
SECTION 516 - PAVEMENT STRIPES

516.01 DESCRIPTION

Include the following for contracts using contrast stripes.

NOTE TO THE DESIGNER: The Authority will determine which contrast striping system (Epoxy Resin or Preformed Contrast Marking Tape) will be utilized on bridge decks on a project-by-project basis.

The following is added after the second paragraph:

The work shall also consist of diamond grinding portland cement concrete bridge deck surfaces for contrast striping recessing and applying contrast stripes.

516.02 MATERIALS

The following is added:

PREFORMED CONTRAST MARKING TAPE 913.05

516.04 METHODS OF CONSTRUCTION

Include the following for contracts using contrast stripes (Epoxy Resin or Preformed Contrast Marking Tape).

(A) New Pavement Striping

The following is added after the eighth paragraph:

Diamond grinding shall be performed to prepare the concrete deck surface for the contrast striping. The transverse deck grooving shall be completed before the diamond grinding. Equipment shall include a free-floating cutting or grinding head to provide a consistent recess depth over irregular pavement surfaces. The grinding or cutting head shall be equipped with diamond saw blades. Diamond saw blades shall be used on the cutting head to provide a smooth surface in the bottom of the recess. Immediately prior to the application of the contrast striping, the recess shall be cleaned with high-pressure air to remove debris and dust generated during the cutting operation. The groove must be clean and dry for proper application of the contrast striping. Refer to the manufacturer's technical specifications for recess cleaning and dry time prior to product application.

The recess dimensions are as follows:

- 1. Width. The recess shall exceed the width of the marking material by 1 inch.*
- 2. Depth. 100 mils ± 10 mils.*
- 3. Position. The edge of the recess shall be constructed a minimum of 2 inches from the*

edge of concrete joints.

The total stripe width (black stripe), from outer edge to outer edge shall be 9 inches. The white stripe shall be 6 inches wide. For epoxy resin contrast stripes, white paint shall be applied within 24 hours of black paint but not less than the minimum requirement as recommended by the epoxy resin manufacturer.

Existing striping shall be removed prior to application of contrast striping per the manufacturer's recommendations.

Include the following for contracts using contrast stripes (Epoxy Resin only)

(D) Long-Life Epoxy Resin Traffic Stripes

The following is added to the beginning of the subparagraph:

Methods of Construction for Epoxy Resin Contrast Stripes shall be in accordance with Subparagraph (L) below.

The following Subparagraph is added:

(L) Epoxy Resin Contrast Stripes

Recesses shall be cut into the concrete bridge deck surface, and the surface cleaned and dried, as described in subsection 516.04 (A).

Black epoxy resin contrast stripes shall be applied in the recess and applied 12 mil ± 2 mils thick. Black aggregate shall be used to remove any sheen. Black contrast stripes shall dry completely before proceeding to the reflective media.

Contrast striping materials and application shall conform to the manufacturer's specifications.

Applied markings shall have a uniform 30 ± 2 mils total thickness reflective media distributed across the width of the line. The markings shall have crisp distinct edges and clean cutoff at the end of each line.

All applied markings shall be protected from traffic and potential tracking while the epoxy cures. Markings may be saturated with glass beads to help prevent tracking.

The Contractor shall demonstrate to the Engineer the application of the broken white lines for a distance of 150 feet. The Engineer shall approve the test strip before the contractor continues striping operations.

Include the following for contracts using contrast stripes (tape only)

The following Subparagraph is added:

(L) Preformed Contrast Marking Tape

Recesses shall be cut into the concrete bridge deck surface, and the surface cleaned and dried as described in subsection 516.04 (A).

Apply P-50 adhesive per the manufacturer's recommendations.

Contrast striping tape and its application shall conform to the manufacturer's technical bulletins and specifications.

