II. INSTALLATION

A. ENCLOSURE

B. PADMOUNT CONTROLLER BASE
THE ENCLOSURE BASE SHALL BE 18" HIGH, 18" WIDE, 8 3/4" DEEP AT THE TOP AND 15" DEEP AT THE BOTTOM. THE BASE SHALL HAVE A 5" X 12" OPENING CENTERED IN THE TOP & A 6" X 12" OPENING CENTERED IN THE BOTTOM. THE BASE SHALL BE MADE FROM 14GA. 304 STAINLESS STEEL. THE BASE SHALL (MEET OR EXCEED THE REQUIREMENTS OF NEMA 4X RATING AND SHALL BE U.L. LISTED) BE ATTACHED TO ENCLOSURE WITH THREADED 5/8" STAINLESS STEEL STUDS WELDED IN PLACE & MATCH ENCLOSURE BOLT PATTERN. THE ENCLOSURE AND BASE SHALL BE NATURAL FINISH. THE ENCLOSURE SHALL BE A CENTRAL SYSTEMS CONTROLS CORP. (MFG# 20026031000), DEWSBURY INC. (MFG# 60310002002) OR APPROVED INTERCHANGEABLE EQUAL.

C. 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 CONDUCTOR (SEE SHEET 2)
2. NEMA RATED 100 AMP, 3 POLE, 500 VOLT, CONTACTOR WITH 120 VOLT OPERATING COIL, CONTROL TRANSFORMER, TYPE SIZE, 480/120 VOLTS, 60 CYCLE .2 KVA AND 2 AMP CONTROL FUSE HOLDER ON SECONDARY SIDE AND 1 AMP 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 THW.
8. THE CONTROLLER SHALL BE WIRING AS SHOWN ON SHEET 2.
9. THE CONTROLLER SHALL BE ASSEMBLED WITH STANDARD HARDWARE FOR EASE OF MAINTENANCE.
10. THE CONTROL PANEL SHALL BE CENTRAL SYSTEMS & CONTROLS CORP. MFG. # 20026031042, DEWSBURY INC. # 60310422002 OR APPROVED INTERCHANGEABLE EQUAL.
11. LIGHTNING/SURGE ARRESTOR SHALL BE INSTALLED INTERNALLY ON THE CONTROL PANEL.
12. THE MOUNTING PANEL SIZE SHALL BE 25" X 15".
13. THE CONTROLLER SHALL BE FUSED ACCORDING TO THE LOAD AMPERAGE ON THE TABLE BELOW. FUSE REDUCERS SHALL BE USED IF NECESSARY.

<table>
<thead>
<tr>
<th>Load Amperage</th>
<th>Fuse Size</th>
<th>Fuse Reducer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-12</td>
<td>15 A</td>
<td>BUSS #216</td>
</tr>
<tr>
<td>13-25</td>
<td>30 A</td>
<td>BUSS #216</td>
</tr>
<tr>
<td>26-37</td>
<td>45 A</td>
<td>BUSS #616</td>
</tr>
<tr>
<td>38-50</td>
<td>60 A</td>
<td>BUSS #616</td>
</tr>
<tr>
<td>51-66</td>
<td>80 A</td>
<td>N/A</td>
</tr>
<tr>
<td>67-83</td>
<td>100 A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

D. PRECAST MOUNTING PAD
THE PRECAST REINFORCED CONCRETE MOUNTING PAD SHALL BE 28" X 27" X 6" WITH AN 8" X 12" OPENING IN THE CENTER FOR THE CONDUIT. THREADED INSERTS FOR 3/4" BOLTS SHALL BE CAST INTO THE PAD TO FIT THE BOLT PATTERN OF THE CABINET.

E. GROUNDING
THE GROUNDING ELECTRODE (GROUND ROD) SHALL Be #4 X 10' COPPER CLAD. THE CONDUCTOR TO THE GROUNDING ELECTRODE SHALL BE #6 Awg Bare Solid Copper.

