



**SPECIAL PROVISIONS  
FOR  
COLORED PORTLAND CEMENT CONCRETE**

**Sioux County  
HSIPX-010-1(87)--3L-84**

**Effective Date  
December 20, 2022**

**THE STANDARD SPECIFICATIONS, SERIES 2015, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.**

**150937.01 DESCRIPTION.**

**A. Summary.**

This work includes the construction of colored PCC pavement to the lines and grades shown on the plans. The work shall include all labor, materials, equipment, and transportation required to install the colored PCC pavement.

**B. Quality Assurance.**

1. Design Criteria: The concrete mix used with pigment added shall be Class C-4, Class 3 aggregate meeting the requirements of the Standard Specifications. The aggregate, cement, and integral color shall be from the same source identical throughout the entire project. The material sources and mix proportions for this project shall be accurately recorded and furnished to the Engineer at the completion of the project.
2. Samples: Submit samples of color to the Engineer for approval.
3. Test Reports: Submit certified test reports of pigment showing compliance with ACI 303.1, ASTM C 979, ASTM C494 and AASHTO M194. Color pigments shall be light fast, wettable, weather resistant, ultra-violet resistant, alkali resistant, and free of deleterious fillers and extenders.
4. Manufacturer Qualifications: Manufacturer shall have minimum 5 years' experience in the production of specified products.
5. Installer Qualifications: An installer shall have minimum 5 years' experience with work of similar scope and quality, and shall be able to provide list of three projects similar in scope to this project which have been completed within the local area to prove qualifications.

**150937.02 MATERIALS.**

**A. Integral Color.**

The integral color shall be approved by the Engineer and shall be clay or tile/brick red by L.M. Scofield Company, Solomon Colors, Inc., Davis Colors, or approved equal. The integral color admixture shall be added to the concrete mix at the batch plant as per manufacturer's recommendation. Exact color determination will be from manufacturer's standard color palate.

**B. Sealant.**

Sealant shall comply with ASTM C 309 as a non-yellowing, curing membrane in accordance with the manufacturer's recommendations.

**150937.03 CONSTRUCTION.**

**A.** Concrete placement shall be in accordance with Section 2301 of the Standard Specifications and manufacturer's recommendations.

**B. Integrally Colored Concrete Environmental Requirements.**

1. Schedule placement to minimize exposure to wind and hot sun before curing materials are applied.

2. Avoid placing concrete if rain, snow, or frost is forecast within 24 hours. Protect fresh concrete from moisture and freezing.

3. Comply with professional practices described in ACI 305R and ACI 306R.

**C.** Schedule delivery of concrete to provide consistent mix times from batching until discharge. Mix times shall meet manufacturer's written recommendations.

**D.** Do not add water to concrete mix in field.

**E. Admixture.**

The Engineer must approve the use of admixtures. Calcium chloride admixture is not allowed.

**F. Integral Mix.**

Mix color pigment into the designated mix at the rate recommended by the manufacturer to produce the specified color.

**G. Slump.**

Slump shall be maintained at 3 to 4 inches. Addition of a super-plasticizer is acceptable to improve the placing and finishing of concrete.

**H. Joints.**

Saw joints as shown in the contract documents.

**I. Surface finish.**

Place microtexture as specified in Article 2301.03, H, 2 of the Standard Specifications.

**J. Cleaning.**

Prior to sealing, the entire surface of the pavement shall be thoroughly cleaned to insure no foreign material is sealed with the pavement. This may require the use of hand tools, detergent, power-washing and/or other tools as needed to insure the surface is clear of all debris, effervescence, concrete dust, and all other materials.

**K. Curing.**

The use of white-pigmented cure compounds, burlap, plastic sheeting, or fogging with water is not allowed. Sealant shall be specifically recommended by manufacturer of integral color

admixture for use with their product. Sealant shall be applied in a fine spray to form a continuous, uniform film on the surface as soon as the free water has appreciably disappeared. Surface shall be protected from construction damage, dirt, debris, oil, etc. by covering with waterproof paper for a period of 24 hours. A second sealant application shall then be made and protected from foot traffic for a minimum of 8 hours and vehicular traffic for a minimum of 7 days.

L. Patch and repair all defects in the surface.

**150937.04 METHOD OF MEASUREMENT AND PAYMENT**

The quantity of Colored PCC Pavement constructed will be computed in square yards by the Engineer from measurements of the finished surface. Deductions will not be made for fixtures having an area of 1 square yard or less.

**150937.04 BASIS OF PAYMENT.**

For the area of Colored PCC Pavement measured, the Contractor will be paid the contract unit price per square yard. This payment shall be full compensation for all equipment, tools, labor and materials necessary to construct colored PCC pavement as specified in the contract documents.