DEPARTMENT OF TRANSPORTATION CALTRANS DISTRICT 5 50 HIGUERA STREET SAN LUIS OBISPO, CA 93401-5415 PHONE (805) 549-3101 FAX (805) 549-3329 TTY 711 www.dot.ca.gov



March 26, 2021 Revised May 5, 2021

Mr. Hasib Mohabbat Division of Safety Programs Caltrans 1120 N Street Sacramento, CA 95814

SUBJECT: 1. Request for CTCDC Approval of Two New Word Message Signs 2. Request for CTCDC Approval and/or Guidance of Existing Signs

Dear Mr. Mohabbat:

Caltrans District 5 requests CTCDC approval to use two new word message signs "Watch For Bicyclist On Bridge" and "Watch For Bicyclist In Tunnel" to replace existing non-standard word message signs.

Caltrans District 5 also requests CTCDC approval or guidance regarding the existing non-standard signs "Bicyclist: Push Button to Activate Lights to Advise Motorist of Bicyclist on Bridge," "Bicyclist: Push Button to Activate Lights to Advise Motorist of Bicyclist in Tunnel," and a modified R10-26 "Push Button for Flashers" with a bicycle symbol and arrow.

PURPOSE

The existing signs are located on State Route 101 in Santa Barbara County between Santa Barbara and Buellton. They were installed to address safety concerns at two locations due to inadequate shoulder width for bicyclists, limited visibility of bicyclists as vehicles approach, and a constrained situation making it difficult for high speed drivers to maneuver around the bicyclists. The first location is southbound at PM 39.9 at Arroyo Quemada Bridge and the second location is northbound at PM 47.1 at the Gaviota Tunnel.

BACKGROUND

State Route 101 at these locations is classified as an expressway with two lanes in each direction and an AADT of around 30,000 vehicles per day. The speed limit

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at the Arroyo Quemada bridge is 65 mph, but there is a 55 mph curve advisory speed sign posted in advance of the bridge. The speed limit at the Gaviota Tunnel is 60 mph. Bicyclists are allowed on State Route 101 at these locations because there is not an acceptable alternative route. Due to the remote location of the bridge and tunnel, bicyclists at these locations are typically experienced recreational riders, not commuters.

The Arroyo Quemada bridge was constructed in 1917 and retrofit in 1997. It is 24' clear from face of rail to face of rail with 11' lanes and 1' shoulders. The most recent survey of the bridge classified it in "Good" condition. The Gaviota Tunnel was constructed in 1951 and is 28' from face of curb to face of curb with narrow shoulders and a 3'-10" wide sidewalk on the right side. The bridge is approximately 400' long and the tunnel is approximately 430' long. There is no northbound bridge or southbound tunnel.

Due to concerns with bicyclists at these locations, a warning package was installed under contract in 2013. The existing signs say "When Flashing Bicyclist on Bridge" and "When Flashing Bicyclist in Tunnel." The signs were installed in conjunction with flashing beacons that flash when a bicyclist rides over a detector loop in the shoulder. The flashing beacons can also be activated by a push button.

DISCUSSION

There are no plans to replace the Gaviota Tunnel and no alternative route that can be constructed to accommodate bicyclists without extensive rerouting, right-of-way acquisition, environmental issues, and cost. Because the Arroyo Quemada Bridge is classified as being in "Good" condition, there are no plans to replace the bridge at this time. Constructing a separate bridge just for bicyclists or rerouting them to an alternative route would require extensive right-of-way acquisition and cost. Therefore, the sign packages warning drivers that a bicyclist is in the tunnel or on the bridge will be in place for the foreseeable future.

Three cyclists riding in a group were recently hit by a vehicle on the Arroyo Quemada Bridge. There were no fatalities, but of the three, two were injured, one of which was potentially serious. The flashing beacons were activated by the bicyclists. Caltrans District 5 opened a traffic investigation to review the signage at this location. During the investigation, it was noted that Section 2C.49 of the CA MUTCD allows vehicular warning signs where unexpected entries into the roadway are occurring and that flashing beacons can be installed on those

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signs. It goes on to state that the "When Flashing" (W16-13P) plaque shall not be used to supplement any Vehicular Warning sign. The FHWA version of the MUTCD allows "When Flashing" plaques.

