

REVISIONS

T. MAJONTI	0
REDRAWN MES 166A TO CADAM, NEW DWG. NO. TAKEN OUT (EO-17083-B REV. 0) ADDED FILING INFO.	
R. HOPKINS	1
12/28/99	
ELIMINATED ALL USL OF LEAD.	
G.J.	2/28/99
H. MAR	2
7/9/01	
UPDATED WIRING REQUIREMENTS, ADDED NOTES 8 AND 9.	
G.J.	7/9/01

METER EQUIPMENT TO BE IN ACCORDANCE WITH BOOKLET "APPROVED ELECTRIC SERVICE EQUIPMENT CONSOLIDATED EDISON CO OF N.Y., INC."

2 STADOR WATTHOUR METER (TO BE FURNISHED & INSTALLED BY COMPANY)

LEAVE MINIMUM LENGTH OF 12" OF #10 AWG SOLID COPPER WIRES, TYPE R OR TYPE T, ABOVE EQUIPMENT CABINET.

(COMPANY WILL MAKE FINAL CONNECTIONS TO WATTHOUR METER)

2-10 AMP. PLUG FUSES IN A METAL BOX WITH HINGED COVER PROVIDED WITH FACILITIES TO ACCOMMODATE A SEAL.

PROVIDE SIMILAR SEPARATE FUSE BOX AND FUSES FOR LOW VOLTAGE PHASING FACILITIES. (SEE NOTE 7)

LOCATE FUSES AT NEAREST ACCESSIBLE SAFE PLACE TO POT. TRANSFORMERS.

TO LOW VOLTAGE PHASING FACILITIES (SEE NOTE 7)

6 (MIN) AWG COPPER CABLES (5 KV INSTALLATION) DO NOT FUSE POT. TRANSFORMER PRIMARY WIRING.

#10 AWG (MIN.) COPPER WIRES. MAKE GROUND CONNECTIONS AS CLOSE AS POSSIBLE TO INSTRUMENT TRANSFORMERS. DO NOT GROUND AT MORE THAN ONE LOCATION. GROUND WIRES SHALL BE CONTINUOUS WITHOUT SPLICES OR INTERMEDIATE CONNECTIONS. (SEE NOTE 5).

2 POTENTIAL TRANSFORMERS 2400/120 VOLT (TO BE FURNISHED BY COMPANY) (SEE NOTE 2)

3-CURRENT TRANSFORMERS FURNISHED BY COMPANY (SEE NOTE 2 & 3)

NOTES:

■ POLARITY MARKINGS ON CURRENT & POTENTIAL TRANSFORMERS.

1. THE CUSTOMER SHALL FURNISH LABOR AND MATERIAL FOR COMPLETE INSTALLATION, EXCEPT AS OTHERWISE NOTED.
2. CUSTOMER'S INSTRUMENTS OR PROTECTIVE EQUIPMENT SHALL NOT BE CONNECTED TO REVENUE METERING CURRENT OR POTENTIAL TRANSFORMERS. CUSTOMER SHALL PROVIDE SEPARATE INSTRUMENT TRANSFORMERS (CONNECTED ON THE LOAD SIDE OF THE METERING TRANSFORMERS) FOR HIS EQUIPMENT.
3. CURRENT TRANSFORMER SECONDARY TERMINALS BRIDGED BY A SHORT CIRCUITING WIRE SHALL NOT BE OPEN CIRCUITED BY THE CONTRACTOR. COMPANY WILL REMOVE SHORT CIRCUITING WIRE AND TAG WHEN MAKING FINAL CONNECTIONS TO THE WATTHOUR METER AND CURRENT TRANSFORMERS.
4. WIRING TO CURRENT & POTENTIAL TRANSFORMER SECONDARIES SHALL BE CUT AND FORMED TO PROPER LENGTH AND IDENTIFIED. COMPANY WILL MAKE FINAL CONNECTIONS TO INSTRUMENT TRANSFORMER SECONDARY TERMINALS.
5. ALL SECONDARY GROUND CONNECTIONS AND CASE GROUND SHALL BE MADE SO THAT THEY REMAIN GROUNDED WHEN THE PRIMARY GROUND DISCONNECTING POINTS ARE OPENED FOR HI-POT TESTS. INSTRUMENT TRANSFORMER CASES AND METER CASES, IF MOUNTED ON INSULATED STRUCTURES, SHALL BE GROUNDED SEPARATE FROM SECONDARY WIRING GROUNDS, USING #6 (MIN.) AWG. COPPER FOR TRANSFORMER CASES, AND #10 (MIN.) AWG. COPPER FOR METER CASES.
6. COLOR CODE:

WIRF NO.	COLOR	WIRF NO.	COLOR
31	BL/JL	11	RLD
33	BLACK	12	RED WITH TRACER
34	ORANGE WITH TRACER	13	WHITE
		14	WHITE WITH TRACER
		15	GREEN
		16	GREEN WITH TRACER
7. LOW VOLTAGE PHASING FACILITIES ARE REQUIRED WHERE SERVICE CONSISTS OF MORE THAN ONE 4KV FEEDER. (REFER TO DWG. NO. EO-3477-D)
8. FOR COMPLETE REQUIREMENTS, REFER TO METER ENGINEERING SPEC. 350.
9. THIS WIRING SCHEME IS USLD FOR EXISTING INSTALLATION ONLY. FOR NEW INSTALLATION TO METER VG 3 PHASE 4 WIRE 2400/4150 VOLT GROUNDED WYE SERVICE, MES 166 MUST BE USED.

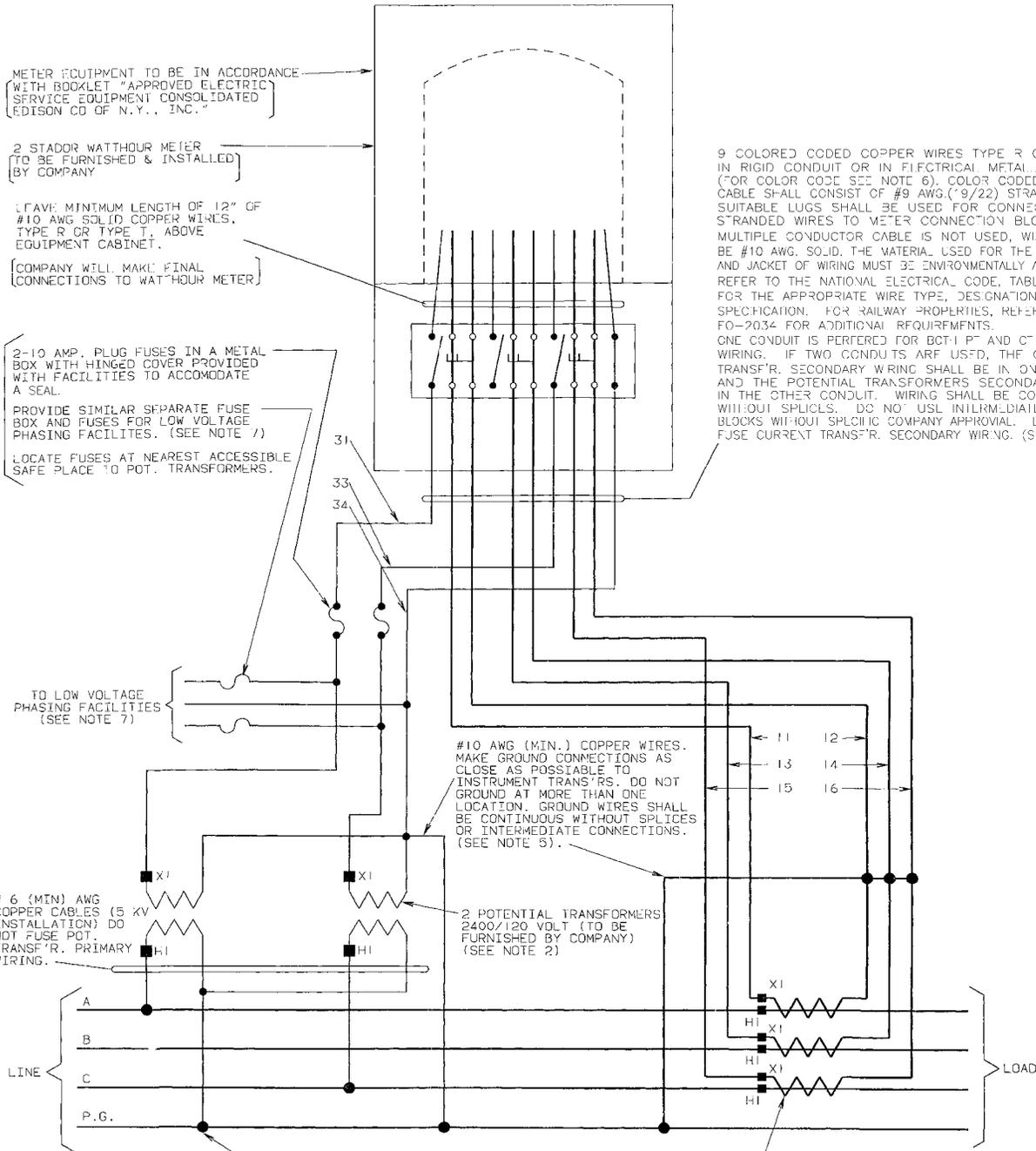
**WIRING DIAGRAM FOR METERING
2400/4150 VOLT 3 PHASE,
4 WIRE SERVICE USING 2
POTENTIAL TRANSFORMERS AND
3 CURRENT TRANSFORMERS
REVENUE METERING
MES-166A**

