I. MATERIALS

A. ENCLOSURE

THE SINGLE DOOR POLE MOUNT ENCLOSURE SHALL BE APPROXIMATELY 28" HIGH, 18" WIDE, AND 8 3/4" DEEP. THE CABINET AND DOOR SHALL BE MADE OF 14GA TYPE 304 STAINLESS STEEL WITH A 14 GA. STAINLESS STEEL CONTINUOUS WELDED HINGE. THE ENCLOSURE SHALL HAVE A NATURAL MILL FINISH. A CLOSED CELL NEOPRENE GASKET SHALL BE AROUND THE ENTIRE DOOR FOR WATER INTEGRITY. THE FLANGE MOUNTING DISCONNECT OPERATOR SHALL BE STAINLESS STEEL OR CHROME PLATED FOR NEMA 4X APPLICATION, CAPABLE OF BEING LOCKED IN EITHER POSITION WITH A DUAL COVER INTERLOCK MECHANISM. THE CABINET & DOOR SHALL HAVE A GROUNDING LUG. THE ENCLOSURE SHALL MEET OR EXCEED THE REQUIREMENTS OF A NEMA 4X RATING. THE MOUNTING FLANGES SHALL HAVE 3 MOUNTING HOLES IN THE TOP FLANGE AND THREE MOUNTING HOLES IN THE BOTTOM FLANGE AS SHOWN ON SHEET 4.

- B. CONTROL PANEL
- 1. 100 AMPERE, 3 POLE, 600 VOLT, (CUTLER HAMMER) SINGLE THROW DISCONNECT SWITCH WITH 100 AMP TIME DELAY FUSES, COOPER SHORTING BUSS WITH LUG FOR #2 COOPER 7 STRAND (SEE SHEET 2)
- 2. NEMA RATED 100 AMPERE, 3 POLE, 600 VOLT, CONTACTOR WITH 120 VOLT OPERATING COIL, CONTROL TRANSFORMER, TYPE SBE, 480/120 VOLTS, 60 CYCLE, .2 KVA AND 2 AMP CONTROL FUSE HOLDER ON SECONDARY SIDE AND 1AMP ON PRIMARY SIDE.
- 3. ALL FUSES TO BE TYPE H. (BLADE FUSES)
- 4. INTERNAL MOUNTED HAND, OFF, AUTO SELECTOR SWITCH.
- 5. INSULATED SOLID COPPER NEUTRAL BUS CAPABLE OF TERMINATING THE SPECIFIED NUMBER AND SIZE WIRES.
- 6. TERMINAL BLOCK SHALL BE PROVIDED FOR PHOTOELECTRIC RELAY CONNECTION. BLOCK SHALL ACCEPT #10 COPPER WIRES AND SHALL BE BUSSMAN 14002-3 OR APPROVED EQUAL.
- 7. THE CONDUCTORS BETWEEN THE FUSE DISCONNECT AND THE CONDUCTOR SHALL BE 7 STRAND COPPER #4, 600 VOLT TYPE THW. ALL OTHER CONDUCTORS SHALL BE 7 STRAND COPPER #12, 600V TYPE MTW.
- 8. THE CONTROLLER SHALL BE WIRED AS SHOWN ON SHEET 2.
- 9. THE MOUNTING PANEL SIZE SHALL BE 25" X 15".
- 10. THE CONTROLLER SHALL BE ASSEMBLED WITH STANDARD HARDWARE FOR EASE OF MAINTENANCE.
- 11. THE PANEL SHALL BE CENTRAL SYSTEMS & CONTROLS CORP. MFG. # 20026031042, DEWSBURY INC. # 60310422002 APPROVED INTERCHANGEABLE EQUAL.
- C. MISCELLANEOUS MATERIAL
- 1. THE GROUND ROD SHALL BE 1/2" X 10' COPPERWELD.
- 2. ALL GROUNDING WIRE SHALL BE #4 AWG BARE SOLID COPPER.
- 3. THE PHOTOELECTRIC RELAY SHALL BE CADMIUM SULPHIDE WITH LOCKING TYPE RECEPTACLE, POLE MOUNTED 120 VOLT OPERATION. THE TURN ON AND OFF LEVELS SHALL BE ADJUSTABLE FOR 0.3 TO 6.0 FOOT CANDLES. CONTACTS SHALL BE RATED FOR A MINIMUM LOAD OF 1200 WATTS. THE PHOTOELECTRIC RELAY SHALL BE GENERAL ELECTRIC, TORK, LUMATROL OR APPROVED EQUAL
- 4. THE SERVICE ENTRY CABLE SHALL BE #2, 7 STRAND COPPER TYPE XHHW.
- 5. ALL MOUNTING HARDWARE SHALL BE STAINLESS STEEL, BRASS OR HOT DIPPED GALVANIZED.

II. INSTALLATION

- 1. THE INSTALLATION FOR AN OVERHEAD STREET LIGHTING SYSTEM SHALL BE INSTALLED AS SHOWN ON SHEET 3.
- 2. THE INSTALLATION FOR AN UNDERGROUND STREET LIGHTING SYSTEM SHALL BE INSTALLED AS SHOWN ON SHEET 3.
- 3. THE GROUND WIRES SHALL BE PROTECTED BY WOOD MOLDING TO A HEIGHT OF 8'.
- 4. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL SECONDARY, CONTROL CIRCUITS AND GROUNDING EQUIPMENT.
- 5. MOUNTING BRACKET SEE SHEET 4.
- 6. CONTROLLERS SHALL NOT BE INSTALLED FACING FLOW OF TRAFFIC
- 7. LIGHTING ARRESTOR SHALL BE INSTALLED AS SHOWN ON SHEET 3.
- 8. THE CONTROLLER SHALL BE FUSED ACCORDING TO THE LOAD AMPERAGE ON THE TABLE BELOW. FUSE REDUCERS SHALL BE BUSSMANN OR APPROVED EQUAL.

LOAD AMPERAGE	FUSE SIZE	FUSE REDUCER
1-12	15 A	BUSS #216
13-25	30 A	BUSS #216
26-37	45 A	BUSS #616
38-50	60 A	BUSS #616
51-66	80 A	N/A
67-83	100 A	N/A

III. BASIS OF PAYMENT

ITEM UNIT DESCRIPTION

MIS-600 EACH CONTROLLER, 2 WIRE, 480V, POLE MOUNT

MIS-600

DEPARTMENT OF PUBLIC UTILITIES - DIVISION OF POWER CITY OF COLUMBUS, OHIO

CONTROLLER, 2 WIRE, 480V, POLE MOUNT

DRAWN BY: BEN DATE: 1/1/2018

SHEET: 1 OF 4

APPROVED: Jun & Wilf

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