1.0 Purpose

1.1 The purpose of this guideline is to identify positioning practices for Fire Department apparatus and vehicles that will provide maximum protection and safety for personnel in or near moving traffic. It also identifies several approaches for individual practices to keep firefighters safe while exposed to vehicle traffic.

2.0 Responsibility

2.1 It is the responsibility of all personnel to follow the guidelines documented in this Standard Operating Guideline.

3.0 Overview

3.1 The Highland Park Fire Department shall position apparatus and other emergency vehicles at an incident on any street, road, or highway in a manner that best protects the incident scene and the work area. Such positioning shall afford protection to Fire Department personnel, police officers, tow service operators, and the public from the hazards of working in or near moving traffic.

3.2 All personnel should understand and appreciate the high risk that firefighters are exposed to when operating *in* or *near* moving vehicle traffic. Firefighters should always operate within a protected environment at any roadway incident.

3.3 Always consider moving vehicles as a threat to your safety. At every road-way emergency scene, personnel are exposed to passing motorists of varying driving abilities. At any time, a motorist may be driving without a legal driver's license. Approaching vehicles may be driven at speeds from very slow to well over the speed limit. Some of these vehicle operators may be under the influence of alcohol and/or drugs, or may have a medical condition that affects their judgment or abilities. In addition, motorists may be completely oblivious to your presence due to distractions from cell phones, loud music, conversation, inclement weather, or obstructions. Approaching motorists will often be distracted by scene activities and not pay attention to the roadway in front of them.

3.4 Nighttime incidents requiring personnel to work in or near moving traffic are particularly hazardous. Visibility is reduced and driver reaction time to hazards in the roadway is slowed.

4.0 Terminology

4.1 The following terms shall be used during incident operations, post-incident analysis, and training activities related to working in or near moving traffic.

4.1.1 **Advanced Warning:** Notification procedures that advise approaching motorists to transition from normal driving status to that required by the traffic control measures ahead of them.

4.1.2 **Block:** Positioning a Fire Department apparatus on an angle to the lanes of traffic, creating a physical barrier between upstream traffic and the work area. Includes "block to the right" and "block to the left."

4.1.3 **Buffer Zone:** The distance between the protected work zone and moving traffic at a roadway incident scene.

4.1.4 **Downstream:** The direction that traffic is moving as it travels away from an incident scene.

4.1.5 **Taper:** The action of merging multiple lanes of moving traffic into fewer moving lanes.

4.1.6 **Transition Zone:** The lanes of a roadway in which approaching motorists comply with the traffic control measures established at an incident scene.

4.1.7 **Upstream:** The direction that traffic is traveling from as the vehicles approach an incident scene.

4.1.8 **Work Zone:** The physical area of a roadway within which emergency personnel perform their fire, EMS, rescue, and related investigation tasks at an incident scene.

5.0 Safety Benchmarks

5.1 All emergency personnel are at great risk of injury or death while operating in or near moving traffic. There are several specific tactical procedures that should be taken to protect all crew members and emergency service personnel at an incident scene, including:

5.1.1 Never trust approaching traffic.

5.1.2 Never turn your back to approaching traffic.

5.1.3 Establish an initial block with the first arriving emergency vehicle or fire apparatus. It is recommended that the first-arriving Suppression Company place their apparatus at the best tactical location while creating the initial block.

5.1.4 Always wear full protective clothing, including your helmet, for motor vehicle accidents. At all roadway-related incidents, highway safety vests will be worn as provided in Section 10.0.

5.1.5 Turn off all illuminated sources of vision impairment to approaching motorists, including vehicle headlights and spotlights.

5.1.6 Use fire apparatus and police vehicles to initially redirect the flow of moving traffic.

5.1.7 Utilize the police to establish advanced warning and adequate transition area traffic control measures to reduce travel speeds of approaching vehicles.

5.1.8 Use traffic cones where appropriate for highway or roadway incident traffic control and direction.

5.1.9 If staffing allows, establish a Fire Department member to the flagger function to monitor approaching traffic and activate an emergency signal (airhorn) if the actions of motorists do not conform to traffic control measures established at the roadway scene.

6.0 Apparatus and Emergency Vehicle Benchmarks

6.1 Listed below are benchmarks for safe positioning of apparatus and emergency vehicles when operating *in* or *near* moving traffic.

6.1.1 Always position first-arriving apparatus to protect the scene, patients, and emergency personnel.

6.1.1.1 Initial apparatus placement should provide a work area protected from traffic approaching in at least one direction.

6.1.1.2 Angle apparatus on the roadway with a "block to the left" or a "block to the right" to create a physical barrier between the crash scene and the approaching traffic.

6.1.1.3 Allow apparatus placement to slow approaching motorists and redirect them around the scene.

6.1.1.4 Use fire apparatus to block at least one additional traffic lane than that already obstructed by the crashed vehicles at an incident scene.

