

New Jersey Department of Transportation
1035 Parkway Avenue, PO Box 600, Trenton, New Jersey 08625-0600



Baseline Document Change Announcement

ANNOUNCEMENT: BDC17S-07

DATE: July 17, 2017

SUBJECT: **Midwest Guardrail System (MGS)**
- Revision to Subsections/Subparts 607.04, 609.03.01, 609.03.03, 609.04, 913.01.02 & 913.01.03 and addition of new Subparts 609.03.07, 609.03.08 & 609.03.09 to the *2007 Standard Specifications for Road and Bridge Construction*.

REFERENCE: **Revision to the 2015 Roadway Design Manual Section 8, Guide Rail and Median Barriers**

BDC17MR-02

Barrier Curb, Guide Rail and Bridge Attachment Details

- Revisions to CD-607 through CD-609, BCD-507-8 and BCD-507-9 of the *Standard Construction Details 2016, Roadway and Bridge*

BDC17D-02

Subsections/Subparts 607.04, 609.03.01, 609.03.03, 609.04, 913.01.02 & 913.01.03 have been revised and Subparts 609.03.07, 609.03.08 & 609.03.09 have been added to the 2007 Standard Specification for Road and Bridge Construction, to conform to the requirements of the AASHTO publication "2011 Roadside Design Guide" and the 31" high Midwest Guardrail System (MGS).

The revision must be read in conjunction with the referenced BDCs for the corresponding change to the Roadway Design Manual and the Standard Construction Details.

The following revisions have been incorporated into the Standard Input (SI 2007) as of July 17, 2017.

SECTION 607 – CURB

607.04 MEASUREMENT AND PAYMENT

THE FOLLOWING ITEM IS ADDED:

<i>Item</i>	<i>Pay Unit</i>
VARIABLE WIDTH X VARIABLE HEIGHT CONCRETE BARRIER CURB	LINEAR FOOT

SECTION 609 – BEAM GUIDE RAIL

609.03.01 Beam Guide Rail

THE FIFTH PARAGRAPH IS DELETED.

THE FIRST SENTENCE OF THE SIXTH PARAGRAPH IS CHANGED TO:

Attach the beam guide rail element to the blockout at every post.

THE SEVENTH PARAGRAPH IS CHANGED TO:

Install flexible delineators with white retroreflective sheeting on the right side of the direction of traffic. Install flexible delineators with yellow retroreflective sheeting on the left side of the direction of traffic. Mount flexible delineators on the blockout of beam guide rail using either a “U” channel base on the I-beam blockout or a flat base attached to a wood timber or synthetic routed blockout. Attach the base to the I-beam, wood timber blockout or synthetic routed blockout using an adhesive recommended by the manufacturer of the base and panel. In addition to adhesive, mount flat base to a wood timber or synthetic routed blockout with two #10 x 3/4" long sheet metal screws.

609.03.03 Terminals and Anchorages

THE FIRST SENTENCE OF THE SECOND PARAGRAPH IS CHANGED TO:

Excavate for post holes as specified in [202.03.03](#).

THE FOLLOWING NEW SUBPARTS ARE ADDED:

609.03.07 Beam Guide Rail Post, ___ ' Long

Install beam guide rail posts of various lengths in excess of 6 feet long as specified in [609.03.01](#).

609.03.08 Beam Guide Rail on Bridge

- A. Beam Guide Rail and Thrie Beam Guide Rail Attachment to Sidewalk.** Install beam guide rail consisting of steel double rail elements, steel blockouts and steel posts welded to a base plate and mounted on bridge structure sidewalk, safety walk or roadway sidewalk utilizing epoxy-grouted anchors approved by the Department. Install the required attachments as shown on the plans.

Core drill the holes in the bridge structure sidewalk for anchor bolts with a core drill bit. Ensure core drill bit sizes for anchor bolt holes conform to manufacturer’s recommendations. Space holes and locate to clear existing deck reinforcement, deck joints, conduits, and junction boxes. Fasten anchor bolts to the concrete according to the manufacturer’s recommendations.

Ensure concrete and existing utility conduits are not damaged during the drilling for anchor bolts. Repair damage to the existing concrete caused by construction operations at no additional compensation.

Furnish Certification as specified in [106.07](#) that the 7/8 inch diameter anchor bolt has a minimum pullout strength of 24 kips.

- B. Beam Guide Rail Attachment to Existing Balustrade.** Install beam guide rail consisting of double rail elements and steel blockouts tack welded to mounting plates and attached to balustrade using mounting plates and steel bolts, nuts and washers. Install the required attachments as shown on the plans.

609.03.09 Approach Guide Rail Transitions

Install the required approach guide rail transition as shown on the plans.

609.04 MEASUREMENT AND PAYMENT

THE FOLLOWING TERMS ARE ADDED:

The Department will measure and make payment for Items as follows:

<i>Item</i>	<i>Pay Unit</i>
APPROACH GUIDE RAIL TRANSITION TL-2	UNIT
APPROACH GUIDE RAIL TRANSITION TL-3	UNIT

THE FOLLOWING ARE ADDED AT THE END OF THE SUBSECTION:

The Department will make payment for BEAM GUIDE RAIL POST, ___' LONG by the unit. A unit consists of the length of post beyond 6 feet in length and blockout.

The Department will make payment for BEAM GUIDE RAIL POST by the unit including the blockout.

SECTION 913 – GUIDE RAIL, FENCE, RAILING, AND BOX BEAM

913.01.02 End Treatments

THE ENTIRE SUBPART IS CHANGED TO:

For 27 1/4" high guide rail, use non-gating guide rail end treatment that is NCHRP 350 test level 3 (TL-3) tested, approved and are listed on the QPL.

For 31" high Midwest Guardrail System (MGS), use non-gating guide rail end treatment that is MASH test level 3 (TL-3) tested, approved and are listed on the QPL.

Submit a certification of compliance as specified in [106.07](#).

913.01.03 Posts and Blockouts

THE ENTIRE SUBPART IS CHANGED TO:

For steel posts and blockouts, use structural steel conforming to ASTM A 709, Grade 36, that is galvanized according to ASTM A 123.

Use wood timber blockouts and posts as specified in [915.01](#).

For 27 1/4" high guide rail, use synthetic routed blockouts that are NCHRP 350 test level 3 (TL-3) tested, approved and are listed on the QPL. Ensure that the name of the manufacturer and model number are stamped on each blockout and that the blockouts are of the same material and dimensions as the spacers that were NCHRP tested.


For 31" high Midwest Guardrail System (MGS), use synthetic routed blockouts that are MASH test level 3 (TL-3) tested, approved and are listed on the QPL. Ensure that the name of the manufacturer and model number are stamped on each blockout and that the blockouts are of the same material and dimensions as the spacers that were MASH tested.

Provide certifications of compliance, as specified in [106.07](#).

Implementation Code S (SPECIAL)


These BDC changes must be implemented in all Department projects that have a project letting date after December 31, 2017. The letting date is the receipt and opening of bids - "Activity 5040 Receive bids". This will allow designers to make necessary plan, specifications, and estimate/proposal changes without requiring the need for an addenda or postponement of advertisement or receipt of bids.

Recommended By:



Paul F. Schneider
Director
Capital Program Support

Approved By:



Eli D. Lambert III, P.E.
Assistant Commissioner
Capital Program Management