	SHEET INDEX					
#	SHEET TITLE					
1	TITLE SHEET					
E0.0	ELECTRICAL COVER SHEET					
E0.1	ELECTRICAL DEMOLITION PLAN					
E1.0	ELECTRICAL POWER PLAN					
E1.1	ENLARGED ELECTRICAL POWER PLANS					
E2.0	LIGHTING CONTROL					
E2.1	LIGHTING PLAN					
E2.2	ENLARGED LIGHTING PLANS					
E3.0	RISER DIAGRAM & ELECTRICAL DETAILS					
E4.0	ELECTRICAL DETAILS					
E4.1	ELECTRICAL DETAILS					

INTERSTATE LIGHTING REPAIRS I-10 RAMPS @ US 51

ST. JOHN THE BAPTIST PARISH, LOUISIANA A/E PROJECT NO. 24-1130-0013



VICINITY MAP

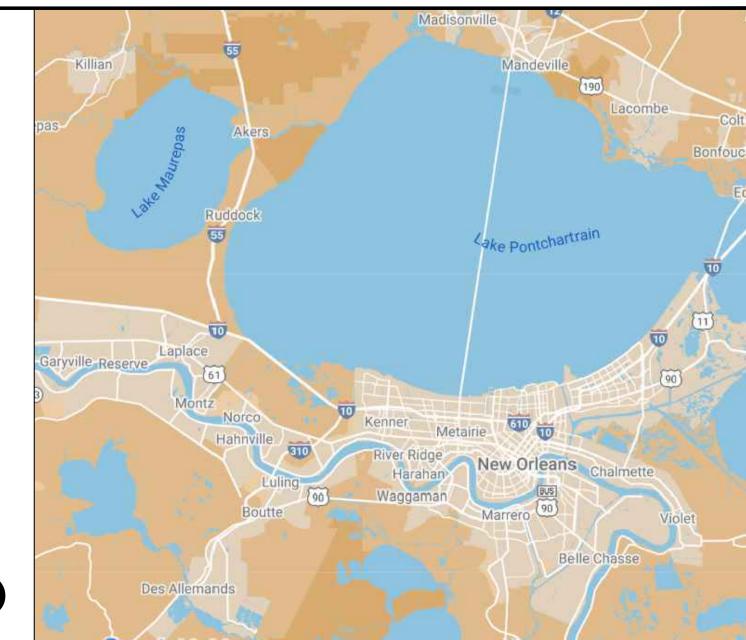


ST. JOHN THE BAPTIST PARISH

JACLYN HOTARD - PARISH PRESIDENT PETER MONTZ - CHIEF ADMINISTRATIVE OFFICER

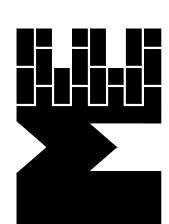
COUNCIL MEMBERS

LENNIX MADERE JR, DIVISION A COUNCILMAN MICHAEL P. WRIGHT, DIVISION B COUNCILMAN VIRGIE JARROW JOHNSON, DISTRICT 1 COUNCILWOMAN WARREN "BOSCO" TORRES, DISTRICT 2 COUNCILMAN TAMMY HOUSTON, DISTRICT 3 COUNCILWOMAN TYRA DUHE-GRIFFIN, DISTRICT 4 COUNCILWOMAN ROBERT ARCURI, DISTRICT 5 COUNCILMAN VERNON BAILEY SR, DISTRICT 6 COUNCILMAN DIXIE RAMIREZ, DISTRICT 7 COUNCILWOMAN



LOCATION MAP





0

sheet no.

SHEET

COVER

ELECTRICAL sheet no.

of 10 sheets

ELECTRICAL SYMBOL LEGEND (REFER TO DRAWINGS AND SPECIFICATIONS FOR FURTHER REQUIREMENTS)

LIGHTING

CONTROLS)

(PROVIDE CONDUIT AND WIRE PER THE

MANUFACTURER'S SPECIFICATIONS FOR

INDICATE FIXTURE TYPE; SEE LIGHTING

DESCRIPTIONS AND MOUNTING TYPES.

LIGHT FIXTURE; UPPERCASE LETTER(S)

FIXTURE SCHEDULE FOR FIXTURE

O—☐ DOTD STREET LIGHT FIXTURE

EQUIPMENT CONNECTIONS

JUNCTION BOX

PANEL SCHEDULE FOR POWER AND PER THE

(PROVIDE CONDUIT AND WIRE PER THE PANEL SCHEDULE)

□ FUSED SAFETY DISCONNECT SWITCH

A-1,3 CIRCUIT TAG; PANEL AND CIRCUIT DESIGNATIONS AS INDICATED; E.G. PANEL "A", CIRCUIT #1,3

WIRE, CONDUIT, AND RACEWAY ABOVE-SLAB CONDUIT AND WIRE/CABLING;

3/4" MINIMUM CONDUIT SIZE UON. BELOW-SLAB CONDUIT AND WIRE/CABLING; 3/4" MINIMUM CONDUIT SIZE UON. HOMERUN TO PANEL

DISTRIBUTION

PANELBOARD, SWITCHBOARD, OR OTHER DISTRIBUTION EQUIPMENT AS NOTED: INSTALL WITH SUFFICIENT WORKING SPACE AND CLEARANCES TO MEETS TO ALL REQUIREMENTS OF NEC SECTION 110.26

(PROVIDE CONDUIT AND WIRE PER THE PANEL SCHEDULE)

GFCI DUPLEX RECEPTACLE

E4.1

SHEET INDEX SHEET NO. DESCRIPTION E0.0 ELECTRICAL COVER SHEET E0.1 ELECTRICAL DEMOLITION PLAN ELECTRICAL POWER PLAN E1.1 ENLARGED ELECTRICAL POWER PLANS E2.0 LIGHTING CONTROL E2.1 LIGHTING PLAN ENLARGED LIGHTING PLANS E2.2 E3.0 RISER DIAGRAM & ELECTRICAL DETAILS E4.0 ELECTRICAL DETAILS

ELECTRICAL DETAILS

ELECTRICAL GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LATEST EDITION

OF THE NATIONAL ELECTRICAL CODE AS ADOPTED BY THE AHJ. 2. THE WORDS "PROVIDE" AND "PROVIDED" AS USED HEREIN SHALL BE UNDERSTOOD TO MEAN, "PROVIDE COMPLETE IN PLACE," THAT IS "FURNISH AND INSTALL". EQUIPMENT AND MATERIAL INDICATED TO BE PROVIDED SHALL BE NEW UNLESS OTHERWISE NOTED AND SHALL BE OF THE MOST SUITABLE GRADE FOR THE PURPOSE INTENDED.

