

992 HIGHWAY LIGHTING MATERIALS.

(REV 1-22-13) (FA 2-5-13) (7-13)

SUBARTICLE 992-1.4 (Page 1133) is deleted and the following substituted:

992-1.4 Conduit: Conduit shall be used in accordance with the National Electrical Code and as specified in the Plans. Conduit shall meet the requirements of Section 630.

SUBARTICLE 992-1.8 (Pages 1133 – 1134) is deleted and the following substituted:

992-1.8 Pull Boxes: Pull boxes shall meet the requirements of Section 635.

SUBARTICLE 992-2.5 (Page 1135) is deleted and the following substituted:

992-2.5 Luminaire Cable: Pole and bracket cable shall be multi-conductor Type XHHW-2 XLP TC with three No. 10 AWG.

SUBARTICLE 992-2.7 (Page 1135) is deleted and the following substituted:

992-2.7 Surge Protection Devices: The metal oxide varistor (MOV) based SPD shall be potted in a manner to be waterproof. UL listing is not required. SPD's per mode surge current rating shall be 20KA for 480V to ground and 40KA for neutral to ground. Maximum continuous operation voltage (MCOV) shall be not less than 550Vrms and not greater than 600Vrms. All wires and internal spacings shall be insulated for 600Vrms.

ARTICLE 992-4 (Page 1140) is deleted and the following substituted:

992-4 Sign Lighting.

992-4.1 Luminaires and Ballasts: The luminaire shall consist of a precision cast aluminum housing with a corrosive resistant polyester powder coat finish. The standard color shall be gray. The cover shall be attached to the housing utilizing stainless steel hardware, and the housing shall be sealed to provide an IP 55 rating or greater. The mounting assembly for a sign light shall be a slipfitter type to accommodate a 1-1/2 inch, Schedule 40 steel pipe connection. The luminaire manufacturer shall place a permanent tag on the luminaire housing on which the following is imprinted: the luminaire voltage, lamp wattage and a blank area for the Contractor to inscribe the installation date. The refractor shall be tempered clear or microprismatic glass.

Induction or LED fixtures shall meet the following requirements: Correlated Color Temperature of CCT 4500 K (plus or minus 500K), maintain 94.1% intensity at 6,000 hours (IES LM-80) and have IESNA light distribution curves (IES LM-79) by an EPA recognized laboratory. The driver/ballast may be internal or external to the fixture. The driver/ballast shall have a power factor greater than or equal to 90% at full load and a total

harmonic distortion less than or equal to 20% at full load. The fixture shall accommodate a circuit voltage of 480 volts. If the fixture is not compatible with the circuit voltage, step-down transformers or other equivalent circuitry shall be provided by the fixture manufacturer to provide for a complete installation.

The fixture shall be rated for a minimum lamp efficiency of 60% lumen output at 75,000 hours at 25°C. The manufacturer shall provide a five year non-prorated warranty to the Department. The warranty shall begin on the installation date.

SUBARTICLE 992-5.1 (Pages 1140 – 1141) is deleted and the following substituted:

992-5.1 Luminaires and Ballasts: Luminaires shall consist of a die-cast aluminum housing and reflector holder and a heat-resistant, high-transmission glass prismatic refractor. Housing shall have gasketing between the reflector and the refractor and the socket entry. Luminaires shall be high pressure sodium vapor unless otherwise indicated in the Plans.

High pressure sodium lamps shall meet the following requirements:
NEMA C78.42, Color Rendering Index of CRI 21 (Min), CCT 2100 K and average rated life of 24,000 hours (min).

Underdeck fixtures may be wall mounted or pendant mounted fixtures. Pendant mounted fixtures shall be vibration tested in accordance with NEMA C136.31.