



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
PO BOX 778
DOVER, DELAWARE 19903

JACK MARKELL
GOVERNOR

JENNIFER COHAN
SECRETARY

VIA OVERNIGHT DELIVERY

(302) 760-2030
FAX (302) 739-2254

May 6, 2016

Contract No. T201509002.01
Federal Aid Project No. ENHS-2015(27)
I-95/I-295/I-495 Interstate High Mast Lighting Improvements
New Castle County

Ladies and Gentlemen:

Enclosed is Addendum No. 1 for the referenced contract consisting of the following:

1. The Bid Proposal Cover, revised, to be substituted for the same page in the Proposal.
2. One (1) page, Table of Contents, page v revised, to be substituted for the same page in the Proposal.
3. Two (2) pages, Bid Proposal Forms, pages 3 and 4 revised. Item Number 746517 has been deleted and 746519 has been added.
4. Two (2) pages, Plan Sheets 15 and 19 revised, to be substituted for the same pages in the Proposal.
5. Expedite Bid File, Addendum No. 1.

Please note the revision listed above and submit your bid based upon this information.

Sincerely,

signature on file

Robert A. Kovacs
Competitively Bid Contracts Coordinator

:jhh
Enclosure

STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION

BID PROPOSAL

for

CONTRACT T201509002.01

FEDERAL AID PROJECT NO. ENHS-2015(27)

I-95/I-295/I-495 Interstate High Mast Lighting Improvements

New Castle County

ADVERTISEMENT DATE: April 25, 2016

COMPLETION TIME: 124 Calendar Days

SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
DELAWARE DEPARTMENT OF TRANSPORTATION
AUGUST 2001

Bids will be received in the Bidder's Room at the Delaware Department of Transportation's Administration Building, 800 Bay Road, Dover, Delaware until 2:00 P.M. local time May 24, 2016

| | |
|---|-------------------------------|
| 720586 - GUARDRAIL END TREATMENT ATTENUATOR, TYPE 2 - 31 | 83 |
| 744530 - CONDUIT JUNCTION WELL, TYPE 11, PRECAST CONCRETE/POLYMER LID-FRAME | 85 |
| 744531 - CONDUIT JUNCTION WELL, TYPE 14, PRECAST CONCRETE/POLYMER LID-FRAME | 85 |
| 744544 - ADJUST OR REPAIR EXISTING CONDUIT JUNCTION WELL | 87 |
| 745602 - FURNISH & INSTALL UP TO 4" SCHEDULE 80 HDPE CONDUIT (BORE) | 88 |
| 745604 - FURNISH & INSTALL UP TO 4" SCHEDULE 80 PVC CONDUIT (TRENCH) | 88 |
| 745606 - FURNISH & INSTALL UP TO 4" GALVANIZED STEEL CONDUIT (TRENCH) | 88 |
| 745609 - FURNISH & INSTALL UP TO 4" GALVANIZED STEEL CONDUIT (ON STRUCTURE) | 88 |
| 746517 - ALUMINUM LIGHTING STANDARD WITH SINGLE DAVIT ARM, 30' POLE | 92 |
| 746519 - ALUMINUM LIGHTING STANDARD WITH SINGLE DAVIT ARM, 40' POLE | 92 |
| 746526 - HIGH MAST LUMINAIRE (LED) | 96 |
| 746563 - LUMINAIRES (HPS), 1000 WATTS | 98 |
| 746590 - FURNISH & INSTALL GROUND ROD | 100 |
| 746614 - POLE BASE EXTENSION | 101 |
| 746625 - ELECTRICAL MANHOLE | 102 |
| 746626 - HIGH MAST LIGHT POLE | 104 |
| 746627 - FURNISH AND INSTALL 1-CONDUCTOR #1/0 AWG (15KV, ERP, MV-105) STRANDED COPPER | 108 |
| 746852 - POLE BASE, TYPE 6 | 111 |
| 746901 - UNDERPASS LUMINAIRE | 115 |
| 746907 - FURNISH & INSTALL 1-CONDUCTOR #2 AWG STRANDED COPPER | 117 |
| 746908 - FURNISH & INSTALL 1-CONDUCTOR #4 AWG STRANDED COPPER | 117 |
| 746911 - FURNISH & INSTALL 1-CONDUCTOR #10 AWG STRANDED COPPER | 117 |
| 746919 - FURNISH & INSTALL #4/0 AWG STRANDED COPPER | 117 |
| 746952 - FURNISH & INSTALL ELECTRICAL UTILITY SERVICE | 122 |
| 749687 - INSTALLATION OR REMOVAL OF TRAFFIC SIGN ON SINGLE SIGN POST | 123 |
| UTILITY STATEMENT | 124 |
| RIGHT OF WAY CERTIFICATE | 127 |
| ENVIRONMENTAL STATEMENT | 128 |
| RAILROAD STATEMENT | 130 |
| BID PROPOSAL FORMS | 131 |
| DRUG TESTING AFFIDAVIT | 137 |
| CERTIFICATION | 138 |
| BID BOND | 140 |

