

Developed by the Capitol Region Council of Governments Greater Hartford Traffic Incident Management (TIM) Coalition

The TIM Coalition members include: The Departments of Transportation, Emergency Services and Public Protection, Energy and Environmental Protection, Motor Vehicles, Consumer Protection and Public Health, along with representatives from the Federal Highway Administration, North Central Connecticut Emergency Medical Services Council, Federal Motor Carrier Safety Administration, Towing and Recovery Professionals of CT, Motor Transport Association of CT, CT Police Chiefs Association, CT Fire Chiefs Association, CT Fire Police Association, Councils of Governments for Capitol Region, Northwest Hills, Naugatuck Valley, Lower Connecticut River Valley and Massachusetts Pioneer Valley Planning Commission.

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Comments or questions related to this guide can be sent to TIMguide@crcog.org

INTRODUCTION

This field guide provides guidance for traffic incident scene management for emergency response organizations. It includes guidelines listed in the Manual on Uniform Traffic Control Devices (MUTCD) and contains basic principles, a description of standard traffic control devices, guidelines for the application of the devices and typical application diagrams. The application diagrams provided represent minimum requirements for typical situations. They are not intended as substitutes for sound judgment and should be modified to fit the conditions of a particular incident site. All traffic control devices must comply with Part 6 of the MUTCD.

Traffic Incident Management (TIM) National Unified Goal (NUG):

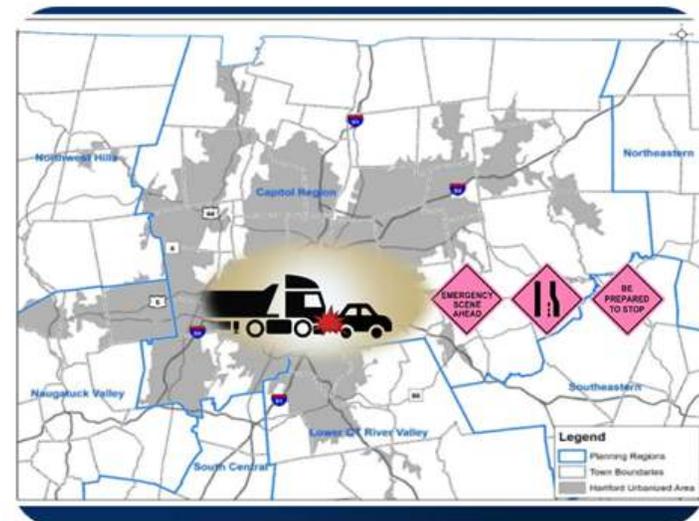
- + Responder safety
- + Safe, quick clearance
- + Prompt, reliable, interoperable communications



QuickNote

The National Incident Management System (NIMS) requires the use of the Incident Command System (ICS) at traffic incident management scenes.

INTRODUCTION



TRAFFIC INCIDENT PROCESS

TIM consists of a planned and coordinated multidisciplinary process to detect, respond to and clear traffic incidents so that traffic flow may be restored as safely and quickly as possible.

Traffic incidents can be divided into three general classes of duration:

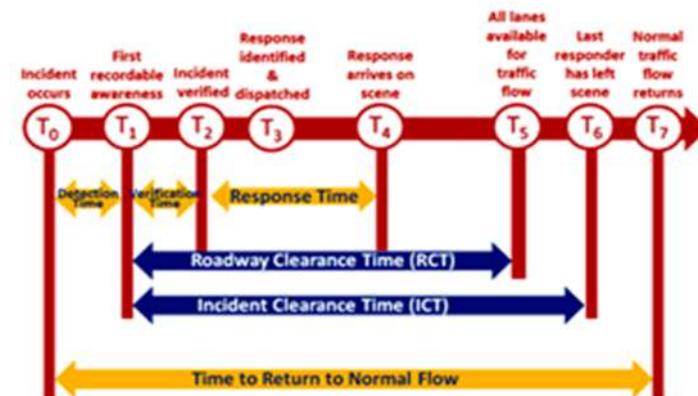
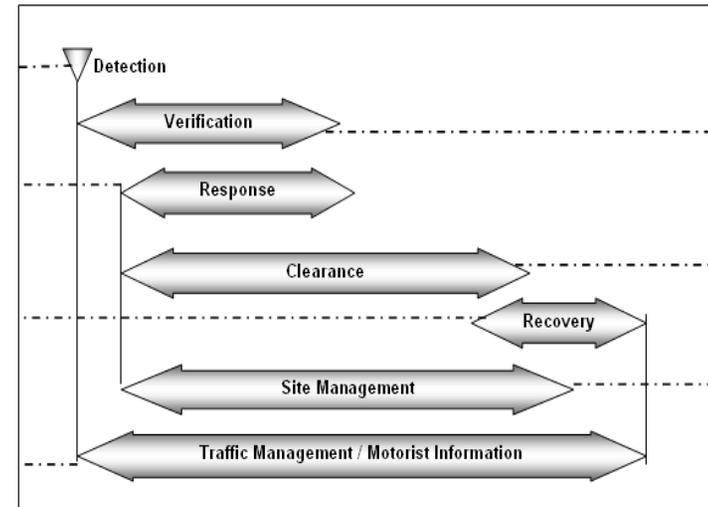
| Type of Incident | Duration | Possible Causes |
|------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minor | < 30 minutes | Property damage, disabled vehicle(s), roadway debris |
| Intermediate | 30 mins - 2 hrs | Major roadway debris, overturned vehicles, multiple vehicle crashes, commercial carrier crashes |
| Major | > 2 hrs | Severe injury and/or fatality, weather-related, major bridge damage, significant hazardous materials (hazmat) and environmental impacts, significant fire at scene, acts of terrorism |

DETECTION/VERIFICATION

If you are dispatched:

- + Prepare to do a scene size-up if you are the first on scene.
- + Be prepared to deploy measures to protect the scene (e.g., flares and initial temporary traffic control devices).
- + **MAKE SAFETY YOUR FIRST PRIORITY** – preserve the well-being of responders, injured persons and passing motorists.

TRAFFIC INCIDENT PROCESS



SITUATIONAL AWARENESS AND SAFETY

- + Always turn wheels away from the incident space.
- + Turn on vehicle hazard lights and any emergency lights.
- + Put on all appropriate personal protective equipment (PPE) prior to administering any type of aid.
- + Look back for traffic.
- + Open door only as much as needed and exit.
- + Close door and proceed to a safe area.
- + **Never** turn your back to approaching traffic.
- + At all times, maintain situational awareness – where you are and where you can go (escape route).
- + Never stand between vehicles.
- + Instruct civilians where to stay, out of harm's way.
- + Maintain communication with Dispatch.
- + Assess risk – If it feels unsafe, leave your vehicle and move to a safe position out of the roadway until the next responder arrives.