3. ROUTE NEW CONDUIT AND WIRING CONCEALED IN WALLS AND CEILING WHERE POSSIBLE. COORDINATE INSTALLATION OF EXPOSED CONDUIT AND WIRING WITH THE ARCHITECT.

4. CONTRACTOR SHALL PROVIDE ELECTRICAL SERVICE TO NEW HVAC UNITS AS FURNISHED BY THE MECHANICAL CONTRACTOR. VERIFY THE EXACT ELECTRICAL REQUIREMENTS WITH THE REVIEWED HVAC SUBMITTALS PRIOR TO ORDERING ELECTRICAL EQUIPMENT. 5. BEFORE INSTALLATION, CONTRACTOR SHALL SUBMIT DETAILED DRAWINGS TO THE ENGINEER

FOR REVIEW COVERING PROPOSED LOCATIONS, MOUNTING, AND ROUTING FOR ALL CONDUITS, SERVICES, FITTINGS, GROUND RODS, SUPPORTS, ETC. 6. CONTRACTOR IS RESPONSIBLE FOR OVER-CURRENT PROTECTIVE DEVICE SHORT CIRCUIT,

COORDINATION, AND ARC-FLASH STUDIES. MATERIALS AND MANUFACTURERS NOTED ON DRAWINGS ARE TO BE USED AS BASIS OF DESIGN TO ESTABLISH QUALITY AND PERFORMANCE STANDARDS AND SHALL BE PROVIDED AS SPECIFIED. SUBSTITUTIONS WILL BE CONSIDERED WHERE SUFFICIENT PRODUCT INFORMATION IS PROVIDED TO MAKE A PROPER EVALUATION. REVIEW OF A SUBSTITUTION

IS AT THE SOLE DISCRETION OF THE PROFESSIONAL. 8. THE CONTRACTOR SHALL SUBMIT COPIES OF THE PRODUCT DATA, SHOP DRAWINGS, ETC. OF ALL MATERIALS NOTED ON THE DRAWINGS. ALL SUBMITTED PRODUCT DATA. SHOP DRAWINGS, ETC. SHALL BE MARKED WITH THE NAME OF THE PROJECT AND SHALL BEAR THE STAMP OF APPROVAL OF THE CONTRACTOR AS EVIDENCE THAT THE MATERIAL HAS BEEN CHECKED BY THE CONTRACTOR.

9. DRAWINGS SPECIFIC TO THIS TRADE DO NOT LIMIT THE RESPONSIBILITY OR WORK REQUIRED BY THE CONTRACT DOCUMENTS. REFER TO DRAWINGS AND SPECIFICATIONS OF OTHER TRADES FOR COMPLETE INFORMATION PRIOR TO BID.

10. WHERE CONFLICTS EXIST AMONG DRAWINGS, SPECIFICATIONS, AND EQUIPMENT SCHEDULES, THE MOST STRINGENT REQUIREMENT OR QUANTITY SHALL APPLY. NOTIFY THE

ARCHITECT/ENGINEER OF ALL CONFLICTS FOR RESOLUTION OR INTERPRETATION. 11. NO EQUIPMENT SHALL BE ORDERED OR INSTALLED UNTIL THE PROJECT ENGINEER HAS RECEIVED A COPY STAMPED "NO EXCEPTIONS TAKEN." "NO EXCEPTIONS TAKEN" DOES NOT RELIEVE THE CONTRACTOR FROM CONFORMANCE WITH THE CONTRACT, EXTEND TO QUANTITIES OR DIMENSIONS, IMPLY THAT THE EQUIPMENT CAN BE INSTALLED OR OPERATE SATISFACTORILY, THAT THE EQUIPMENT CONTAINS ALL NECESSARY COMPONENTS, OR THAT IT WILL COORDINATE WITH OTHER REVIEWED ITEMS.

12. OMISSION FROM THIS SHEET OF ANY ITEM SHOWN ELSEWHERE IN THE PLANS DOES NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR ANY ASSOCIATED WORK.

13. COORDINATE INSTALLATION OF NEW ITEMS AND EQUIPMENT WITH THE OWNER'S REPRESENTATIVE AND THE WORK OF OTHER TRADES. THE CONTRACTOR SHALL INCUR ALL COSTS ASSOCIATED WITH THE RELOCATION OF EQUIPMENT CONFLICTING WITH NEW WORK

BY OTHER TRADES THAT HAS NOT BEEN COORDINATED. 14. COORDINATE ALL ASPECTS OF NEW SERVICE WITH UTILITY COMPANY AND INCLUDE ALL

15. WARNING TAPE SHALL BE INSTALLED 12 TO 18 INCHES BELOW GRADE OVER ALL CONDUITS.

16. PROVIDE 1/4" MINIMUM DIAMETER PULL ROPE. PULL ROPE SHALL NOT BE NYLON STRING. 17. FOR SERVICE ENTRANCE CONDUITS, UTILIZE LONG RADIUS (36") CONDUIT BENDS.

18. ALL CONDUIT RISERS FROM UNDERGROUND SHALL HAVE RIGID METAL ELLS AND RISERS. 19. PRIOR TO CONSTRUCTION, VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES. AVOID DISTURBANCE OF EXISTING UTILITIES NOT INCLUDED IN THIS PROJECT.

20. SET SCREW CONDUIT FITTINGS SHALL NOT BE PERMITTED.

LIGHTING GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHTING SWITCHES WITH THE ARCHITECT PRIOR

2. VERIFY THE EXACT LOCATION OF ALL LIGHTING FIXTURES WITH THE ARCHITECTURAL

REFLECTED CEILING PLAN PRIOR TO ROUGH-IN. VERIFY THE EXACT LOCATION OF CEILING MOUNTED OCCUPANCY SENSORS WITH THE MANUFACTURER'S SPECIFICATIONS PRIOR TO INSTALLATION FOR MAXIMUM PERFORMANCE.

4. EMERGENCY FIXTURES AND EXIT FIXTURES SHALL BE CONNECTED TO THE NEAREST LIGHTING CIRCUIT. BRANCH CIRCUIT WIRING TO EXIT FIXTURES AND TO BATTERY INVERTERS WITHIN FIXTURES WITH INTEGRAL BATTERY UNITS SHALL BE UNSWITCHED, CONNECTED AHEAD OF ANY CONTROL SWITCHING.

5. WALL MOUNT TYPE "Z" FIXTURES ABOVE DOOR AS SHOWN ON DRAWINGS. COORDINATE WITH THE ARCHITECT PRIOR TO ROUGH-IN.

6. MOUNT TYPE "EM" FIXTURES 8'-0" AFF UNLESS OTHERWISE NOTED. VERIFY THE CEILING TYPES FOR ALL LIGHT FIXTURES TO BE FLUSH MOUNTED OR SUSPENDED AND ADJUST FIXTURE MOUNTING TYPES IN ACCORDANCE WITH THE CEILING TYPE, AS REQUIRED. CONTRACTOR SHALL PROVIDE ALL REQUIRED MOUNTING HARDWARE.

