

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

Baseline Document Change Announcement



Detectable Warning Surfaces

BDC03S-23

July 26, 2004

SUBJECT: Revision to Subsections 607.02, 607.06, 607.07, 607.08, and addition of new Subsection 905.06 to the 2001 Standard Specifications in English and Metric units related to Detectable Warning Surfaces

REFERENCE: 2001 Standard Details- Sheet CD-607-1 (Public Sidewalk and Curb Ramps) and Sheet 607-2 (Concrete and HMA Driveways and Sidewalks) in Metric and English units - BDC03D-05 dated July 27, 2004.

Subsections 607.02, 607.06, 607.07, 607.08 have been revised and a new Subsection 905.06 has been added to the 2001 Standard Specifications in English and Metric units. These revisions are pursuant to the recent American with Disability Act (ADA) Accessibility Guidelines.

The following revisions have been incorporated in both the English unit Standard Input *SI2001E1* and Metric unit Standard Input *SI2001M1* as of July 26, 2004.

The following revisions are incorporated in the English unit Standard Input *SI2001E1*:

SECTION 607 - SIDEWALKS AND DRIVEWAYS

607.02 Materials.

THE ENTIRE SUBSECTION TEXT IS CHANGED TO:

HMA shall conform to Section 903 except that the composition of the mixture for the top layer may also include up to 20 percent of RAP. Portland cement concrete shall conform to Section 914 except that driveways shall attain a strength of not less than 3,000 pounds per square inch in three days. Other materials shall conform to the following Subsections:

Soil Aggregate	901.09
Prime Coat:	
Cut-back Asphalt, Grade MC-30 or MC-70	904.02
Tack Coat:	
Cut-back Asphalt, Grade RC-70 or RC-T	904.02
Emulsified Asphalt, Grade RS-1, SS-1, or SS-1h.....	904.03
Cationic Emulsified Asphalt, Grade CSS-1 or CSS-1h.....	904.03
Curing Materials.....	905.03

Preformed Expansion Joint Filler 908.01
 Reinforcement Steel 915.03
 Detectable Warning Surfaces 905.06
 Dense-graded aggregate for base course used with HMA sidewalk shall conform to Subsection 901.08.

607.06 Concrete Sidewalks, Driveways, and Public Sidewalk Curb Ramp Delineation.
 THE HEADING IS CHANGED TO:

607.06 Concrete Sidewalks, Driveways, and Detectable Warning Surfaces.

607.06 Concrete Sidewalks, Driveways, and Detectable Warning Surfaces.
 SUBPART 5 HEADING AND ENTIRE TEXT ARE CHANGED TO:

5. Detectable Warning Surfaces. Immediately before installing safety red color and Detectable Warning Surfaces, the designated area shall be thoroughly cleaned and dried according to the manufacturer’s recommendation. The installation of Detectable Warning Surfaces shall be according to the corresponding construction details and the manufacturer’s recommendation. The background surface upon which the detectable warning surface is installed, silicon carbide 60 grit shall be evenly broadcast at a rate of 0.07 pounds per square yards for skid resistance.

A list of approved manufacturers will be provided in the Special Provisions.

INCLUDE THE FOLLOWING LIST OF APPROVED PRODUCTS

A LIST OF APPROVED PRODUCTS CAN BE FOUND AT:

<http://www.state.nj.us/transportation/eng/technology/NTP/NTPDB.shtm>

Product Name	Manufacturer	Address / Phone No.
--------------	--------------	---------------------

All areas determined to have been damaged or not to be in conformance with the Specifications or the Plans shall be removed and replaced at no additional compensation to the State.

607.07 Method of Measurement.
 THE THIRD PARAGRAPH IS CHANGED TO:

Detectable Warning Surfaces will be measured by the square yard.

607.08 Basis of Payment.
 THE FOLLOWING PAY ITEM IS DELETED:

<i>Pay Item Number</i>	<i>Pay Item</i>	<i>Pay Unit</i>
6G01R	PUBLIC SIDEWALK CURB RAMP DELINEATION	SQUARE YARD

THE FOLLOWING PAY ITEM IS ADDED:

<i>Pay Item Number</i>	<i>Pay Item</i>	<i>Pay Unit</i>
6G03R	DETECTABLE WARNING SURFACES	SQUARE YARD

SECTION 905 - CONCRETE ADMIXTURES AND CURING MATERIALS

THE FOLLOWING SUBSECTION IS ADDED:

905.06 Detectable Warning Surfaces.

Materials for Detectable Warning Surfaces shall be safety red and appear uniform in color after curing. The surface coating material shall be an abrasion, UV and chemical resistant and shall be capable of adhering to existing or new portland cement concrete surfaces. The minimum final dry coat thickness shall be 40 mils.

The cured coating shall exhibit the following minimum coefficients of friction when tested according to ASTM D 1894.

