

County of Santa Clara
Roads & Airports Department
Road & Signal Operations Division

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July 21, 2021

The CTCDC Secretary
California Traffic Control Devices Committee – MS36
P. O. Box 942874
Sacramento, CA 94274-0001

SUBJECT: REQUEST FOR BICYCLE TRANSITION AREA MARKING APPROVAL

Item 21-13: Request for approval of new marking in the bicycle transition area in a right turn only lane

RECOMMENDATION: CTCDC to approve the request for usage of this new marking

AGENCY MAKING REQUEST/SPONSOR: County of Santa Clara / Robert W. Bronkall – Deputy Director, Humboldt County

BACKGROUND

Bicycle transition from a shoulder/bike lane on the right to the left of the right turn lane at an intersection is a vehicle/bicycle conflict zone especially when the through lane becomes a right turn only at intersections. The bicyclists are expected to yield in this situation to traffic already established in the lane, which makes it even more difficult. The usual bicycle transition markings that are provided when don't apply to this situation as bicyclists need to yield. An example of this is shown in the MUTCD Figure 9c-4 for through lane that turns in to a right turn only lane. The lack of any marking in this transition area does not provide guidance or visibility to motorist or bicycle transition. This has resulted in number of requests from bicycle community to provide some markings to make vehicles aware and to watch for bicycles in the conflict zone.

PROBLEM STATEMENT

According to the 2014 CA MUTCD, Revision 6, Section 9C.04, paragraph 8 states that "When the right through lane is dropped to become a right turn only lane, the bicycle lane markings should stop at least 100 feet before the beginning of the right turn lane. Through bicycle lane markings should resume to the left of the right turn only lane." Detail 9C-109(CA) shows that shared lane markings are appropriate

Board of Supervisors: Mike Wasserman, Cindy Chavez, Otto Lee, Susan Ellenberg, S. Joseph Simitian
County Executive: Jeffrey V. Smith



in this situation to assist bicyclists with positioning. There are no examples or additional guidance for marking in this conflict area.

This is the most challenging situation for bicyclists as they are transitioning from right to left when the motor vehicles are already established in a lane. In this situation, bicyclists have to yield and it is not clear for many of them. This is especially difficult when there is high volume of right turns. A diagonal transition stripe connecting the bicycle lane that ends on the right and picks up on the left of the right turn lane is not recommended by AASHTO, NACTO, and MUTCD in this situation, but leaving this conflict zone with no additional markings is not making the situation better. To address this issue some cities have come up with a new marking in these conflict areas to alert motorist of this bicycle transition when a through lane turns in to a right turn only lane. A couple of examples of this new transition striping from two different cities along with links to view these online are included below.

Davis, CA

Hutchinson Dr. and La Rue Dr.



Source: Google Aerial Image <https://www.google.com/maps/place/Davis,+CA/@38.5388677,-121.761777,107m/data=!3m1!1e3!4m5!3m4!1s0x808529999495543f:0xc3013f1b6ee28ff1:8m2!3d38.5449065!4d-121.7405167>



Source: Google Street View Image <https://www.google.com/maps/@38.5385474,-121.7624173,3a,15y,58.05h,81.11t/data=!3m6!1e1!3m4!1sVoFMHiIqhzeTYaEFiVMvXw!2e0!7i16384!8i8192>

Mountain View, CA
Shoreline Blvd and El Camino Real



Source: Google Aerial Image <https://www.google.com/maps/@37.3883735,-122.0884526,145m/data=!3m1!1e3>



Source: Google Street View Image <https://www.google.com/maps/@37.3888458,-122.0878505,3a,75y,193.18h,98.11t/data=!3m6!1e1!3m4!1sGVNVPij66sKgzJQbT8aqng!2e0!7i16384!8i8192>

This new marking these cities have provided offers better visibility in this conflict zone and seems to be a reasonable approach. This will provide cities/counties with another option to utilize in this situation that provides improved visibility and alerts motorists as they enter this conflict zone.

The County of Santa Clara requests to utilize this as a solution to provide some guidance in this vehicle/bicycle conflict area. However, the cities that have implemented this have not gotten official approval from the CTCDC. Therefore, the County is requesting the CTCDC to approve the use of this new marking in California to provide better visibility in this conflict area where bicyclists are trying to transition from right to left when the through lane turns in to right turn only lane. The details of this existing marking example shown in MUTCD along with two new marking details are shown below for CTCDC consideration.

Figure 9C-4 (CA)

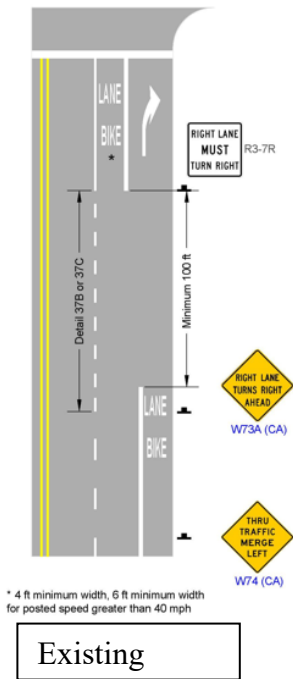


Figure 9C-4 (CA) - Modified With Bike Lane

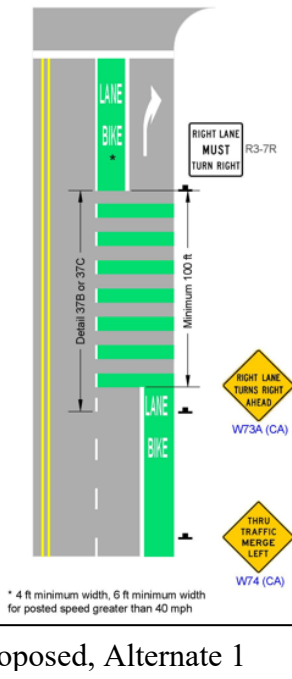
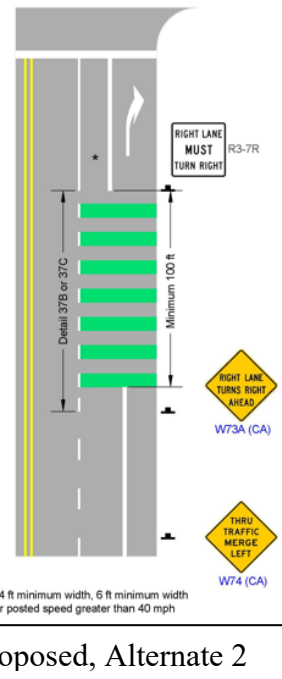


Figure 9C-4 (CA) - Modified



Due to lack of any marking guidance in the MUTCD cities are beginning to implement their own solution as shown in the example above. Having additional options for this situation which is very challenging for bicyclists to navigate will help achieve consistency of markings across the state. The County requests this marking be approved for statewide use.

Sincerely,

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Cc: Harry Freitas, Director, Santa Clara County Roads & Airports Department
Ron Jackson, Deputy Director, Santa Clara County Roads & Airports Department