DELAWARE DEPARTMENT OF TRANSPORTATION
SCHEDULE OF ITEMS

PAGE: 3
DATE:

CONTRACT ID: T201509002.01 PROJECT(S): ENHS-2015(27)

All figures must be typewritten.

CONTRACTOR : _____

| LINE NO | ITEM DESCRIPTION | APPROX. QUANTITY AND UNITS | UNIT PRICE | | BID AMOUNT | |
|---------|---|----------------------------|------------|-----|------------|-----|
| | | | DOLLARS | CTS | DOLLARS | CTS |
| 0200 | 745604 FURNISH & INSTALL UP TO 4" SCHEDULE 80 PVC CONDUIT (TRENCH) | 27073.000 LF | | | | |
| 0210 | 745606 FURNISH & INSTALL UP TO 4" GALVANIZED STEEL CONDUIT (TRENCH) | 140.000 LF | | | | |
| 0220 | 745609 FURNISH & INSTALL UP TO 4" GALVANIZED STEEL CONDUIT (ON STRUCTURE) | 279.000 LF | | | | |
| 0240 | 746526 HIGH MAST LUMINAIRE (LED) | 6.000 EACH | | | | |
| 0250 | 746563 LUMINAIRE (HPS), 1000 WATTS | 76.000 EACH | | | | |
| 0260 | 746590 FURNISH & INSTALL GROUND ROD | 24.000 EACH | | | | |
| 0270 | 746614 POLE BASE EXTENSION | 4.000 CF | | | | |
| 0280 | 746625 ELECTRICAL MANHOLE | 11.000 EACH | | | | |
| 0290 | 746626 HIGH MAST LIGHT POLE | 20.000 EACH | | | | |
| 0300 | 746627 FURNISH AND INSTALL 1-CONDUCTOR #2 AWG (15KV, ERP, MV-105) STRANDED COPPER | 17233.000 LF | | | | |

DELAWARE DEPARTMENT OF TRANSPORTATION
SCHEDULE OF ITEMS

PAGE: 4
DATE:

CONTRACT ID: T201509002.01 PROJECT(S): ENHS-2015(27)

All figures must be typewritten.

