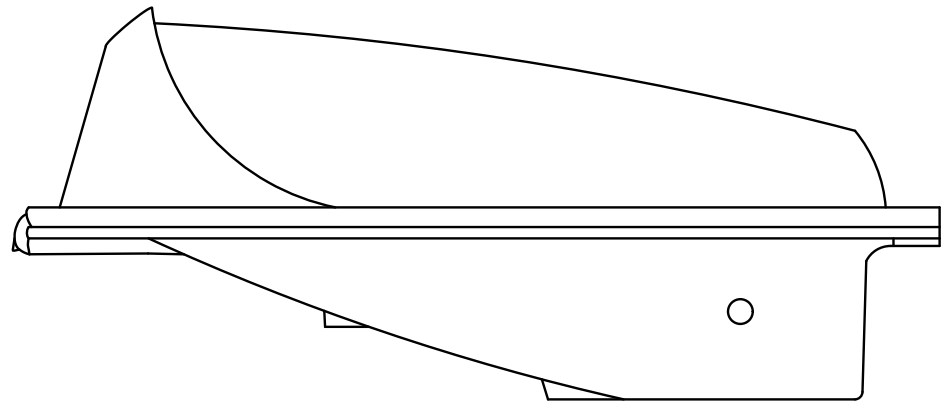
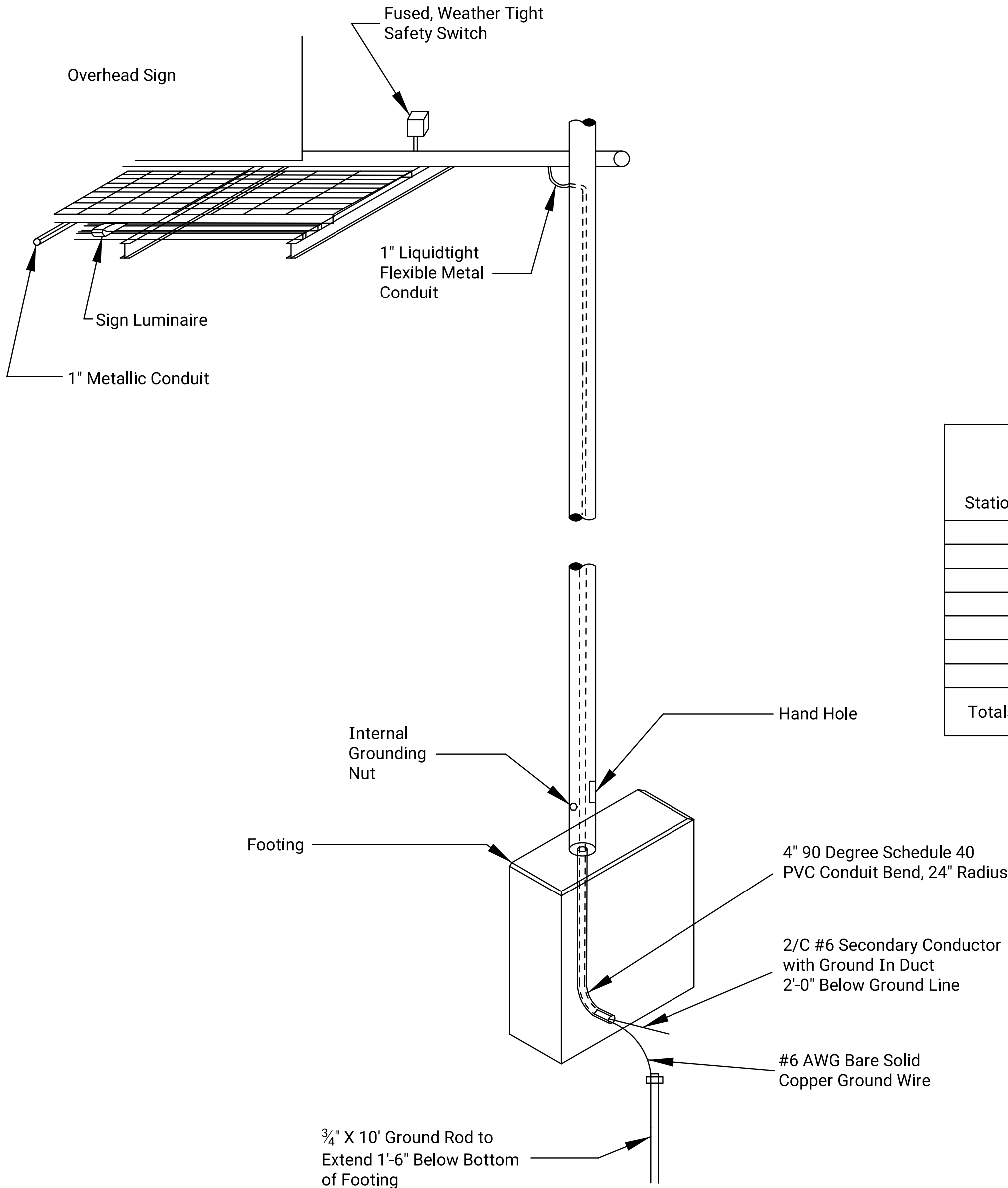


STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		0	0	



TYPICAL SIGN LUMINAIRE



CONSTRUCTION AND MATERIAL REQUIREMENTS

SECONDARY CABLE: Secondary cable shall be copper single conductor cable for operation at 600 volts maximum material shall meet the applicable requirements of ICEA Standard S-19-81, with thermo-plastic insulation of GRS rubber base meeting Appendix K(a) of ICEA and listed by UL as Type USE-2. For direct burial: Material shall meet the applicable requirements of ICEA Standard S-66-524, with thermo-setting insulation of cross link polyethylene meeting requirements of column "A" of ICEA and listed by UL as Type USE-2.

DUCT: The duct for secondary cable underground shall be polyethylene duct with minimum tensile strength of 3100 PSI, duct to provide for 40 maximum fill. The duct shall meet ASTM D3485 (Latest Revision).

METALLIC CONDUIT: Metallic conduit shall be rigid steel conduit meeting the requirements of American Standard Specifications C-80.1.

Safety switch shall be 480 volt, 15 amp, single throw, double pole, front operated, fusible, heavy duty, in a NEMA. Type 3R controller.

GROUND: Ground wire shall be a #6 AWG solid bare copper wire.

250 WATT SIGN LUMINAIRE: 250 watt sign luminaire shall have die cast aluminum housing with a built-in ballast of 480 volts. The luminaire shall have a hydroformed alzak aluminum housing reflector and glass refractor with inner prisms to provide maximum uniformity.

PERFORMANCE SPECIFICATION: The 250 watt sign luminaire shall perform within the following standards on a 18' (inch) wide by 10' (feet) high sign panel mounted 1' (feet) down and 4' (feet) out from the sign face:
max/min7:1
avg/min3:1
max25 fc
Ilf.72

250 WATT LAMPS: 250 watt lamps shall be 11,200 lumen, clear mercury vapor.

JUNCTION BOX: Junction box shall be made of 14 gauge sheet metal (steel) with welded seams, knockouts and weatherproof screw cover. Boxes shall be hot dipped galvanized in accordance with ASTM A-123 or electroplated with a minimum thickness of 0.4 mil after fabrication. The surface of the junction box which comes in contact with concrete shall be covered with aluminum colored butyl rubber sealant (caulking compound).

ELECTRICAL DETAILS

All wiring from handhole to safety switch on overhead sign bridge shall be No. 8 AWG 1/C cable.

All wiring from safety switch on overhead sign bridge to light fixtures shall be No. 10 AWG 1/C cable.

All wiring shall be enclosed in conduit, a structural member, or cable duct.

Conduit between structure end member and truss member shall be 1" (inch) liquid-tight flexible metal conduit. Other conduit shall be rigid metallic conduit.

Safety switch on overhead sign bridge shall be mounted as shown at end of maintenance walkway.

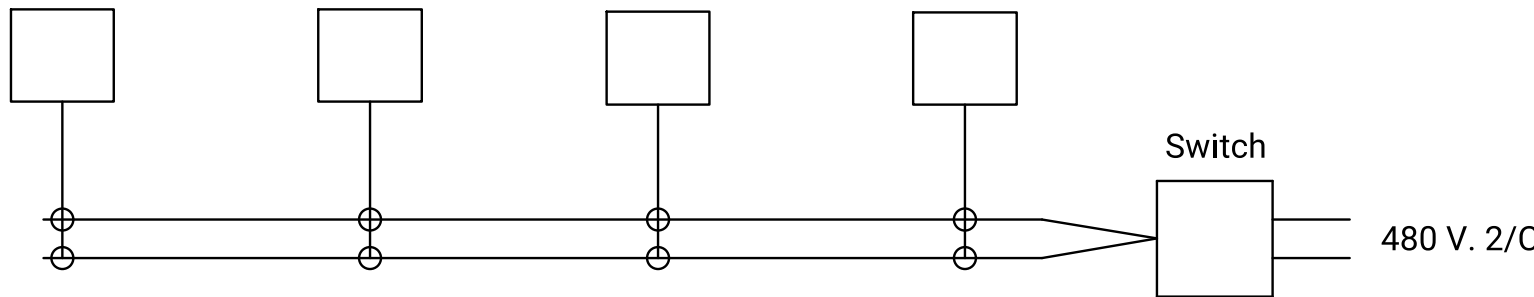
Lead in cable from handhole in the support to safety switch on overhead sign bridge shall not be in duct.

Sign lighting fixtures shall be mounted in a manner approved by the engineer.

QUANTITIES FOR OVERHEAD SIGN STRUCTURE

Station	1" Liquidtight Flexible Metal Conduit Lin. Foot	Lamps	Fixtures	1" Metallic Conduit Lin. Foot	No. 8 AWG 1/C Single Conductor Lin. Foot	No. 10 AWG 1/C Single Conductor Lin. Foot	Two No. 6 AWG 1/C Single Conductor Lin. Foot	Trenching Lin. Foot	Ground Rods ¾" X 10'	No. 6 AWG Groundwire Lin. Foot	Safety Switch	Fused Disconnect Switch
Totals												

NOTE: All work required for installing fixtures, safety switches and necessary wiring shall be bid as "Electric Lighting System - Lump Sum".



TYPICAL WIRING LAYOUT

THIS SHEET TO BE USED WITH SIGNING MODIFICATION PROJECTS ONLY

NO.	DATE	REVISIONS		BY	APP'D
KANSAS DEPARTMENT OF TRANSPORTATION					
CONSTRUCTION AND MATERIAL REQUIREMENTS AND QUANTITIES FOR SIGN LIGHTING					
TE203					
FHWA APPROVAL		08-06-03	APP'D.	Linda G. Voss	
DESIGNED	V.H.	DETAILED	V.H.	QUANTITIES	TRACED
DESIGN CK.	C.A.L.	DETAIL CK.	C.A.L.	QUAN.CK.	TRACE CK.