QuickNote

Use plain English to identify location and lane designations.

- + On roadways with three lanes or less, they must be named left, center and right when facing in the direction of traffic flow.
- + For roadways that have more than three lanes in any one direction, designate using lane numbers, starting with the far-left lane called "lane 1." Each lane to the right is then numbered sequentially.
- + Shoulders should be identified using "left/right" and/or "inside/outside" and "shoulder" (e.g., inside or left shoulder).
- + Responder(s) should know specific position assignments. For example, an incoming unit might be told to safe park or "block upstream of the incident" (e.g., "northbound I-384 right lane and right shoulder").

BE SCENE SAFE

- + Separated, high occupancy vehicle (HOV) carpool or bus-only lanes that are physically separated should be designated as HOV1, HOV2, etc., as appropriate.
- + If the incident is located before the merge point it shall be considered a separate roadway and identified as such (e.g., "left hand exit ramp").
- + The term "upstream" is defined as before the incident point or area. The term "downstream" is defined as past or beyond the incident point or area.

SCENE SIZE-UP

- + What is the exact location of the incident (road, direction, mile marker)?
- + Are lanes blocked? If so, indicate which lanes.
- + Define the incident type.
- + Is a detour required? Coordinate with local and state agencies along the detour route and utilize approved diversion routes.
- + Identify the type of response needed at the scene (Fire/Rescue, Emergency Medical Services (EMS), Hazmat, Towing and Recovery, Connecticut Department of Transportation (CTDOT), LIFE STAR, etc.).
- + Identify the type(s) of vehicles involved (tractor trailer, box truck, tanker, van, bus, trucks, cars, etc.) and how many.
Towing companies need to know the exact type and class of vehicle to provide correct resources.
- + Are there injuries? How many? How severe? Is there any entrapment?
- + Is LIFE STAR required? If so, prepare the landing area.
- + What is the condition of the vehicles involved (upright, jackknifed, rollover, overturned, etc.)?

- + Are there any fires?
- + If there is an overturned truck, identify the contents.
- + Are there any spills or leaks? **An electric vehicle with a leaking battery requires extra caution.**
- + Is the incident in a work zone area?
- + Is CTDOT or Public Works required to repair the roadway or infrastructure?
- + Are utilities affected? **Downed wires and underground electrical transmission lines may electrify vehicles and other conductive surfaces (e.g., guard rails, light poles).**



| 13 VEHICLE CLASSIFICATION | | | |
|---------------------------------------------------|--|------------------------------------------------------|--|
| Class 1 Motorcycles | | Class 7 Four or more axle, single unit | |
| Class 2 Passenger cars | | Class 8 Four or less axle, single trailer | |
| | | | |
| | | | |
| Class 3 Four tire, single unit | | Class 9 Five-axle tractor semitrailer | |
| | | | |
| | | | |
| Class 4 Buses | | Class 10 Six or more axle, single trailer | |
| | | | |
| | | | |
| Class 5 Two axle, six tire, single unit | | Class 11 Five or less axle, multi trailer | |
| | | | |
| | | | |
| Class 6 Three axle, single unit | | Class 12 Six axle, multi-trailer | |
| | | | |
| | | | |
| | | | |
| | | Class 13 Seven or more axle, multi-trailer | |
| | | | |
| | | | |

For commercial vehicle involvement, notify the Connecticut Department of Motor Vehicles (CT DMV) – Commercial Vehicle Safety Division at: **860-263-5490**.

For hazmat release, immediately notify the Connecticut Department of Energy and Environmental Protection (CT DEEP) Emergency Response Unit: **860-424-3338/Toll Free: 866-DEP-SPIL (866-337-7745)**



Mobile app available for ERG at: www.phmsa.dot.gov/hazmat/erg/erg2020-mobileapp

Response

Dispatch the appropriate personnel and equipment. Activate the appropriate communication links and motorist information links as the incident is verified.

| Responder Discipline | Primary TIM Missions |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Emergency Dispatch (911) | Notification and communication link for incident |
| Fire/Rescue | Public safety, fire suppression, rescue crash victims |
| EMS, LIFE STAR | Triage, treatment and transport of crash victims |
| CT DEEP Emergency Response (ERU) | Assess environmental risks; coordinate response, cleanup and disposal |
| Law Enforcement | Secure incident scene, traffic control, safeguard property, conduct crash investigations |
| Medical Examiner/Coroner | Investigate fatal incidents |
| Towing and Recovery | Remove wrecked or disabled vehicles and debris |
| Transportation, including Highway Operations Center (HOC) | Detect and verify incidents, activate diversion routes, stabilize and repair infrastructure, inform public of traffic impacts |
| Consumer Protection | Assess load integrity and coordinate offloading and transfer |
| Commercial Vehicle Safety Squad | Assess commercial vehicle and support investigation and recovery |
| Public Works | Support traffic detours and diversions; assist in cleanup at incident |

TRAFFIC INCIDENT PROCESS

PREPLANNING IN A RESPONSE SHOULD INCLUDE:

- + EMS/LIFE STAR – In many areas, fire and rescue department companies are also the primary emergency medical services agency. In some areas, separate EMS agencies, independent volunteer rescue squads or private companies (under contract with localities) provide these services.
- + Towing and recovery – A list that includes operator capabilities and special equipment available.
- + CT DEEP – Hazmat contractors are to be approved through the state's contracting system. CT DEEP has the authority to call in environmental response resources as needed, and to coordinate directly with the state hazmat contractor or the responsible party's hazmat contractor.
- + Medical Examiner – The response should be clearly defined and understood for incidents involving fatalities.
- + Utility companies' roles should be clearly defined for incidents involving public utilities (power lines, gas lines, communication lines, etc.).

HELICOPTER OPERATIONS – LIFE STAR SAFETY

Establishing and Marking a Landing Zone

- + The landing zone should be at least 75 feet X 85 feet, relatively flat and free of overhead obstructions. Inform LIFE STAR of any obstacles near the landing zone (trees, power lines, antennas, cranes, etc.).
- + By day, a landing zone may be marked by orange cones or flares at each corner, a strobe light or by a ground cover of contrasting color (this must be removed prior to landing).
- + At night, a single strobe light or a road flare in each corner of the landing zone is helpful. Never direct spotlights, white strobes or flash photography toward LIFE STAR, as this will impair the crew's night vision.