CONTRACTOR : _____

| LINE NO | ITEM DESCRIPTION | APPROX. QUANTITY AND UNITS | UNIT PRICE | | BID AMOUNT | |
|---------|---|----------------------------|------------|-----|------------|-----|
| | | | DOLLARS | CTS | DOLLARS | CTS |
| 0310 | 746852 POLE BASE, TYPE 6 | 12.000 EACH | | | | |
| 0320 | 746872 LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE | 2.000 EACH | | | | |
| 0330 | 746901 UNDERPASS LUMINARE | 6.000 EACH | | | | |
| 0340 | 746907 FURNISH & INSTALL 1-CONDUCTOR #2 AWG STRANDED COPPER | 111260.000 LF | | | | |
| 0350 | 746908 FURNISH & INSTALL 1-CONDUCTOR #4 AWG STRANDED COPPER | 15873.000 LF | | | | |
| 0360 | 746911 FURNISH & INSTALL 1-CONDUCTOR #10 AWG STRANDED COPPER | 1271.000 LF | | | | |
| 0370 | 746919 FURNISH & INSTALL #4/0 AWG STRANDED COPPER | 322.000 LF | | | | |
| 0380 | 746952 FURNISH AND INSTALL ELECTRICAL UTILITY SERVICE EQUIPMENT | LUMP | LUMP | | | |
| 0390 | 749687 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST | 1.000 EACH | | | | |
| 0400 | 908002 TOPSOIL (CY) | 28.000 CY | | | | |
| 0410 | 746519 ALUMINUM LIGHTING STANDARD WITH SINGLE DAVIT ARM, 40' POLE | 12.000 EACH | | | | |
| | SECTION 0001 TOTAL | | | | | |
| | TOTAL BID | | | | | |

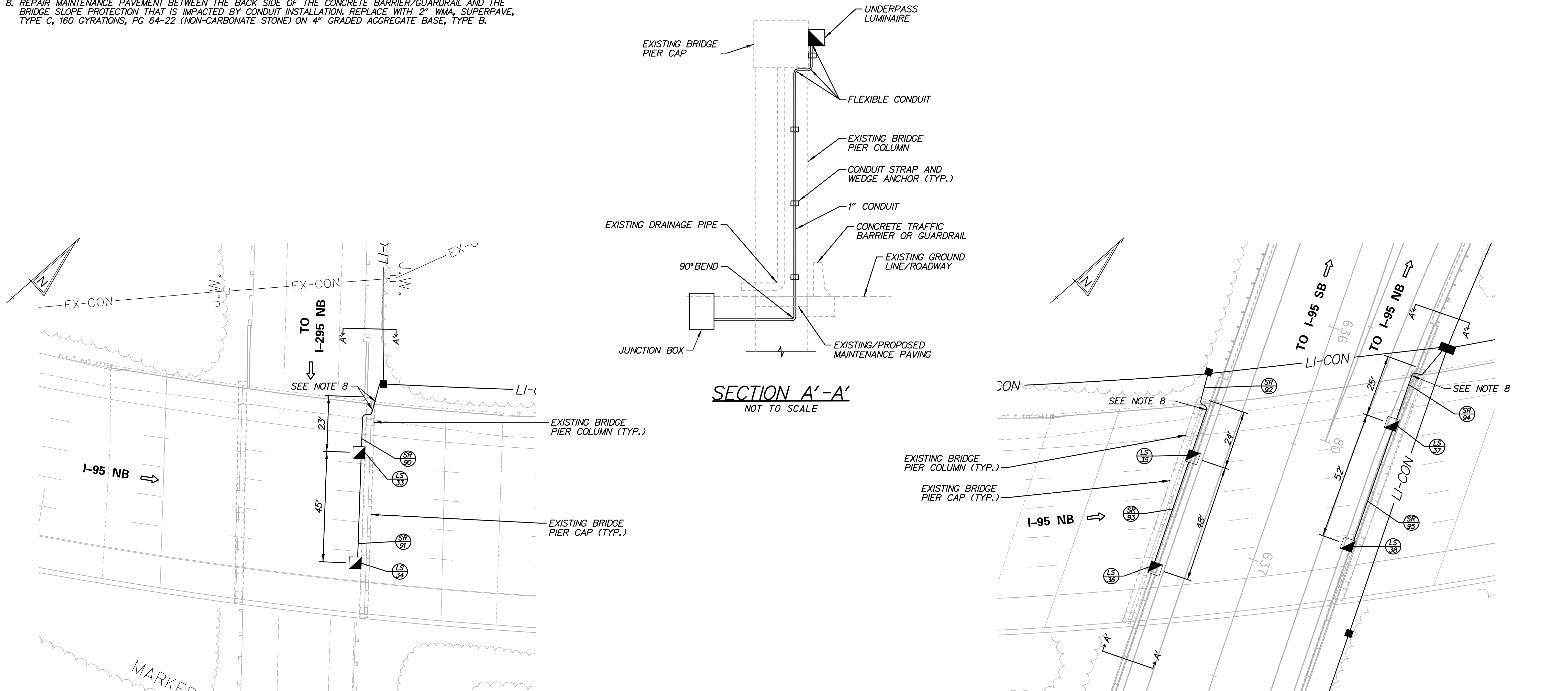
NOTES:

1. ALL UNDERPASS LUMINAIRES, CONDUIT, STRAPS AND JUNCTION BOXES SHALL BE ATTACHED TO CONCRETE STRUCTURES USING 1/4" STAINLESS STEEL WEDGE ANCHORS WITH A MINIMUM EMBEDMENT OF 2" AND A MINIMUM TENSILE PULLOUT STRENGTH OF 500 LBS. THE COST OF THE ANCHOR BOLTS WILL NOT BE MEASURED AND PAID FOR BUT WILL BE INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.
2. CONDUITS MOUNTED TO BRIDGE STRUCTURE SHALL BE 1" DIAMETER GALVANIZED RIGID CONDUIT, UNLESS OTHERWISE NOTED.
3. ALL CONDUITS MOUNTED TO THE BRIDGE STRUCTURE SHALL BE SUPPORTED BY 2 HOLE STAINLESS STEEL CONDUIT STRAPS OR CLAMPS SPACED AT A MAXIMUM DISTANCE OF 5'-0" BETWEEN SUPPORTS. CONDUITS SHALL ALSO BE SUPPORTED WITHIN 1'-0" OF EACH JUNCTION BOX, CONDULET OR LUMINAIRE.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PROPOSED UNDERPASS LIGHTING SYSTEM COMPONENTS INCLUDING CONDUIT, CONDUIT STRAPS AND CLAMPS, JUNCTION BOXES, BENDS, CONDULETS, EXPANSION COUPLINGS AND UNDERPASS LUMINAIRES TO THE ENGINEER FOR APPROVAL. SHOP DRAWING PREPARATION SHALL BE INCIDENTAL TO THE PERTINENT ITEMS IN THE CONTRACT.
5. ALL CONDUIT STRAPS, CLAMPS, WEDGE ANCHORS AND CONDULETS WILL NOT BE MEASURED AND PAID FOR BUT WILL BE INCIDENTAL TO THE PERTINENT ITEMS IN THE CONTRACT.
6. SEE DRAWING NOS. LI-02 AND LI-07 FOR SERVICE RUN CONNECTION TO THE UNDERPASS LIGHTING SYSTEM.
7. ALL LINEWORK ON THIS PLAN SHOWN SCREENED (GREYSCALE) REFLECTS EXISTING CONDITIONS OR CONSTRUCTION PROPOSED BY OTHERS UNDER DRBA CONTRACT NO. DMB-13-01. THE BASELINE(S) SHOWN ARE NOT TO BE STAKED OUT IN THIS PROJECT, BUT ARE PROVIDED FOR REFERENCE PURPOSES FOR COORDINATION WITH DMB-13-01.
8. REPAIR MAINTENANCE PAVEMENT BETWEEN THE BACK SIDE OF THE CONCRETE BARRIER/GUARDRAIL AND THE BRIDGE SLOPE PROTECTION THAT IS IMPACTED BY CONDUIT INSTALLATION, REPLACE WITH 2" WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (NON-CARBONATE STONE) ON 4" GRADED AGGREGATE BASE, TYPE B.