8. ALL VANITY FIXTURES SHALL BE MOUNTED WITH 0'-3" OF SPACE BETWEEN THE BOTTOM OF THE FIXTURE AND THE TOP OF THE MIRROR UNLESS OTHERWISE NOTED.

9. VERIFY THE EXACT MOUNTING LOCATION FOR ANY PHOTOELECTRIC CELLS WITH THE ARCHITECT PRIOR TO ROUGH-IN. ALL PHOTOELECTRIC CELLS MUST FACE NORTH. 10. CONTRACTOR SHALL CONFIRM COMPATIBILITY OF ALL LIGHTING CONTROL

DEVICES/SWITCHES/DIMMERS WITH LIGHTING FIXTURES AND BALLASTS/DRIVERS PRIOR TO SUBMITTAL 11. COORDINATE LOCATION OF LIGHT FIXTURES IN MECHANICAL ROOMS WITH DIVISION

15/23 PLANNED EQUIPMENT LOCATION AND DUCT INSTALLATION. WALL MOUNT LIGHTS OR PROVIDE PENDANT MOUNTING AS REQUIRED TO ILLUMINATE THE SPACE. 12. WHERE MULTIPLE OCCUPANCY SENSORS ARE SHOWN IN THE SAME AREA, MOTION

DETECTION BY ONE SENSOR SHALL ILLUMINATE ALL LIGHTING IN THE RESPECTIVE AREA.

DEMOLITION GENERAL NOTES

1. THE LOCATIONS OF EXISTING CIRCUITS AND EQUIPMENT ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING ELECTRICAL DEVICES, EQUIPMENT, AND WIRING BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSE BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING PORTIONS OF THE ELECTRICAL SYSTEMS.

2. THE CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

3. ALL EQUIPMENT REMOVED THAT IS NOT BEING REUSED SHALL REMAIN THE PROPERTY OF THE OWNER OR SHALL BE DISPOSED OF AS REQUIRED.

4. EXCEPT AS OTHERWISE NOTED, ALL EXISTING ELECTRICAL WORK WHICH WILL NOT BE RENDERED OBSOLETE AND WHICH MAY BE DISTURBED DUE TO ANY CHANGES REQUIRED UNDER THIS CONTRACT, SHALL BE RESTORED TO ITS ORIGINAL OPERATING CONDITION. OTHER ELECTRICAL WORK OR MATERIAL RENDERED OBSOLETE SHALL BE ABANDONED WHERE CONCEALED AND REMOVED WHERE EXPOSED. OLD, UNUSED WIRING AND DEVICES SHALL BE REMOVED FROM THE ABANDONED (CONCEALED) CONDUITS. OUTLETS SHALL BE PROVIDED WITH BLANK COVERS. ANY CONDUITS STUBBED OUT OF MASONRY SURFACE SHALL BE CUT INTO SURFACE AND PATCHED.

5. WHERE EXISTING ELECTRICAL WORK INTERFERES WITH NEW WORK AND WHERE SUCH INSTALLATIONS ARE TO REMAIN IN USE, THE INSTALLATIONS SHALL BE DISCONTINUED AND RELOCATED AND/OR RECONNECTED TO COORDINATE WITH THE WORK INDICATED ON THE CONTRACT DRAWINGS AS SPECIFIED. 6. WHERE EXISTING RACEWAYS THAT ARE NOT TO BE REUSED INTERFERE WITH NEW WORK.

THESE RACEWAYS SHALL BE REMOVED BACK TO THE NEAREST JUNCTION BOX OR PULL BOX AND THE OPENINGS BLANKED.

7. CONTRACTOR SHALL MAINTAIN CONTINUITY OF BRANCH CIRCUITS SERVING MULTIPLE ITEMS OF WHICH ONE OR MORE ARE BEING DEMOLISHED. CONDUCTORS AND CONDUITS FOR THOSE ITEMS BEING DEMOLISHED SHALL BE REMOVED AS FAR AS PRACTICABLE.

8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ALL EXISTING ELECTRICAL EQUIPMENT AND DATA WIRING NOT REUSED OR NOT NECESSARY FOR THE COMPLETION OF THIS PROJECT.

9. IF ANY BRANCH CIRCUIT WIRING FEEDING EQUIPMENT TO REMAIN IN PLACE FOR REUSE IS DAMAGED DURING CONSTRUCTION, THE CONTRACTOR SHALL REPLACE THE NEW BRANCH CIRCUIT WIRING OF THE SAME SIZE AND TYPE AS THAT OF THE EXISTING AT NO COST TO THE OWNER.

10. EXISTING DEVICES ARE SHOWN IN GRAY. CONDUIT AND WIRING ARE NOT GENERALLY SHOWN AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ADDITIONAL DEMOLITION WORK AND CLARIFICATION OF INDICATED WORK WILL BE GIVEN BY RFI.

11. COORDINATE THE REMOVAL AND REINSTALLATION (OR PROTECTION IN PLACE) OF EXISTING ELECTRICAL EQUIPMENT AND DEVICES WITH THE WORK OF OTHER TRADES TO REPLACE OR REFINISH EXISTING WALLS AND CEILINGS.

12. WHERE EXISTING CIRCUITS ARE BEING REMOVED IN EXISTING PANELS, PROVIDE A NEW, NEATLY TYPED DIRECTORY WHICH INDICATES WHERE "SPARE" BREAKERS ARE LOCATED. ANY EXISTING BREAKERS THAT ARE NOT FEEDING DEVICES SHALL REMAIN AND BE LABELED AS A "SPARE."

13. THE CONTRACTOR SHALL ROUTE UNDERGROUND CONDUITS SO AS TO NOT DAMAGE EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGING EXISTING UTILITIES DUE TO LACK OF COORDINATION.

