

UNSIGNALIZED INTERSECTION SAFETY STRATEGIES



Close or Relocate “High-Risk” Intersections

WHERE TO USE

Unsignalized intersections with high levels of intersection-related crashes that other strategies have not been successful in reducing or for which other strategies are not considered appropriate. Also at locations where a particular strategy such as installing a turn lane or increasing sight distance is impractical at the current location, but could be applied if the intersection were moved.



Photo by: FHWA

This location was previously a T-intersection but due to a high frequency of crashes, it was closed. Vehicles can only turn right.

DETAILS

For some unsignalized intersections with crash histories, the best method of improving safety may be to close or relocate the intersection. This is a radical approach to safety improvement that should generally be considered only when less restrictive measures have been tried and have failed. Intersection relocation can be accomplished by realigning the minor-road approaches so that they intersect the major road at a different location or a different angle. Intersection closure can be accomplished by closing and abandoning the minor street or by converting the minor street approaches so that they dead-end before reaching their former intersection with the major street.

KEY TO SUCCESS

Involve the affected neighborhood early in the decision-making process to develop and maintain support for the project.



ISSUES

Diverted traffic may contribute to safety problems at adjacent intersections or on alternative routes, resulting in no net benefit. Owners of properties where access would be reduced, especially those with commercial operations, may oppose this strategy.

Temporary unsafe conditions may occur immediately after the change due to erratic maneuvers by drivers whose expectancy has been violated. Care should be taken during the transition period, both before and after the change is made, to alert drivers to the changes as they approach the section involved.

TIME FRAME ●●●●

This strategy requires an implementation time of 1 to 4 years. At least 1 year is necessary to work out the details of street relocation or closure and to communicate the plan to affected business owners and residents. Where relocation requires right-of-way acquisition and/or demolition of existing structures, an extensive project development process up to 4 years long may be required.

COSTS ●●●●

Costs to implement this strategy are highly variable. Where mere closure of an existing intersection is all that is needed, costs are low. In other cases, construction of a new intersection or diversion of traffic to a different existing intersection may require substantially higher expenditures.

EFFECTIVENESS

TRIED: Closure of an intersection should eliminate crashes at that location. Consideration must be given to the adjacent intersections, to alternative routes onto which traffic would be diverted, and to the potential impact of safety on those routes.

COMPATIBILITY

Closure of an intersection is an alternative to other strategies for improving safety and is not typically used in conjunction with other strategies. Relocation of an intersection is nearly always used in conjunction with most other strategies for improving safety. Indeed, in many cases, the purpose of relocating an intersection may be to make those other strategies feasible.

SUPPLEMENTAL INFORMATION

This strategy is primarily appropriate for urban and suburban intersections where reasonable alternative access or routes are readily available.

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

For more information contact:

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