



January 11, 2016

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Planning Commission  
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Dear Staff and Commissioners:

Bike East Bay has reviewed the revised designs for a proposed new roundabout at Pleasant Hill Road and Olympic Blvd and still has many concerns about this overly car-centric project. We support the roundabout in principle and appreciate that Lafayette is taking a lead in bringing a modern roundabout to the East Bay. Other cities are watching Lafayette on this. And staff are listening and responding to our concerns, and that is appreciated as well.

Our issues involve the double lane approaches, lack of separation of bikes and pedestrians on the path, and the strange logic behind the dog-legged pedestrian crossing on Pleasant Hill Road. To address these issues, we propose a phased approach to the project design, with phase one being consistent with Bike East Bay's proposed roundabout design with continuous bikeways. At year ten, or at any year in the future, should staff's forecast of increased traffic warrant, a second approach lane WB can be added as part of phase two.

We underscore the warning of [\*NCHRP Report 672 Roundabouts an Informational Guide\*](#) Section 5.3.4 that "*bicyclists experience more problems at roundabouts than any other road user.*" For the reasons explained herein, the design needs significant modifications.

1. **Single Lane Approaches Work Fine:** Staff appear to agree that the SB second approach lane on Pleasant Hill Road is not needed. We appreciate staff recognizing public input to date on this point, and backing off use of public funds on an unneeded extra lane. It frees up space for continuous bike lanes we want to see in the project. For the WB approach on Olympic Blvd, the traffic data of Attachment 2 shows only a "16

sec.” average delay with current traffic conditions in the morning peak hour. That should be acceptable. Please note, during the other 23 hours of the day, and on weekends, holidays and off-season periods such as Summer, the average delay is less, if there is any delay at all.<sup>1</sup> The report also states that the Delay Sensitivity is “62 sec.” Assuming this means about a one minute delay for some commuters, that is a condition already occurring in many places around the Bay Area, and while not desirable, is acceptable. With the proposed design by staff, a pedestrian, bicyclist or person with a disability is going to experience similar delays with a multi-lane design having up to three crosswalk segments on two of the legs. If such a delay is OK for people not driving, it should be OK for people driving.

The *NCHRP Report 672 Roundabouts an Informational Guide* has this warning about extra Right Turn Bypass Lanes: “

*“A right-turn bypass lane (or right-turn slip lane) should be implemented only where needed, especially in urban areas with bicycle and pedestrian activity. The entries and exits of bypass lanes can increase conflicts with bicyclists and with merging on the downstream leg. The generally higher speeds of bypass lanes and the lower expectation of drivers to stop may increase the risk of collisions with pedestrians. They also introduce additional complexity for pedestrians with visual impairments who are attempting to navigate the intersection.” Section 6.8.6.*

Staff have acknowledged that the SB right turn bypass lane on Pleasant Hill Road is not needed, and only justify the WB right turn bypass lane on Olympic Blvd on the basis of future traffic conditions. The right turn bypass lanes need to be removed from the project because a sufficient need has not been shown.

## 2. Separation of Bikes and Peds Needed:

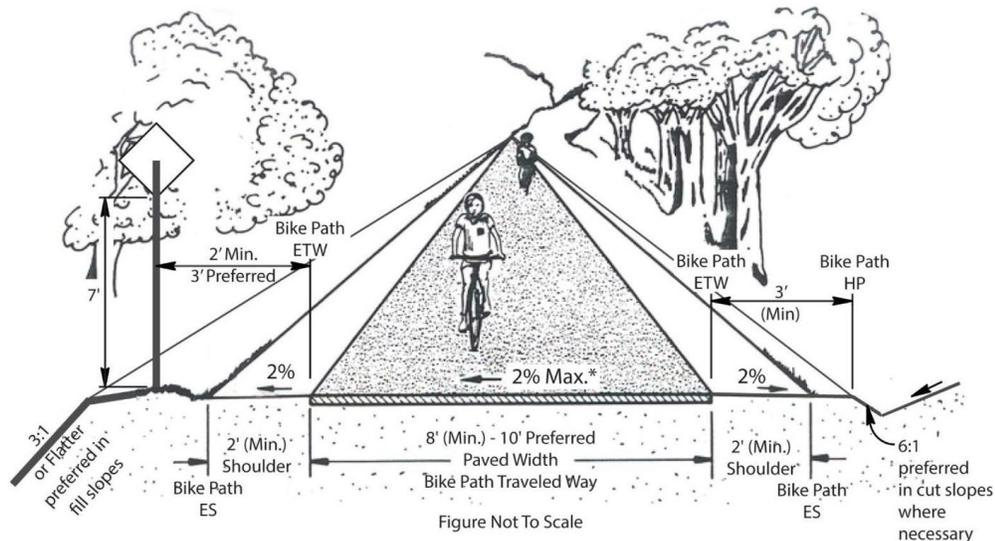
- a. It is entirely within staff’s purview to design a roundabout in accordance with California’s current, yet dated design guidelines for roundabouts and the 2010 *NCHRP Report 672 Roundabouts an Informational Guide*. However, both of these guides/manuals were adopted well before modern separated bike lane designs came on line. Staff’s proposed design with a shared use path, is consistent more or less with the California Highway Design Manual. That said, staff are also encouraged by Caltrans to innovate and go beyond current design

