

DEPARTMENT OF TRANSPORTATION

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a California Way of Life.*

March 10, 2020

Mr. Vijay Talada
Executive Secretary
California Traffic Control Devices Committee
1120 N Street, MS 36, Room 4500
Sacramento, CA 95814

SUBJECT: Request for CTCDC Approval of Two New Word Message Signs

Dear Mr. Talada:

Caltrans District 5 requests CTCDC approval to use two new word message signs: "Look Left-Right-Left Before Pulling Out" and "Watch for Entering Vehicles".

PURPOSE

These signs will be installed at the intersection of State Route 154 and Roblar Avenue in the County of Santa Barbara, CA to address collisions at the intersection. (SB-154-R4.50)

BACKGROUND

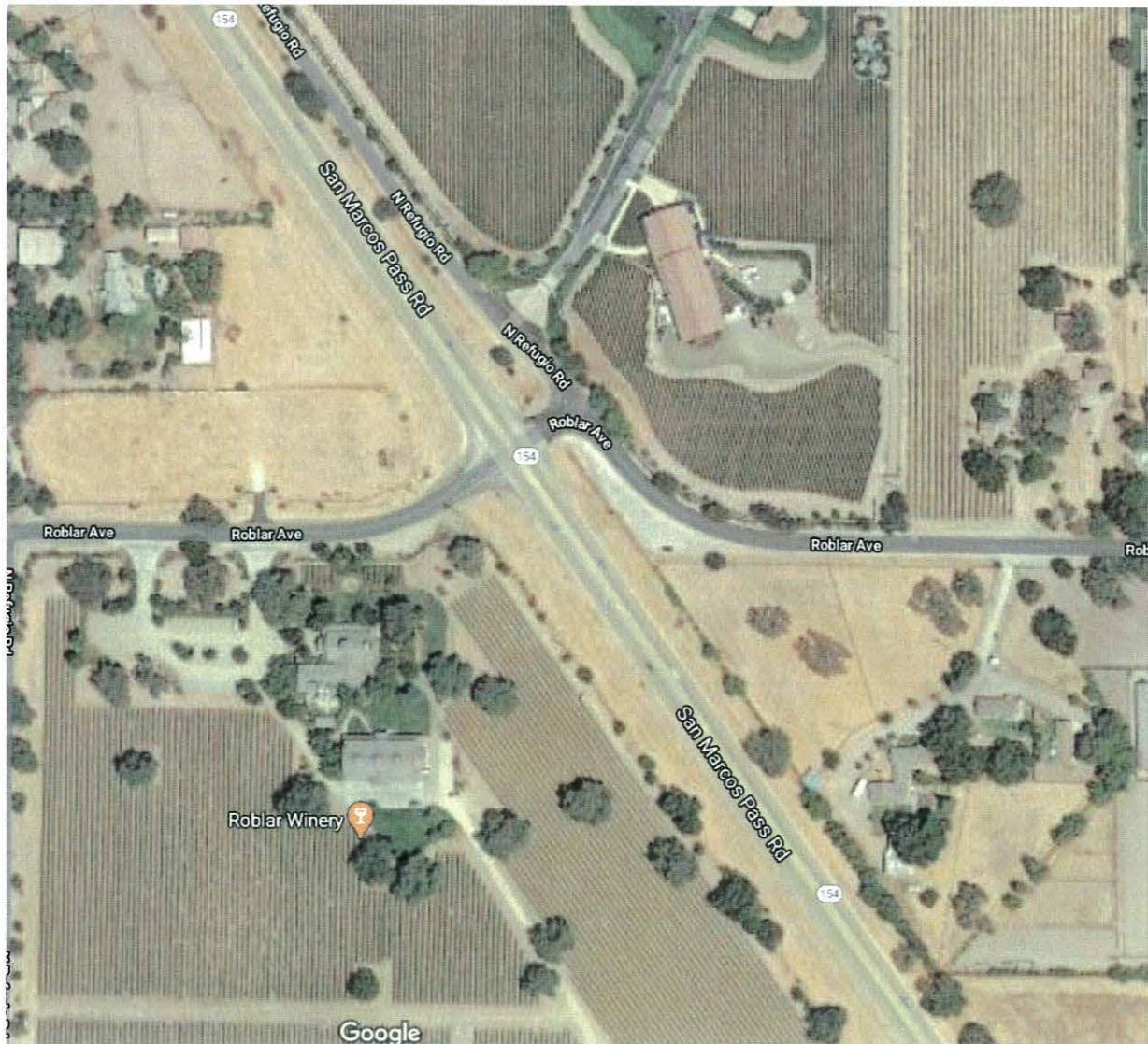
These two signs along with pavement markings for gap acceptance purposes are included in FHWA's NCHRP Report 500/Volume 5: A Guide for Addressing Unsignalized Intersection Collisions (excerpt attached). These signs and markings are used in Pennsylvania and are included in PennDOT's Highway Safety Manual (excerpt attached). Caltrans District 5 is not proposing to use the gap pavement markings, only the signs.

