

Document Change Announcement

2009 Manual for Traffic Control in Work Zones

DCA2014-TM-01

DATE: June 13, 2014

SUBJECT: Revisions to the Manual for Traffic Control in Work Zones

Description of Change

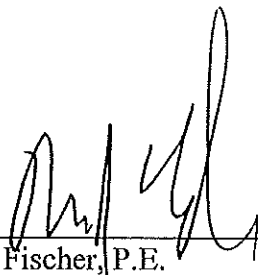
New Traffic Protection Standard Drawings TP-28 to TP-34 for mobile lane closings has been added as a reference.

Instructions to NJTA Staff, Designers and Consultants

Staff, designers and consultants may access these revisions in the Manual for Traffic Control in Work Zones, which is available on the Authority's Web Page: <http://www.state.nj.us/turnpike/professional-services.html> under Engineering Reference Material. Please distribute the information to your Project Managers and have them direct their consultants appropriately.

The updated Manual for Traffic Control in Work Zones will be considered for use on all contracts which are not currently advertised.

Approved By:



Robert J. Fischer, P.E.
Chief Engineer

New Jersey Turnpike Authority

DOCUMENT UPDATE REQUEST

Forward to Assistant Chief Engineer, Design

Initiator	Andre` Luboff	Submittal Date	4/14/2014
Firm	HNTB Corporation	Telephone	973-434-3100

Document (check one)

- Procedures Manual
- Design Manual
- Sample Plans
- Standard Drawings
- Standard Specifications
- Manual for Traffic Control in Work Zones

Description of Change

Suggested revisions to Section 9 of the NJTA Design Manual.

New Standard Drawing Nos. TP-28 through TP-34 for Mobile Closings.

Suggested revisions to the Manual for Traffic Control in Work Zones text.

Reason for Change

Section 9 of the Design Manual was written shortly after the Highway Authority and the New Jersey Turnpike Authority merged into a single Authority, and at that time the traffic control during construction was completely different for each roadway, with two Operations Departments. Subsequently, the traffic control for the two roadways has become similar. The suggested revision addresses that issue. Also, reference to the new Standard Drawings for mobile lane closings must be added.

New Standard Drawings Nos. TP-28 through TP-34 were developed at the direction of the Turnpike Authority's Engineering, Operations and Maintenance Departments.

The suggested revisions to the Manual for Traffic Control in Work Zones are necessary because of the new Standard Drawings Nos. TP-28 through TP-34.

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- A TRAFFIC PROTECTION STANDARD DRAWINGS**
- B LANE CLOSURE AND SHOULDER CLOSURE TABLES**

1 INTRODUCTION

1.5 Lane Closure and Shoulder Closure Tables

The Lane Closure and Shoulder Closure Tables, which are included in Appendix B, indicate when mainline lane and shoulder closures may be scheduled in non-emergency short-term work zones to maintain the flow of traffic. Short-term work zones typically involve the use of cones for traffic control and also include:

- Supplemental closures to long-term work zones or High-Intensity Construction Cycles (HICCs) for access or traffic control changes;
- Closures used to establish traffic control for long-term work zones.

A mobile lane closure, when permitted as described in Section 5.7 (Mobile Lane Closures), may be scheduled using the Lane Closure Tables based on hours in which two travel lanes may be closed throughout the proposed work zone. Mobile shoulder closures may be scheduled using the Shoulder Closure Tables.

The Lane Closure and Shoulder Closure Tables do not apply to all conditions. Examples of exceptions are:

- Short-term work zones extending within 1,000 feet of ramp termini;
- Near an off-ramp that may periodically queue;
- In the vicinity of a toll plaza;
- Any mileposts between two tables or not covered under any table.

The NJTA Operations Department will determine in what situations the Lane Closure and Shoulder Closure Tables apply, and will provide the appropriate lane and shoulder closure hours for other conditions. The most restrictive table shall be applied to the entire work zone unless the NJTA Operations Department approves a work zone configuration conforming to all applicable Lane Closure and Shoulder Closure Tables. Follow the Authority's Traffic Closure Request Procedure when requesting a lane closure or shoulder closure.

