

## 616.8.10 - TMA Flagger - Lane Closure on Two-Lane Highways Using TMA Flaggers - DE/CM/MT

### Notes:

Safety, Quality, Production: A typical work day shall consist of travel time to and from the work area, time designated to set-up and take-down temporary traffic control (TTC) in a safe manner and the rest of the day is dedicated to the quality and production of the project.

When developing the Statewide Transportation Improvement Program (STIP) operations plans and STIP construction plans, Districts shall calculate the travel time to and from project, TTC set-up/take down/moving to another location, and placement of material. Without total calculation, Districts may not be able to complete the STIP projects within the project timelines.

Setting up and taking down TTC may take longer than the time it takes to put 3-miles of material on the roadway, per example, pavement repair/patching, chip seals, fly coating, seal coating, etc. Projects spanning to 3-miles may require extensive planning to provide TTC, per example, hills, curves, private/public entrances, use of pilot vehicles, etc.

All Trailer Mounted Attenuator (TMA) Flagger operators shall be trained as a certified flagger with knowledge of the use of TMA Flaggers.

TMA Flaggers are designed to allow the TMA Flagger operator to be located inside a vehicle with a Trailer Mounted Attenuator (TMA) to protect the operator. The TMA Flagger provides a large visual area of the STOP/SLOW information to notify the traveling public of a stop/slow situation. The TMA Flagger has been designed to protect the traveling public and the TMA Flagger operator.

No part of the TMA Flagger shall extend into the opposing lane.

TMA Flagger operators shall be in constant communication with each other.

As an option, a single TMA Flagger on one end of the work zone may be operated while a human flagger or an Automated Flagger Assistance Device (AFAD) with a human operator is located on the other end of the work zone. The flaggers and operators shall follow the appropriate human flagging and AFAD typical applications.

TMA Flaggers shall be removed when not in use.

If the TMA Flagger is inoperable, reference EPG 616.8.10 (TA-10) Lane Closure on Two-Lane Highways Using Flaggers. The FLAGGER AHEAD sign shall be used until the TMA Flagger is operable and the human flagger shall follow the 3-2-1 Cone Procedure, refer to EPG 616.5 Flagger Control.

TMA Flagger shall not be used for nighttime operations.

### Operations:

Where operational conditions warrant, channelizing devices may be eliminated.

For short duration operations, signs and channelizers may be reduced or eliminated.

For operations where workers are on foot and move with the operation, channelizers may be reduced or eliminated.

For operations where workers are on foot and move with the operation, spacing between TMA Flagger and BE PREPARED TO STOP signs shall not exceed one mile.

A pilot vehicle should be used to help move traffic through the project when a lane must be shared by traffic going both directions and the work zone area is lengthy or difficult to navigate. If entrances are within the work zone, the pilot vehicle shall run continuously, even if the traffic at each end of work zone may not have traffic. If the protective vehicle does not go past an entrance on a regular basis, the traveling public on entrances may not wait for the protective vehicle.

When a temporary road closure is needed, both directions may be stopped at the same time up to a maximum of 15 minutes.

### Protective Vehicle:

The TMA Flagger is designed with a TMA and is located in the travel lane, which will help protect the entry of the traveling public into the work area.

The TMA Flagger in the closed lane should be positioned at least of 150 ft. in advance of the work space.

Additional protective vehicles/TMAs may be used upon the discretion of the supervisor.

Vehicle hazard warning signals shall not be used instead of the vehicle's rotating lights or strobe lights.

Additional warning signs shall be erected at each intersection with another state highway within the work zone. Upon the discretion of the supervisor, additional warning signs may be erected at other intersections within the work zone.

TMA Flaggers shall not be used for long-term stationary operation. For long-term stationary operation, refer to EPG 616.8.12 (TA-12) Lane Closure on Two-Lane Highways Using Traffic Control Signals.

If rumble strips are used, review EPG 616.6.87 Rumble Strips.

See EPG 616.12 Work Zone Speed Limits for Speed Limit Guidelines.

For work zone located in the vicinity of a railroad grade crossing, refer to EPG 616.8.46 (TA-46) Work in the Vicinity of a Grade Crossing.