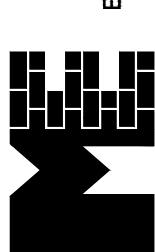
- **DEMOLITION KEYNOTES:** CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING LIGHT POLE AND ANY COMPONENTS ASSOCIATED WITH THE EXISTING LIGHT POLE SYSTEM, INCLUDING BUT NOT LIMITED TO EXISTING POLE FOUNDATION. CONTRACTOR SHALL ABANDON CAP AND STOW CONDUIT AND WIRE ASSOCIATED WITH CIRCUIT BELOW GRADE. (TYP.) COORDINATE ANY POWER SHUT DOWNS WITH DOTD A MINIMUM OF TWO (2) WEEKS PRIOR TO COMMENCEMENT OF WORK.
- (2) CONTRACTOR SHALL VERIFY NO REMAINING LIGHT POLE COMPONENTS, HARDWARE, OR MOUNTING BASES EXIST IN AREA MARKED "NOT FOUND". IF PRESENT CONTRACTOR SHALL REMOVE AND DISPOSE OF MATERIAL PRIOR TO INSTALLING NEW LIGHT POLE FIXTURES. (TYP.)
- (3) CONTRACTOR SHALL REMOVE UTIL. CO. METER, LIGHTING CONTROLLER AND ALL OTHER ELECTRICAL EQUIPMENT FROM POWER POLE 1 & 2. CONTRACTOR SHALL REMOVE ALL EXISTING ABANDONED ELECTRICAL EQUIPMENT. SEE SECTION 822.11 SUB SECTIONS 11, 13, & 14 OF LOUISIANA 'STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES PART VIII'. CONTRACTOR SHALL COORDINATE DEMOLITION WITH DOTD PRIOR TO COMMENCEMENT OF WORK. COORDINATE ANY POWER SHUTDOWNS WITH DOTD A MINIMUM OF TWO (2) WEEKS PRIOR TO COMMENCEMENT OF WORK.

checked

revised

HJM/MRQ

06/17/2025



1-10

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P:\Active Projects\24-063 MEYER ENG_Interstate Lighting LED Retrofit\24-063 XREF\24-063 I-10 & HWY 51 INTERSTATE LIGHTING - UPDATED.dwg

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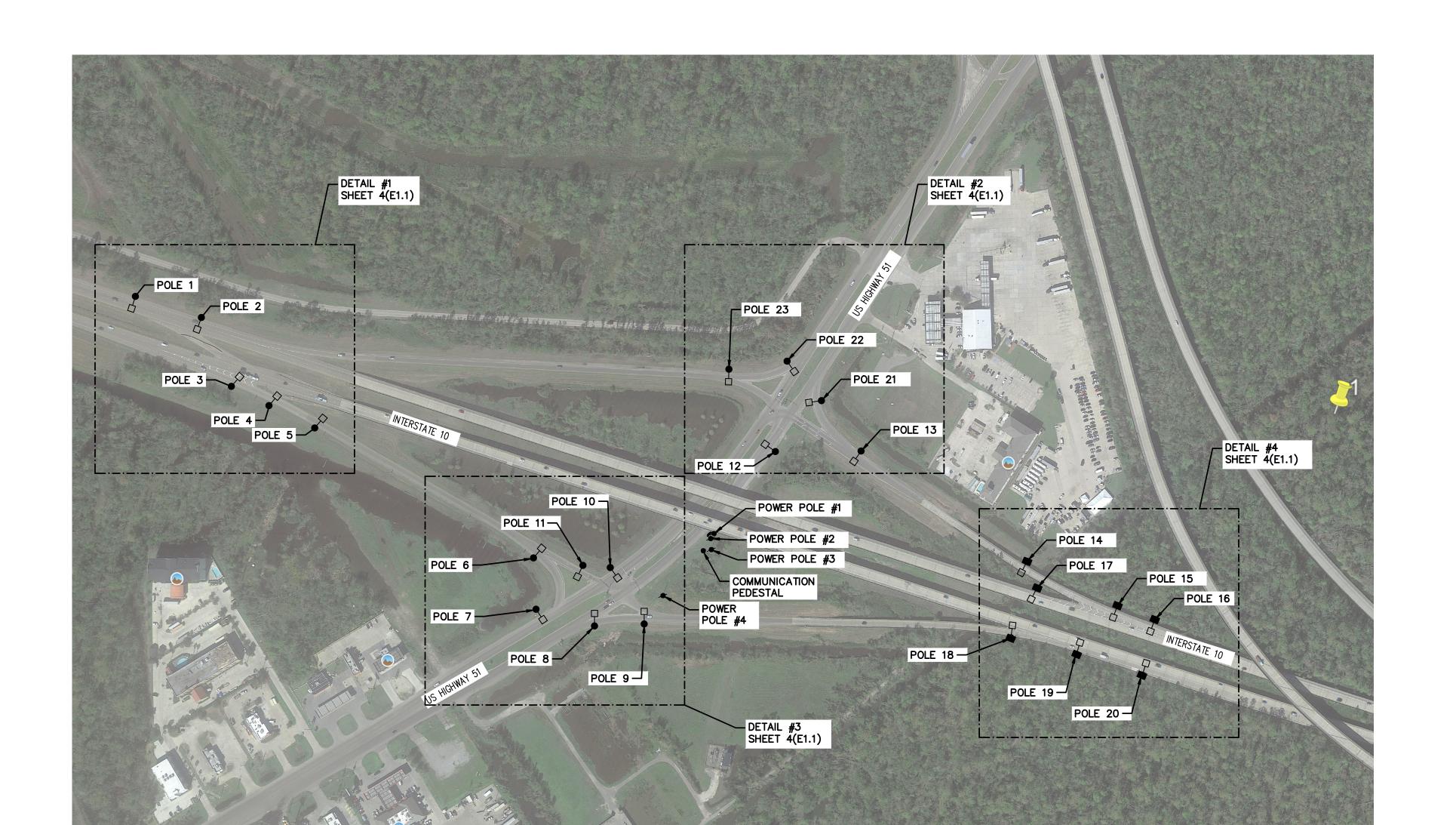
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REPAIRS F PARISH



LIGHTING GENERAL NOTES

1. VERIFY THE EXACT MOUNTING LOCATION FOR ANY PHOTOELECTRIC CELLS WITH THE DESIGN ENGINEER PRIOR TO ROUGH—IN. ALL

- PHOTOELECTRIC CELLS MUST FACE NORTH. 2. CONTRACTOR SHALL CONFIRM COMPATIBILITY OF ALL LIGHTING CONTROL DEVICES/SWITCHES/DIMMERS WITH LIGHTING FIXTURES AND
- BALLASTS/DRIVERS PRIOR TO SUBMITTAL. 3. COORDINATE POLE FOUNDATION REQUIREMENTS AND ANCHOR BOLT REQUIREMENTS WITH GENERAL CONTRACTOR PRIOR TO THE POURING THE FOUNDATIONS.
- 4. COORDINATE EXACT LOCATIONS OF LIGHT FIXTURES WITH DESIGN ENGINEER PRIOR TO ROUGH—IN.