| LIGHTING STANDARD SCHEDULE | | | | | |
|----------------------------|-------------|--------|-----|-----------------------------------|--|
| NO. | CIRCUIT NO. | HEIGHT | ARM | LIGHT STANDARD | |
| LS-33 | 7 | 15' | N/A | 100W HPS, IES TYPE 4 DISTRIBUTION | |
| LS-34 | 11 | 20' | N/A | 100W HPS, IES TYPE 4 DISTRIBUTION | |
| LS-35 | 12 | 13' | N/A | 100W HPS, IES TYPE 4 DISTRIBUTION | |
| LS-36 | 10 | 18' | N/A | 100W HPS, IES TYPE 4 DISTRIBUTION | |
| LS-37 | 8 | 13' | N/A | 100W HPS, IES TYPE 4 DISTRIBUTION | |
| LS-38 | 12 | 18' | N/A | 100W HPS, IES TYPE 4 DISTRIBUTION | |

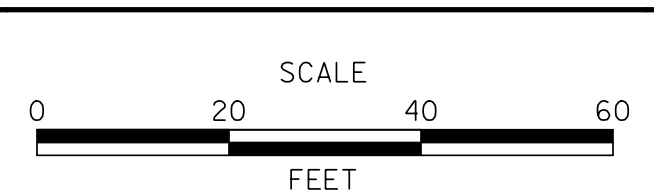
| LIGHTING SERVICE SCHEDULE | | | | | |
|---------------------------|---------------|------|-----------------|-----------------------|---------------------|
| SERVICE RUN | # OF CONDUITS | SIZE | DISTANCE (L.F.) | DESCRIPTION | INSTALLATION |
| 90** | 1 | 1.0" | 60 | (3)#10, (1)#10 GROUND | TRENCH/ON STRUCTURE |
| 91** | 1 | 1.0" | 45 | (2)#10, (1)#10 GROUND | ON STRUCTURE |
| 92** | 1 | 1.0" | 60 | (3)#10, (1)#10 GROUND | TRENCH/ON STRUCTURE |
| 93** | 1 | 1.0" | 48 | (2)#10, (1)#10 GROUND | ON STRUCTURE |
| 94** | 1 | 1.0" | 60 | (3)#10, (1)#10 GROUND | TRENCH/ON STRUCTURE |
| 95** | 1 | 1.0" | 52 | (2)#10, (1)#10 GROUND | ON STRUCTURE |

* DISTANCE CONTINUES ON ADJACENT PLAN SHEET.
 ** GALVANIZED RIGID CONDUIT.
 NOTE: SERVICE RUN DISTANCE REFLECTS CONDUIT LENGTH ONLY.