516.05 MEASUREMENT

The following is added:

Removable Wet Weather Pavement Marking Tape will be measured by the linear foot based on a 6-inch wide strip. Tape, not installed in accordance with the specifications, that has become damaged and is no longer serviceable shall be replaced immediately without additional compensation and will not be measured for payment. Tape, installed in accordance with the specifications, that has become damaged and is no longer serviceable shall be replaced immediately in accordance with Section 516 and will be measured for payment. Tape that is damaged by construction operations shall also be replaced immediately without additional compensation and will not be measured for payment. Damaged tape, not replaced immediately, may be replaced by the Authority and the costs shall be charged to the Contractor in accordance with 106.23.

[Include the following with bridge deck repair contracts:]

The following is added:

The removal of existing painted pavement stripes by black paint will not be measured for payment.

No separate payment will be made for the placement and removal of the temporary pavement striping or the placement of permanent striping at Structure No. **[insert number]**. All costs thereof shall be included in the price bid for the item "Maintenance and Protection of Traffic at Structure No. **[insert number]**."

Note to the Designer: Include the following where contrast striping is specified for bridge decks.

Diamond Grinding, will be measured by the total length of recess used to prepare the underlying surface for the contrast striping, regardless of the recess required for specified striping. The distance between the trailing and lead ends of the skip stripes that are not grooved will not be measured for payment.

Preformed Contrast Marking Tape will be measured by the length of tape actually installed.

Epoxy Resin Contrast Stripes will be measured by the total length actually applied.

516.06 PAYMENT

The following is added:

<i>PAY ITEM</i>	<i>PAY UNIT</i>
Removable Wet Weather Pavement Marking Tape	Linear Foot
<i>Diamond Grinding</i>	<i>Linear Foot</i>
<i>Preformed Contrast Marking Tape</i>	<i>Linear Foot</i>
<i>Epoxy Resin Contrast Stripe</i>	<i>Linear Foot</i>

DIVISION 900 – MATERIALS

SECTION 913 - PAINTS AND COATINGS

913.05 TRAFFIC PAINT AND MARKING

Include the following for contracts using contrast stripes (Epoxy Resin only)

(C) Epoxy Resin

The following added to the beginning of the Subparagraph:

White epoxy resin compound to be placed on black epoxy resin compound stripes on the bridge deck surface (for broken white lines) shall be Epoplex GLOMARC 50 (Epoplex, 1 Park Avenue, Maple Shade, NJ 08052 800-822-6920, <http://www.epoplex.com>). White epoxy resin for other uses shall be as listed in the remaining portions of this subparagraph.

(b) Color

The following is added:

The black epoxy resin compound, when applied in a wet film thickness of 20 ± 1 mils and allowed to cure, shall match color chip No. 37038 of FED-STD-595B.

(6) Epoxy Composition

The following is added:

Black epoxy resin is to be applied with black aggregate to remove any sheen.

The following is added to the Pigment Composition Table:

Pigment Composition	Percent By Weight	
	Minimum	Maximum
Black:		
Epoxy Resin		79%
Black Pigment		21%

(a) Epoxy Content (Component A).

The following is added:

The epoxy content of the epoxy resin shall be tested in accordance with ASTM D 1652 and calculated as the weight per epoxy equivalent (WPE) for white and black.

(E) Glass Beads

Glass beads for Epoxy Resin Contrast Stripes shall meet the following requirements:

- *The large glass beads shall be VISIMAX as manufactured by Epoplex, Maple Shade, New Jersey. Drop rates to be 8 lbs. per gallon or as directed by the manufacturer.*
- *The small glass beads shall conform to the AASHTO M-247 Type 1 Specification. Drop rates to be 8 lbs. per gallon or as directed by the manufacturer.*

Glass beads required for other uses shall be as listed in the remaining portions of this subparagraph.

Include the following for contracts using contrast stripes (tape only)

The following Subparagraph is added:

(H) Preformed Contrast Striping Tape

Preformed contrast tape to be placed on the bridge deck surface shall be Stamark High Performance All Weather Contrast Marking Tape Series 380AW-5 as manufactured by 3M, 3M Center, Building 235-3A-09, St. Paul, MN, 55144-1000, (800) 553-1380, www.3M.com/tss. 3M Stamark Surface Preparation Adhesive P-50 shall be used with the overlay tape installation.