FAIRFIELD COUNTY FIRE COMMISSION
GUIDELINES AND STANDARD OPERATING GUIDELINES

Subject: Roadway Safety Operations

Rescinds: SOG-012, 11/29/10

Purpose: It shall be the guideline of the Fairfield County Fire Department to position emergency vehicles at roadway incidents on any street, highway, interstate or parking lot in a manner that best protects the incident scene and the work area. Such positioning shall afford protection to emergency personnel, victims, and occupants of other vehicles when emergency operations are conducted in or near moving traffic.

Scope: All Fairfield County Fire Personnel

I. Introduction

A. All personnel are exposed to high risk when operating in or near moving traffic. This guideline identifies individual practices designed to improve personnel safety.

B. Personnel operating in or near moving traffic should always be aware of the following:

1. Every roadway emergency scene exposes personnel to risks associated with motorists whose driving abilities vary.
2. Motorists may be vision impaired, under the influence of alcohol and or drugs, or have medical conditions that affect their judgment or abilities.
3. Motorists may be inexperienced and or driving without a valid driver's license.
4. Approaching motorists will often be looking at the emergency scene and not the roadway in front of them.
5. Motorists may be distracted due to the use of cell phones, listening to loud music, or conversing with passengers.
6. Speeds of approaching vehicles will range from that of a creeping pace, to well beyond the posted speed limit.
7. Driver visibility may be reduced due to inclement weather, terrain and or other obstructions.
8. Driver reaction time increases significantly in relation to the driver's visibility, therefore, night-time operations in or near moving traffic are particularly hazardous to personnel.

C. Always act in a defensive manner as though the motorist is trying to hit you!

II. COMMON TERMINOLOGY

The following terms shall be applied to roadway incident operations:

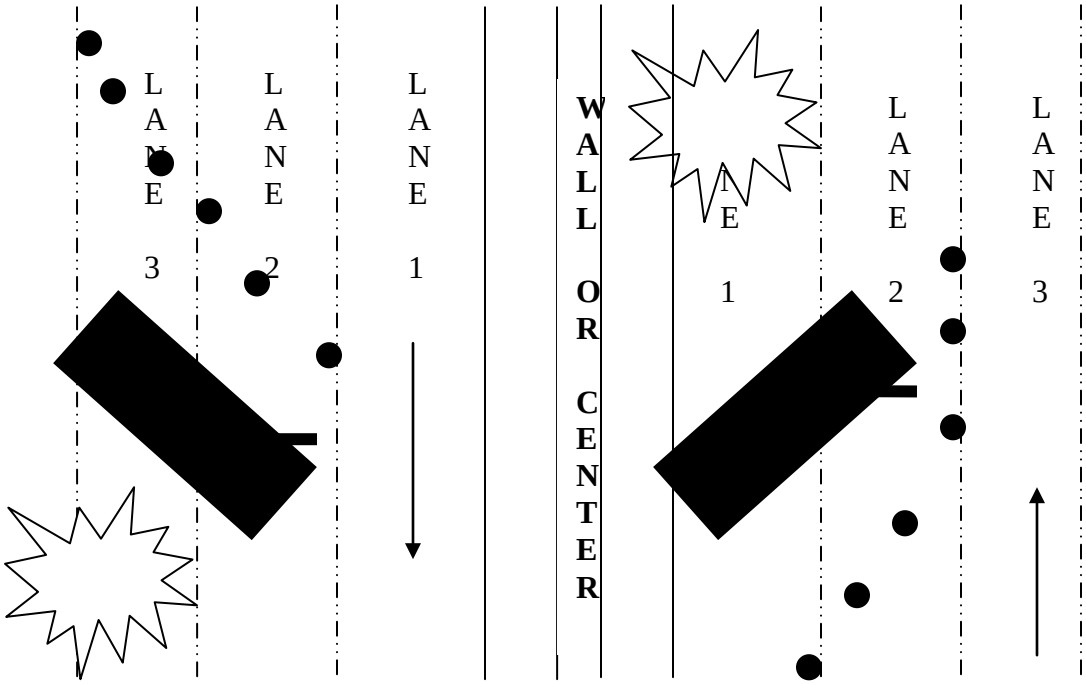
TYPE 1 INCIDENT - Up to 30 minutes, Deploy cones.