Static coefficient of friction

Dry 0.95 – 0.99

Wet 1.39 – 1.42

Dynamic coefficient of friction

Dry 0.91 – 0.95

Wet 1.27 – 1.36

The Detectable Warning Surfaces shall be installed according to the manufacturer’s recommendations.

The following revisions are incorporated in the Metric unit Standard Input SI2001M1:

SECTION 607 - SIDEWALKS AND DRIVEWAYS

607.02 Materials.

THE ENTIRE SUBSECTION TEXT IS CHANGED TO:

HMA shall conform to Section 903 except that the composition of the mixture for the top layer may also include up to 20 percent of RAP. Portland cement concrete shall conform to Section 914 except that driveways shall attain a strength of not less than 21 megapascals in three days. Other materials shall conform to the following Subsections:

Soil Aggregate	901.09
Prime Coat:	
Cut-back Asphalt, Grade MC-30 or MC-70	904.02
Tack Coat:	
Cut-back Asphalt, Grade RC-70 or RC-T	904.02
Emulsified Asphalt, Grade RS-1, SS-1, or SS-1h	904.03
Cationic Emulsified Asphalt, Grade CSS-1 or CSS-1h	904.03
Curing Materials	905.03
Preformed Expansion Joint Filler	908.01
Reinforcement Steel	915.03
Detectable Warning Surfaces	905.06

Dense-graded aggregate for base course used with HMA sidewalk shall conform to Subsection 901.08.

607.06 Concrete Sidewalks, Driveways, and Public Sidewalk Curb Ramp Delineation.

THE HEADING IS CHANGED TO:

607.06 Concrete Sidewalks, Driveways, and Detectable Warning Surfaces.

607.06 Concrete Sidewalks, Driveways, and Detectable Warning Surfaces.

SUBPART 5 HEADING AND ENTIRE TEXT ARE CHANGED TO:

5. Detectable Warning Surfaces. Immediately before installing safety red color and Detectable Warning Surfaces, the designated area shall be thoroughly cleaned and dried according to the manufacturer’s recommendation. The installation of Detectable Warning Surfaces shall be according to the corresponding construction details and the manufacturer’s recommendation. The background surface upon which the detectable warning surface is installed, silicon carbide 60 grit shall be evenly broadcast at a rate of 38 grams per square meter for skid resistance.

A list of approved manufacturers will be provided in the Special Provisions.

INCLUDE THE FOLLOWING LIST OF APPROVED PRODUCTS

A LIST OF APPROVED PRODUCTS CAN BE FOUND AT:

<http://www.state.nj.us/transportation/eng/technology/NTP/NTPDB.shtm>

Product Name	Manufacturer	Address / Phone No.
--------------	--------------	---------------------

All areas determined to have been damaged or not to be in conformance with the Specifications or the Plans shall be removed and replaced at no additional compensation to the State.

607.07 Method of Measurement.

THE THIRD PARAGRAPH IS CHANGED TO:

Detectable Warning Surfaces will be measured by the square meter.

607.08 Basis of Payment.

THE FOLLOWING PAY ITEM IS DELETED:

<i>Pay Item Number</i>	<i>Pay Item</i>	<i>Pay Unit</i>
6G01R	PUBLIC SIDEWALK CURB RAMP DELINEATION	SQUARE METER

THE FOLLOWING PAY ITEM IS ADDED:

<i>Pay Item Number</i>	<i>Pay Item</i>	<i>Pay Unit</i>
6G03R	DETECTABLE WARNING SURFACES	SQUARE METER

SECTION 905 - CONCRETE ADMIXTURES AND CURING MATERIALS

THE FOLLOWING SUBSECTION IS ADDED:

905.06 Detectable Warning Surfaces.

Materials for Detectable Warning Surfaces shall be safety red and appear uniform in color after curing. The surface coating material shall be an abrasion, UV and chemical resistant and shall be capable of adhering to existing or new portland cement concrete surfaces. The minimum final dry coat thickness shall be 1 millimeter.

The cured coating shall exhibit the following minimum coefficients of friction when tested according to ASTM D 1894.

Static coefficient of friction	Dynamic coefficient of friction
Dry 0.95 – 0.99	Dry 0.91 – 0.95
Wet 1.39 – 1.42	Wet 1.27 – 1.36

The Detectable Warning Surfaces shall be installed according to the manufacturer’s recommendations.

Baseline Document Change Announcement to provide corresponding changes to the Roadway Design Manual will be released shortly via BDC03MR-04.

Implementation Code R (ROUTINE)

Changes must be implemented in all applicable Department projects scheduled for Final Design Submission at least one month after the date of the BDC announcement. 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:

Approved By:

Lynn D. Rich
 Director,
 Quality Management Services

F. Howard Zahn
 Assistant Commissioner,
 Capital Program Management

LDR:KS:HVP
BDC03S-23.doc

Superseded