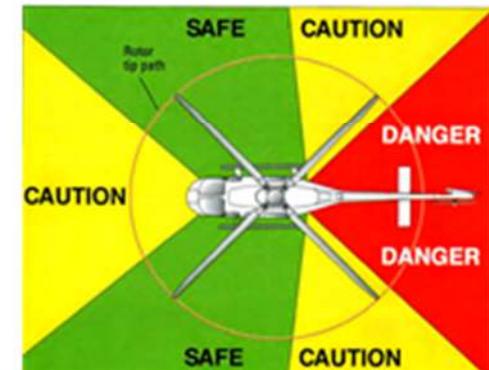
Securing the Area

- + Secure the landing zone to prevent unauthorized persons from approaching LIFE STAR.
- + Keep the landing zone clear of loose articles and hazardous debris.
- + Protect yourself and your patient from rotor downwash.
- + Keep well clear of the landing zone when LIFE STAR is approaching and taking off.
- + Wear eye protection and, if the landing zone is very dusty, consider wetting down the area if possible.

Approaching LIFE STAR

- + Do not approach LIFE STAR unless requested by the flight crew. If you are requested to approach LIFE STAR, stay within the pilot's field of vision.
- + Follow the directions of the flight crew when assisting near LIFE STAR.
- + Carry equipment horizontally, below your waist level (never upright or over your shoulder).
- + Always carry a stretcher in a forward-facing position and standing upright.
- + No smoking inside or within 100 feet of LIFE STAR!

TRAFFIC
INCIDENT
PROCESS



HI-VISIBILITY APPAREL: BE SAFE BE SEEN

- + American National Standards Institute (ANSI)-approved high-visibility, retroreflective safety apparel must be put on and worn for the duration of an incident.
- + Firefighters or other emergency responders may wear retroreflective turn-out gear compliant with National Fire Protection Association (NFPA) standards.
- + Type R – Roadway, Class 2 or 3 must be worn on or near roadways where work is in close proximity to traffic.



If your feet are on the street, your vest is on your chest!



Type R



Type P



Class E

- + Type P – Public Safety, Class 2 or 3 is worn by fire, police, EMS and other public safety personnel.
- + Class E – Pants, bib overalls, shorts and gaiters. This apparel cannot be worn alone. When Class E items are worn with Class 2, the overall ensemble meets Class 3.
- + Class 3 apparel is needed for Types R and P for night work and high-volume, high-speed roads.

Unified Command (UC)

- + Multi-agency coordination and communications are a must.
- + All agencies need to agree upon and practice within an ICS.
- + UC differs from the sole ICS structure in that the ICS function is handled by multiple participating agencies and not a single Incident Commander. The UC agencies act as one to establish common objectives and strategies for incident response.

The Three Unified Command Properties

- + Life Safety – Protects emergency responders, any incident victim and the general public.
- + Incident Stability – Minimizes an incident's impact on the surrounding area, maximizes response efforts and ensures efficiencies in using resources.
- + Property Conservation – Minimizes damage to property while still achieving established incident objectives.

UC Structure (may vary based on size and scope of incident)

- + Law Enforcement – Secures incident scene; first responder.
- + Fire Department – Rescues/extricates victims; protects incident scene. Contains/mitigates hazmat and coordinates with CT DEEP.
- + EMS/LIFE STAR – Provides medical treatment to injured parties at the scene; transports victims.
- + DOT – Protects incident scene; provides traffic information.

TRAFFIC INCIDENT MANAGEMENT

THE PRIMARY FUNCTIONS OF A TRAFFIC INCIDENT MANAGEMENT AREA (TIMA) ARE:

- + To utilize personnel, equipment and devices to inform road users of the incident.
- + To provide guidance information on the path to follow through the area.
- + To quickly install proper temporary traffic controls to reduce secondary crashes or excessive traffic delays.



TRAFFIC INCIDENT MANAGEMENT

Protect the Queue

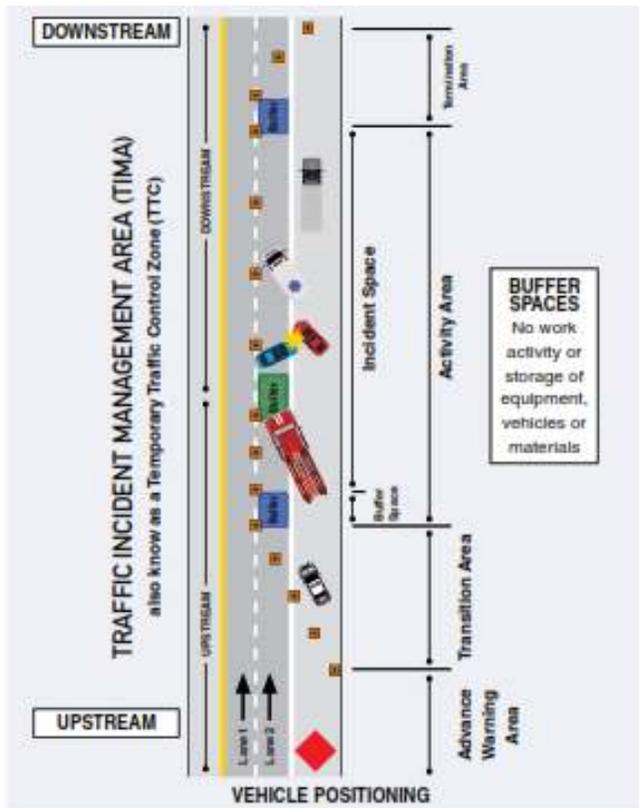
Severe secondary crashes can occur when vehicles are waiting in the queue or in a backup due to the initial incident.

- + Position a properly equipped "queue management" vehicle on the shoulder upstream of the incident with emergency lighting, vehicle hazard lighting and other traffic management equipment activated.
- + Keep sight distance in mind for approaching motorists, especially hills, curves and line-of-sight obstructions.
- + Maintain a reasonable distance between the upstream queue management vehicle and the back of the queue at the maximum possible capacity under the circumstances.

Blocking

- + Initial blocking – Protect the scene or incident from approaching traffic and allow the responder a short time to size it up, gather information visually and verbally that will determine steps or actions to be taken and prioritize those actions.
- + Always leave enough room between the blocking vehicle and the work area to allow the blocking vehicle to roll forward without hitting equipment or personnel if it is struck.
- + Angle block signals to approaching traffic to show that the emergency vehicle is stopped, parked and not moving.





Advance Warning: Tells Motorists of the Situation Ahead

- + Department of Transportation (DOT) or other advance warning – To be placed at the furthest upstream position prior to the scene and at the end of the queue. If DOT is not available, another emergency responder vehicle, variable message boards or static signs may also be used.

TRAFFIC INCIDENT MANAGEMENT

Transition Area: Redirects Traffic Away from Closure

- + Police – Must park at the upstream position outside of the buffer space and as far off the roadway as practicable. Use emergency lighting to supplement any advance warning devices in place.
- + Fire 1 – Blocking vehicle(s) must park in the most upstream position. The angle of the truck must mimic the transition area.