VOLTAGE DROP CALCULATION:

- L = LENGTH OF CONDUCTORSR = RESISTANCE IN OHMS
- I = LOAD IN AMPS1.692 = CIRCUIT 1, 1 PHASE LOAD
- 1.551= CIRCUIT 2, 1 PHASE LOAD

VD=(2 X L X R X I / 1000)

VD_1=(2 X 2280 X .16 X 8.8/1000)

 $VD_1 = 6.42$

VD_2=(2 X 2179 X .16 X 8.2/1000)

 $VD_2 = 5.72$

CIRCUIT 1 VOLTAGE DROP IS 2.68% WITH #1 AWG THWN WIRE AND IS WITHIN LIMITS SET BY THE NEC.

CIRCUIT 2 VOLTAGE DROP IS 2.38% WITH #1 AWG THWN WIRE AND IS WITHIN LIMITS SET BY THE NEC.

SERVICE CONDUIT FILL CALCULATION:

0.220 SQ. IN. = 40% FILL AREA OF 3/4" RIGID METAL CONDUIT PER THE NEC

0.0366 SQ. IN. = CROSS-SECTIONAL AREA OF #8 AWG THWN CONDUCTOR

40% FILL AREA>NUMBER OF CONDUCTORS X CROSS-SECTIONAL AREA OF CONDUCTORS

0.220 SQ. IN.> (3 X 0.0366 SQ. IN.)

0.220 SQ. IN.> 0.1098 SQ. IN.

THE CONDUCTORS SELECTED FOR THE CIRCUIT ARE WITHIN THE 40% FILL LIMIT SET BY THE NEC.

LIGHTING CIRCUIT 1 & 2 CONDUIT FILL CALCULATION: 0.610 SQ. IN. = 40% FILL AREA OF 1 1/4" SCH40 PVC CONDUIT PER THE NEC 0.1562 SQ. IN. = CROSS-SECTIONAL AREA OF #1 AWG THWN CONDUCTOR

0.0507 SQ. IN. = CROSS-SECTIONAL AREA OF #10 AWG THWN CONDUCTOR

40% FILL AREA>NUMBER OF CONDUCTORS X CROSS-SECTIONAL AREA OF CONDUCTORS

0.610 SQ. IN.> (3 X 0.1562 SQ. IN.) + (1 X 0.0507 SQ. IN.)

0.610 SQ. IN.> 0.5193 SQ. IN.

THE CONDUCTORS SELECTED FOR THE CIRCUIT ARE WITHIN THE 40% FILL LIMIT SET BY THE NEC.

SURGE PROTECTION DEVICE (SPD) CIRCUIT CONDUIT FILL CALCULATION:

0.220 SQ. IN. = 40% FILL AREA OF 3/4" RIGID METAL CONDUIT PER THE NEC 0.0507 SQ. IN. = CROSS-SECTIONAL AREA OF #6 THWN CONDUCTOR 0.0211 SQ. IN. = CROSS-SECTIONAL AREA OF #10 THWN CONDUCTOR

40% FILL AREA>NUMBER OF CONDUCTORS X CROSS-SECTIONAL AREA OF CONDUCTORS

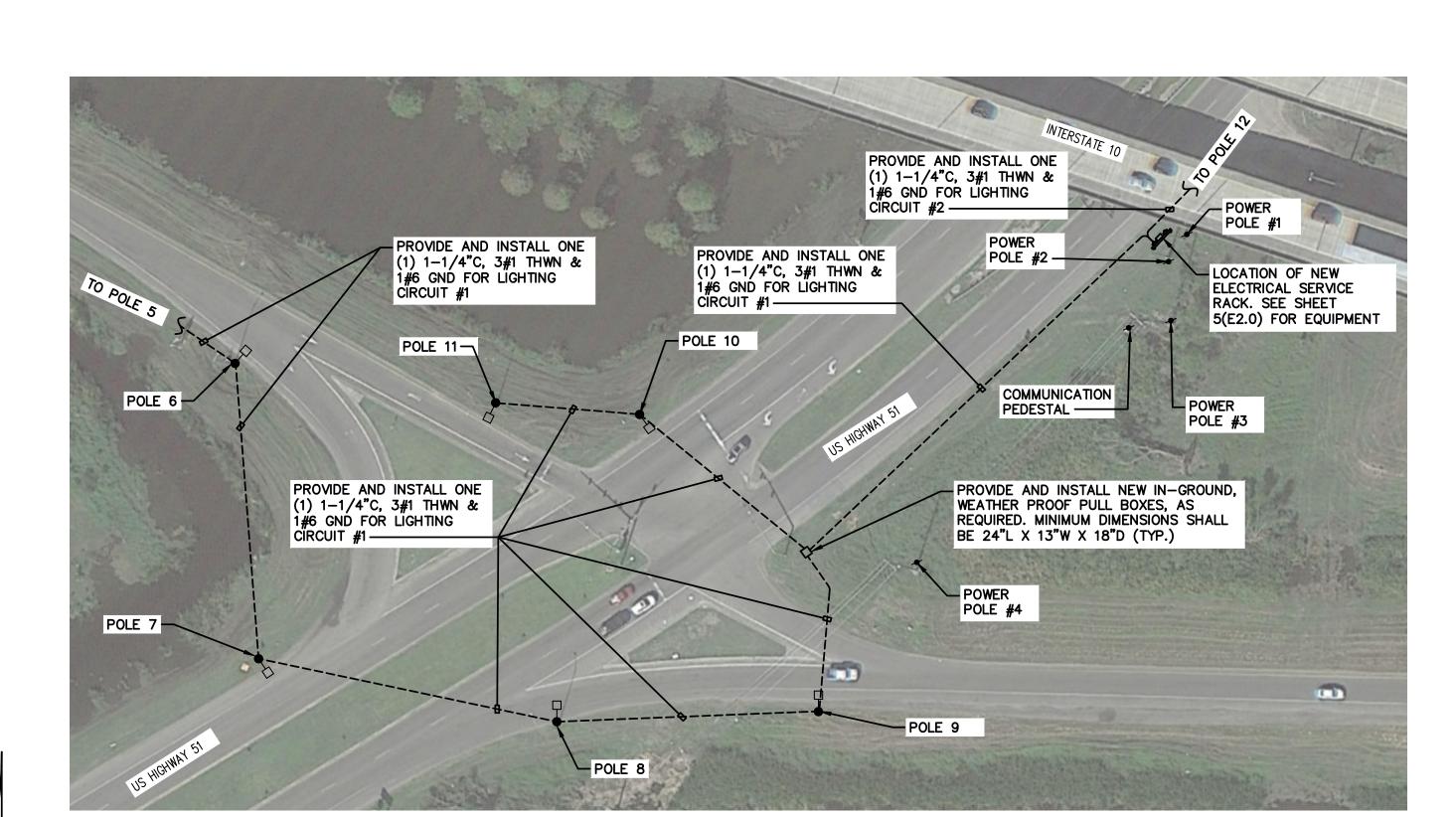
0.220 SQ. IN.>(3 X 0.0507 SQ. IN.) + (1 X 0.0211 SQ. IN.)