No. 31852-005, CAD: LIT-1495 185 Lighting.dgn
 7/20/2016 5:08:12 AM

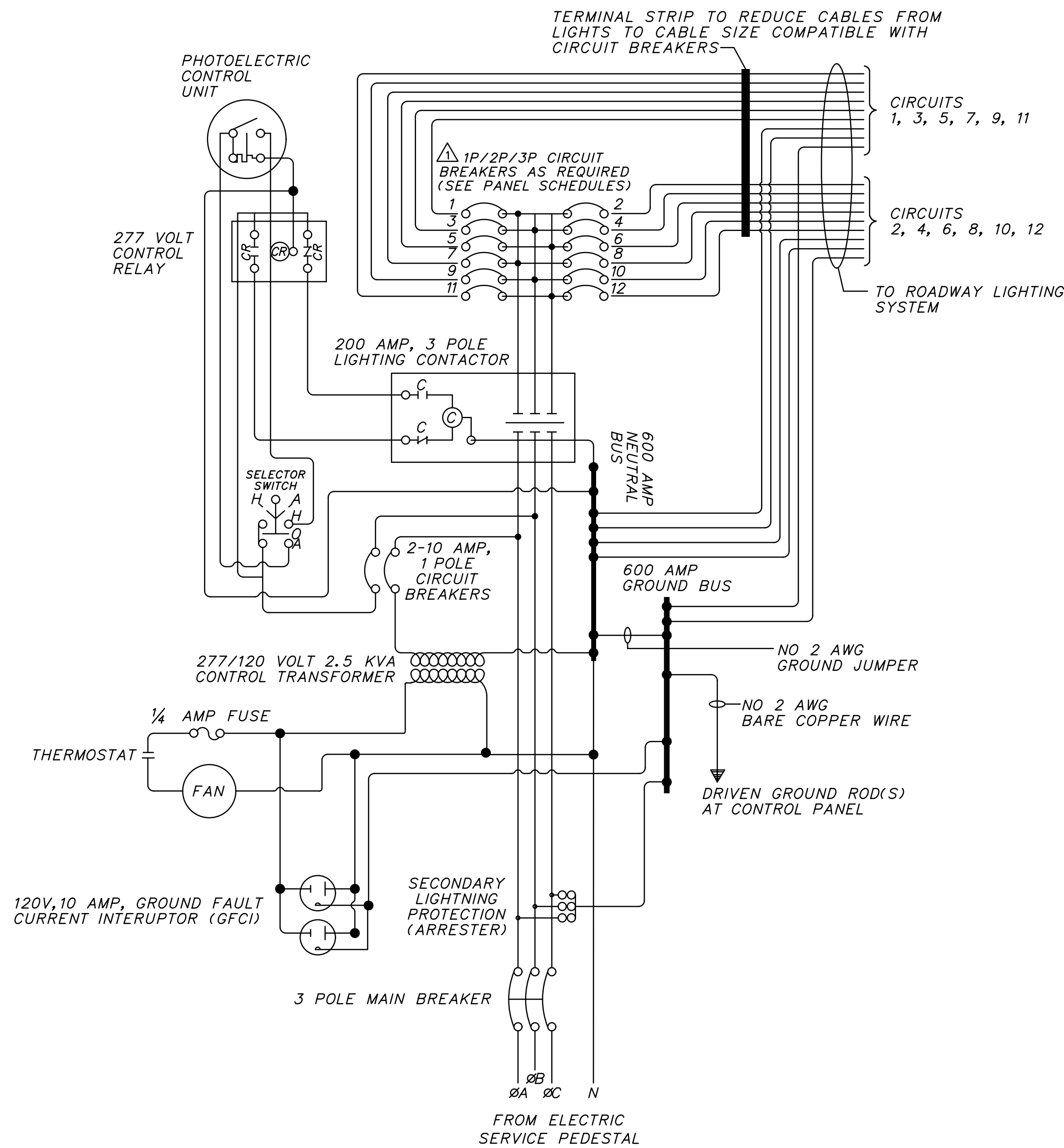
| ADDENDUMS / REVISIONS | |
|---------------------------|--|
| NOTE 1 REVISED (04/28/16) | |
| | |
| | |



| | | |
|------------|--------------|-----|
| CONTRACT | BRIDGE NO. | N/A |
| T201509002 | DESIGNED BY: | WRA |
| COUNTY | CHECKED BY: | WRA |
| NEW CASTLE | | |