TYPE 2 INCIDENT - 31 Minutes to 2 Hours Deploy cones, "Emergency Scene Ahead" sign, use additional apparatus, notify law enforcement.

TYPE 3 INCIDENT - Over 2 hours, use additional apparatus, notify law enforcement, and DOT.

Directional Orientation - "Right" and "Left" shall be identified from the approaching motorist's point of view (driver's side = left)

Lanes of traffic - identified numerically as Center or wall, "Lane 1", "Lane 2", "Lane 3", etc., shoulder.



Upstream - the direction that traffic moves as it approaches the incident scene

Downstream - the direction that traffic moves as it travels away from the incident Scene

Median & Shoulder - the median is the area between the left-most lanes of traffic, the shoulder is identified as the area to the right of lane 3. Directions should be included in this description (North bound shoulder = Right side of northbound lane 3)

Block - positioning fire department apparatus at an angle to close lanes of traffic to create a physical barrier between upstream traffic and the work area, position apparatus wheels away from the incident scene to prevent apparatus from being pushed toward responders in the event the apparatus is struck from behind (includes block to the right or block to the left)
Buffer Zone - the area between moving traffic and the protected work zone where emergency personnel and involved vehicles are located.

Shadow - the protected work area at a roadway incident that is shielded by the block created by apparatus and other emergency vehicle placement.

Protected Work Zone - the physical area of a roadway within which emergency personnel perform fire, EMS, and rescue tasks at a roadway incident.

Advance Warning- use of warning devices to advise approaching motorists to transition from normal driving status to temporary, emergency traffic control measures ahead of them.

Taper - action taken (by warning devices or mechanisms) to merge several lanes of moving traffic into fewer lanes.

III. APPARATUS AND EMERGENCY VEHICLE POSITIONING

A. Objectives of emergency vehicle positioning when operating in or near moving traffic are:

1. Establish an initial block with the first arriving emergency vehicle in a position to protect the scene, patients, and emergency personnel
2. Initial apparatus placement should provide a work area protected from at least one direction of approaching traffic.
3. Apparatus should block to the left or block to the right to create a physical barrier between the scene and approaching traffic. (see diagram on page 2)
4. Apparatus placement should serve to slow approaching motorists and redirect them around the scene.
5. Additional apparatus should block at least one additional traffic lane above what is already obstructed by the involved vehicle(s) DURING HIGH TRAFFIC FLOW.
6. When practical, apparatus should be positioned to protect the pump operator position from being exposed to approaching traffic.
7. Position the engine or ladder to create a safe parking area (shadow) for EMS and other fire department vehicles. Operating personnel, equipment, and patients should be kept within the shadow created by the blocking apparatus at all times.

8. EMS units should be positioned within the protected work area with their rear patient loading door area angled away from the nearest lanes of moving traffic.
9. Sources of vision impairment to approaching motorists should be turned off at nighttime incidents. These include white emergency lighting, particularly headlight flashers, rotating white lights and white strobe lights as well as vehicle headlights.

B. Apparatus placement should protect the emergency scene; establish a work zone of sufficient size to include all damaged vehicles, roadway debris, the patient triage and treatment area, the extrication work area, personnel and tool staging areas, and the EMS loading zone.

C. Police, Sheriff and Highway Patrol vehicles should be utilized to assist in directing the flow of moving traffic.

D. When indicated, traffic cones should be deployed, starting at the blocking apparatus upstream, to increase the advance warning provided to approaching motorists.

1. Personnel shall place cones and retrieve cones while facing oncoming traffic.
2. Traffic cones shall be deployed at 15-foot intervals upstream of the blocking apparatus.
3. Traffic cones shall be deployed at an approximate 20 degree angle to allow traffic to taper to the open lane(s).
4. If it is anticipated that units will be on the scene for more than 30 minutes, the roadway "Emergency Incident/ Scene Ahead" sign shall be deployed upstream at the first cone or first blocking apparatus.

E. Command shall stage unneeded emergency vehicles off the roadway or return these units to service whenever possible.

IV. INTERSECTION CONTROL

A. At intersections, or where the incident is near the middle lane of the roadway, two or more sides of the incident will need to be protected. This will be your most difficult scene to manage.

B. Consider requesting additional police assistance. Provide specific directions to the police officers of exact traffic control needs. Police vehicles must be strategically positioned to expand the initial protected work zone from traffic that is approaching from opposing directions. The goal is to effectively block all exposed sides of the work zone.