6.1.1.5 When practical, position apparatus in such a manner as to protect the apparatus operator from being exposed to approaching traffic.

6.2 Apparatus positioning must create a safe parking area for EMS units and other fire vehicles. Operating personnel, equipment, and patients should be kept within the "shadow" created by blocking apparatus at all times.

6.3 When blocking with apparatus to protect an emergency scene, establish a sufficiently sized work zone that includes all damaged vehicles; roadway debris; the patient triage and treatment areas; the extrication work, personnel and tool staging areas; and the ambulance loading zone.

6.4 Ambulances should be positioned within the protected work zone with the patient-loading area angled away from the nearest moving traffic.

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

6.6 At all intersections, or where the incident may be near the middle lane of the roadway, two or more sides of the incident will need to be protected.

6.6.1 Police vehicles must be strategically positioned to expand the initial safe work zone for traffic approaching from opposing directions. The goal is to effectively block all exposed sides of the work zone. The blocking of the work zone must be prioritized, from *the most critical* or *highest traffic volume flow* to the least critical traffic direction.

6.6.2 For the first-arriving Engine, Squad, or Truck Company where a charged hose line may be needed, block so that the pump panel is *downstream*, on the opposite side of on-coming traffic. This will protect the pump operator.

6.7 Traffic cones shall be deployed from the rear of the blocking apparatus toward approaching traffic to increase the advanced warning to approaching motorists and to identify the transition and tapering actions that are required.

6.8 Personnel shall place cones and flares, and retrieve cones, while *facing* the traffic.

6.9 Traffic cones shall be deployed at 15-foot intervals upstream of the blocking apparatus, with the furthest traffic cone approximately 75 feet upstream to allow adequate advanced warning to drivers.

6.10 Additional traffic cones shall be retrieved from other fire apparatus and used as necessary to extend the advanced warning to approaching motorists.

7.0 Incident Command Benchmarks

7.1 The initial-arriving Company Officer and the Incident Commander must complete critical benchmarks to assure that a safe and protected work environment for emergency scene personnel is established and maintained, including:

7.1.1 *Assure* that the first-arriving apparatus establishes an initial block to create an initial safe work area.

7.1.2 *Assess* the parking needs of the ambulances as well as later-arriving fire apparatus.

7.1.3 *Assure* that all ambulances on-scene are placed within the protected work zone (shadow) of the larger apparatus.

7.1.4 Instruct the driver(s) of the ambulance(s) to "block to the left" or "block to the right" as it/they are parked at the scene to position the rear patient loading area away from the closest lane of moving traffic.

7.1.5 Assure that all patient loading into ambulances is done from within a protected work zone.

7.1.6 The initial Company Officer and the Incident Commander must operate as the Scene Safety Officers.

7.1.7 Command shall assure that, for nighttime operations, apparatus operators turn *off* headlights and leave the parking lights *on.* This will reduce the potential blinding effect of headlights shining into the eyes of drivers approaching the emergency scene.

7.1.8 Command shall assure that the Opticom strobe systems are turned *off* and that other emergency lights remain on. (Battalion 33's Opticom is on a separate switch)

8.0 Emergency Crew Personnel Benchmarks

8.1 Listed below are benchmarks for safe actions of individual personnel when operating in or near moving vehicle traffic.

8.1.1 Always maintain an acute awareness of the high risk of working in or around moving traffic.

8.1.2 Never trust moving traffic.

8.1.3 Always look before you step.

8.1.4 Always keep an eye on moving traffic.

8.1.5 Do not turn your back to moving traffic.

8.1.6 Personnel arriving in the crew cabs of fire apparatus should exit and enter the apparatus from the protected "shadow" side, away from moving traffic.

8.1.7 Officers, apparatus operators, crew members in apparatus, and all ambulance personnel must exit and enter their units with extreme caution, remaining alert to moving traffic at all times.

8.1.8 Protective clothing and Class III safety vests must be donned prior to exiting the emergency vehicles.

8.1.9 Always look before opening doors and stepping out of apparatus or emergency vehicles into any moving traffic areas. When walking around fire apparatus or emergency vehicles, be alert to the proximity to moving traffic.

8.1.9.1 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.

8.1.9.2 Maintain a reduced profile when moving through any area where a minimum "buffer zone" condition exists.

8.1.10 Police Department personnel may place traffic cones or flares at the scene to direct traffic. This should be initiated by police officers on-scene and expanded, if needed, by other personnel. Always place and retrieve cones while *facing* on-coming traffic.

8.1.11 Placing flares, where safe, adjacent to and in combination with traffic cones greatly enhances nighttime scene safety. Where safe and appropriate to do so, place warning flares to slow and direct approaching traffic.

