

# UNSIGNALIZED INTERSECTION SAFETY STRATEGIES



## Provide All-Way Stop Control at Appropriate Intersections

### WHERE TO USE

Unsignalized intersections with patterns of right-angle and turning crashes and moderate and relatively balanced volumes on the intersection approaches.



Photo by: FHWA

### DETAILS

All-way stop control can reduce right-angle and turning collisions at unsignalized intersections by providing more orderly movement at an intersection, reducing through and turning speeds, and minimizing the safety effect of any sight distance restrictions that may be present. However, all-way stop control is suitable only at intersections with moderate and relatively balanced volume levels on the intersection approaches. Under other conditions, the use of all-way stop control may create unnecessary delays and aggressive driver behavior (e.g., deliberate ignoring of the stop control).

### KEY TO SUCCESS

Identify moderate volume situations where all-way stop control will operate efficiently without substantially more delay than a signalized intersection.

It is important that the driving public be alerted to the change of control during a transition period.



## ISSUES

Not every two-way stop-controlled intersection should be considered as a candidate for all-stop control. This strategy should be used selectively, recognizing traffic volumes and patterns and potentially adverse reaction by the driving population to being stopped for no apparent reason. If drivers encounter substantial delays, they may become impatient and act irrationally, which can lead to crash patterns of the type that the strategy is intended to correct.

## TIME FRAME ●○○○

All-way stop control can normally be implemented with just a change in signing at the intersection or on intersection approaches, typically in 3 months or less.

## COSTS ●○○○

The costs involved in converting to all-way stop control are relatively low. However, an agency's maintenance costs may increase.

## EFFECTIVENESS

**PROVEN:** A recent review of the effectiveness of various strategies in reducing crashes concluded that conversion from two-way to all-way stop control could reduce total intersection crashes by 53%. Another study determined that converting to an all-way stop from a two-way stop may reduce overall crashes at urban locations by up to 71%. Similarly, reductions were seen for left-turn crashes (20%), right-angle crashes (72%), rear-end crashes (13%), and pedestrian crashes (39%).

## COMPATIBILITY

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

## SUPPLEMENTAL INFORMATION

Drivers understand all-way stop control with no need for special public education campaigns. However, public information should be distributed about any forthcoming change in traffic control.

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

### For more information contact:

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