Activity Area: Where Responders Are Operating and Includes Incident and Buffer Spaces

- + Towing and Recovery – Must park at the furthest downstream position, but may stage in other areas depending on activity. Must remain off to the side to allow access for ambulance and response vehicles until activated for removal of vehicles.
- + Ambulance/Emergency medical services (EMS) – Must park at the next furthest downstream position with easy access to and from the scene. Position vehicle to have adequate buffer space for doors and patient-loading areas. Assure the ambulance is in a "block to the right" or "block to the left" at the scene in order to position the rear patient-loading area away from the closest lane of moving traffic.
- + Fire 2 – Must park in the activity area just upstream of the incident and in a blocking position. The angle of the truck must mimic the transition area. Position the truck to provide safe area to work in and allow for safe access to all equipment necessary to handle the incident.

Termination Area: Where Normal Traffic Flow Resumes and Includes a Buffer Space

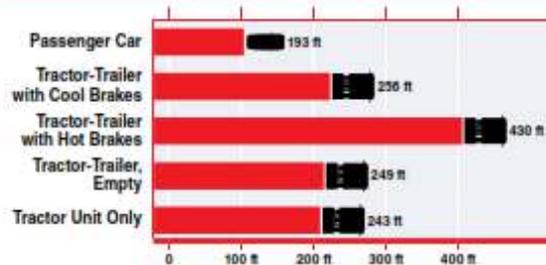
- + Responsive vehicles and personal vehicles – Must park in a downstream area off to the side.

TRAFFIC INCIDENT MANAGEMENT AREA

TEMPORARY TRAFFIC CONTROL

- + A temporary traffic control (TTC) zone is an area of a roadway where traffic conditions are changed because of a work zone or an incident. Temporary traffic control devices (TCD), uniformed law enforcement officers or other authorized personnel will be present.
- + The primary function is to provide for the safe and efficient movement of traffic through or around an incident while protecting responders.
- + TTC should include upstream advance warning signs and devices to alert traffic approaching the queue, and tapered lane closures. It may also include traffic detours to encourage early diversion to an appropriate alternative route. If manual traffic control is needed, it should be provided by qualified flaggers or uniformed law enforcement officers.
- + Higher speed limits, limited visibility, wet or snowy roads = longer advance warning and transitions!

AVERAGE TOTAL STOPPING DISTANCE AT 55 MPH*



*Distance based on a study of average braking distances by the Insurance Institute for Highway Safety. Reaction distance recommended by the National Safety Council.

- + The overall stopping distances are doubled for wet roads and multiplied by 10 for snow and icy conditions.

ESTABLISHING TTC

TEMPORARY TRAFFIC CONTROL

- + Vehicle fires – Smoke from vehicle fires can cause visibility issues that affect responders and passing motorists. It is generally better to maintain some traffic flow at the scene to facilitate the arrival of fire apparatus. In some cases, smoke may require closing both directions of traffic for a short period of time.

Manual of Uniform TCDs

| Advance Warning Area | Transition Area | # Cones | |
|----------------------|--------------------|-------------------|----|
| Speed (mph) | Sign Distance (ft) | Taper Length (ft) | |
| 40 | 300 | 320 | 8 |
| 55 | 750 | 600 | 16 |
| 65 | 1000/1500 | 780 | 18 |

Ways to Estimate Distance

- + Use utility poles: 75 ft to 100 ft between utility poles
- + Use roadway skip lines: line 10 ft long; break 30 ft long
- + Use human paces: 1 step is approximately 3 ft.

Cones

- + All response vehicles should be equipped with traffic cones. For high-speed roadways and nighttime operations, 36 inches is preferred.



Signs

- + Black lettering and a black border on a fluorescent pink or orange background should be used.



Flaggers

- + The use of a red flag or lighted baton for emergency situations is allowed.



TRAFFIC CONTROL DEVICES

Flares

Three basic types of flare devices can be used:

- + Incendiary flares – Cannot be used at scenes with fuel spills, hazardous materials (hazmat), high-fire risk conditions or during high-wind conditions.
- + Chemical light sticks – chemiluminescence in an enclosed container. Suitable for use in hazardous environments.
- + Light-emitting diode (LED) flares – This is extremely bright light, with a visibility of 360° from great distances. May be adjusted between a steady, flashing or rotating mode. Remove light sticks and flares after the incident is terminated.



Directional Arrow Boards

- + Must be used in conjunction with other TTC devices, such as channelizing equipment.
- + The arrow panel must indicate a blocked lane ahead.
- + Use caution mode when on or near the shoulder of the roadway or in a closed lane.



Use of Emergency Lighting

Emergency lights are most effective when a traffic incident blocks travel lanes and TTC are not yet deployed. Lighting is not considered a TTC but may supplement them.

- + Minimize the use of emergency lights by multiple response vehicles once traffic control devices are deployed.
- + Excessive or misdirected lighting increases the risk of secondary crashes.
- + Adjust intensity and flash patterns based on the time of day and whether you are mobile or stationary.

TRAFFIC CONTROL DEVICES

TEMPORARY TRAFFIC CONTROL

SAFE AND QUICK CLEARANCE

Rapidly and safely remove obstructions from the roadway to restore it to its pre-incident capacity. Key goals are to:

- + Minimize motorist delay through traffic control and opening of lanes.
- + Make effective use of all clearance resources.
- + Enhance the safety of responders and motorists.
- + Protect the roadway system and private property from unnecessary damage during the removal process.

Keep in Mind

- + Fatalities generally increase incident duration due to the need for crash investigation and involvement of the medical examiner.
- + Hazmat incidents generally take longer to resolve and clean up. Prompt notification of Connecticut Department of Energy and Environmental Protection (CT DEEP) can reduce the overall incident duration.
- + Commercial vehicle incidents, particularly when spilled cargo is involved, often take longer to resolve. Agencies like Consumer Protection may need to be called in. The property rights of the commercial vehicle owners may also need to be coordinated to move spilled cargo quickly. CT DEEP may need to coordinate the environmental response to the spilled cargo.
- + When establishing a detour, large trucks might need to follow a separate route from that of automobiles due to bridge, weight, clearance or geometric restrictions, and vehicles carrying hazmat might need to follow a different route from other vehicles.

SAFE AND QUICK CLEARANCE

Clearance/Demobilization

Demobilization time is very dangerous and must be managed appropriately to prevent secondary incidents.

