

AGGRESSIVE INCIDENT CLEARANCE

Description

Traffic Incident Quick Clearance is the practice of rapidly and safely removing temporary obstructions—such as disabled, wrecked, or abandoned vehicles, and spilled cargo—from the roadway. Quick clearance practices are intended to enhance motorist and responder safety as well as reduce traffic congestion and delays. Traffic incident quick clearance often involves a combination of the following to facilitate the removal of disabled or abandoned vehicle from the roadway:

- Quick removal operational procedures.
- Specialized tools and infrastructure.
- Laws and policies aimed at affecting the safe and timely removal of incidents.

In metropolitan areas, quick clearance policies can also involve implementing immediate tow-way policies including the removal of disabled vehicles from the shoulders. Even on the shoulders, moving vehicles can potentially collide with disabled or abandoned vehicles located on shoulders. Removing these vehicles from the roadway entirely can reduce the potential for vehicle collisions. Frequently, these disabled or abandoned vehicles are removed at the expense of the owner.

Appropriate equipment and infrastructure is required to support operational procedures. Freeway service patrols equipped with push bumpers can greatly enhance rapid removal. Agencies can also facilitate quick clearance by improving access to heavy-duty tow trucks, dump trucks, front-end loaders, sweepers for removing non-hazardous cargo and incidental vehicle fluid spills. Implementing heavy-duty wrecker contractors and providing air cushion recovery systems can aid in the rapid removal of overturned trucks. New technologies such as total station surveying equipment and photogrammetry can significantly reduce crash investigation times for law enforcement officers.



Cost:	●●○○○
Time:	Short
Impact:	Regional
Who:	City/State
Hurdles:	Policy

Quick clearance practices often benefit from appropriate laws and policies. Move Over, Driver Removal, and Authority Removal laws are used to give authority to agencies to remove abandoned vehicles, protect drivers and/or responders from liability resulting from good faith actions, and enable transportation and environmental agencies a means to recover incident clearance costs from responsible parties.

Target Market

Quick clearance strategies and practices focus on the removal of 1) vehicles involved in minor incidents, 2) heavy vehicles, 3) non-hazardous cargo spills, and 4) incidental vehicle fluid spills. Quick clearance practices and strategies also are intended to speed-up crash investigation procedures. The common objective of all quick clearance practices is to reduce the time required to clear incidents from the roadway.

How Will This Help?

Quick clearance practices generally operate within a broader context of traffic incident management which often results in decreased non-recurring congestion delays, secondary incidents, faster clearance times, etc. Specifically, quick clearance, when used in combination with other incident management procedures, policies, and technologies, help to minimize improper or delayed action by incident responders, prolonged crash investigations, and indecision driving by concerns over liability.

Implementation Examples

SafeClear, Houston, Texas: In 2005, the City of Houston enacted the SafeClear towing program, designed to encourage the rapid removal of disabled or abandoned vehicles from the Houston freeways thereby reducing congestion. Stranded or disabled vehicles parked on the shoulder would be towed, at no costs to the driver, to a safe location within one mile from the nearest exit. At an approximate \$5 million program cost for 250 freeway miles, the program offers a 10:1 benefit/cost ratio for crash and congestion reduction. Private tow trucks must respond within six minutes. In order to meet response targets, approximately 60–95 tow trucks patrol the freeways during rush hours.

Rapid Incident Scene Clearance Program, Florida: The Florida Turnpike Enterprise used clearance-timed incentives when contracting with heavy-duty towing service providers to reduce incident clearance times for major incidents involving tractor trailers or other large vehicles. Contractors were required to respond to major incidents with two heavy-duty wreckers, plus support vehicles carrying clean-up and remove debris from collisions involving trucks. The contractor earned a \$2,500 bonus if they responded to incidents within 60 minutes and cleared the roadway to traffic within 90 minutes. If the contractor failed to open the roadway within three hours, they were

penalized \$10 for each minute over. Contractors average a 41-minute response time to the incident scene and averaged 55 minutes to clear the roadway.

Incident Response Program, Washington:

During the first quarter of 2012, the Washington State Department of Transportation's (WSDOT) state-wide Incident Response Program cleared over 10,000 incidents, saving Washington residents over \$10.7 million in wasted time and fuel that would have been spent in incident-related congestion. The program costs the state of Washington an estimated \$1.2 million to operate each year, giving taxpayers an estimated 9:1 benefit/cost ratio. The program cleared incidents in an average of 14 minutes (though during severe winter weather, clearance times increased to over 90 minutes). Response is coordinated with state highway patrol, EMS, fire, and other law enforcement agencies. The current program deploys 62 dedicated response vehicles (43 of which focus on the Puget Sound region). The program has 47 response positions with 27 dedicated routes during peak congestion periods.