| |
|-------------|
| LI-12 |
| SHEET NO. |
| 15 |
| TOTAL SHTS. |
| 26 |

LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE WIRING DIAGRAM

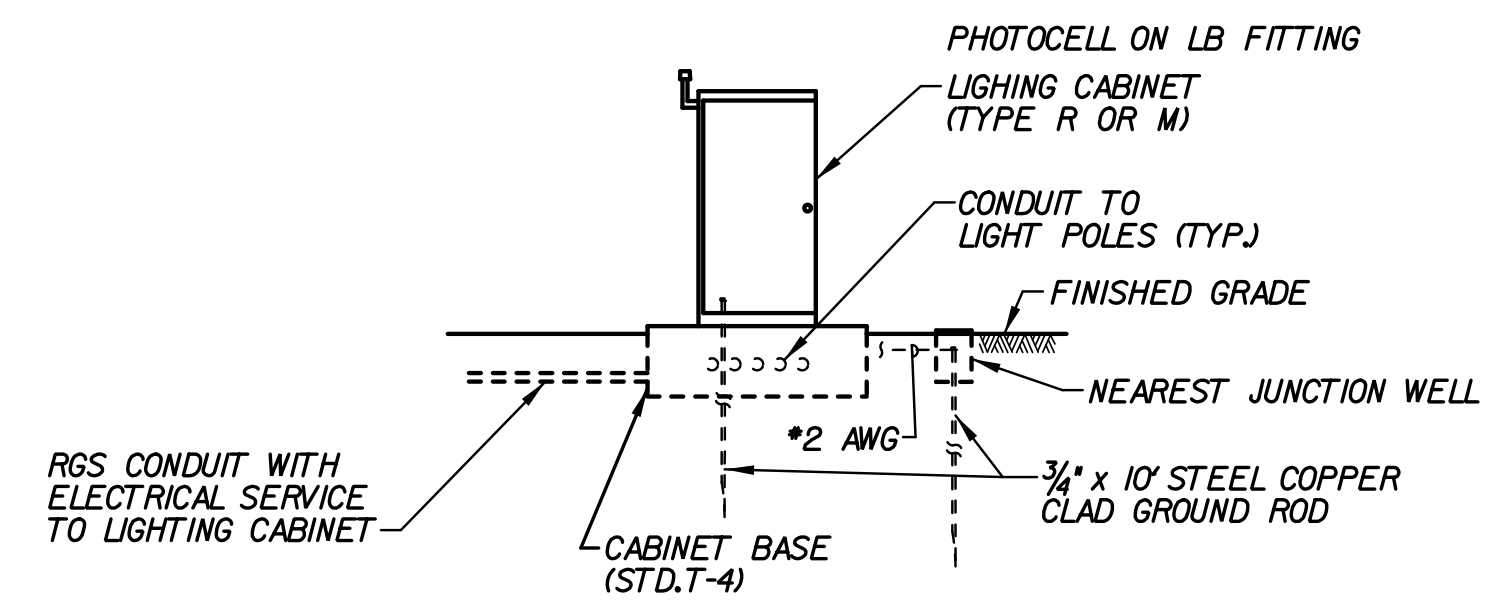


NOTES:

- ALL WIRING FROM SERVICE FEEDS SHALL BE INSTALLED IN FLEXIBLE CONDUIT WITHIN THE LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE.
- NO CONDUCTORS MAY ENTER OR EXIT THROUGH THE REAR OF ANY PANEL.
- THE LIGHTING CONTACTOR SHALL BE IN A PROPERLY SIZED ENCLOSURE.
- A CONTINUOUS GROUNDING CONDUCTOR SHALL BE INSTALLED FROM THE METER PEDESTAL DISCONNECT SWITCH THROUGH ALL PANELS, THEN TO THE GROUNDING ELECTRODE.
- ALL CONDUCTORS NOT IN CONDUIT SHALL BE BUNDLED OR WRAPPED AND SECURED IN CABINET AWAY FROM SHARP EDGES.
- ALL CABLES SHALL MEET AMPACITY REQUIREMENTS OF THE NATIONAL ELECTRIC CODE. THE MINIMUM CABLE SIZE SHALL BE NO. 12 AWG.
- ACTUAL NUMBER OF BREAKERS AND BREAKER RATING SHALL BE AS INDICATED ON PLANS AND RESPECTIVE PANEL SCHEDULES.