- + Sign patterns are removed in reverse of installation. The advance warning area should be the last to be uninstalled, especially if visibility is reduced due to sightline restrictions or weather.
- + Temporary traffic control or blocking may be required for responder departure (e.g., ambulances, towing and recovery, etc.).
- + Caution – Blocking vehicles (e.g., fire apparatus, truck-mounted attenuators, etc.) may no longer be present and the “safe” area may no longer be intact. **Never** turn your back to traffic and **always** watch for errant vehicles entering the scene.
- + Make sure all personnel are accounted for before units leave the scene.
- + Frustrated motorists that have been delayed by the incident may be aggressive and drive at higher speeds or weave into lanes that appear to be open. If possible, position a vehicle with its emergency vehicle lighting activated upstream of responders that are removing traffic control devices.
- + Notify dispatch when the scene is demobilized so they can advise traffic-operation centers and news media for their traffic reports.

RESPONDER DEPARTURE

The typical order from the scene is as follows and is dependent on response required:

SAFE AND QUICK
CLEARANCE

TEMPORARY
TRAFFIC
CONTROL

MOVE IT

WORK IT

1. Emergency medical services
2. Environmental Protection*
3. Towing and recovery (may be last at scene within shoulder area)
4. Fire and rescue*
5. Safety Patrol and/or temporary traffic control services
6. Department of Transportation (DOT) (if applicable)
7. Law enforcement

* Must remain until the spill is mitigated and/or fire response is completed.

MOVE IT!

Do not move if serious injury/fatality exists. Only move to a safe location if:

- + Vehicles are operable.
- + There are no serious injuries or fatalities.
- + No unidentified fluids are leaking.

Properly equipped vehicles may remove vehicles from the travel lane.

Move-It Law CGS § 14-224(d): Allows each person involved in non-injury accidents to remove their vehicles from the travel portion of a limited access highway to a non-traveled area near the accident site.

Authority Removal Law CGS 14-66(g): Any law enforcement officer or traffic authority [...] may determine that a vehicle blocking a travel lane on a limited access highway constitutes an emergency and a threat to public safety [...] may direct the operator of a wrecker to remove such vehicle.

WORK IT!

- + Working fire
- + Extrication required
- + Fatality or injuries
- + Cargo spill, hazmat or fuel leak/spill
- + Vehicle not drivable
- + No safe place to remove to
- + Crime scene

MOVE IT – WORK IT

TRAFFIC CONTROL PATTERNS

The following traffic control plan diagrams are provided with permission from the Wisconsin Department of Transportation (DOT) Traffic Management Center. The information and diagrams represent the minimum requirements in the proper set up of a Traffic Incident Management Area (TIMA). All traffic control devices used must follow the Manual of Uniform Traffic Control Devices (MUTCD). For further information and additional application diagrams refer to Part 6 of the MUTCD.

TYPICAL TRAFFIC CONTROL LAYOUT

| Speed (mph) | Advance Warning Area | | | Transition Area | Activity Area | Termination Area | Cone Spacing (ft) | | | |
|-------------|--------------------------------------------|-------|-------|--------------------------|----------------|------------------|-------------------|----------------------------------------|-----------------------|------------------|
| | Advance Warning Sign Minimum Distance (ft) | | | Recommended Lengths (ft) | | | | | | |
| | A | B | C | Total (Cumulative) | Shoulder Taper | Taper | | Distance Between Tapers (longitudinal) | Buffer (longitudinal) | Downstream Taper |
| 25 | 100 | 100 | 100 | 300 | 45 | 125 | 250 | 155 | 50-100 | 25 |
| 35 | 350 | 350 | 350 | 1,050 | 85 | 245 | 490 | 250 | | 35 |
| 45 | 500 | 500 | 500 | 1,500 | 180 | 540 | 1,080 | 360 | | 45 |
| 55 | 1,000 | 1,500 | 2,640 | 5,140 | 220 | 660 | 1,320 | 495 | | 55 |
| 65 | 1,000 | 1,500 | 2,640 | 5,140 | 260 | 780 | 1,560 | 645 | | 65 |
| 75 | 1,000 | 1,500 | 2,640 | 5,140 | 300 | 900 | 1,800 | 820 | 75 | |

A: Distance from transition area to first sign
B: Distance between the first and second signs
C: Distance between the second and third signs

TRAFFIC CONTROL LAYOUT

TTC/
TRAFFIC
CONTROL
PATTERNS

Placement of signs and devices must provide adequate guidance to motorists entering and traveling through the TIMA.

Incidents less than two hours in duration (minor and intermediate) will typically require fewer signs and traffic control devices than would be required for longer duration incidents (major).



Longer duration incidents (major) that may include road closures, detours and hazardous materials (hazmat) cleanup or fatalities will require temporary traffic control sign patterns with more signs and devices. Command will need to request assistance from the DOT or Public Works to establish these sign patterns and support traffic control.

Advance Warning Signs (typically a three-step process)



TRAFFIC CONTROL PATTERNS

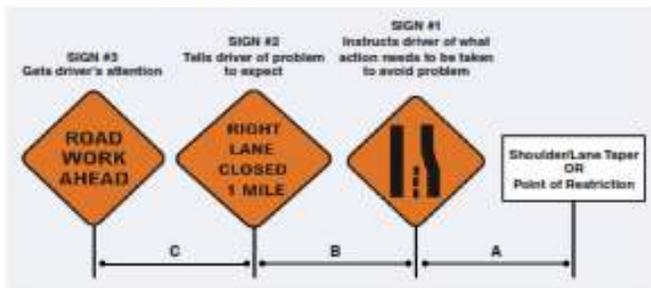
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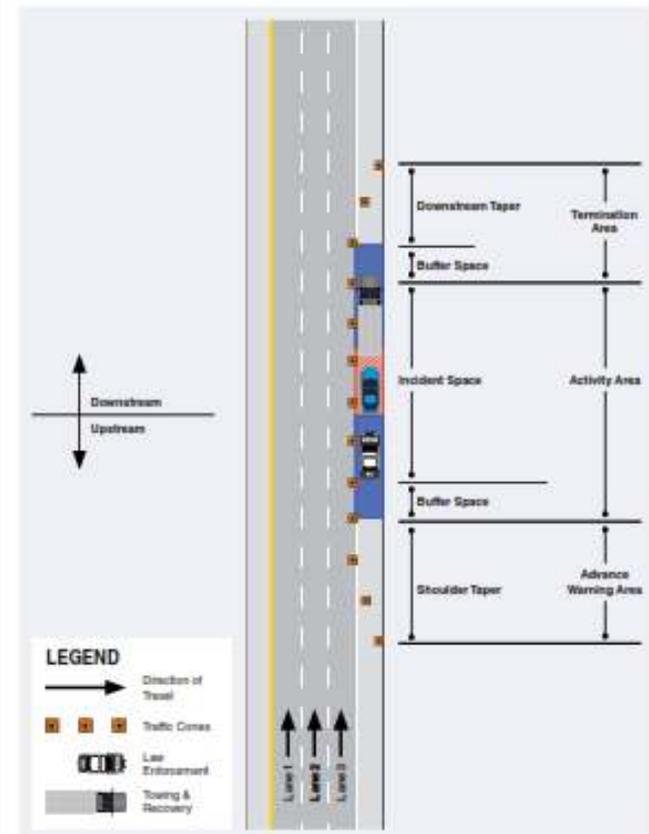
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TRAFFIC CONTROL PATTERNS