0.355 SQ. IN.>0.1732 SQ. IN.

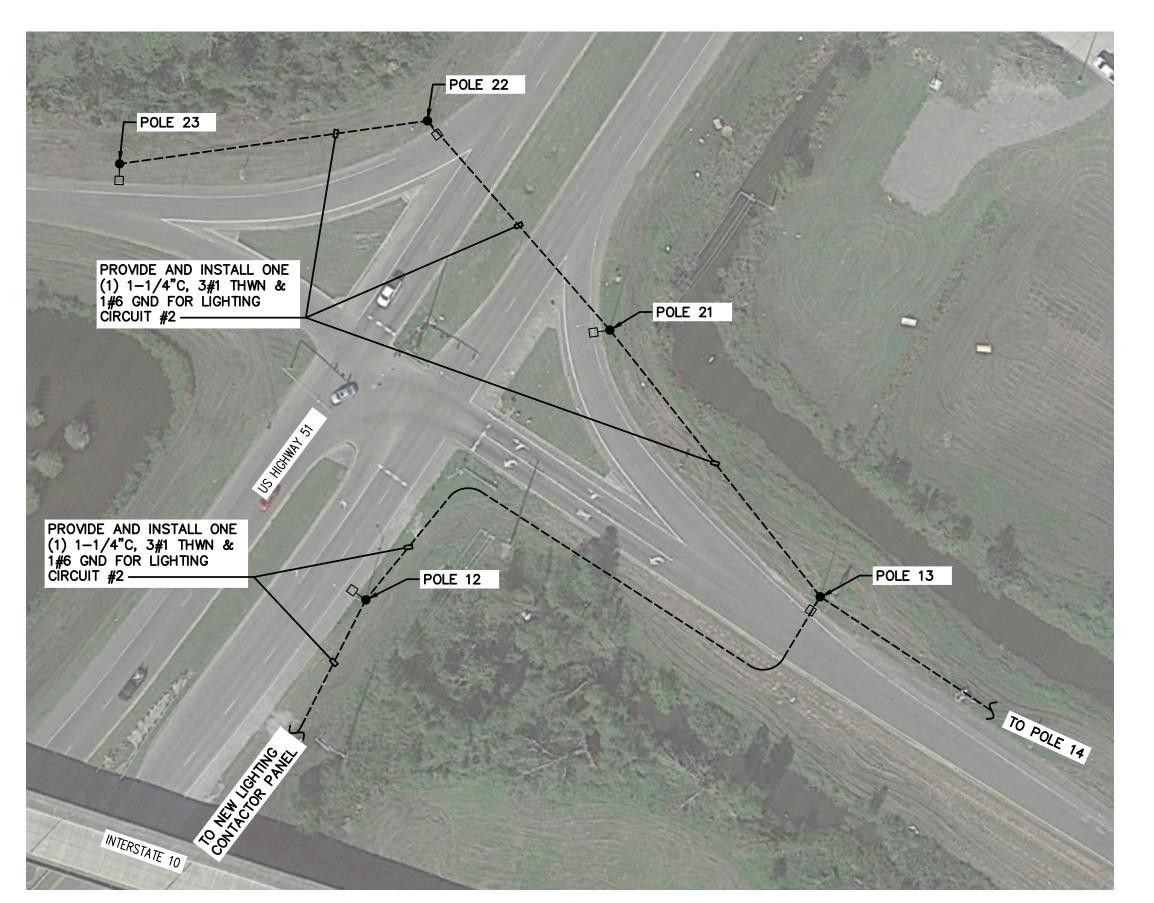
THE CONDUCTORS SELECTED FOR THE CIRCUIT ARE WITHIN THE 40% FILL LIMIT SET BY THE NEC.

of <u>10</u> sheets

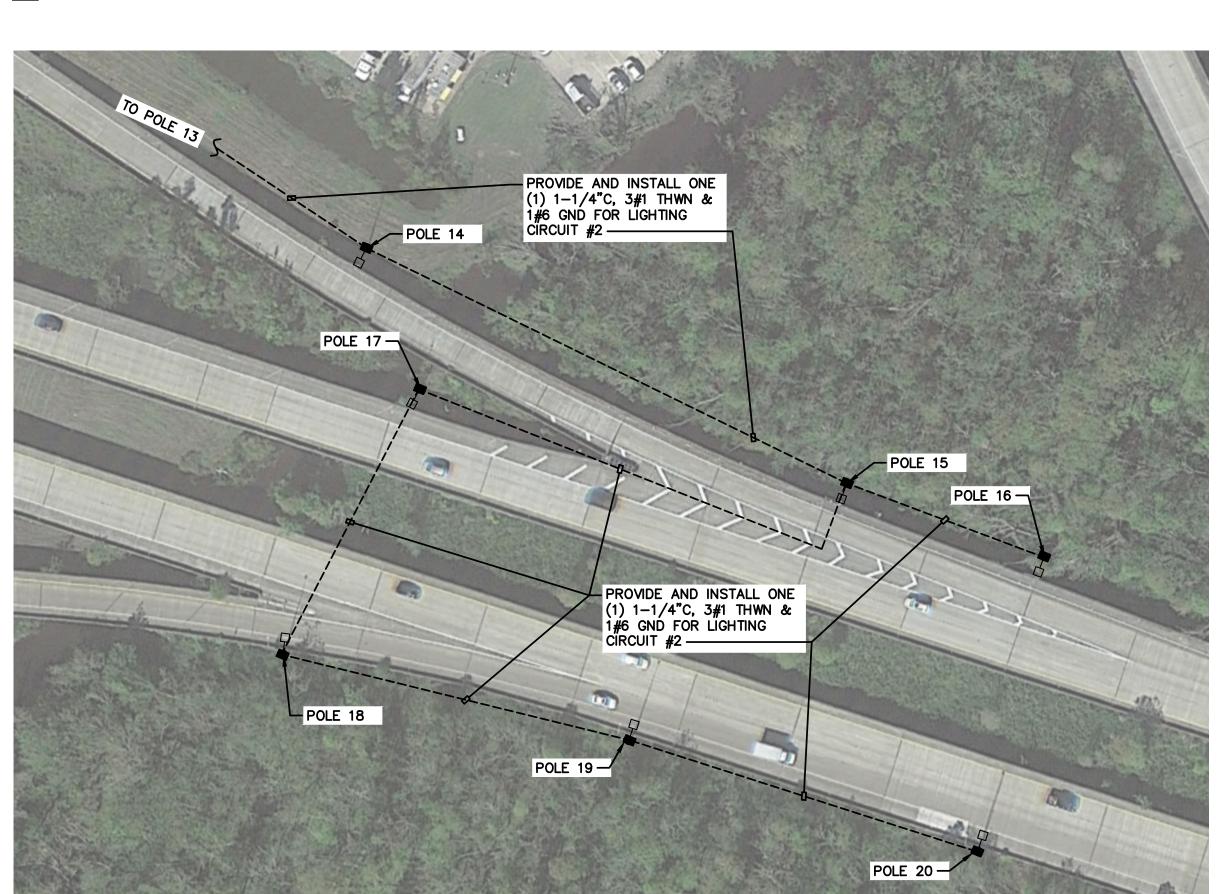
1 POWER PLAN - WEST



3 POWER PLAN - SOUTH



7 POWER PLAN - NORTH



POWER PLAN - EAST

Baton Rouge, LA 70820

sheet no.

