

# ACCOMODATING OVERHEAD ELECTRICAL AND COMMUNICATION LINES SUSPENDED OVER THE TOLLWAY

(PLEASE READ THIS ENTIRE DOCUMENT)

(04-06-10 rev)

The Tollway requires electric and communication line crossings to be installed or relocated underground whenever possible. Exceptions to this rule exist and overhead crossings may be necessary because of economic and operational constraints, maintenance and installation requirements, or pre-existing conditions. These procedures define the methods that are used to install, maintain and remove these crossings while maintaining the highest standard of safety for motorists using the Tollway.

## **Request to Perform Work Over the Tollway**

A written request to perform work on an overhead crossing is required. The request must be received at least two (2) weeks prior to the date scheduled to perform the work.

## **Maintenance of Traffic Requirements**

The utility company is responsible for erecting traffic for the work. The utility company contracts with a traffic control company to perform traffic control. The traffic control contractor is subject to approval by the Tollway. All traffic shall be diverted into a single lane in each direction. A maintenance of traffic (MOT) plan must be developed and submitted to the Tollway for review and approval.

Since overhead crossings are frequently located in an interchange area, entrance and exit ramps must be taken into consideration and addressed in the development of a traffic plan.

A message board shall be erected three (3) miles upstream of the work area in both directions displaying the message, "Utility Work Ahead – Be Prepared to Stop".

All equipment generally within 30 feet of the traffic lanes must be protected by a truck mounted attenuator (TMA). A shoulder closure must be erected for all equipment positioned on the shoulders or in the median. Lower speed limits (45 mph signs) will be erected by the traffic control contractor.

### **Performing Work Over the Tollway**

No work shall be performed on unsecured cables suspended over the Tollway without provisions to support the cable at a minimum of three locations along the span.

One support location shall be as near to the center span as possible, usually in the center median. Similar support shall be located on each side of the roadway, usually within the lane closure. A truck mounted bucket or a small crane with a fabricated support frame is commonly used for this purpose. The supporting structure shall not extend over live traffic lanes.

Temporary supporting structures constructed with a wooden cross pole lashed to two vertical wooden poles bored in the ground generally must be located too far from the roadway to avoid being a hazard to traffic and will not adequately protect cars passing under the cables. However, wooden poles may be an option if installed close to the roadway behind a guardrail.

No work shall be performed over live traffic lanes with the exception of pulling conductors or cables into place. No rope or cable may be pulled into place over more than one traffic lane in each direction. Supporting structures must be in place during this operation or at any time the ropes or cables are not secured.

Provisions to control sag in the cable during the operation must be in place. Distribution lines shall be dead-ended on each side of the Tollway. Distribution conductors may be pulled over the Tollway with pull ropes. Transmission line conductors shall be pulled over the Tollway using steel cables or "hard line". Only the hard line can be pulled across the Tollway with pull ropes.

### **Stopping Traffic on the Tollway**

Traffic on the Tollway shall only be stopped by District 15 of the Illinois State Police. If District 15 State Police are engaged in other activities, such as a traffic accident, the work may have to be postponed or rescheduled. Traffic shall not be stopped by anyone other than District 15 of the Illinois State Police.

The Illinois State Police will only stop traffic diverted into one (1) lane.

Traffic shall not be stopped during adverse weather conditions. These conditions include wet pavement, fog, precipitation, high winds or any condition that adversely affects visibility, driving conditions and the motorist's ability to negotiate the work area.

Whenever possible, complete closures shall be scheduled during daylight hours and during a time of low traffic volume. This generally means complete closures are scheduled at on Saturday and Sunday mornings.

If the volume of traffic through the work area exceeds 1800 cars per hour, consideration must be given to performing the work at a different time.

The number of lanes leading into the work area shall be reduced to one lane no more than 60 minutes before traffic will be stopped. The lane closure must be erected according to the current Tollway requirements for lane closures.

Flagmen supplied by the work party shall be stationed 1000 feet upstream of the crossing in each direction to alert the first vehicles approaching the closure to come to a complete stop. The flagmen shall remain in place until the road is opened to traffic. When the road is opened up to traffic, the flagmen shall monitor the vehicles for drivers that have fallen asleep in line. Vehicles in place behind large trucks with sleeping drivers are unaware that traffic ahead has begun to flow and unnecessarily extend the duration of the delay.

There shall be one person from the work party assigned to communicate all activities taking place. This person shall communicate all actions to the Tollway representative or State Trooper in charge of closing lanes and shall be in continuous communication with another member of the work party located on the other side of the road. The person on the other side is responsible for communicating all actions to the Tollway representative or Trooper on that side of the road.

The State Police will stop traffic approximately 150 feet from the crossing in both directions. The duration of the closure shall not exceed 15 minutes.

No more than four (4) pull ropes may be staged on the shoulder and erected during one 15 minute closure. If the closure exceeds 15 minutes or more, the road must be opened to traffic until the back-up has cleared and an additional closure will be required.

After ropes are pulled across the road, raised into position and temporarily secured, traffic will be allowed through the work area in a single lane in both directions. The overhead support equipment (usually a bucket truck) must be in place in the middle and on each side of the lanes until the conductors are permanently secured.

Equipment within 30 feet of the traveled lanes must be protected by TMA's (vehicles with crash attenuators supplied by the traffic contractor).

All equipment shall be removed from the Tollway within 8 hours.

## **Risk Mitigation Plan**

Installing, removing or servicing overhead electric lines over live lanes of traffic is a high risk activity. A plan must include the following:

Work description

Location

Start date, time and end date, time

Person in charge, contact information

Company, contact information

The name and information of who prepared the plan, reviewed it and approved it

The names of all participants

Description of the purpose and scope and planned duration of the activity

Explanation of why the activity is high risk

A list and review of critical steps needed to complete the high risk activity

A list of other groups needed to complete the task and their roles and responsibilities

A list of any special hazards, precautions, oversight or training that is required

A list of tools, equipment and procedures needed to complete the high risk activity

A list of critical steps that may impact the reliability of performing the high risk activity

A Risk Mitigation Plan standard form is available

**Summary:**

1. Request the closure in writing
2. Submit a risk mitigation plan
3. Arrange for a traffic control contractor
  - A. Submit a traffic control plan
  - B. Arrange for message boards
  - C. Provide truck mounted attenuators to protect equipment
  - D. Erect 45 mph speed limit signs
4. Traffic must be diverted into one lane in each direction
5. Supports required each side of lane for unsecured ropes or cables
6. Provide a method to control sag across the traffic lanes
7. Transmission cables must be pulled over with steel cables (hard line)
8. Distribution cables must be dead-ended
9. Only District 15 Illinois State Police stop traffic
10. One point of contact with the Illinois State Police and the utility company
11. Utility company or utility contractor supplies two (2) people for communications and two (2) flag persons