



524 Talbot Avenue  
Albany, CA 94706



466 Water Street  
Oakland, CA 94607

1 December 2015

Aleida Andrino-Chavez  
Transportation Planner  
City of Albany  
1000 San Pablo Avenue  
Albany, CA 94706

Re: Marin Phase III cycling 90% project input

Dear Ms. Andrino-Chavez,

Albany Strollers & Rollers (AS&R) and Bike East Bay (BEB) propose some improvements, listed below, to the Marin Avenue Bikeway 90% plans dated July 2015. All of these changes regard pavement markings rather than hardscape. Under no circumstances do AS&R and BEB want these requests to delay the project. If any of these suggestions would require time-consuming engineering consideration or negotiations with Caltrans, we ask the City to begin the project as currently planned, and simultaneously submit any changes regarding San Pablo to Caltrans for separate approval. If Caltrans approves in time, the project could be built incorporating the changes; otherwise, the changes can be implemented in the future when approval is received.

### 1) **Bike lane marking eastbound across San Pablo Avenue**

**Request:** Add a pair of dotted lines to guide on-road bicyclists from the bike lane west of San Pablo to the bike lane east of San Pablo Avenue.

**Optional addition:** Place a merge symbol near the east end of the intersection where riders from the bike lane join those from the off-road path.

**Analysis:** The dotted lines will help people biking and motorists in the adjacent lane maintain position across the intersection, which in turn will provide smoother intersection operation and increased intersection capacity. The addition of these lines should not affect the already-planned markings guiding bicyclists from the off-road path to the bike lane. Rather, in combination these lines will indicate to people cycling

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eastbound on the road and from the path that they need to merge prior to entering the cycling lane on the far side of the intersection. This could either be implied by the striping, or actually indicated by a merge symbol toward the far side of the intersection.

## 2) Skip-green bike lane westbound across San Pablo Avenue

**Request:** Add a pair of dotted lines with intermittent green patches, starting a bit east of the intersection and continuing through the intersection.

**Fallback alternative:** Add skip-green markings leading up to the intersection, with sharrows across the intersection.

**Analysis:** The markings will guide westbound bicyclists through the north edge of the intersection, while reducing "right hook" collisions by alerting right-turning motorists that they are crossing a bike facility. Skip-green paint all the way would be best. If Caltrans approval for skip-green paint across the intersection cannot be garnered in time, the fallback alternative of sharrows may be more easily approved.

Such a pattern has been installed on eastbound 40th Street at San Pablo Avenue in Emeryville, a virtually identical intersection. Sharrows were used across this intersection because there are sharrows rather than a cycling lane departing from the intersection on the far side. However, if this precedent makes it possible to garner approval for sharrows in time for project implementation where it appears approval for skip-green paint would not occur in time, sharrows are better than no markings at all across the intersection as currently proposed.

## 3) Skip-green bike lane eastbound across Cornell Avenue

**Request:** Add a pair of dotted lines with intermittent green patches through the intersection.

**Analysis:** The markings will guide eastbound bicyclists as they cross Cornell Avenue, while reducing "right hook" collisions by alerting right-turning motorists that they are crossing a bike facility. This intersection seems at higher risk for right hooks than the others in the project because the cycling facility just in advance of the intersection is essentially Class IV (separated bikeway). As such, it does not include a transition to a dashed line between the cycling facility and adjacent motorist lane prior to the intersection. In a Class II facility, this dashed line informs motorists they need to merge into the cycling lane prior to turning, with attendance to vehicle operators (people cycling) to their right as with any lane change maneuver. Consequently without the dash, some other means of signaling to motorists to use care turning across the cycling facility is required.

The standard approach in the NACTO design guide for Class IV facilities is to continue the facility across the intersection with skip green paint. If these markings

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cannot be added to the project, AS&R still supports the Class IV facility leading up the intersection. This class of facility is planned to provide greater protection for people cycling at the location where motorists must merge from two to one through lane. This merge puts people cycling in the target zone of motorists who merge late, and so AS&R finds the increased protection offered by a Class IV facility is warranted. This allows for raising this segment of the facility to a grade-separated Class IV in the future if conflicts between motorists and people biking occur with the proposed at-grade Class IV facility.


#### 4) Adjust door zone width allocation

**Request:** Paint a 4.5-foot bike lane and a 2.5-foot door zone buffer, instead of the 4-foot bike lane and 3-foot door zone shown in the plans.


**Analysis:** Research published by the Transportation Research Board a year ago last summer supports this request.\* The Board collected and analyzed field data regarding how far motorists park and drive and people bike from the curb given various cycling lane and buffer configurations. Based on this research, the Board recommended a 7'-3'-4' or 7'-2'-5' parking lane, door zone buffer, cycling lane widths when 14' of width is available next to a 10' wide motorist lane. This analysis assumed a fully open vehicle door extends 45" from the vehicle. Because this is an overestimate for the mix of vehicles parked in Albany, and because the project is along a residential street with typically low parking turnover, AS&R supports a compromise between the two Transportation Research Board recommended configurations. This will provide a wider, and so more comfortable, cycling lane than currently proposed, while still offering substantial protection against door zone collisions for people riding fully in the lane.

Thank you for your consideration of these suggested changes to pavement markings in the project. If you have any feedback or questions, please feel free to contact AS&R via Preston Jordan at [pdjordan@lbl.gov](mailto:pdjordan@lbl.gov).

Respectfully,



Preston Jordan  
Co-founder  
Albany Strollers and Rollers



Dave Campbell  
Advocacy Director  
Bike East Bay

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\* [http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\\_rpt\\_766.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_766.pdf)

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