



**SPECIAL PROVISIONS
FOR
COMBINATION COATING – GALVANIZED-POWDER TOP COAT**

Black Hawk County

Project No.
NHSX-63-6(88)--3H-07

Effective Date
February 19, 2013

THE STANDARD SPECIFICATIONS, SERIES 2012, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

122002.01 GENERAL

1.01 General: This section specifies requirements for coating systems for certain items on the project, including light poles, light pole mast arms, light pole bases, luminaries, signal poles, mast arms, and bases.

122002.02 MATERIALS, EQUIPMENT AND CONSTRUCTION

2.01 Surface Preparation: Prior to being incorporated into an assembled product, steel plates 3/4 inch or more in thickness shall be blast cleaned to remove rolled-in mill scale, impurities and non-metallic foreign materials. After assembly, all weld flux shall be mechanically removed. The iron or steel product shall be prepared for zinc coating in accordance with ASTM 232.

2.02 Zinc Coating: The product shall be hot-dip galvanized to the requirements of ASTM A123 (fabricated products). The entire product shall be totally immersed, with no part of it protruding out of the zinc (no double dipping). This is to limit a risk of trapped contaminants containing chlorides and reduce the risk of bare spots. Maximum aluminum content of the bath shall be 0.01 percent. Flux ash shall be skimmed from the bath surface prior to immersion and extraction of the product to assure a debris-free zinc coating.

2.03 Exterior Coating: All galvanized exterior surfaces shall be coated with a Urethane or Triglycidyl Isocyanurate (TGIC) Polyester Powder to a minimum film thickness of 2.0 mils (0.002 inch). Prior to application, the surfaces to be powder coated shall be mechanically etched by brush blasting (Ref. Society for Protective Coatings [SSPC] SP-7) and the zinc-coated substrate preheated to 450° for a minimum of one hour in a gas-fired convection oven by heating the zinc-coated substrate to a minimum of 350°F and a maximum of 400°F. The thermosetting powder resin shall provide both intercoat as well as substrate fusion adhesion that meets 5A or 5B classifications of ASTM D3359. Color shall be a semi-gloss black selected from the manufacturer's standard color table, and shall be readily matchable for future repair.

2.04 Packaging: Prior to shipment, all items shall be protected to prevent damage during shipment and handling at project site.

2.05 Field Repair Procedures: Where factory applied coatings have become damaged or abraded due to handling, transport, installation, welding or other circumstances, they shall be repaired in accordance with manufacturer's recommendations.

All damaged areas shall be thoroughly wire brushed. All dirt, oil, grease or other contaminants shall be removed in accordance with SSPC-SP1 and SP5. Touch-up paint shall be supplied by the galvanizer or steel fabricator, and shall be identical in color and composition to that used in the plant. Touch-up paint shall be applied to all prepared surfaces to a dry film thickness of at least 4.0 mils.

122002.03 METHOD OF MEASUREMENT AND BASIS OF PAYMENT

3.01 Method of Measurement and Basis of Payment: Combination Coating – Galvanized-Powder Top Coat shall not be measured for separate payment but shall be considered incidental to the price bid for each individual item painted.

END OF SECTION