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<sup>1</sup> “The performance of roundabouts during off-peak periods is particularly good compared with other intersection forms, usually with very low average delays.” 2.2..3.1 Roundabouts: An Informational Guide, TRB

guidelines. See <http://www.dot.ca.gov/Documents/2014-4-2-Flexibility-in-Design.pdf>. The brand new MassDOT design for roundabouts with separation between bicycles and pedestrians is reason enough for such innovation, that is, if Lafayette seeks to incorporate best practices. We are not going to see better roundabout designs in California until local jurisdictions such as Lafayette start innovating, or at least incorporate best practices from other states. In addition, the *NCHRP Report 672 Roundabouts an Informational Guide* acknowledges at Section 5.2.4 “A bicycle–pedestrian conflict occurs at the point where the bicyclist gets onto the sidewalk or shared-use path.” These conflicts can be avoided by separating the bikeway from the pedestrian travel way.

**Figure 1003.1A**  
**Two-Way Class I Bikeway (Bike Path)**



- b. CA Highway Design Manual 1003.1 also states “However, experience has shown that if *regular pedestrian use* is anticipated, separate facilities for pedestrians may be beneficial to minimize conflicts.” (emphasis added). If staff applies the same traffic forecasting rules to bicycle and pedestrian traffic, we all should be able to agree that in staff’s design year 2040, this roundabout will have *regular pedestrian use*, if it does not already. Thus, separation is needed. Section 1003.1 also states the minimum and preferred design widths for paths is 2-8-2 ft minimum and 2-10-2 preferred, the 2ft being shoulders. The *NCHRP Report 672 Roundabouts an Informational Guide* also states that shared paths in roundabouts should be 10 feet wide. Section 6.8.2.2. The proposed design should meet the preferred design guides of 10 feet and in fact should exceed them, as many other multi-use paths around the East Bay are being designed to do, in cities such as El Cerrito, Richmond, Berkeley, and Martinez.

3. **10-Year Design Period Should be Used With Phased Approach:** Section 405.10 of the CA Highway Design Manual states that roundabout designs should be phased, and use a 10-year design period for a roundabout. *“If a second lane is not needed until 10 or more years, it may be better to phase the improvements. Construct the first phase of the roundabout so at the 20-year design period, an additional lane can be easily added.”* While this refers to lanes in the roundabout, it references Index 103.2, which applies design period guidance to entire projects.

