TO: All Users of the Delaware Manual on Uniform Traffic Control Devices

VIA: Jeff Van Horn, P.E.
Chief of Traffic Operations

FROM: Kevin Lindell, P.E.
Safety Programs Manager

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SUBJECT: Temporary Traffic Control within Intersections

Construction operations within intersections require the deployment of complex temporary traffic control measures. The purpose of this memorandum is to provide guidance on how to use certified flaggers and uniformed law enforcement personnel during construction and maintenance operations when those operations affect the operation of the traffic control devices, such as traffic signals, stop signs and yield signs present at the intersection.

The provisions in this memorandum apply only to planned construction and maintenance operations. This memorandum does not apply to traffic control at incident or emergency scenes, however it is expected that for long duration incidents, the initial response and traffic control be modified for the scale of the event, including the possibility of implementing these procedures.

Authority of Certified Flaggers and Uniformed Law Enforcement

Delaware Code authorizes police officers, authorized flaggers, fire police officers and uniformed adult school crossing guards to control or regulate vehicle and pedestrian traffic on public roads. These persons may also override traffic control devices at intersections. While certified flaggers and uniformed law enforcement officials have the legal authority to override traffic control devices, this practice may not provide the safest method of controlling traffic during non-emergency construction or maintenance work operations within an intersection. In an effort to maintain the safest possible work zones on Delaware roadways, the following paragraphs prescribe methods to control traffic in intersections when work zone activities must interrupt the normal function of the existing traffic control devices within those intersections.

1 See 21 Del. Code §4103(a).

2 See 21 Del. Code §4107(a).
**Work within Intersections**

When work is performed within an intersection that creates the need for flaggers and/or police officers to override the existing traffic control devices, the following guidance applies. First, a minimum of one flagger for each intersection approach shall be provided and these flaggers should be positioned in accordance with Typical Application (TA) 27 of the Delaware MUTCD. An additional flagger should be provided at the intersection and be designated as the Primary Flagger. If used, the Primary Flagger will control the flow of traffic through the intersection by directing the actions of the other flaggers and monitoring traffic flow.

Additionally, when working within a signalized intersection requiring a flagging operation, the traffic signal shall be placed in flash mode and a traffic officer should be used to assist with traffic control. If used, the traffic officer will have the following responsibilities:

1. The traffic officer will place the traffic signal in flash mode and will remain on location as long as the traffic signal is in flash mode.
2. The traffic officer may assist with directing traffic through the intersection.
3. The traffic officer will place the traffic signal in normal mode once the work operation is completed and the temporary traffic control devices have been removed.

If a traffic officer is not available and a representative from Traffic Signal Operations is on-site, that representative has the authority to place the signal on flash and place the signal back in normal operation at the end of the work activity. Traffic Signal Operations staff shall not be dispatched to a work site to place a traffic signal in flash mode for construction activities.

The flagging operation should be operated to provide the minimal practicable delay for all approaches to the intersection. Approach flaggers are required to monitor the length of the queue for which they are responsible and to relay that information to the Primary Flagger so the Primary Flagger can efficiently control the traffic. On multilane roadways, one flagger shall not control more than one lane of traffic. Flaggers should not be placed between two or more open lanes and should have a designated escape route.

In order to simplify the operation and to increase safety, the following options should be considered:

1. Closing exclusive turn lanes within the intersection and detouring turning traffic to other routes.
2. Temporarily converting side street approaches to right-in/right-out movements and detouring turning traffic to the next available U-Turn on the mainline roadway.
3. Closing the intersection to traffic.
4. Performing work during off-peak hours.

On intersecting roadways with ADTs of more than 2,000 trips per day, the Engineer and/or Contractor shall coordinate with DelDOT’s Traffic Safety Section prior to closing through lanes and/or exclusive turn lanes with a 5-day notice if provisions to do these closures have not been provided in the Contract Documents. If approved detour plans have not been provided, the Engineer and/or Contractor must obtain permission from DelDOT’s Traffic Safety Section prior to detouring traffic or closing intersections and this coordination shall occur at least 2 weeks prior to the implementation of the closures.
In all cases, the Transportation Management Center (TMC) shall be notified when any intersection is put under flagger control or a traffic signal is placed in flash mode. The TMC shall also be notified when a signal is returned to normal operation. The project inspector is responsible for making this notification. If an inspector is not present, the police officer or Contractor shall notify the TMC. The phone number for the TMC is (302) 659-4600.

**Work within Close Proximity to a Signalized Intersection**

Lane closures on a corridor with several signalized intersections typically cause traffic congestion that affects the proper functioning of adjacent intersections, i.e., queue spillback. When the temporary traffic control causes traffic to queue through adjacent signalized intersections, the following steps shall be implemented:

1. Flaggers should be placed at each affected signalized intersection within the work zone. The flagger stations shall be placed in advance of the traffic signal.

2. When the queue reaches the affected intersection, the flaggers shall stop traffic in advance of the signal in such a way that keeps traffic from stacking through the intersection and blocking cross traffic when the signal becomes red.

3. When sufficient downstream storage becomes available, the flaggers shall release traffic through the intersection.

4. Flaggers shall remain present and repeat this procedure throughout the workday or until the nature of the work activity changes so that queuing is minimized.

5. Law enforcement personnel may be used in lieu of flaggers for this procedure.

All flagging operations on Delaware roadways shall comply with Section 6E of the Delaware MUTCD. For further questions regarding this information, please contact the Traffic Safety Section at (302) 659-4060.