CONSOLIDATED EDISON COMPANY OF N. Y., INC.
DISTRIBUTION ENGINEERING DEPARTMENT

DATE 1/14/70

LAST REV. 7/9/01

DWG. NO. **EO-17083-B** REV. 2



9 COLORED CODED COPPER WIRES TYPE R OR TYPE T IN RIGID CONDUIT OR IN ELECTRICAL METALIC TUBING. (FOR COLOR CODE SEE NOTE 6). COLOR CODED MULTIPLE CABLE SHALL CONSIST OF #9 AWG (19/22) STRANDED WIRE. SUITABLE LUGS SHALL BE USED FOR CONNECTION OF STRANDED WIRES TO METER CONNECTION BLOCK. IF MULTIPLE CONDUCTOR CABLE IS NOT USED, WIRES SHALL BE #10 AWG. SOLID. THE MATERIAL USED FOR THE INSULATION AND JACKET OF WIRING MUST BE ENVIRONMENTALLY ACCEPTABLE. REFER TO THE NATIONAL ELECTRICAL CODE, TABLE 310-13 FOR THE APPROPRIATE WIRE TYPE, DESIGNATION AND SPECIFICATION. FOR RAILWAY PROPERTIES, REFER TO SPEC. FO-2034 FOR ADDITIONAL REQUIREMENTS. ONE CONDUIT IS PERMITTED FOR BOTH PT AND CT SECONDARY WIRING. IF TWO CONDUITS ARE USED, THE CURRENT TRANSFORMER SECONDARY WIRING SHALL BE IN ONE CONDUIT AND THE POTENTIAL TRANSFORMERS SECONDARY WIRING IN THE OTHER CONDUIT. WIRING SHALL BE CONTINUOUS WITHOUT SPLICES. DO NOT USE INTERMEDIATE TERMINAL BLOCKS WITHOUT SPLICE COMPANY APPROVAL. DO NOT USE FUSE CURRENT TRANSFORMER SECONDARY WIRING. (SEE NOTE 4)

FIELD MANUAL NO. 4 SERVICE INSTL. SECTION 6: METER INSTL. FIELD MANUAL NO. 16 SERV. INSPEC. & CONTRL. SECTION 3: ELECTRIC METERING.