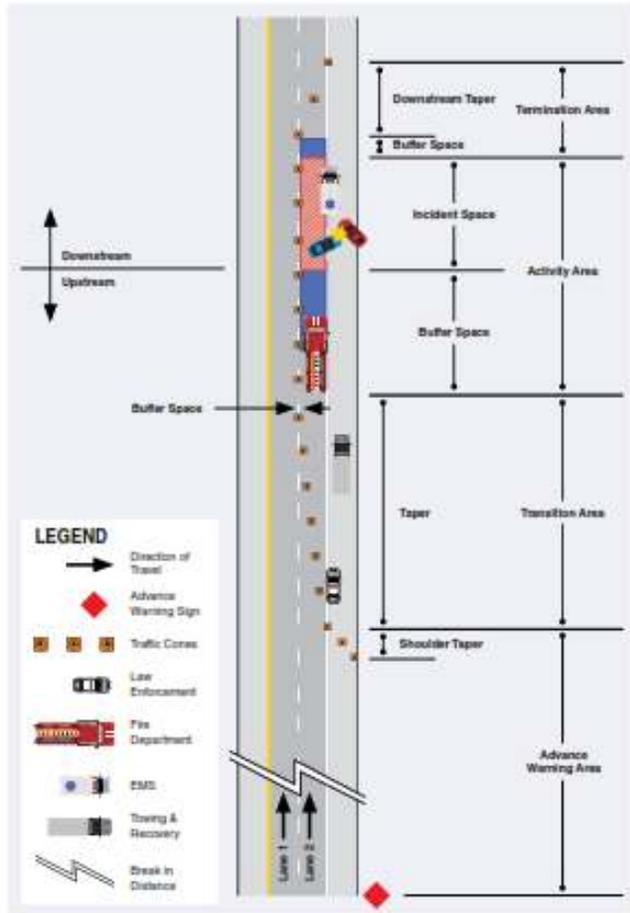
Shoulder Closure: Although a travel lane is not directly impacted/blocked, if response activities are expected to last more than a few minutes a TIMA should be established to ensure on-scene safety, including provisions for lateral buffer space. If additional lateral space is required for response or recovery activities outside of the shoulder area, the adjacent lane should be closed.



SHOULDER CLOSURE

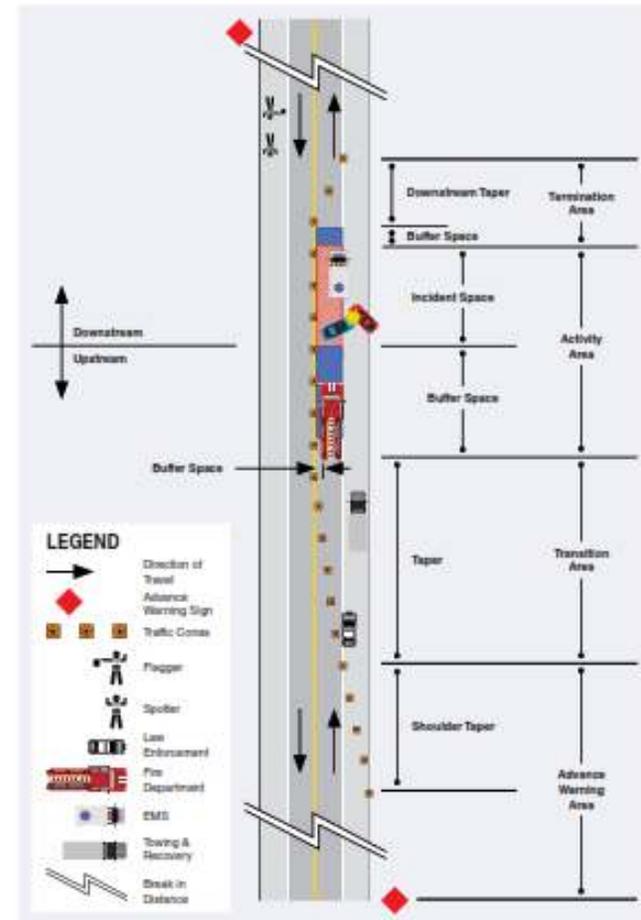
TRAFFIC CONTROL PATTERNS

Divided Roadway: When establishing traffic control for incidents on this type of roadway, it is important to consider motorists' sight distance due to roadway geometry, including hills and crests.



DIVIDED ROADWAY

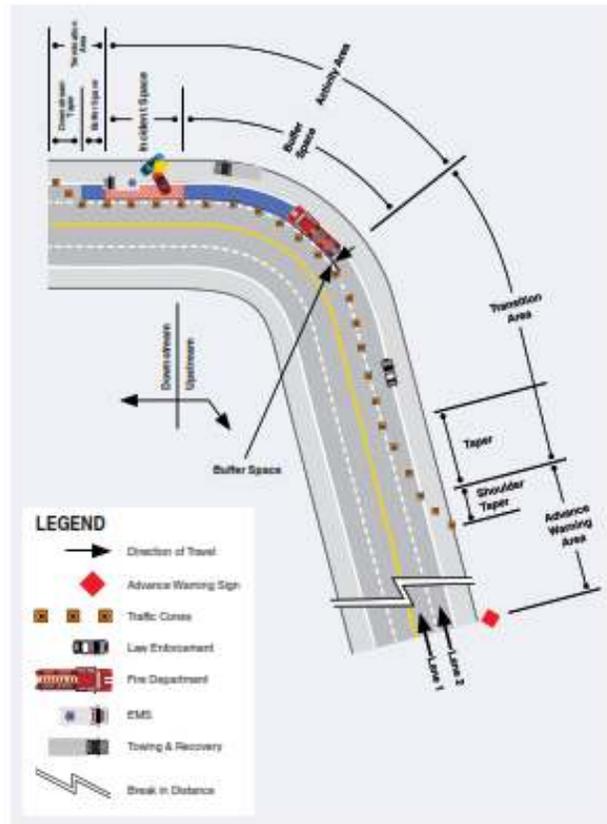
Two-Way Roadway: Flaggers and spotters should be positioned within the shoulder taper and adjacent to the downstream taper to direct motorists. Flaggers should be in radio communication with one another.