2 GLOSSARY

2.1 Terminology Definitions

<i>Applicant</i>	The individual, partnership, firm, corporation or any combination thereof seeking to perform any activities within Authority right-of-way, including performing work under a License to Cross (LTC) and entering the right-of-way with a Right of Entry (ROE). The NJTA Maintenance Department or other Authority forces are not Applicants, but the guidelines and provisions of this Manual still apply regarding any activities within Authority right of way.
<i>Designer</i>	The individual, partnership, firm, corporation or any combination thereof planning or designing traffic control within Authority right-of-way or modifying plans or designs for traffic control within Authority right-of-way.
<i>Engineer</i>	The Engineer is a representative of the NJTA Engineering Department or consulting engineering firm assigned to oversee the execution of a project (also known as a project engineer or resident engineer). The Engineer represents the Authority and ensures that the Applicant abides by the plans, specifications and all the other requirements of the contract and/or other project documents. The Engineer acts as a liaison between the Applicant and other entities (Authority, State Police, etc.).
<i>High-Intensity Construction Cycle (HICC)</i>	HICCs are continuous work cycles (24 hours a day) that are needed to accomplish certain tasks such as bridge repair. The hours of approved HICCs are established by the NJTA Operations Department as noted in contract documents to complete the required work while minimizing impacts to traffic.

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Interchange	<p>Garden State Parkway: One or more ramps that connect between the Parkway and other roadways with a distinct exit number. Parkway interchanges may have toll plazas on one or more ramps, or may have no toll plazas. Parkway interchanges may not allow all movements to and from both directions of all roadways. The definition of "Interchange" does not include mainline Parkway toll plazas.</p> <p>New Jersey Turnpike: A location where there is a mainline or ramp toll plaza, numbered consecutively from south to north. North of Interchanges 18E/18W, an Interchange is defined as one or more ramps that connect between the Turnpike and other roadways with a distinct exit number. A general reference to an Interchange on the Turnpike may also refer to the ramps at that Interchange (for example, "Interchange 15E" may include all ramps to and from the toll plaza) depending on context.</p>
License to Cross (LTC)	Work not contracted by the Authority that crosses Authority right of way and may impact traffic, such as utility work.
Long-Term Work Zone	<p>The term "long-term" work zone, as used in this Manual, is considered to include closure category A from the MUTCD:</p> <p style="padding-left: 40px;">A. <u>Long-term stationary</u> is work that occupies a location more than 3 days.</p> <p>Long-term work zones typically do not involve lane closures. Supplemental lane closures of a temporary nature within a long-term work zone are considered short-term closures.</p>
<u>Mobile Work Zone</u>	<p><u>A work zone in which all vehicles remain continuously moving and no personnel exit the vehicles to perform work. The allowable types of work that may be performed within a mobile work zone are enumerated in the Traffic Protection Standard Drawings.</u></p>
New Jersey Turnpike Authority (NJTA; Authority)	The Authority is responsible for the engineering, operations, maintenance and administrative tasks associated with the New Jersey Turnpike and the Garden State Parkway.
Off-Season	The Off-Season (or Spring/Fall and Winter seasons) is defined in each of the Lane Closure and Shoulder Closure Tables (see Appendix B).

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Right of Entry (ROE)	<p>Legal permission granted either:</p> <ul style="list-style-type: none"> • By the Authority for an outside entity to enter or cross Authority right of way as part of a non-Authority project; or • By an outside entity for the Authority, Authority's consultant or Authority's contractor to enter that entity's right of way as part of an Authority project.
Short-Term Work Zone	<p>The term "short-term" work zone, as used in this Manual, is considered to include work zone categories B through E (excepting HICCs) from the MUTCD:</p> <p style="margin-left: 40px;">B. <i>Intermediate-term stationary</i> is work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than 1 hour.</p> <p style="margin-left: 40px;">C. <i>Short-term stationary</i> is daytime work that occupies a location for more than 1 hour within a single daylight period.</p> <p style="margin-left: 40px;">D. <i>Short duration</i> is work that occupies a location up to 1 hour.</p> <p style="margin-left: 40px;">E. <i>Mobile</i> is work that moves intermittently or continuously.</p> <p>Short-term work zones also include those closures delineated by cones that supplement long-term work zones, such as during the installation or removal of barrier, for access to a work area or for modification of traffic control.</p>
Standard Specifications	<p>The NJTA Standard Specifications as referenced in Section 7 (References). The project-specific Supplementary Specifications should be consulted for any provisions that may override or amend the Standard Specifications.</p>
Summer	<p>The Summer season is defined in each of the Lane Closure and Shoulder Closure Tables (see Appendix B).</p>
Supplementary Specifications	<p>The NJTA Standard Supplementary Specifications as referenced in Section 7 (References), including any provisions in project-specific Supplementary Specifications that may override or amend the Standard Supplementary Specifications. The Supplementary Specifications append the Standard Specifications.</p>
Traffic Control Coordinator	<p>Applicant designee in work zones involving traffic control whose duties and requirements are as described in the Supplementary Specifications.</p>