of <u>10</u> sheets

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HJM/MRQ

06/17/2025

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REPAIRS F PARISH ENLARGED ELECTRICAL POWER PLANS INTERSTATE L ST JOHN THE OWNER

LIGHTING CONTROL

1" = 5'-0"

INTERSTATE LIGHTING REPAIRS ST JOHN THE BAPTIST PARISH OWNER

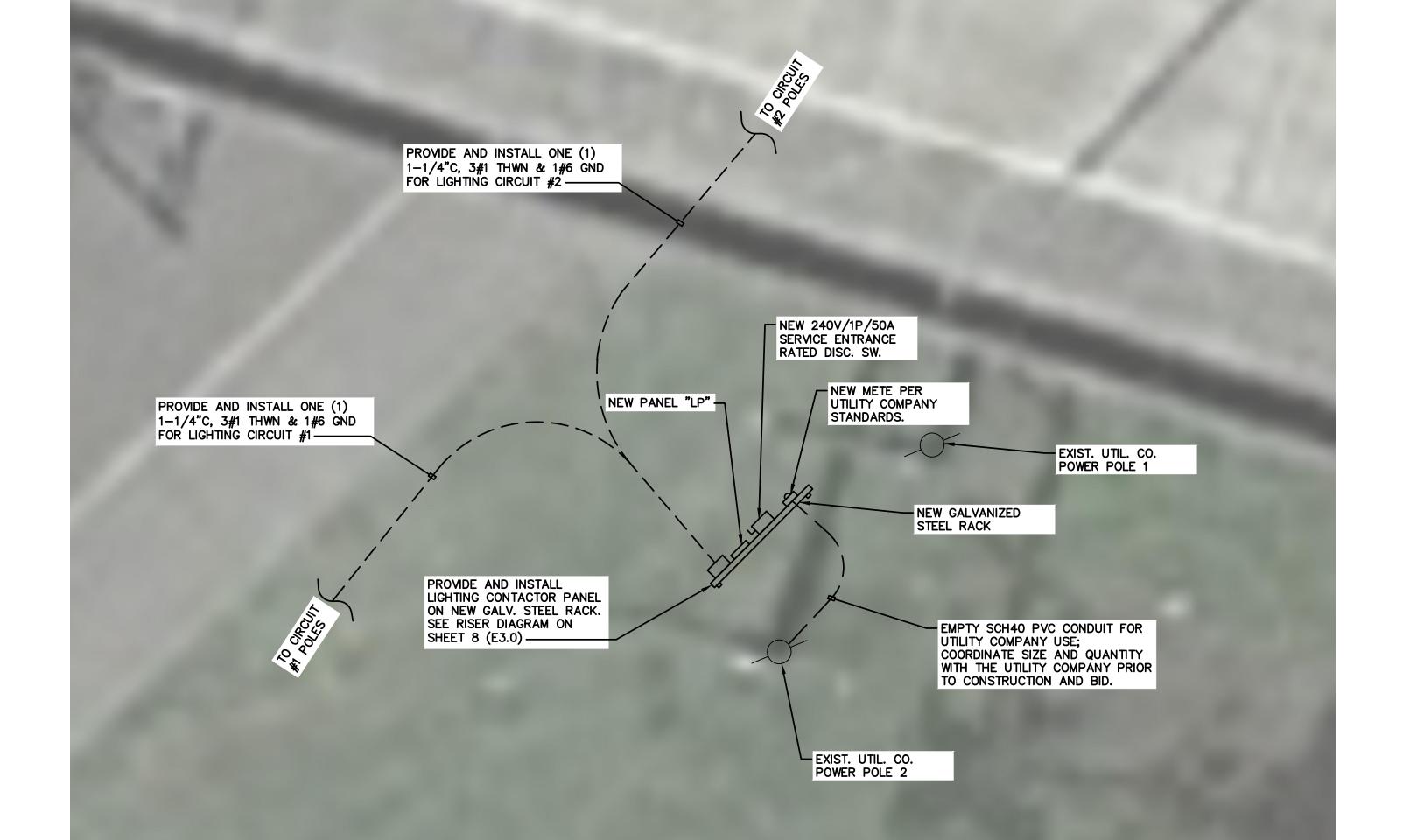
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I-10