TWO-WAY ROADWAY

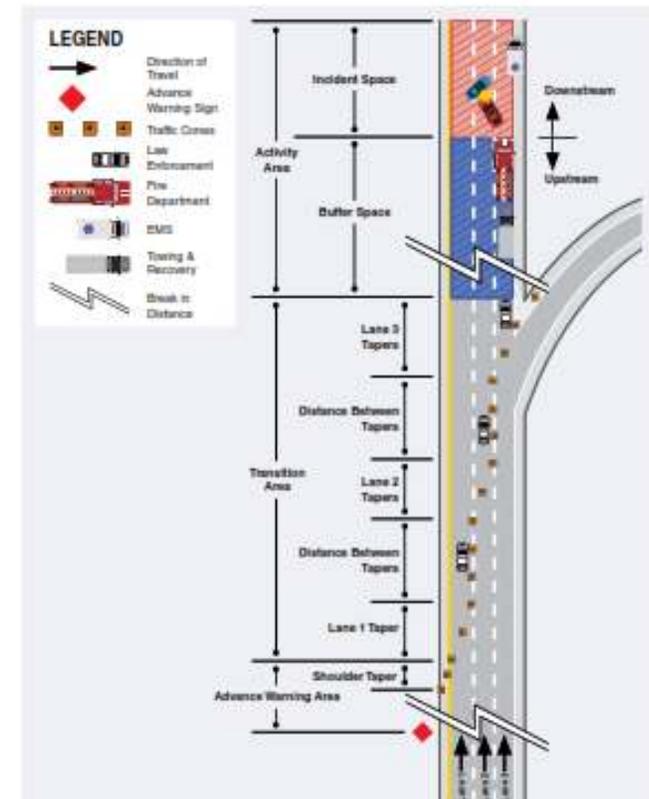
TRAFFIC CONTROL PATTERNS

Curved Roadway: Additional advance warning is required to advise approaching motorists of the incident scene due to reduced sight distances. When possible, it is recommended that advance warning area, transition area and buffer space start upstream of the curve. Similar practices should be followed for incidents on or near hills.



CURVED ROADWAY

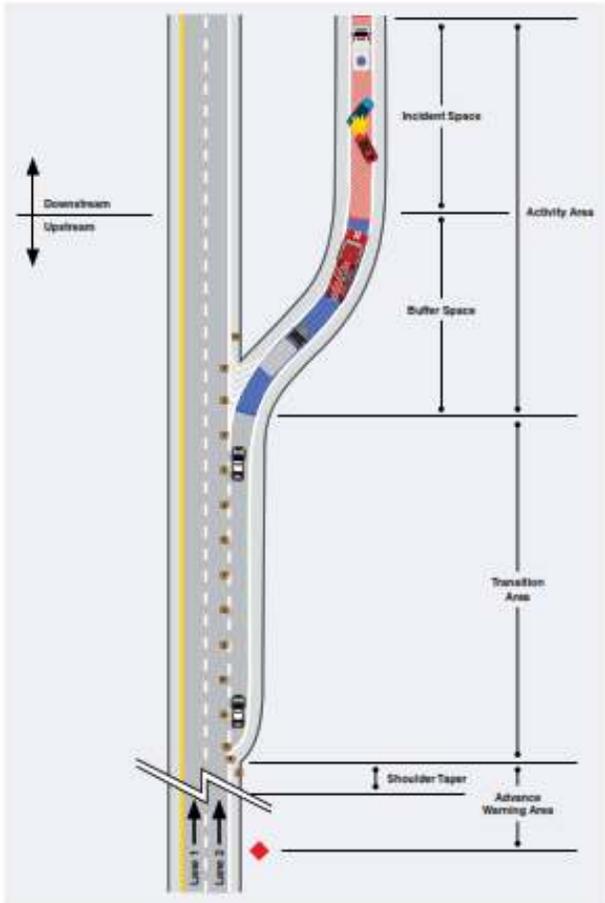
Full Freeway Closure: Use shoulder, double or triple tapers with appropriate longitudinal spacing to transition traffic to the nearest off-ramp. All response vehicles should be positioned on the same side of the roadway to facilitate quicker lane openings as the incident de-escalates. Any time a full freeway closure occurs, consideration must be given to managing and addressing traffic stuck between the incident and the closure and along any diversion routes.



FULL FREEWAY CLOSURE

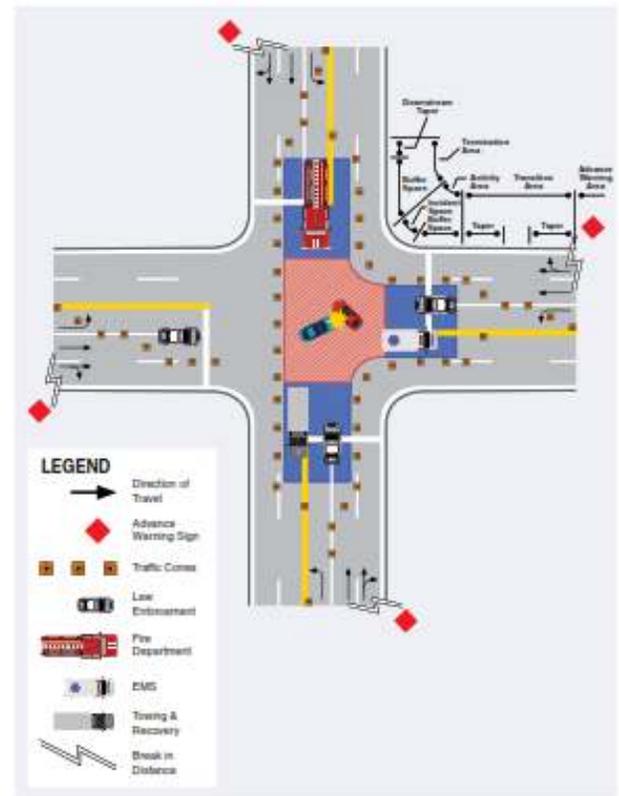
TRAFFIC CONTROL PATTERNS

Freeway Off-Ramp Closure: In situations where there is a dedicated exit only lane, the entire lane should be closed if the ramp is closed.



