

UNSIGNALIZED INTERSECTION SAFETY STRATEGIES



Provide Lane Assignment Signing or Marking at Complex Intersections

WHERE TO USE

Unsignalized intersections with a high frequency of crashes caused by driver indecision in lane assignment.



Photo by: FHWA

While this photo shows lane assignment signing at a signalized intersection, a similar strategy can be used at complex unsignalized intersections.

DETAILS

Sometimes, as drivers approach a complex intersection, they have difficulty determining the appropriate lane from which to perform a certain maneuver. This can cause indecision among drivers and result in maneuvers being made from certain lanes that are unexpected. These maneuvers could potentially lead to crashes. Crash patterns that are characteristic of driver indecision related to lane assignment include rear-end and sideswipe crashes on intersection approaches and potential angle crashes when a driver performs an unexpected maneuver from an inappropriate lane (e.g., a vehicle makes a left turn from a through lane).

Providing lane assignment signs (or markings) to guide motorists through complex intersections can alleviate this confusion and lead to safer driving conditions. Pavement markings are often used to supplement lane assignment signs.

KEY TO SUCCESS

Ensure that lane assignment signs and/or markings are visible to drivers. Overhead signs are preferred to post-mounted signs (placed on the shoulder) because the overhead signs can be placed directly



over the lanes to which they apply. In addition, the lane assignment signing/markings should be placed far enough in advance of the intersection so that vehicles can maneuver to the appropriate lane.

Proper maintenance of the markings will be important to the strategy's success. Presence of snow or ice on the roadway area may significantly reduce the strategy's effectiveness at critical times.

ISSUES

Unless the lane assignment signs are mounted on existing posts, additional hardware will have to be placed on the roadside. This hardware becomes an additional object that a vehicle may strike if it leaves the roadway.

TIME FRAME ●○○○

The implementation time for post-mounted lane assignment signs should be 3 months or less. It may take up to a year to provide overhead signing.

COSTS ●○○○

The costs involved in providing lane assignment signs are minimal when post-mounted signs and pavement markings are used. The cost of overhead signing is moderate. Agencies may experience additional maintenance costs.

EFFECTIVENESS

TRIED: The safety effectiveness of providing lane assignment signing or marking has not been quantified. However, the presence of lane assignment signs and/or markings near the intersection should reduce driver confusion concerning proper lane assignment and minimize the number of unexpected maneuvers from designated lane groups.

COMPATIBILITY

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

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

For more information contact:

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