

# UNSIGNALIZED INTERSECTION SAFETY STRATEGIES



## Provide Double Yellow Centerline on the Median Opening of a Divided Highway at Intersections

### WHERE TO USE

Unsignalized intersections on divided highways that are experiencing a high degree of crashes caused by side-by-side queuing and angle stopping within the median area.



Photo by: IOWA DOT

### DETAILS

Undesirable driving behaviors often occur on the section of roadway at the opening of divided highways at intersections. Common types of undesirable driving behaviors include the following:

- side-by-side queuing on the median roadway by vehicles in the same travel direction,
- stopping at an angle on the median roadway, and
- encroaching on a through lane of the divided highway.

This strategy is designed to minimize the occurrence of the first two maneuvers (side-by-side queuing and angle stopping). Side-by-side queuing occurs when one vehicle is waiting on the median roadway for an opportunity to cross or enter the far roadway of a divided highway, and a second vehicle arrives and stops beside rather than behind the first vehicle. Side-by-side queuing can lead to driver confusion about which of the two vehicles is to proceed first and, thus, can lead to potential conflicts. Angle stopping occurs when a vehicle stops on the median roadway at some angle other than perpendicular to the through lanes of the divided highway. Stopping at an unusual angle is undesirable because the vehicle may be hit by another vehicle from any of several directions and because other drivers may be confused about the intended path of that vehicle.

Providing a double yellow centerline on the median roadway at the opening can be helpful to define the vehicle paths at divided highway intersections. A double yellow centerline on the median



roadway provides visual continuity with the centerline of the crossroad approaches and helps to define a desired path for drivers. The presence of a double yellow centerline on the median roadway should minimize the temptation for drivers to queue side-by-side or to cut over to the left side of the median roadway and stop at an angle when making a left turn.

### KEY TO SUCCESS

Ensure that the median is of sufficient width (at least 100 feet) so that vehicles can follow a desired path.

Proper maintenance of the striping 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

If the median roadway is narrow and a double yellow centerline is provided, it is possible that as vehicles queue one behind the other in the median, portions of vehicles will stick out (overhang) into the through roadway.

### TIME FRAME ●○○○

The implementation time for this strategy is 3 months or less.

### COSTS ●○○○

The costs involved in providing double yellow centerlines on median roadways are minimal. Agencies may experience additional maintenance costs.

### EFFECTIVENESS

**TRIED:** The safety effectiveness of providing a double yellow centerline on the median opening of a divided highway has not been quantified. However, the presence of a double yellow centerline should minimize side-by-side queuing and angle stopping and, thus, reduce driver confusion near the intersection.

### COMPATIBILITY

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

### SUPPLEMENTAL INFORMATION

A highway agency may need to adopt a policy to determine when double yellow centerlines on median roadways of divided highways are warranted and appropriate. Guidance is provided in *NCHRP Report 375*.

**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>



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