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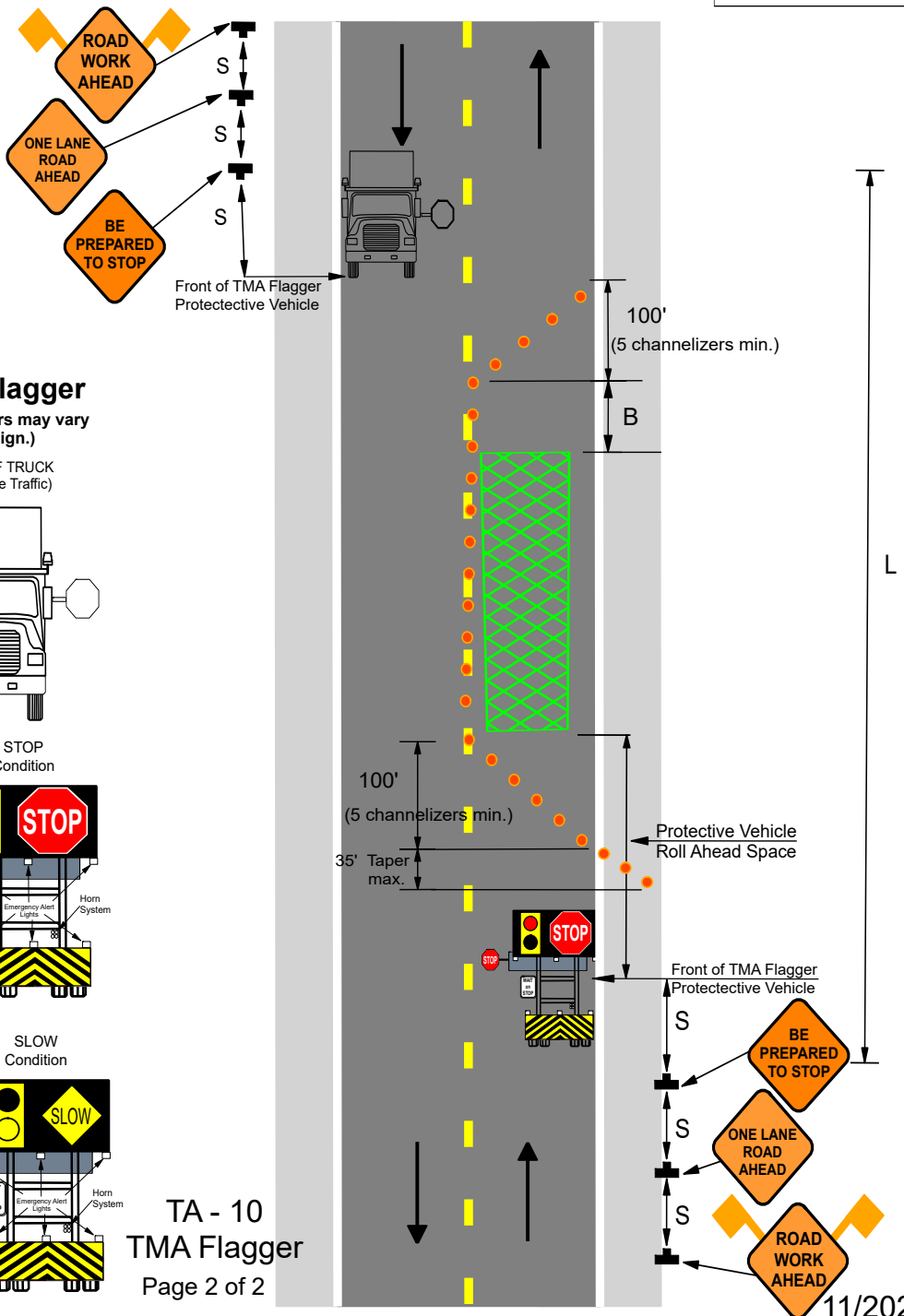
SPEED Permanent Posted (mph)	SIGN SPACING (ft.)		TAPER LENGTH (ft.)		OPTIONAL BUFFER LENGTH (ft.) (B)	CHANNELIZER SPACING (ft.)	
	Undivided (S)	Divided (S)	Shoulder (1) (T1)	Lane (2) (T2)		Tapers	Buffer/ Work Areas
0-35	200	-	-	-	280	-	40
40-45	350	-	-	-	400	-	80
50-55	500	-	-	-	560	-	80
60-70	1000	-	-	-	840	-	120

1. Shoulder taper length based on 10 ft. (standard shoulder width) offset. 2. Lane taper length based on 12 ft. (standard lane width) offset.

TYPE OF ROADWAY	SIGN HEIGHT	MAXIMUM WORK ZONE LENGTH (L)
URBAN	1' Portable 7' Post	1 Mi.
RURAL	1' Portable 5' Post	3 Mi.

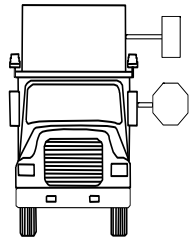
**Interim Guidance**

-  Channelizer
-  Sign
-  Work Space

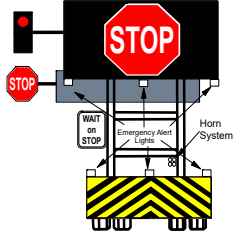


**TMA Flagger**  
(TMA Flaggers may vary in design.)

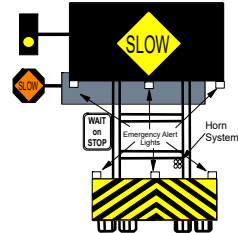
FRONT OF TRUCK  
(Work Zone Traffic)



STOP  
Condition

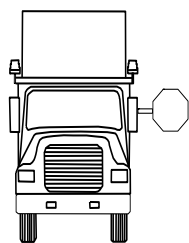


SLOW  
Condition

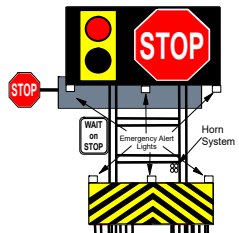


**TMA Flagger**  
(TMA Flaggers may vary in design.)

FRONT OF TRUCK  
(Work Zone Traffic)



STOP  
Condition



SLOW  
Condition