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<i>Traffic Control Supervisor</i>	NJTA Operations Department designee who assists the State Police with traffic slowdowns and the installation, maintenance and removal of traffic control devices, among other responsibilities. The Traffic Control Supervisor ensures that all regulations pertaining to closures and traffic control are followed. This term is distinct from the Traffic Control Coordinator .
<i>Work Area</i>	The work area is the location(s) within the work zone where work is actually being performed. The work area is located behind a cone line or barrier.
<i>Work Zone</i>	The entire area of Authority right of way affected by construction or maintenance work, beginning from the start of the first taper, cone line or barrier and concluding at the end of the last taper, cone line or barrier. Work zone signs erected in advance of or beyond the work zone are considered to be included within the limits of work.

3 WORK ZONE POLICIES

3.2 Ramp and Mainline Lane, Shoulder and Roadway Closures

3.2.1 Overview

The policy of the Authority is to limit lane and shoulder closures to the minimum required to perform the necessary work in a safe, efficient and timely manner. A closure will only be permitted in accordance with this Manual when the closure enables the accomplishment of significant work that would not otherwise be feasible or efficient. The availability of a closure as discussed in this Subsection of the Manual is not in itself sufficient grounds to perform the closure. Closures will only be allowed at such times, to such limits and in such a manner that the safety of the traveling public will be maximized through the closure and the flow of traffic through the work zone will be maintained. Closures shall be of the shortest physical length and time duration necessary to perform the required work. Refer to the Supplementary Specifications, the Design Manual and the Traffic Protection Standard Drawings (see Appendix A).

If applicable, project roadway and construction staging plans should be consulted to determine when and what type of closures will be necessary for safe and productive work zone operations. Different requirements will pertain to mobile work zones, short-term work zones, long-term work zones and HICCs as defined in Subsection 2.1 (Terminology Definitions). A long-term work zone with a lane shift may be employed to prevent the closure of a lane of travel for multiple days. Allowable short-term and mobile work zone closure hours are described in Subsection 1.5 (Lane Closure and Shoulder Closure Tables).

Exceptions to the allowable hours for short-term closures should be determined during the design phase of the project and should be included in the plans or contract documents with the approval of the Director of Operations. The Applicant or other work personnel should not consider exceptions to the allowable hours unless dictated by exceptional circumstances. Requests to modify allowable closure hours must be submitted for the approval of the Director of Operations by the Engineer (or other designated person in charge if the project is not assigned an Engineer).

All requests to extend allowable closure hours for a closure already in place (such as if actual traffic volumes are lighter than anticipated) must be submitted for the approval of the Director of Operations by the Engineer (or other designated person in charge if the project is not assigned an Engineer). The Authority and State Police may require the closure to be removed due to queue lengths, incidents or any other reason during approved extended hours as described in Subsection 3.2 (Ramp and Mainline Lane, Shoulder and Roadway Closures).

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Within a short-term work zone, work shall commence immediately upon placement of the closure and the closure shall be removed immediately upon conclusion of the work. To maximize the safe and efficient movement of the traveling public, short-term lane closures will not be allowed to remain in place when no work is being performed or insufficient forces are working within the closure, as determined by the NJTA Operations Department. Short-term shoulder closures may only remain in place when no work is being performed if approved by the NJTA Operations Department or as identified in the contract documents.

A short-term supplemental lane closure is installed to deliver material or equipment to a work area, to install or remove a long-term work zone or to change the configuration of a work zone. The NJTA Operations Department may authorize a traffic slowdown where an additional lane cannot be closed for these purposes. The closure of a supplemental lane is subject to maintaining the minimum number of required through lanes according to the Lane Closure Tables unless otherwise approved by the Director of Operations. Requests for supplemental lane closures shall be submitted by the Engineer to the NJTA Operations Department in the same manner as any other lane closure request.