| PANEL SCHEDULE SOUTH | | | | | | | | | |
|---|-----------------|------|---|----------|----------|-----------------|---|------|-------------------------|
| AIC RATING - MINIMUM 22KA SOLID NEUTRAL ENCLOSURE: BASE MOUNTED CABINET | | | 600 AMP BUS 480/277 VOLTS SURFACE MOUNTED | | | | 200 AMP MAIN 3 PHASE, 4 WIRE + GROUND PANEL LOCATION: SEE PLANS | | |
| LOAD SERVED | CIRCUIT BREAKER | | | CKT. NO. | CKT. NO. | CIRCUIT BREAKER | | | LOAD SERVED |
| | FRAME | TRIP | POLE | | | FRAME | TRIP | POLE | |
| 3-1000W HPS | 100 | | | 1 | 2 | 100 | | | 3-1000W HPS |
| 3-1000W HPS | 100 | 20 | 3 | 3 | 4 | 100 | 20 | 3 | 3-1000W HPS |
| 2-1000W HPS | 100 | | | 5 | 6 | 100 | | | 2-1000W HPS |
| 3-1000W HPS, 1-100W HPS | 100 | | | 7 | 8 | 100 | | | 3-1000W HPS, 1-100W HPS |
| 3-1000W HPS | 100 | 20 | 3 | 9 | 10 | 100 | 20 | 3 | 3-1000W HPS, 1-100W HPS |
| 2-1000W HPS, 1-100W HPS | 100 | | | 11 | 12 | 100 | | | 2-1000W HPS, 1-100W HPS |
| PHOTOELECTRIC CONTROL | 100 | 10 | 1 | 13 | 14 | 100 | - | 1 | SPACE |
| FAN, GFCI | 100 | 10 | 1 | 15 | 16 | 100 | - | 1 | SPACE |
| SPACE | 100 | - | 1 | 17 | 18 | 100 | - | 1 | SPACE |
| SPACE | 100 | - | 1 | 19 | 20 | 100 | - | 1 | SPACE |
| SPACE | 100 | - | 1 | 21 | 22 | 100 | - | 1 | SPACE |
| SPACE | 100 | - | 1 | 23 | 24 | 100 | - | 1 | SPACE |

| PANEL SCHEDULE NORTH | | | | | | | | | |
|---|-----------------|------|---|----------|----------|-----------------|---|------|-------------|
| AIC RATING - MINIMUM 22KA SOLID NEUTRAL ENCLOSURE: BASE MOUNTED CABINET | | | 600 AMP BUS 480/277 VOLTS SURFACE MOUNTED | | | | 200 AMP MAIN 3 PHASE, 4 WIRE + GROUND PANEL LOCATION: SEE PLANS | | |
| LOAD SERVED | CIRCUIT BREAKER | | | CKT. NO. | CKT. NO. | CIRCUIT BREAKER | | | LOAD SERVED |
| | FRAME | TRIP | POLE | | | FRAME | TRIP | POLE | |
| 4-1000W HPS | 100 | | | 1 | 2 | 100 | | | 3-1000W HPS |
| 4-1000W HPS | 100 | 20 | 3 | 3 | 4 | 100 | 20 | 3 | 3-1000W HPS |
| 4-1000W HPS | 100 | | | 5 | 6 | 100 | | | 2-1000W HPS |
| 3-1000W HPS | 100 | | | 7 | 8 | 100 | | | 3-1000W HPS |
| 3-1000W HPS | 100 | 20 | 3 | 9 | 10 | 100 | 20 | 3 | 3-1000W HPS |
| 2-1000W HPS | 100 | | | 11 | 12 | 100 | | | 2-1000W HPS |
| 3-1000W HPS | 100 | | | 13 | 14 | 100 | | | SPARE |
| 3-1000W HPS | 100 | 20 | 3 | 15 | 16 | 100 | 20 | 3 | |
| 2-1000W HPS | 100 | | | 17 | 18 | 100 | | | |
| PHOTOELECTRIC CONTROL | 100 | 10 | 1 | 19 | 20 | 100 | - | 1 | SPACE |
| FAN, GFCI | 100 | 10 | 1 | 21 | 22 | 100 | - | 1 | SPACE |
| SPACE | 100 | - | 1 | 23 | 24 | 100 | - | 1 | SPACE |



LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE DETAIL
SCALE: NONE

No. 31852-005, 0400, L16-1495 185 Lighting.dgn
 7/20/2016 5:08:12 AM

| ADDENDUMS / REVISIONS | |
|-----------------------|-----------------------------------|
| Δ | WIRING DIAGRAM REVISED (04/28/16) |
| | |
| | |
| | |

NOT TO SCALE

| | | |
|------------|--------------|-----|
| CONTRACT | BRIDGE NO. | N/A |
| T201509002 | DESIGNED BY: | WRA |
| COUNTY | CHECKED BY: | WRA |
| NEW CASTLE | | |