DISCUSSION

The intersection of SR 154 and Roblar is an unsignalized intersection with a collision rate over twice the statewide average for similar intersections. Most of the collisions are broadside collisions. A previous investigation at this intersection resulted in the installation of W4-4P "Cross Traffic Does Not Stop" signs, yet the collision rate remains above average. The intersection does not meet warrants for an all-way stop or a signal. Other countermeasures listed in FHWA's NCHRP

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Report 500 were reviewed and were determined to be not applicable or not practical at this location. In reviewing the collision reports, the only pattern found was that the at-fault drivers kept saying they did not see the vehicle on the mainline. The sight distance at the intersection meets Caltrans Highway Design Manual standards. There was no indication in the collision reports that the mainline vehicles were screened by another vehicle. The speed limit is 55 mph on SR 154. Speeding was not listed as a factor in the collision reports. SR 154 is posted with daytime "Turn on Headlights" requirements. A majority of the at-fault drivers are local residents or business people, so they are familiar with the intersection. It is probable that drivers are not practicing the standard of care needed to ensure that it is safe to enter the intersection.



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SUMMARY

The "Look Left-Right-Left Before Pulling Out" and "Watch for Entering Vehicles" signs are recognized by FHWA as a potential countermeasure for unsignalized intersections. They are a cost-effective incremental countermeasure that can be implemented quickly to address broadside collisions when other countermeasures have not been effective or are not warranted or applicable. When drivers see these signs, they will be reminded to look twice before proceeding into the intersection because there could be a brief moment where the view of a vehicle is blocked by their windshield pillar or another vehicle.

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

Attachments:

1. Excerpt from FHWA NCHRP Report 500
2. Excerpt from Pennsylvania Department of Transportation Safety Guidance Manual

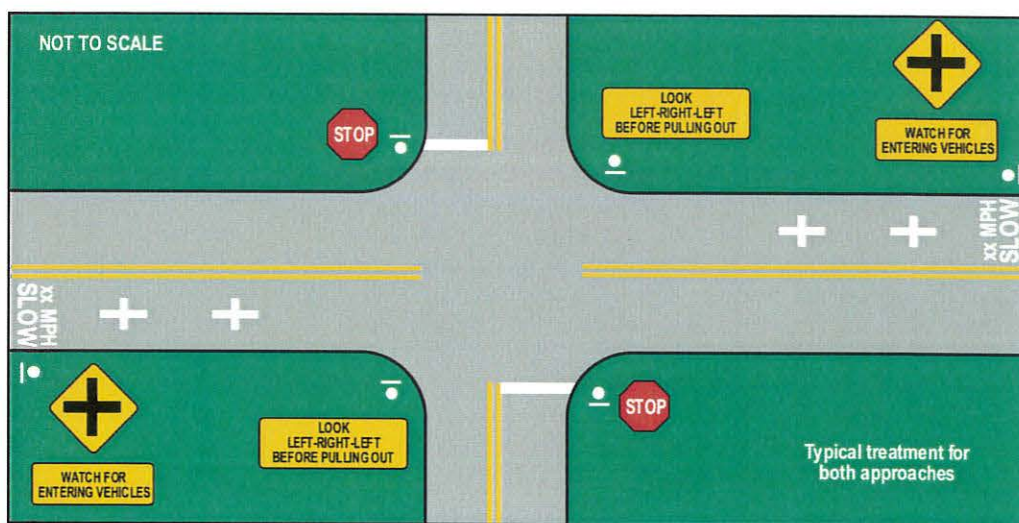
UNSIGNALIZED INTERSECTION SAFETY STRATEGIES



Provide Innovative Signs and Markings to Assist Drivers in Judging the Suitability of Available Gaps for Making Turning and Crossing Maneuvers

WHERE TO USE

Unsignalized intersections where crash data shows a high occurrence of crashes where vehicles on secondary roadways intersecting at grade misjudge the gap between approaching vehicles.



This diagram represents one example of how such a system of pavement markings and signs may be used.

DETAILS

The lack of adequate sight distance at unsignalized intersections may reduce the ability of drivers to see an approaching vehicle and/or judge the suitable available gap for making turning and crossing maneuvers. Even where sight distance is adequate, drivers may ignore traffic control devices such as stop or yield signs and may misjudge available gaps in traffic. Thus, intersection crashes may occur because drivers are unable to judge adequately the distance and time to an approaching vehicle. This strategy involves the use of innovative signing and passive markings to assist drivers in deciding when to accept a gap. The markings could take the form of pavement markings placed in the field of view of a driver observing the approaching traffic stream. Drivers would need to be told, by signing or through a public education campaign, not to proceed when an approaching vehicle is closer to the intersection than the pavement marker.