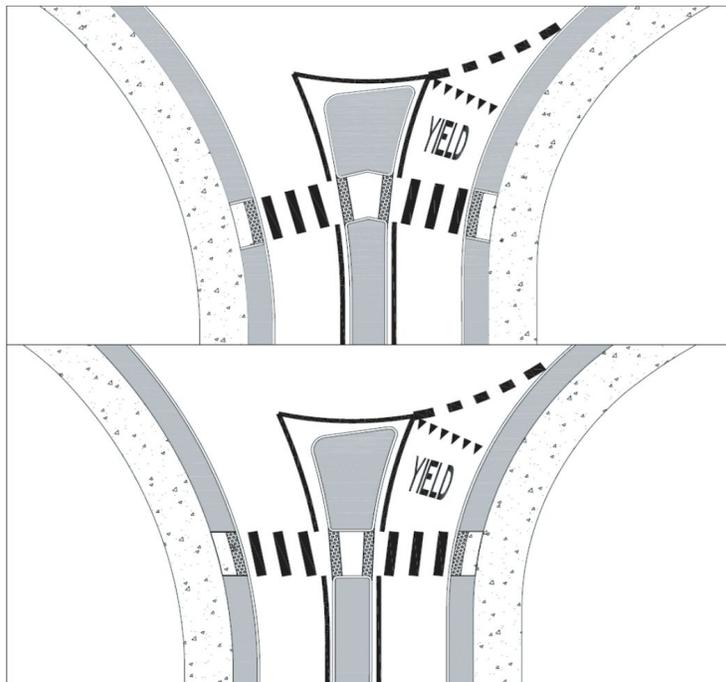
This may be our most important point. This project should be phased. Phase one should include single lane approaches, more or less as the thru lane approaches are currently designed. The second right-turn approach lane should be temporarily striped out for only bicycles, include flex posts to discourage car entry, and include a bike lane continuing up to the ped-bike crosswalks. And the ped-bike crosswalks should be fixed consistent with the MassDOT design and Caltrans’ new design in [Design Bulletin 89 for Class IV Bikeways](#).



4. **Fix the Jog:** In row 4 of the Design Issues Matrix of the staff report, it states that one reason for the jog is to increase sound perception for persons with a disability. However, roundabouts, by design, are quieter than conventional intersections, and a car exiting the roundabout and not slowing for a person crossing in the crosswalk will need to accelerate their engine, which will be recognizable. *NCHRP Report 672 Roundabouts an Informational Guide Section 2.3.2* states that splitter island cut-through walkways should be aligned with the crosswalk to align persons with a disability. Section 6.8.1.2 states “pedestrian crossings should ideally be located in vehicle-length increments away from the edge of the circulatory roadway. A typical and minimum crosswalk setback of 20ft is recommended.” The crosswalk on the exit leg of Pleasant Hill Road is longer than 20ft. It should be shortened so that the crosswalk can be in alignment, which also shortens the pedestrian crossing distance--another goal of good roundabout design. As for bicycles using the crosswalks, the CA Highway Design Manual allows this, but the *NCHRP Report 672 Roundabouts an Informational Guide* is silent on the design.

It is of note that the *NCHRP Report 672 Roundabouts an Informational Guide* does not show any dog-legged crosswalks in Section 6.8.1.2., shown here. This national publication shows aligned crosswalks, either straight or slightly angled. Bike East Bay prefers the second of these options as the crosswalk is more direct, but either are good, and both are much better than the doglegged crosswalk, which takes precious space from separated bikeways.

**Exhibit 6-66**  
Crosswalk Alignment Options



Caltrans Design Information Bulletin 89 on Class IV Separated Bike Lanes states *“separated bikeways should also be separated from crosswalks at intersections to discourage bicyclists from mixing with pedestrians, such that the separated bikeway path*



Photo 6: Protected intersection in Davis.

*of travel will be adjacent to the crosswalk.* See Photo 6, Figure 2.2 and page A-9 of the FHWA Separated Bike Lane Planning and Design Guide. Lafayette should look to this brand new Caltrans design guidance for the design of its new roundabout. The MassDOT Guide should be used as well.

**5. Right-of-Way:** Finally, the additional right-of-way needed to include full bike lanes on the WB approach of Olympic Blvd is minimal. It appears that

no more than a few feet are needed. If not from adjacent land, than the planted edge strip should be eliminated at this location, and any appropriate physical separation added.

As for the southside of the intersection, there do appear to be right-of-way issues. However, the Olympic Corridor Study is an active joint project of the cities of Lafayette, Walnut Creek and Contra Costa County to design a family-friendly pathway connecting the Lafayette-Moraga Trail with the Iron Horse Trail. This study may recommend a multiuse pathway on the southside side of Olympic Blvd, right at this intersection. With staff's design, there is no room for such a pathway. As a result, the roundabout design will preclude design options for the Olympic Corridor project. That should not happen. Both projects should be consistent with one another.

Thank you for your consideration of these concerns and for revising the plans according to best practices from around the US.

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