C. Blocking to create the protected work zone must be prioritized, starting with the upstream most critical or highest traffic volume flow to the upstream least critical traffic flow.

D. When a charged hose-line may be placed in operation, the engine company should block in a manner that the pump panel is downstream, on the opposite side of on-coming traffic.

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V. COMMAND RESPONSIBILITIES

A. The Incident Commander must assure a safe and protected work environment is established and maintained.

B. This responsibility includes:

1. Assuring that the first-arriving emergency vehicle establishes an initial block to create an initial protected work area.
2. Assigning parking locations for all EMS as well as later-arriving apparatus. May have to assign a firefighter to show EMS where to park due to lack of immediate radio communications.
3. Assuring that on-scene EMS units are parked within the protected work area (shadow) of the fire apparatus.
4. Assuring that during nighttime operations apparatus headlights and white emergency lights are turned OFF, and that other emergency lighting remains ON.

C. The Incident Commander must also serve as the Scene Safety Officer until such time as the Safety Officer position is delegated or assumed.

VI. PERSONNEL SAFETY

A. All personnel should take the following steps to protect themselves and others at the incident scene:

1. Personnel should never turn their back to approaching traffic.
2. Department issued high visibility reflective vests, ANSI 107-compliant Class II vest, Class III Highway Safety garment, or ANSI 207 Public Safety vest shall be worn during all roadway operations, except during actual firefighting activities.
3. Structural firefighting helmets shall be worn during all roadway operations.
4. During extrication operations, the firefighters assigned to a charged hose line shall be in full structural gear to include SCBA. It is up to the IC if the firefighters shall have their face piece donned.
5. Always maintain an acute awareness of the high risk of working in or near moving traffic.
6. Never trust moving traffic…
7. Always look before you move…
8. Always keep an eye on the moving traffic…
9. Never use a cell phone while working in or near traffic.
10. All personnel must exit and enter their units with extreme caution, remaining alert to moving traffic at all times.
11. When walking around fire apparatus or emergency vehicles, be alert to proximity to moving traffic.
12. Stop at the corner of the unit, check for traffic, and then proceed along the unit remaining as close to the emergency vehicle as possible.
13. Maintain a "reduced profile" when moving through any area where a minimum buffer zone condition exists.
14. Never cross a roadway to access a scene.
15. Never put opening traffic flow over personnel safety.

B. All staff personnel on an apparatus or emergency vehicle must don assigned helmet and vest immediately upon exiting their vehicle and comply with all other provisions of this procedure.

VII. OPERATIONS ON HIGH-VOLUME AND LIMITED ACCESS HIGHWAYS

A. High-volume and limited access highways are identified as interstate and multi-lane roadways. The law enforcement agencies have a legal responsibility to keep traffic moving on these roadways.

B. When, in the judgment of the Incident Commander, it is essential for personnel and patient safety, the Incident Commander may close any or all traffic lanes, shoulders, and entry/exit ramps. Whenever the need is determined to close an interstate highway, dispatch must contact the SC Highway Patrol or law enforcement agency notifying them of the closing and request the assistance of DOT.

C. Operations on high-volume and limited access roadways with multiple lanes have additional unique safety considerations. These include:

1. Fire Department units shall not park in the median and walk across open traffic lanes to access an incident
2. First-arriving Engine or Truck Company shall establish an initial block of the lane(s) occupied by the involved vehicle(s) plus one additional traffic lane.
3. Traffic cones shall be deployed on high-volume and limited access roadways.
4. Cones should extend at least 150 feet upstream of the apparatus to allow adequate warning of motorists.
5. As always, personnel shall place cones and retrieve cones while facing the traffic. If possible, have additional apparatus block while you retrieve cones and sign.
6. EMS shall always be positioned within the protected work zone.
7. Command should consider staging additional apparatus off the highway until needed.
8. Command should establish a liaison with the Law Enforcement having jurisdiction as soon as possible.
9. Jointly coordinate an effective protected work zone.
10. Law Enforcement vehicles should provide blocking of additional traffic lanes as needed.
11. Identify how to most efficiently terminate the operation and re-establish normal traffic flows.
12. The Incident Commander shall manage the termination of the incident aggressively.

D. Personnel, equipment, and apparatus must be removed from the highway promptly to reduce exposure to moving traffic and to minimize traffic congestion.