In the illustration above, the entire treatment consists of the following components:

1. Placement of legend SLOW, MPH recommendation, and the cross-style markers on the primary roadway.
2. Placement of appropriate signs outlined below on the secondary roadway.



KEY TO SUCCESS

It is very important that a driver on the secondary road, while stopped to make the decision whether to enter the intersection, can clearly view the "Look Left-Right-Left Before Pulling Out" warning sign. If the warning sign is not easily viewed from the decision point on the secondary road, it should be shifted to a more visible location.

ISSUES

This strategy is considered experimental. If an agency desires to pursue its application, it is recommended that the agency proceed with caution, conducting pilot tests in conjunction with a carefully planned evaluation.

TIME FRAME ●●○○

Time frame for implementation can generally be short if right-of-way is available.

COSTS ●○○○

Costs are generally low for a simple system but will increase for more complex systems.

EFFECTIVENESS

EXPERIMENTAL: This strategy has been experimented with in few locations with no conclusive results. Pennsylvania has experimented with a similar type of countermeasure.

COMPATIBILITY

This strategy can be used in conjunction with most other strategies for improving safety at unsignalized intersections.

SUPPLEMENTAL INFORMATION

The information in this fact sheet differs from that presented in the *NCHRP Report 500 Volume 5*. The countermeasure discussed in the report was found to not increase safety and therefore is not recommended.

For more details on this and other countermeasures: <http://safety.transportation.org>

For more information contact:

FHWA Office of Safety Design
E71, 1200 New Jersey Avenue SE
Washington, D.C. 20590
(202) 366-9064
<http://safety.fhwa.dot.gov>

FHWA Resource Center - Safety and Design Team
19900 Governor's Drive, Suite 301
Olympia Fields, IL 60461
(708) 283-3545
<http://www.fhwa.dot.gov/resourcecenter>