8.1.12 At intersection incidents, advise the Police Department of your exact traffic control needs.

9.0 High-Volume, Limited-Access Highway Operations: Route 41, Edens Expressway, Skokie Valley Road

9.1 High-volume, limited-access highways include Route 41 (Edens Expressway) and Skokie Valley Road. A mutual aid response to the Tri-State Tollway would be an additional consideration. Emergencies on these roadways pose a particularly high risk to emergency personnel. Speeds are higher, traffic volume is significant, there is a greater mix of passenger vehicles and large truck traffic, and the road designs confront motorists with little opportunity to react to changing conditions ahead of their vehicles.

9.2 The Police Departments have desired to keep traffic moving on these types of roads. When, in the judgment of the Fire Department Incident Commander, it becomes essential for the safety of operating personnel and the patients involved, any or all lanes and shoulders of these limited access highways can be completely shut down. This, however, should rarely occur and should be for as short a time period as possible.

9.2.1 The first-arriving suppression company shall establish the initial block of a minimum of two lanes of traffic.

9.2.2 Additional suppression companies shall be assigned to:

9.2.2.1 Establish an upstream block occupying a minimum of two lanes plus the paved shoulder of the highway.

9.2.2.2 The position of the apparatus shall take into consideration all factors that limit the sight distance of the approaching traffic including ambient light conditions, weather related conditions, road conditions, design curves, bridges, hills, and overpasses.

9.2.2.3 Traffic cones and/or flares should be placed upstream of the apparatus at the direction of the Company Officer.

9.2.2.4 Traffic cones on limited-access roadways shall be placed farther apart, with the last cone approximately 150 feet "upstream" to allow adequate warning to drivers. Personnel shall place and retrieve cones while facing traffic.

9.2.2.5 If manpower allows, place a person in a flagger position to monitor approaching traffic and the responses of the approaching motorists to the transition to a slower speed and tapering to a merged lane(s).

9.2.2.6 Notify Command of any approaching traffic that is not responding to the speed changes, transition, tapering, and merging directions.

9.3 Police Department vehicles will be used to provide additional blocking of traffic lanes as needed. Ambulances shall always be positioned within the safe work zone.

9.4 Staging of additional companies off the highway may be required. Locate the staging area in a safe location and call them into the scene when required. A safe work zone for patient loading must be established.

9.5 Command should establish communications with the Police Department as soon as possible to jointly provide a safe work zone and to determine how to most efficiently resolve the incident and establish normal traffic flows.

9.6 The termination of the incident must be managed with the same aggressiveness as the initial actions. Crews, apparatus, and equipment must be removed from the highway promptly to reduce exposure to moving traffic and minimize traffic congestion.

10.0 Use of Class III High Visibility Safety Vests

10.1 ANSI/ISEA 107-1999 standard, Class III High Visibility Safety Vests

10.1.1 Class III High Visibility Safety Vests shall be worn by Fire Department Personnel in the following situations, and as otherwise directed by officers-in-charge:

10.1.1.1 High Visibility Class III Safety Vests shall be worn at all motor vehicle accidents, and at any incident on a roadway at all times.

10.1.1.2 High Visibility Class III Safety Vests shall be worn at any training session involving operations on a roadway or traffic area at all times.

11.0 Reference

11.1 Highland Park Fire Department

Approved:  Fire Chief

Safe Positioning While Operating In or Near Moving Traffic

Quick Reference Guide

"Block" with first-arriving apparatus to protect the scene, patients, and emergency personnel.

- ❑ Block at least one additional lane
- ❑ Block so pump panel is "downstream"
- ❑ Block *most critical* or *highest traffic volume* direction first
- ❑ Block *highest traffic volume* direction first
- ❑ Limit on scene exposure by reducing time
- ❑ Use secondary treatment area in safer location

Always wear proper personal protective clothing.

- ❑ Class III vests per guideline
- ❑ Helmet at all times
- ❑ Turnout gear as appropriate to the incident

Establish advanced warning

- ❑ Traffic cones at 15 foot intervals, last cone 75' upstream
- ❑ Cones illuminated with flares
- ❑ Expand initial safe work zone

Direct placement of ambulances

- ❑ Ambulances within shadow of larger apparatus
- ❑ Ambulance block to the left or block to the right
- ❑ Ambulance patient loading area away from closest lane of moving traffic
- ❑ All patient loading into ambulances is done from within protected zone

Increase safe work area for all directions

- ❑ Request Police assistance
- ❑ Turn off Opticom in Battalion 33

Limited access highway incidents

- ❑ Establish initial block: minimum two lanes
- ❑ Fire apparatus establishes upstream block
  - ➢ Two lanes plus paved shoulder or
  - ➢ Three driving lanes
- ❑ Place cones and/or cones illuminated by flares upstream of fire apparatus
  - ➢ Last cone approximately 150 feet upstream of apparatus
- ❑ Establish flagger position if manpower allows
  - ➢ Monitor approaching traffic
  - ➢ Sound emergency signal, if necessary
- ❑ Use Police Department vehicles for additional blocking
- ❑ Stage additional companies off of the highway
- ❑ Establish liaison position with the Police Department
- ❑ Terminate incident aggressively