Application Techniques and Principles

Typical quick clearance strategies include the following:

- Equipping response vehicles with push bumpers.
- Strengthening and/or enacting legislation requiring drivers involved in minor incidents to move their vehicles out from the travel lanes.
- Implementing incident investigation sites providing safe refuge off the roadway for further incident investigation and documentation.
- Enacting removal authority laws enabling public agencies to remove damaged or disabled vehicles and/or spilled cargo determined to be a hazard for the roadway.

- Implementing immediate tow-away policies to ensure removal of disabled or abandoned vehicles.
- Providing on-call heavy-duty wrecker contracts to upright and remove large trucks.
- Providing specialized equipment, such as total station surveying equipment and photogrammetry technology, to speed accident investigations.

Issues

To support quick incident clearance practices, state and local entities may be required to enact enabling legislation, such as Driver Removal and Authority Removal legislation. Driver Removal legislation requires that vehicle involved in minor traffic incidents—with no apparent physical injuries and/or major property damage—be moved out of the travel lanes to a safe location where drivers can exchange information and/or wait for law enforcement assistance. Authority Removal laws may be needed to authorize pre-designated public agencies to clear damaged or disabled vehicles and spilled cargo from the roadway. Authority Removal laws typically provide indemnification for these agencies if removal duties are performed in good faith and without negligence.

Who Is Responsible?

Public safety agencies (law enforcement, fire and rescue, and emergency medical service providers) have the primary responsibility of implementing quick clearance policies. Transportation agencies can assist in implementing quick clearance policies by sponsoring and facilitating legislation, providing ready access to equipment and infrastructure (e.g., dump trucks, front-end loaders, sweepers). Cooperation among public safety agencies, transportation agencies, private towing and recovery industries, insurance companies, and the motoring public is critical to the success of quick clearance programs.

Project Timeframe

Quick clearance programs can be implemented in a short period compared to other incident management techniques that involve new infrastructure, usually within months of initiating the programs. Most programs build upon resources that already exist in metropolitan areas. Often, the great time impediment to implement quick clearance programs comes from the need to enact enabling legislation, obtaining agencies cooperation, and providing education and outreach.

Cost

Costs for implementing quick clearance policies are relatively low. Many quick clearance strategies can be implemented with as little as \$100,00 to \$250,000, depending on the strategy being deployed; however, the costs to providing contract wrecker service can be significant (i.e., the Houston SafeClear program costs \$3 million annually). In the case of rapid cargo spills, or removal of commercial fleet vehicles, agencies will often recover costs for private contract services directly from insurance companies.

Data Needs

Adoption of national incident management performance measures by local agencies can lend consistency and consensus measurement of program effectiveness. Regions should also conduct annual self-assessments to identify strengths and weakness in the programs. Linking performance with funding increases the visibility of quick clearance programs with decision makers and helps ensure that programs receive adequate attention in project funding prioritization. Multi-agency data exchange protocols will enhance data sharing and accessibility in support of incident clearance performance measure activities.

Traffic Incident Quick Clearance Best Practice

- Type of Location: Regional freeway corridors.
- Agency Practices: Cooperation with law enforcement and emergency first responders.
- Frequency of Reanalysis: Annually.
- Supporting Policies or Actions Needed: Quick clearance policies, vehicle removal policies.
- Complementary Strategies: Vehicle detection and surveillance systems; travel information systems, active traffic management systems.

For More Information

Florida Department of Transportation. *Rapid Incident Scene Clearance Annual Report Fiscal Year 2010/2011*.

http://www.dot.state.fl.us/trafficoperations/Traf_Incident/pdf/2010_2011AnnualRISCRptFINAL.pdf.

Mobility Improvement Checklist: Increasing System Efficiency, Vol. 2, Texas Transportation Institute, College Station, TX, September 2004.

Traffic Incident Management Quick Clearance Laws. A National Review of Best Practices. Federal Highway Administration. http://www.ops.fhwa.dot.gov/publications/fhwahop09005/quick_clear_laws.pdf.

Washington Department of Transportation. *The Gray Notebook 45, Incident Response Quarterly Update*, Olympia, WA, May, 2012. http://www.wsdot.wa.gov/NR/rdonlyres/63262743-5BFB-4026-97B6-32C3727B1F44/0/GrayNotebook45_Mar12.pdf#page=32.