

HIGH RISK/LOW FREQUENCY

HUDSON FIRE DEPARTMENT

Standard Operating Guidelines

GUIDELINE NO: 300.26

**SUBJECT: TRAFFIC INCIDENT
MANAGEMENT AREA (TIMA)**

APPROVAL: Scott St. Martin, Fire Chief

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PURPOSE

This guideline provides direction for establishing a Traffic Incident Management Area (TIMA) at roadway related incidents where members are working in or near moving traffic.

RESPONSIBILITY

1. All Chief and Company Officers have the responsibility to comply with and ensure that the personnel under their command are adequately trained, fully understand, and comply with this guideline.
2. All firefighters have the responsibility to learn and follow this guideline.

GUIDELINE

A. Incident Priorities

1. Life Safety
2. Incident Stabilization
3. Property Conservation

B. Safety

1. All members working under this guideline need to don a high-visibility – reflective and fluorescent – safety vest in addition to structural firefighting gear with helmet.
2. Members must maintain situational awareness during these incidents as they are subject to an unprotected work area and moving traffic.
3. Compliance with established standards for Traffic Incident Management Areas (TIMA) as prescribed by local, State and the Manual on Uniform Traffic Control Devices (MUTCD) is expected.
4. Notify Dispatch to inform the Statewide Traffic Operations Center (STOC) of the incident if duration is estimated to be 30 minutes or longer.

C. TIMA Components

1. Advance Warning – Alerts motorists of the incident scene
2. Transition area – Section of roadway where motorists are directed out of their normal path
3. Buffer area - Separates the transition space from the incident space and provides additional protection for emergency responders
4. Incident or Work Area - Location where the incident has occurred and emergency responders are working
5. Termination Areas - Used to notify drivers that the TIMA is ending and they may resume normal driving.

D. TIMA Equipment – The following equipment is available and shall be used in the creation and operation of a TIMA

1. 28 inch traffic cones with reflective collars
2. Retro-reflective pink deployable “*Emergency Scene Ahead*” signs
3. Road flares
4. Turbo flares
5. Traffic direction lights or flashlights with colored wands attached.

- E. TIMA set up – There are different methods for setting up a TIMA as it relates to cone spacing. The following are the guidelines that should be employed when setting cones for a TIMA.
1. Portable equipment is gathered while member is inside protected Work Area.
 2. Activity is coordinated with an assigned “Watch Out” or safety partner, if staffing permits.
 3. Taper set up (Transition Area)
 - a. One method of taper set up would be to use the chart located in Figure 1 and 2 below.
 - b. The next method would be to use paces from walking measurement. It is assumed that each pace equals three (3) feet.
 - a. Estimate the distance for the length of the taper and divide by three (3).
 - b. For a taper distance for a 55 mph zone the taper is required to be 660 feet.
 - c. The first cone should be placed along shoulder/edge of lane of street, road, or highway while standing in safe area.
 - d. Member shall move a distance of fifteen (15) paces back toward the incident scene along this safe pathway area. When determined safe to do so, member may enter into the nearest travel lane a distance of one (1/2) pace or approximately one and one half (1½) feet and deploy the second traffic control device.
 - e. Member shall immediately return back to the shoulder or median safe area and move an additional fifteen (15) paces along the safe area back towards the incident scene.
 - f. When determined safe to do so, member may enter into the travel lane being closed and place the next cone a distance just beyond the first cone.
 - g. Continue this pattern of 15 paces back towards the incident scene and a distance into closed lane of just beyond the previous cone or flare creates an effective diagonal line of cones or flares across a travel lane of the street, road, or highway.
 - h. Ideally, the final device shall be near the rear of the responder vehicle that is in a blocking position at the incident scene.
 - c. When deploying highway flares, ignition of the flare should take place while member is standing in the safe pathway area. Once lit, the member can move the appropriate distance into the nearest travel lane to actually deploy the flare.
 4. Advance Warning
 - a. Deploy the retro-reflective pink “*Emergency Scene Ahead*” sign at a distance appropriate for the speed zone in which the work is taking place. See Figure 1
 - b. Initial deployment point should take into considerations environmental weather or poor lighting conditions and any visual obstructions for approaching motorists including hills, curves, or other visual obstructions. Furthest traffic control device can be extended further upstream according to these sight-limiting conditions.
 5. Buffer Area (Activity Area)
 - a. The Buffer Area is placed between the end of the transition area (taper) and the actual incident space.
 - b. Since the majority of response activities take place in the incident space, the buffer will help provide additional protection for responders.
 - c. See Figure 1 for the recommended size of the Buffer Area based on roadway speeds.
 6. Incident Space (Activity Area)
 - a. The incident space is the physical area of roadway within which the emergency responders perform their emergency medical services, fire, law enforcement, and recovery tasks at a traffic incident.
- F. Termination Area
1. Downstream Buffer Area
 - a. The need and length of the downstream buffer space is incident dependent.
 - b. Cones should be extended the length of the downstream taper.
 - c. If necessary, vehicles can be positioned within the downstream buffer space. However, it is recommended that vehicles do not position in this area until it can be determined that

- they will not need to be upstream of the incident at any point; this will deter responders from backing into traffic.
- d. If additional vehicles are on scene, they may also be positioned in the downstream buffer space to reduce motorist confusion.
2. Downstream Taper
 - a. The downstream taper typically only needs to extend over a distance of approximately 100ft, but is necessary to prevent motorists from entering the end of the incident space.
 - b. Cones should be extended to the shoulder and spacing should be determined based on the speed of the roadway. See Figure 1.