For a bicyclist traveling at 15 mph, it could take them around 20 seconds or more to traverse the bridge or tunnel. Cyclists sharing a lane with high speed traffic are in a vulnerable position, so it is Caltrans District 5's intent to warn drivers when this situation is occurring while still being in compliance with the CA MUTCD. Therefore, we are recommending that the existing "When Flashing" words on the signs be replaced with "Watch For" and that the new signs be fluorescent-yellow green.

There are also existing smaller signs directing bicyclists to push the button to activate the warning lights. These signs are "Bicyclist: Push Button To Activate Lights To Advise Motorist Of Bicyclist On Bridge," "Bicyclist: Push Button To Activate Lights To Advise Motorist Of Bicyclist In Tunnel," and a modified R10-26 "Push Button For Flashers" sign with a bicycle symbol and arrow. Guidance in the CA MUTCD states that the R10-25 sign "Push Button To Turn On Warning Lights" may be used for pedestrians and bicyclists to activate warning lights or flashing beacons when making a crossing. The guidance does not specifically address this type of situation where a bicyclist is not crossing the roadway.

SUMMARY

- 1. Caltrans District 5 is requesting CTCDC approval of two non-standard word message signs "Watch For Bicyclist On Bridge" and "Watch For Bicyclist In Tunnel" to replace similar existing signs that say "When Flashing".
- 2. Caltrans District 5 is also requesting CTCDC approval or guidance on the push button signs. Options include:
 - a. Retain existing non-standard signs "Bicyclist: Push Button To Activate Lights To Advise Motorist Of Bicyclist On Bridge," "Bicyclist: Push Button To Activate Lights To Advise Motorist Of Bicyclist In Tunnel," and a modified R10-26 "Push Button For Flashers" with a bicycle symbol and arrow.
 - b. Replace existing signs with modified R10-25 "Push Button To Turn On Warning Lights" signs. The wording would be the same as the

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standard sign, but the size would be modified to be legible to bicyclists.

Thank you for your consideration of this request. Caltrans District 5 looks forward to receiving a response from the Committee. If you have questions or comments, please contact Diane Dostalek at (805) 549-3769 or by email at diane.dostalek@dot.ca.gov.

Sincerely,

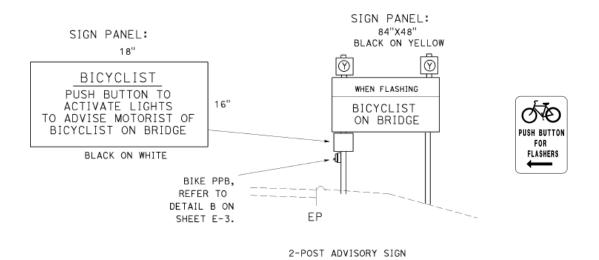
Roger D. Barnes

ROGER D. BARNES, R.C.E., T.E. Senior Transportation Engineer Traffic Operations Branch Chief

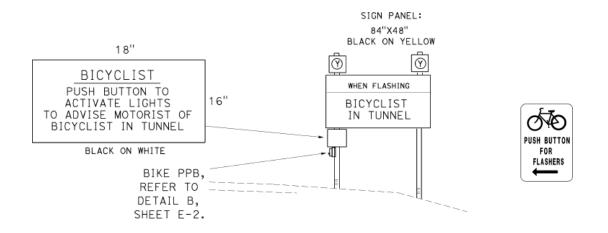
Attachment:

1. Excerpt from 2013 plans showing existing signs and photos of existing signs

Existing Signs



SB-101-39.9 Arroyo Quemada Bridge



SB-101-47.1 Gaviota Tunnel

Looking southbound approaching Arroyo Quemada bridge



Looking northbound at the Arroyo Quemada Bridge



Looking northbound approaching the Gaviota Tunnel



Looking northbound in the Gaviota Tunnel