F. CONDUIT
ALL CONDUIT SHALL BE 2" NON-METALLIC SCHEDULE 40 PVC INSTALLED AS SPECIFIED IN MIS-15.

G. PHOTO ELECTRIC RELAY
THE PHOTO ELECTRIC RELAY SHALL BE CADMIUM SULPHIDE WITH A LOCKING TYPE RECEPTACLE. THE RELAY SHALL BE POLE MOUNTED AND OPERATE AT 120 VOLTS. THE TURN ON AND OFF LEVELS SHALL BE ADJUSTABLE FOR 0.3 TO 6.0 FOOT CANDLES. THE PHOTO ELECTRIC RELAY SHALL BE GENERAL ELECTRIC, TORK, LUMATROL OR AN APPROVED EQUAL.

THE CONTROL WIRE SHALL BE TYPE USE, RHH, OR RHW #12 SEVEN STRAND COPPER.

II. INSTALLATION


BEFORE THE ENCLOSURE AND BASE ARE SET, THE WINDOW IN THE PAD SHALL BE FILLED WITH A CONCRETE MIX. THE CONCRETE SHALL BE RUFF FINISHED TO ASSURE A SEAL AROUND THE CONDUIT AND THE GROUND ROD.

THE ENCLOSURE AND EXTENSION BASE SHALL BE ATTACHED TO THE PAD WITH STAINLESS STEEL BOLTS AND WASHERS.

A. POWER SERVICE
THE CONTRACTOR SHALL INSTALL TWO #4 5KV CABLES (MIS-14) FROM THE LINE TERMINALS OF THE CONTROL PANEL TO POWER COMPANY'S SERVICE TRANSFORMER POLE MOUNT OR PEDESTAL, LEAVING 6 FT PLUS OF CABLING COILED FOR CONNECTION BY THE POWER COMPANY. THE NEUTRAL CABLE SHALL BE CLEARLY MARKED WITH WHITE STRIPE AND WHITE TAPE.

B. PHOTO ELECTRIC CONTROL
THE PHOTO ELECTRIC CONTROL SHALL BE MOUNTED ON TOP OF THE FIRST LIGHT STANDARD OF THE CIRCUIT. THE THREE CONTROL WIRES SHALL BE INSTALLED IN THE SAME 2" CONDUIT AS CIRCUIT.

III. BASIS OF PAYMENT

ITEM | UNIT | DESCRIPTION
--- | --- | ---
MIS-601 | EACH | CONTROLLER, 2 WIRE, 480V, PAD MOUNT
DEPARTMENT OF PUBLIC UTILITIES - DIVISION OF POWER
CITY OF COLUMBUS, OHIO
CONTROLLER, 2 WIRE, 480V, PAD MOUNT
MIS-601

GROUND 480V STREET LIGHTING CONTROLLER

METER ELECTRICAL CONNECTIONS (IF REQUIRED)
(SEE MIS-203)
NOTES:
1. CONCRETE PAD SHALL BE 2" BACK OF SIDEWALK.
2. CONCRETE PAD SHALL BE 10" OFF THE EDGE OF ROADWAY
   WHEN NO SIDEWALKS EXIST.
3. TRANSFORMER EXACT LOCATION SHALL BE COORDINATED WITH
   THE SUPPLYING ELECTRIC COMPANY.

CONTROL ENCLOSURE
COIL CABLE
FOR CONNECTION
BY POWER CO.
ENCLOSURE
BASE
GROUND RED
LIGHTING CIRCUI
& CONTROL WIRES
IN SAME 2" CONDUIT

2" CONDUIT TO
EXTENDED THE TRANSFORMER
CONCRETE ENCASED WHEN
DETERMINED BY ENGINEER

MIS-601
CONTROLLER, 2 WIRE, 480V
PAD MOUNT

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

(4)-0.5" CLEARANCE HOLES

(4)-3/8" 16 STUDS 1" LONG

(1)-11 GA. STAINLESS STEEL PLATE

DEPICTED BY: [Signature] DATE: 1/1/2018
APPROVED: [Signature] SHEET: 3 OF 4