FREEWAY OFF-RAMP CLOSURE

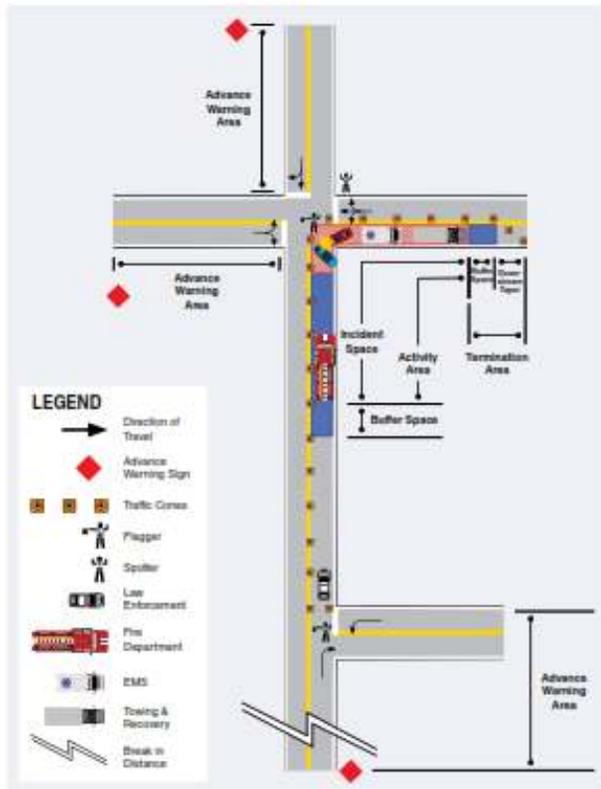
Multi-Lane Intersection: This particular scenario is for an incident near the center of the roadway. For some incidents it may be possible to maintain at least one through movement. Other movements can be restricted to a right turn only. Vehicles should stage within the multiple buffer spaces around the incident and position such that they can easily maneuver away from the incident scene.



MULTI-LANE INTERSECTION

TRAFFIC CONTROL PATTERNS

Four-Way Intersection: This is an intersection where one quadrant is blocked. It is preferred that motorists approaching the incident be restricted on which movements they can make. A flagger should be stationed within the intersection and spotters should be positioned within the advance warning and termination areas. In this example, motorists approaching from upstream are diverted around the incident scene.



FOUR-WAY INTERSECTION

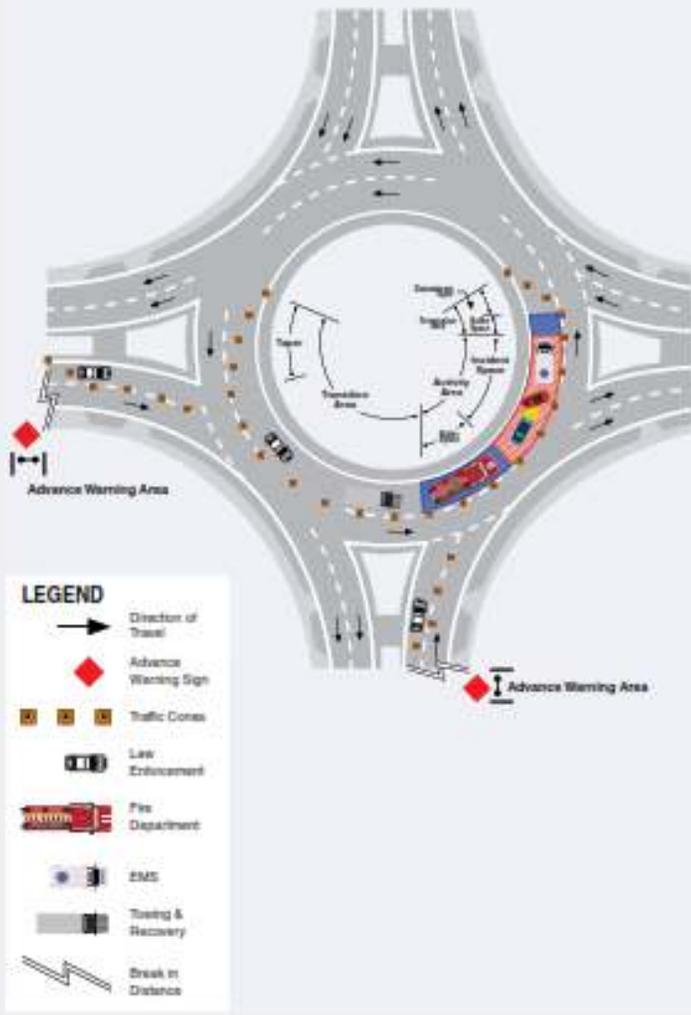
Roundabouts: Establishing a TIMA in a roundabout can be challenging and will require special attention to ensure motorists are channeled in the appropriate lane/direction to maintain scene safety.



SINGLE-LANE ROUNDABOUT

TRAFFIC CONTROL PATTERNS

MULTI-LANE ROUNDABOUT



MULTI-LANE ROUNDABOUT

REFERENCES

- + Emergency Responder Safety Institute (ERSI)
- + National Fire Protection Association (NFPA)
- + National Traffic Incident Management Coalition (NTIMC)
- + National Work Zone Safety Information Clearinghouse
- + American Association of State Highway Transportation Officials (AASHTO)
- + International Association of Chiefs of Police (IACP)
- + International Association of Fire Chiefs (IAFC)
- + International Association of Fire Fighters (IAFF)
- + National Highway Traffic Safety Administration (NHTSA)
- + National Sheriffs' Association (NSA)
- + National Volunteer Fire Council (NVFC)
- + National Association of State EMS Officials (NASEMSO)
- + Towing and Recovery Association of America (TRAA)
- + Federal Highway Administration (FHWA)
- + U.S. Fire Administration (USFA)
- + Federal Emergency Management Administration (FEMA)
- + Federal Motor Carrier Safety Administration (FMCSA)
- + National Safety Council (NSC)
- + National Traffic Incident Management Responder Training Program
- + Manual of Uniform Traffic Control Devices (MUTCD)

REFERENCES

RE-
FERENCES

Connecticut Traffic Incident Scene Management

Field Guide

This field guide provides guidance for traffic incident scene management for emergency response organizations.

- + Traffic incident management process
- + Traffic incident management
- + Traffic control patterns
- + References



Funding for this project was provided by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration Agency, Hazardous Materials Emergency Preparedness Program. Grant with support from the Connecticut Department of Energy and Environmental Protection (DEEP) and the Department of Emergency Services and Public Protection – Commission on Fire Prevention and Control (DESPP-FPC). This document does not constitute a standard specification or regulation, and has been developed to assist emergency responders in applying best practices, standards and regulations adopted by state, Federal and local entities. Comments or questions related to this guide can be sent to TIMguide@crcog.org

Photos used for illustrative purposes only; the people shown are not linked to the topic.



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Connecticut Traffic Incident Scene Management Field Guide

Evaluation Form



GREATER HARTFORD TIM COALITION



The Greater Hartford TIM Coalition is requesting that recipients of the Connecticut Traffic Incident Scene Management Field Guide complete this evaluation. The information obtained from the evaluations will assist us in evaluating the usefulness of the guide, identify any areas that need improvement, and identify potential needs to support a strong statewide TIM program and its responders.

Please send your completed evaluation and any comments to timguide@crcog.org or mail a hard copy to:
Capitol Region Council of Governments
241 Main Street, 4th Floor
Hartford, CT, 06106
Att: Terri Thompson

Any questions can be directed to:
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