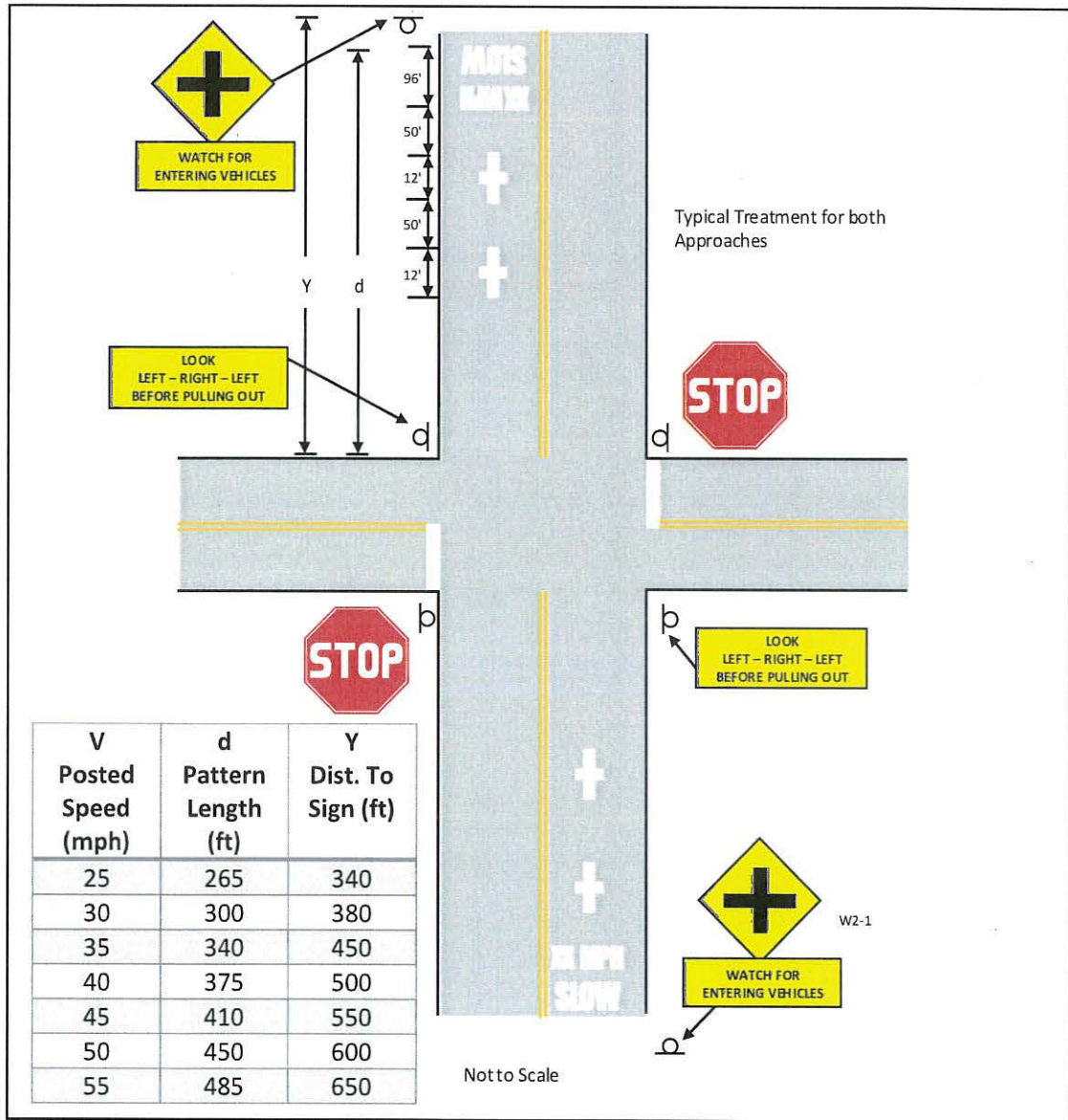


Figure 5.6.10-2: Intersection Warning Treatment

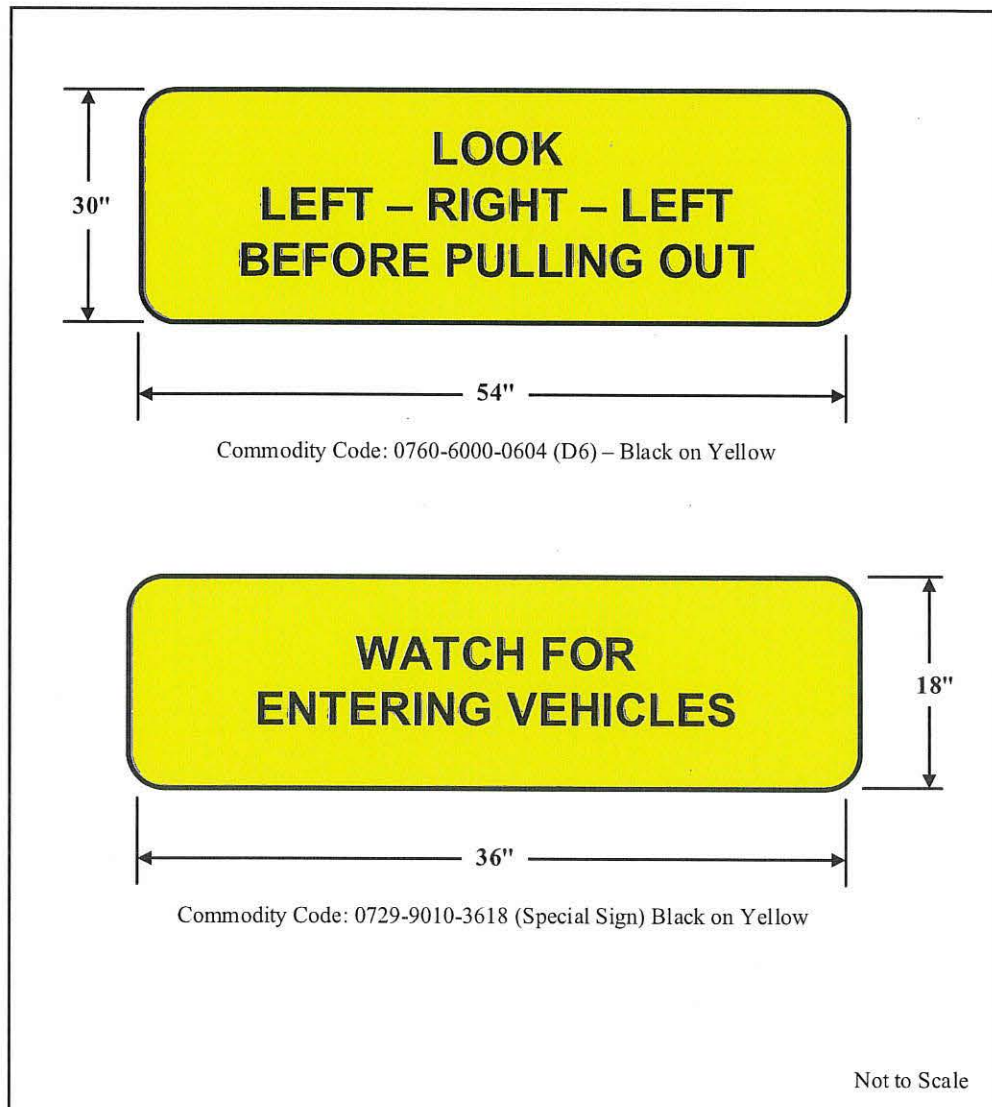


Figure C.1-2: Sign Layout, Size, and Commodity Code