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REVISION OF SECTIONS 627 AND 713
PREFORMED PLASTIC PAVEMENT MARKING

Sections 627 and 713 of the Standard Specifications are hereby revised for this project as follows:

Subsection 627.08 shall include the following:

The preformed plastic pavement marking shall be Type I, Type II, or Type III as shown on the plans.

Prior to beginning installation operations, the Contractor shall submit to the Engineer instructions from the performed plastic pavement manufacturer detailing surface preparation, grooving requirements and material application. The instructions shall include the following:

- (1) Equipment Requirements
- (2) Approved Work Methods and Procedures
- (3) Material Application Temperature Requirements
- (4) Ambient Air and Surface temperature Requirements
- (5) Weather Limitations
- (6) Special Precautions
- (7) Any other requirements necessary for successful installation and satisfactory performance of the material.

The Contractor shall secure from the manufacturer all warranties and guarantees with respect to materials, workmanship, performance, or combination thereof, and shall include these warranties and guarantees with the Certification of Compliance.

Materials supplied without installation instructions or with incomplete instructions will not be accepted for use.

Unless otherwise shown on the plans, typical pavement markings shall conform to the shapes and sizes as shown on Standard Plan S-627-1.

The Contractor shall make all arrangements to have a manufacturer-trained installer of the manufacturer's products on-site during the placement of preformed plastic pavement marking to ensure proper installation. A minimum of two weeks prior to the placement of the preformed plastic pavement marking, the Contractor shall submit written documentation of the installer's qualifications and training in the installation of preformed plastic pavement marking. Upon completion of the work, the Contractor shall obtain and submit to the Engineer written documentation from the manufacturer-trained installer certifying that the product was installed in full compliance with this specification and manufacturer's recommendations.

The preformed plastic pavement marking shall be inlaid or placed on new and existing pavements as shown in the Contract. The material shall be capable of use for patching worn areas of the same type according to the manufacturer's recommendations.

The preformed plastic pavement marking shall conform to pavement contours by the action of traffic, and shall be capable of application on new, dense, and open graded asphalt wearing courses during the paving operations according to the manufacturer's recommendations. After application, the markings shall be immediately ready for traffic.

- (a) *Inlaid Preformed Plastic Pavement Marking.* The grooved width for inlaid preformed plastic pavement marking is called for in the Contract, grooved width shall be the pavement marking width plus 1 inch, with a tolerance of $\pm \frac{1}{4}$ inch. The depth of the grooves shall be 120 mils \pm 10 mils. Groove position shall be a minimum of 2 inches from the edge of the pavement marking to the longitudinal pavement joint.

The bottom of the groove shall have a smooth, flat finished surface. The spacers between blade cuts shall be such that there will be less than a 10 mil rise in the finished groove between the blades.

Grooves shall be clean, dry and free of laitance, oil, dirt, grease, paint or other foreign contaminants. The Contractor shall prevent traffic from traversing the grooves, and re-clean grooves, as necessary, prior to application of the preformed plastic pavement markings.

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Subsection 627.13 shall include the following:

Payment will be made under:

Pay Item	Pay Unit
Preformed Plastic Pavement Marking (Type __)	Square Foot
Preformed Plastic Pavement Marking (Type __) (Inlaid)	Square Foot
Preformed Plastic Pavement Marking (Word - Symbol) (Type __)	Square Foot
Preformed Plastic Pavement Marking (Xwalk - Stop Line) (Type __)	Square Foot

All costs associated with having the manufacturer-trained installer on-site and providing the documentation will not be measured and paid for separately, but shall be included in the work.

Delete subsection 713.13 and replace with the following:

713.13 Preformed Plastic Material. Preformed plastic pavement marking material shall conform to ASTM D 4505 for one of the following requirements:

- (1) Class 1 tape will not be permitted.
- (2) Class 2: for lane lines, crosswalks, stop lines and edge lines
- (3) Class 3: for legends and symbols

Preformed plastic pavement marking color shall conform to the requirements of ASTM D 6628.

Preformed plastic pavement markings shall meet the dimensional requirements of ASTM D 4505.

Skid resistance will not be considered a factor for acceptance.

The edges of the performed plastic pavement marking shall be straight and uniform, and consistently adhere to the pavement.

Unless otherwise stated in the Contract, preformed plastic pavement marking shall conform to the following material requirements for the Type shown on the plans:

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Property	Type I	Type II [‡]	Type III
Minimum thickness (mils)	75	75	60
Minimum Width (in)	4	7	4
Initial Retroreflectivity	Retroreflectivity level I in accordance to ASTM D 4505	Retroreflectivity level I in accordance to ASTM D 4505	Retroreflectivity level II in accordance to ASTM D 4505
Adhesion (°F)*	Roadway surface temperature range of 50 °F - 115 °F** in accordance with ASTM Test Method 1000	Roadway surface temperature range of 50 °F - 115 °F** in accordance with ASTM Test Method 1000	Roadway surface temperature range of 50 °F - 115 °F in accordance with ASTM Test Method 1000
Beads	Ceramic or combination of glass and ceramic	Ceramic or combination of glass and ceramic	Glass
Minimum refractive index	1.7	1.7	1.5
Surface pattern	Minimum of 31 mils and in accordance with ASTM D 4505	Minimum of 31 mils and in accordance with ASTM D 4505	N/A
<p>* The adhesion temperature is identical to both the application and test temperatures. **Application at a lower temperature may be permitted as approved by the Engineer. ‡ Contrast pavement marking to be used for skip lines, lane lines and gore markings.</p>			