



## *Document Change Announcement*

### *Standard Drawings*

**DCA2013-SD-02**

**DATE: March 11, 2013**

**Subject: Revisions to Standard Drawings**

### Description of Change

- Replace Drawings GR-7, GR-11, ITS-17 and ITS-18 with revised Drawings GR-7, GR-11, ITS-17 and ITS-18.
- Replace Index of Standard Drawings, Sheets 1 and 2.

### Instructions to Designers and Consultants

Effective immediately, the revisions contained in this announcement shall be applied to all projects in every phase of design. For advertised contracts awaiting the opening bids, this revision shall be incorporated via addendum, if applicable. Contact your NJTA Project Manager for instructions. Attached revision is noted in italics.

Designers may access these revisions in the NJTA Standard Drawings, which is available on the Authority's Web Page: <http://www.state.nj.us/turnpike/standard-drawings.html>.

### Information for In-House Staff

The revisions have been incorporated into the Standard Drawings, which is available on the Authority's Web Page: <http://www.state.nj.us/turnpike/standard-drawings.html>. Please distribute the information to your respective Project Managers and have them direct their consultants appropriately.

**Recommended By:**

A handwritten signature in black ink, appearing to read 'R. Fischer', written over a horizontal line.

Robert J. Fischer, P.E.  
Assistant Chief Engineer, Design

**Approved By:**

A handwritten signature in black ink, appearing to read 'R. Raczynski', written over a horizontal line. To the right of the signature is the date '3/15/13'.

Richard J. Raczynski, P.E.  
Chief Engineer

*cc: Senior Staff Engineering, Operations & Maintenance Departments, All Prequalified Consultant Firms, File*

# New Jersey Turnpike Authority

## DOCUMENT UPDATE REQUEST

Forward to Assistant Chief Engineer, Design

<b>Initiator</b>	Jean-Pierre Ravetier, P.E.	<b>Submittal Date</b>	3-8-2013
<b>Firm</b>	HNTB Corporation	<b>Telephone</b>	973-434-3100

### Document (check one)

- Procedures Manual
- Design Manual
- Sample Plans
- Standard Drawings
- Standard Specifications

### Description of Change

On Standard Drawing GR-7, lengthen the concrete median barrier protection in advance of the median obstruction from 3'-0" to 10'-4". Provide for an end wall between the barrier protection sections, measured 2'-10" in from the end of the barrier to the face of the end wall to accommodate the guide rail connections.

On Standard Drawing GR-11, add Sections A'-A' through D'-D' as referenced on revised Standard Drawing GR-7. Decrease the spacing of the vertical steel reinforcement within the barrier section for the Type B connection end (Sections C-C and C'-C') from 10" to 4", similar to the Type A connection end vertical reinforcement spacing.

On Standard Drawing ITS-17, revise the approach end guide rail connections and end wall at the VMS equipment median to match the revisions described above for Standard Drawing GR-7. Revise the trailing end guide rail connections at the VMS equipment median similar to Standard Drawing GR-7 at the stairwell end of the VMS equipment median. Revise Type D Junction Box locations and provide missing fence railing dimensioning.

On Standard Drawing ITS-18, revise the handrail plan, stairwell plan, and Section E-E for guide rail connection changes described above for Standard Drawing ITS-17. Revise steel reinforcement in barrier Section A-A and add dimension for variable height barrier.

Perform miscellaneous call-out, notes, dimensioning, and drafting revisions to all of the drawings listed above.

### Reason for Change

The aforementioned revisions to the end wall location on Standard Drawing GR-7 and ITS-17 are proposed to allow for the guide rail connection steel back-up plates and through bolt nuts used at VMS equipment medians and other median barrier protection locations to remain accessible after construction. As currently constituted in the Standard Drawings, the back-up plate and through bolt nuts are encased within common embankment between the barrier walls and topped with a 4" concrete slab, rendering these items inaccessible for future maintenance repairs or replacement as needed after a vehicle hit. The proposed increase to the barrier length in advance of the median obstruction allows for the full barrier height and vertical face transition to be realized prior to the obstruction and is consistent with what has been depicted previously on Standard Drawing ITS-17.

New Sections A'-A' through D'-D' on Standard Drawing GR-11 are needed to depict the revised end wall and barrier transitions (on grade) proposed for Standard Drawing GR-7. Decreasing the spacing of the vertical steel reinforcement as noted above within the barrier section for Type B connections on Standard Drawing GR-11 is recommended for consistency with the Authority's practice of decreasing the vertical reinforcement spacing in

"corner" sections of barrier. This provides a structurally stiffer section at the barrier ends compared to the "main" section of the barrier.

Standard Drawing ITS-17 is specific to VMS equipment medians and the proposed revisions on this drawing are necessary to match the proposed end wall and barrier transitions on Standard Drawing GR-7 for future access to the guide rail connection back-up plate and through bolt nuts. The proposed changes at the trailing end of the VMS equipment median are necessary to avoid conflict of the guide rail connection back-up plate with the stairwell interior walls. The revised Type D Junction Box locations are recommended to match the correct junction box locations depicted on current Standard Drawings ITS-20 and ITS-21. The additional dimensioning of the fencing atop the VMS equipment median is recommended, based on past contractor inquiries received during installation.

Revisions to the stairwell plan, handrail plan, and Section E-E on Standard Drawing ITS-18 are necessary to match the revised guide rail connections proposed for Standard Drawing ITS-17. The revised barrier steel reinforcement in Section A-A is recommended to match the steel reinforcement proposed for the new barrier transition Sections A'-A' through C'-C' added to Standard Drawing GR-11. Variable barrier height dimensions are proposed for Section A-A to account for grade differences between the inner and outer roadways, based on past contractor inquiries received during installation.

Miscellaneous call-out, notes, dimensioning, and drafting revisions are recommended for all of the drawings listed above to enhance drawing clarity and design intent.