transport more people in a fixed amount of right-of-way.

Caltrans supports the implementation of complete streets and pedestrian safety measures such as road diets and other traffic calming measures. Please note the Federal Highway Administration (FHWA) recognizes the road diet treatment as a proven safety countermeasure, and the cost of a road diet can be significantly reduced if implemented in tandem with routine street resurfacing.

Overall, the EIR should include Transportation Impact Study (TIS) to ensure all modes are served well by planning and development activities. This includes reducing single occupancy vehicle trips, ensuring safety, reducing vehicle miles traveled, supporting accessibility, and reducing greenhouse gas emissions.

We encourage the Lead Agency to evaluate the potential of Transportation Demand Management (TDM) strategies and Intelligent Transportation System (ITS) applications in order to better manage the transportation network, as well as transit service and bicycle or pedestrian connectivity improvements.

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

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

One of Caltrans' concerns is the potential traffic conflict at the off-ramps and the weaving areas on I-405 in the project vicinity, especially this project is located next to I-405. When Jefferson on Avalon Specific Plans and the District at South Bay project are built, many cumulative traffic trips would assign to the freeways, traffic analysis should include intersection analysis, queuing analysis, and weaving analysis. The following should be included in the traffic analysis.

1. Caltrans requests information regarding the assignment of direct and cumulative trips to state facilities in the project vicinity.
2. The project proponent may use a 95 percentile to obtain queue length for a queuing analysis. To calculate the baseline condition for total queue length on off-ramps, measure the distance from the intersection to the gore point. Caltrans recommends that any queuing on an off-ramp beyond 85% of this total length be considered a significant impact for direct or cumulative impacts. If Synchro software is used to calculate queue length, then actual signal timing must be used. Caltrans recommends the following intersection analysis and queuing analysis:
 - a. NB I-405 on/off-ramps at Avalon Blvd.
 - b. SB I-405 on/off-ramps at Avalon Blvd.
 - c. NB I-405 on/off-ramps at E Carson St.
 - d. SB I-405 on/off-ramps at E Carson St.
 - e. NB I-110 on/off-ramps at W 220th St.
 - f. SB I-110 on/off-ramps at W Carson St.
 - g. NB I-110 on/off-ramps at S Figueroa St.
 - h. SB I-110 on/off-ramps at Hamilton Ave.
3. When an auxiliary lane is present from the upstream off-ramp, impacts will be considered significant, either directly or cumulatively, when the traffic generated by the project/cumulative projects exceeds the lesser or one-half length of the auxiliary lane or 1,000 feet. Caltrans recommends the following location be included in the mainline merge and weaving analysis:
 - a. I-405 Avalon Blvd and E Carson St.
4. In the event that the project proponent finds a significant impact to an intersection, an Intersection Control Evaluation (ICE) should be prepared as an initial step of an intersection-improvement project.
5. If an impact is identified, Caltrans recommends consideration of the following potential traffic conflict improvement measures:
 - a. Safety sign/Yield Sign, delineation
 - b. Pavement markings
 - c. ADA ramps, pedestrian sidewalk
 - d. Ramp metering
 - e. Intersection control

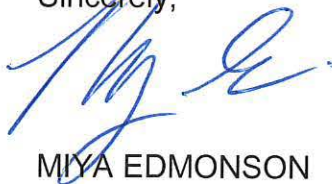
- f. Ramp/lane widening. While ramp or lane widening is a potential improvement measure, this measure should be considered as a last resort after first considering measures (a) through (e) above.
- g. Please note that the above is a non-exclusive list of potential improvement measures. The project proponent should consider additional feasible measures.

6. The project proponent may pay 100% of the direct impact and/or fair-share contribution (i.e., a fee program) with cumulative impacts.

A discussion of mitigation measures appropriate to alleviate anticipated traffic impacts should be presented in the traffic study. Any mitigation involving transit or Transportation Demand Management (TDM) is encouraged and should be justified to reduce VMT and greenhouse gas emissions. Such measures are critical to facilitating efficient site access.

Per your phone conversation between yourself and Caltrans engineer, Mr. Alan Lin, on October 21, 2019, the City and Caltrans agree to meet in the near future for a project scoping meeting to confirm all study locations. If you have any questions, please feel free to contact Mr. Alan Lin the project coordinator at (213) 897-8391 and refer to GTS # LA-2019-02842-AL-NOP.

Sincerely,



MIYA EDMONSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse