

C. NON-METALLIC CONDUIT AND FITTINGS

1. CONDUIT: NON-METALLIC CONDUIT SHALL BE SCHEDULE 40 RIGID POLYVINYL CHLORIDE MEETING THE REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL MANUFACTURERS' ASSOCIATION STANDARD TC-2 AND SHALL BE LISTED BY THE UNDERWRITERS' LABORATORY, INC.
2. FITTINGS: NON-METALLIC CONDUIT FITTINGS SHALL BE FABRICATED FROM POLYVINYL CHLORIDE HAVING THE SAME CHEMICAL AND PHYSICAL PROPERTIES AS THE CONDUIT WITH WHICH IT IS TO BE USED. EACH SHALL BEAR THE UNDERWRITERS' LABORATORY, INC. LABEL. THE JOINTS SHALL BE MADE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

ST, AV; SERIES "E" MODIFIED - 200 mm UPPER CASE W/150 mm LOWER CASE FOR NAMES; SERIES "E" MODIFIED - 200 mm FOR NUMERALS. THE LEGEND SHALL BE CENTERED ON THE SIGN FACE. THE BORDER SIZE SHALL BE 20 mm WIDE. ALL CORNERS ON SIGN BLANKS SHALL BE ROUNDED.

2. INSTALLATION: STREET NAME SIGNS SHALL BE INSTALLED ON MAST ARMS, BETWEEN THE SIGNAL POLE AND THE FIRST TRAFFIC SIGNAL HEAD ASSEMBLY. THE FINAL LOCATION TO BE DETERMINED BY THE ENGINEER.

C. LAYOUT: BEFORE FINAL FABRICATION AND SHIPMENT, THE MANUFACTURER OR SUPPLIER SHALL PROVIDE THE ENGINEER WITH A LAYOUT OF EACH SIGN SHOWING THE EXACT STREET NAME LETTERING TO BE PLACED ON THE SIGN.

D. MOUNTING:

1. REGULATORY SIGNS: THE R10 SERIES SIGNS SHALL BE MOUNTED ON THE MAST ARM TO THE RIGHT OF THE LEFT TURN SIGNAL HEAD USING AN APPROVED MOUNTING BRACKET AS SHOWN IN THE TRAFFIC SIGNAL INSTALLATION DETAILS. THE MOUNTING BRACKET SHALL BE CAPABLE OF WITHSTANDING A WIND LOAD IN EXCESS OF 160 KM/H.
2. OVERHEAD STREET NAME SIGNS: THE OVERHEAD STREET NAME SIGNS SHALL BE MOUNTED ON THE SIGNAL MAST ARM, BETWEEN THE SIGNAL POLE AND THE FIRST TRAFFIC SIGNAL HEAD ASSEMBLY. THE FINAL LOCATION WILL BE DETERMINED BY THE ENGINEER. INSTALLATION OF SIGNS ON MAST ARMS SHALL BE ACCOMPLISHED WITH SUITABLE STAINLESS STEEL BANDING, CLAMPS, AND BRACKETS CAPABLE OF WITHSTANDING 160 KM/H WINDS. STREET NAME SIGNS OVER 450 mm IN HEIGHT SHALL BE INSTALLED USING APPROVED SIGN MOUNTING BRACKETS. ALL BOLTS INSERTED THROUGH SIGN FACES SHALL HAVE FLAT WASHERS INSTALLED BETWEEN THE REFLECTIVE SHEETING AND BOLT HEADS. BOLT HOLES IN SIGNS SHALL BE DRILLED IN THE FIELD. SIGNS SHALL BE MOUNTED SUCH THAT THE LEGEND IS LEVEL.

E. ACCEPTANCE: ALL SIGNS WILL BE ACCEPTED ON THE BASIS OF CATALOG CUTS AND VISUAL INSPECTION BY THE ENGINEER WHEN DELIVERED TO THE PROJECT SITE.

VIII. BANDING MATERIAL

A. BANDING MATERIAL USED TO FASTEN EQUIPMENT TO THE POLE OR MAST ARM SHALL BE STAINLESS STEEL COATED WITH ETHYLENE-VINYL-ALCOHOL (EVA) COPOLYMER. THE COLOR SHALL BE BLACK.

IX. MESSENGER CABLE.

A. WHERE AERIAL RE-ROUTING OF EXISTING TRAFFIC SIGNAL COMMUNICATION CABLE IS SHOWN ON THE PLANS, THE MESSENGER CABLE FURNISHED SHALL BE GALVANIZED GUY STRAND (7 WIRE) 8 mm.

X. SPECIAL FINISH FOR TRAFFIC SIGNAL EQUIPMENT.

A. THE TRAFFIC SIGNAL CONTROLLER CABINET, BRACKETS, SIGN BLANK BACKS, METER BOXES, AND DISCONNECT BOXES SHALL BE SHOP PAINTED WITH AN AEROSOL LACQUOR CELULOSE ESTER TO MATCH THE TRAFFIC SIGNAL POLE COLOR. THE CONTRACTOR SHALL SUBMIT TWO COPIES OF THE PROPOSED COATING SYSTEM TO THE CITY FOR APPROVAL PRIOR TO APPLICATION.

VI. PULL BOXES

- A. GENERAL: SERVICE AND JUNCTION BOX LOCATIONS ARE TYPICAL ONLY AND MAY BE ADJUSTED DURING INSTALLATION TO CLEAR OBSTRUCTIONS AND FACILITATE WIRING AS APPROVED BY THE ENGINEER. THE QUANTITY OF BOXES AS SHOWN IN THE PLANS MAY NOT BE REDUCED. HOWEVER, ADDITIONAL BOXES MAY BE PROVIDED AT THE CONTRACTOR'S EXPENSE. SERVICE AND JUNCTION BOXES SHALL NOT BE LOCATED IN SIDEWALK RAMPS. ALL SERVICE AND JUNCTION BOXES SHALL BE FREE OF TRASH, WIRE SCRAPS, ETC.
- B. BEDDING: AN 200 mm LAYER OF AGGREGATE SHALL BE PROVIDED UNDER ALL SERVICE AND JUNCTION BOXES. THE AGGREGATE UNDER SERVICE AND JUNCTION BOXES SHALL MEET THE REQUIREMENTS OF CA-6 DESCRIBED IN SUBSECTION 1102 OF THE STANDARD SPECIFICATIONS. THIS AGGREGATE WILL BE VISUALLY ACCEPTED BY THE ENGINEER.
- C. CONDUIT ENTRANCES: THE AREA AROUND THE CONDUIT ENTRANCE SHALL BE FILLED WITH A MORTAR GROUT OR A SILICONE SEALANT.
- D. SERVICE BOXES: ALL SERVICE BOXES ARE TO BE PRECAST CONCRETE WITH A CAST IRON COVER. SERVICE BOXES SHALL BE PROVIDED WITH CABLE HOOKS AS DETAILED IN THE PLANS.
- E. JUNCTION BOXES: THE CONTRACTOR MAY FURNISH PRECAST CONCRETE JUNCTION BOXES WITH A CAST IRON COVER.

VII. SIGNS

A. GENERAL: THE DESIGN DETAILS (COLOR, LETTER HEIGHT AND LETTER SERIES) FOR ALL REGULATORY AND WARNING SIGNS SHALL BE AS SHOWN IN THE LATEST EDITION OF THE STANDARD HIGHWAY SIGNS MANUAL UNLESS SHOWN OTHERWISE IN THE PLANS. SIGN BLANKS FOR ALL REGULATORY AND WARNING SIGNS SHALL BE 2 mm THICK ALUMINUM ALLOY UNLESS OTHERWISE NOTED IN PLANS. ALL SIGNS SHOWN IN THE BILL OF MATERIALS ON THE TRAFFIC SIGNAL QUANTITIES SHEET SHALL BE INCLUDED IN THE LUMP SUM COST FOR THE BID ITEM OF "TRAFFIC SIGNAL INSTALLATION".

B. OVERHEAD STREET NAME SIGNS

1. CONSTRUCTION: OVERHEAD STREET NAME SIGNS SHALL BE TYPE 5052-H38 ALUMINUM ALLOY 3 mm THICK. THE SIGN FACES SHALL BE DIRECT-APPLIED WHITE ENCLOSED LENS HIGH PERFORMANCE REFLECTIVE LEGEND AND BORDERS ON A GREEN ENCLOSED LENS HIGH PERFORMANCE REFLECTIVE SHEETING BACKGROUND. THE GREEN SHEETING SHALL CONFORM TO FEDERAL COLOR STANDARD 595A, COLOR NO. 14109. UNLESS OTHERWISE SPECIFIED IN THE PLANS, COPY SIZE FOR THE LEGENDS SHALL BE AS FOLLOWS: SERIES "E" MODIFIED - 150 mm UPPER CASE FOR SW,