Procedures relating to setup and removal of all types of closures are discussed in Subsection 5.2 (Lane, Shoulder and Roadway Closures). The policies described in Subsection 3.2 (Ramp and Mainline Lane, Shoulder and Roadway Closures) apply to all Authority roadways, including ramp and mainline toll plaza areas. Refer to the Design Manual and the Supplementary Specifications regarding closures.

4 WORK ZONE OPERATIONS

4.3 Movement of Work Area Vehicles and Personnel

Work area vehicles are defined as any vehicles belonging to the Applicant, anyone working for the Applicant or any other work personnel on any construction, maintenance or other project within Authority right of way that may enter the work area or other designated areas of Authority right of way. Certain work area vehicles are restricted north of Interchange 105 on the Parkway. Refer to the Supplementary Specifications for requirements, regulations and restrictions on work area vehicles.

Escorts for slow, heavy or oversize vehicles and equipment may be specified in the Traffic Permit, contract, specifications or other document(s) governing a particular work project. Escorts shall be performed with the assistance of the State Police, using a traffic slowdown as described in Subsection 5.1.4 (Traffic Slowdowns), unless otherwise advised by the NJTA Operations Department. Also refer to the Supplementary Specifications. A slowdown may be requested for escorted vehicles entering or exiting a work area or crossing an active roadway and must be approved by the NJTA Operations Department. Refer to Subsection 5.1.4 (Traffic Slowdowns) for further information. Escorts should be of the shortest overall length and performed in the safest manner possible and will be scheduled by the NJTA Operations Department.

Personnel shall never enter or cross any active roadway and shall never leave the work area except within a vehicle. All personnel shall remain within vehicles in a mobile work zone.

5 WORK ZONE PROCEDURES

5.1 General

5.1.3 Existing Signals, Signs and Delineators

Refer to the Supplementary Specifications regarding existing signals, signs and delineators. This Subsection does not apply to mobile work zones as per Section 5.2.7 (Mobile Lane and Shoulder Closures).

(A) Relocation

As indicated in the contract or directed by the Engineer, signs that interfere with safe and effective work zone operations shall be temporarily relocated as close as possible to their original locations such that they remain visible to the traveling public. Relocated signs shall be permanently returned to their original position as soon as they will no longer interfere with work zone operations unless they are designated for replacement (refer to Part C of this Subsection). Relocation of any regulatory or warning sign requires prior approval of the Director of Operations. The NJTA Operations Department will advise the Applicant or other work personnel whether to relocate existing traffic signals and toll lane indicators or to install temporary signals and indicators.

(B) Covering or Removal

Signs with a message conflicting with work zone traffic control will be required to be covered or temporarily removed. Covering or removal of any regulatory or warning sign that is not shown on the plans requires prior approval of the Director of Operations.

Roadway delineators that interfere with safe and effective work zone operations may be removed only as directed or approved by the Engineer. Otherwise, they must be relocated. Traffic signals and toll lane indicators that are conflicting, proposed, non-operational or otherwise not to be displayed to the public shall be deactivated and/or covered only as directed by the Engineer.

(C) Replacement

The Applicant or other work personnel must repair or replace any existing signs visible to the traveling public that are damaged as a result of work zone operations. Existing signs that are damaged while they have been covered or temporarily removed for work zone operations shall be replaced by the time they are again required to be displayed to the traveling public. Existing signs to be removed that are damaged prior to removal (while still visible to the traveling public) may be replaced by temporary signs provided

the temporary signs meet the minimum standards set forth in the Standard Specifications.

5.2 Lane, Shoulder and Roadway Closures

5.2.7 Mobile Lane and Shoulder Closures

Mobile lane and shoulder closures may be used instead of standard lane and shoulder closures only for the types of work enumerated in the Traffic Protection Standard Drawings, when and where authorized by the Director of Operations. The approval process for mobile lane closures is the same as for other types of lane closures, but the Engineer must pre-approve mobile lane closure requests prior to submittal of the Request for Lane and Shoulder Closings form. The State Police may provide an escort for the duration of the mobile lane closure. Slowdowns will be required for mobile lane or partial lane closures on ramps where there is insufficient sight distance in advance of the closure, as determined by the Engineer. Refer to the Supplementary Specifications and the Traffic Protection Standard Drawings. A pre-meeting before beginning work requiring mobile closures will address specific field conditions and will establish appropriate traffic control procedures based on the Standard Drawings.