Speed (mph)/ Road Type	Advance Warning Sign Minimum Distance* (ft)			Recommended Lengths (ft)					
	A	B	C	Shoulder Taper**	Taper	Distance Between Tapers (longitudinal)***	Buffer (longitudinal)	Downstream Taper	Cone Spacing
25/Urban (low speed)	100	100	100	45	125	250	155	50-100	25
35/Urban (high speed)	350	350	350	85	245	490	250		35
45/Rural	550	500	500	180	540	1080	360		45
55/Expressway	1000	1,500	2,640	220	660	1320	495		55
65/Expressway	1000	1,500	2,640	260	780	1560	645		65

Figure 1

# of Cones Speed (mph) Taper Length (ft)			Cumulative Skip Distance (feet)																	
			0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
			Offset Distance from Lane Edge (feet)																	
18	70	840	12	11.5	10.5	10	9	8.5	8	7	6.5	5.5	5	4.5	3.5	3	2	1.5	0.5	0
17	65	780	12	11.5	10.5	10	9	8.5	7.5	7	6	5.5	4.5	4	3	2.5	1.5	1	0	-
16	60	720	12	11	10.5	9.5	9	8	7	6.5	5.5	5	4	3	2.5	1.5	1	0	-	-
15	55	660	12	11	10.5	9.5	8.5	8	7	6	5	4.5	3.5	2.5	2	1	0	-	-	-
13	50	600	12	11	10	9	8	7	6	5	4	3	2	1	0	-	-	-	-	-
12	45	540	12	11	10	9	7.5	6.5	5.5	4.5	3.5	2	1	0	-	-	-	-	-	-
7	40	320	12	10.5	8.5	7	5	3.5	2	0	-	-	-	-	-	-	-	-	-	-
6	35	245	12	9.5	7	5	2.5	0	-	-	-	-	-	-	-	-	-	-	-	-
5	30	180	12	9	6	3	0	-	-	-	-	-	-	-	-	-	-	-	-	-
4	25	125	12	8	4	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

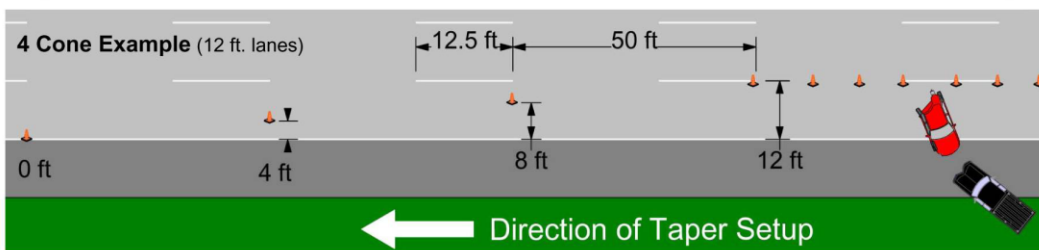


Figure 2

G. Incident Termination

1. Once the incident activity is complete, the Incident Commander must monitor and control scene dismantling while recognizing the dangers of changing conditions and traffic returning to normal flow, oftentimes at high speeds.
2. This is especially important for scene dismantling during nighttime or reduced visibility conditions.
3. **It is very important to dismantle the scene from the termination area backwards to the advance warning area.**
4. Other important Incident Termination considerations
 - a. Temporary traffic control and/or blocking may be required for responder departure (e.g. ambulances, towing and recovery, etc.).
 - b. As responders depart be aware that other responders may still be present
 - c. Blocking vehicles (e.g. fire apparatus, truck mounted attenuators, etc.) may no longer be present and the "safe" area may no longer be intact.
 - d. Never turn your back to traffic and always watch for errant vehicles entering the scene.
 - e. Frustrated motorists that have been delayed by the incident may be particularly aggressive and drive at higher speeds or weave into lanes that appear to be open.

H. Notification

1. Notify Dispatch to advise all appropriate agencies, i.e. STOC of the opening of the roadway.

References: Risk and frequency classification information -<http://firefighterclosecalls.com/sopsog.php>,
www.Respondersafety.com, WisDOT Emergency Traffic Control and Scene Management Guidelines 2010
Draft