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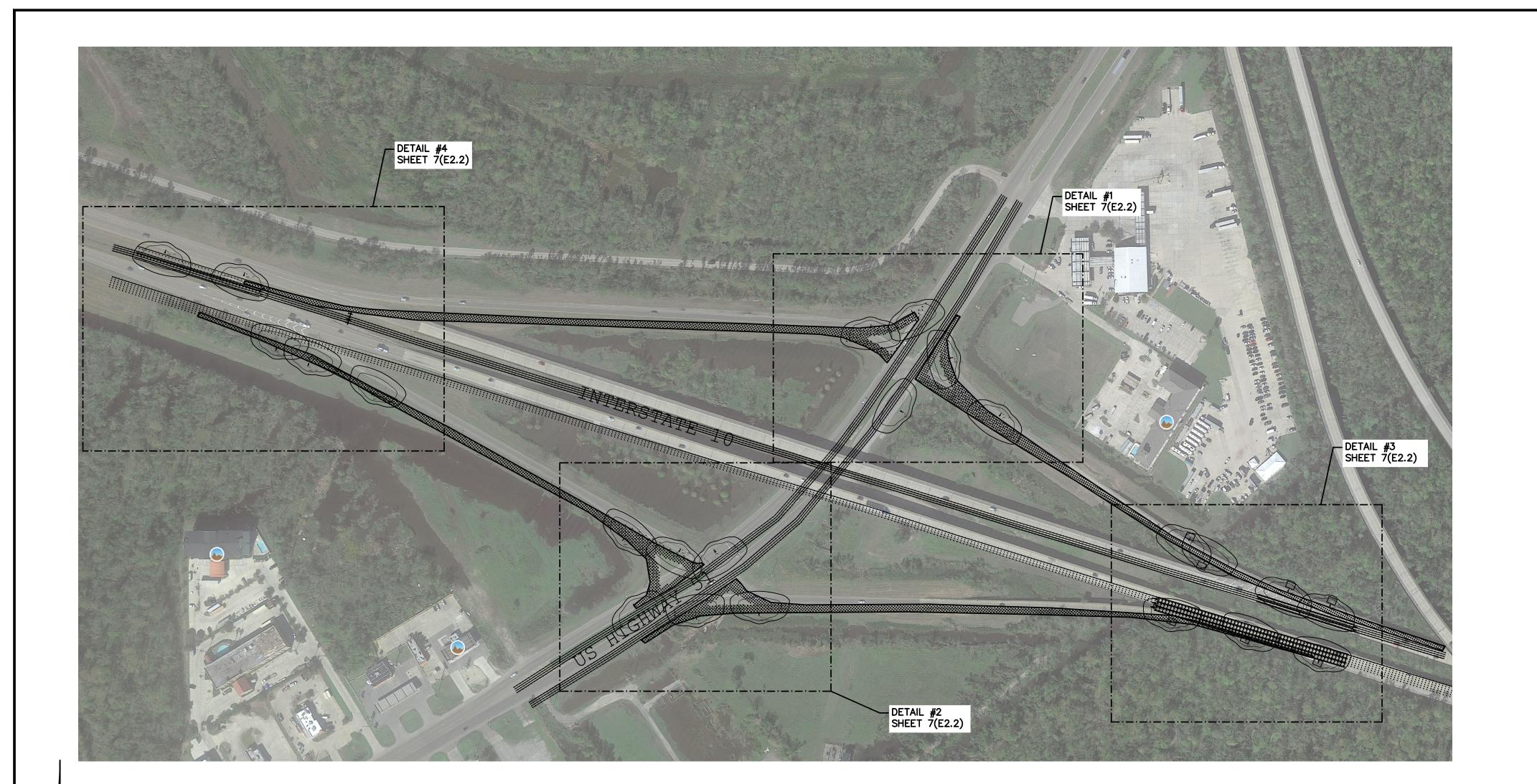
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Alternate IES File Name

RAR1 80L-25 3K7 3 UNV



Total Watts | Mounting | Mounting Arm | Length (in.)

Luminaire Schedule

IES File Name

ACL P125 R3 3K.ies

N.A.

N.A.

N.A.

3.00

18.00

Alternate Description

RAR1-80L-25-3L7-L-UNV

1 LIGHTING LAYOUT

Qty.

23

Symbol

Arrangement

Single

Description

ACL-P125-R3-3K

	Calcu	ulation Summa	ry					
Label	Calc. Type	Units	Avg.	Max.	Min.	Avg./Min. Ratio	Max./Min. Ratio	LV Ratio
<pre>Interstate 10 EB (Right)_Illum</pre>	Illuminance	Fc	1.04	1.80	0.30	3.47	6.00	N.A.
Interstate 10 EB (Right)_Luminance	Luminance	Cd/Sq.m	0.63	1.81	0.27	2.33	6.70	N.A.
Interstate 10 EB (Right)_Veil_Lum	Veiling Luminance	Cd/Sq.m	0.06	0.22	0.01	6.00	22.00	0.35
Interstate 10 EB Off Ramp)Left)_Illum	Illuminance	Fc	1.13	2.00	0.40	2.83	5.00	N.A.
Interstate 10 EB Off Ramp)Left)_Luminance	Luminance	Cd/Sq.m	0.83	1,86	0.27	3.07	6.89	N.A.
Interstate 10 EB Off Ramp)Left)_Veil_Lum	Veiling Luminance	Cd/Sq.m	0.15	0.28	0.02	7.50	14.00	0.34
Interstate 10 WB (Right)_Illum	Illuminance	Fc	1.14	1.90	0.30	3.80	6.33	N.A.
Interstate 10 WB (Right)_Luminance	Luminance	Cd/Sq.m	0.56	1.09	0.18	3.11	6.06	N.A.
Interstate 10 WB (Right)_Veil_Lum	Veiling Luminance	Cd/Sq.m	0.04	0.15	0.01	4.00	15.00	0.27
Interstate 10 WB Off Ramp	Illuminance	Fc	0.85	1.70	0.10	8.50	17.00	N.A.
Interstate 10 WB Off Ramp 2	Illuminance	Fc	1.08	1.70	0.10	10.80	17.00	N.A.
Interstate 10 Westbound (left)_Illum	Illuminance	Fc	1.06	1.70	0.30	3.53	5.67	N.A.
Interstate 10 Westbound (left)_Luminance	Luminance	Cd/Sq.m	0.60	1.67	0.26	2.31	6.42	N.A.
Interstate 10 Westbound (left)_Veil_Lum	Veiling Luminance	Cd/Sq.m	0.04	0.19	0.01	4.00	19.00	0.32
REV 1 - I-10 EB	Illuminance	Fc	0.25	1.80	0.00	N.A.	N.A.	N.A.
REV 1 - I-10 WB	Illuminance	Fc	0.20	1.80	0.00	N.A.	N.A.	N.A.
REV 1 - RAMP 3 HWY 51 TO EB I-10	Illuminance	Fc	0.49	1.80	0.00	N.A.	N.A.	N.A.
REV 1 - RAMP 4 EB I-10 TO HWY 51	Illuminance	Fc	0.71	2.40	0.00	N.A.	N.A.	N.A.
REV 1 - US HWY 51 NB	Illuminance	Fc	0.27	1.60	0.00	N.A.	N.A.	N.A.
REV 1 - US HWY 51 SB	Illuminance	Fc	0.35	1.80	0.00	N.A.	N.A.	N.A.
REV 1 - RAMP 1 HWY 51 TO WB I-10	Illuminance	Fc	0.28	1.80	0.00	N.A.	N.A.	N.A.

Fc

Fc

Fc

Luminaire

21,186

0.920

Lumens

Luminaire Watts

141

3,243

2.90

1.80

1.80

0.69

1.22

1.17

0.00

0.60

0.10

N.A.

2.03

11.70

I.) Readings shown are based on a total LLF of as shown at grade. Data references the extrapolated performance projections in a 25c ambient based

Illuminance

Illuminance

Illuminance

on 10,000 hrs of LED testing (per IESNA LM-80-08 and projected per IESNA TM-21-11).

2.) Please refer to the "luminaire locations" for mounting heights.

REV 1 - RAMP 2 WB I-10 TO HWY 51

US Highway NB Off Ramp

US Highway SB Off Ramp (top)

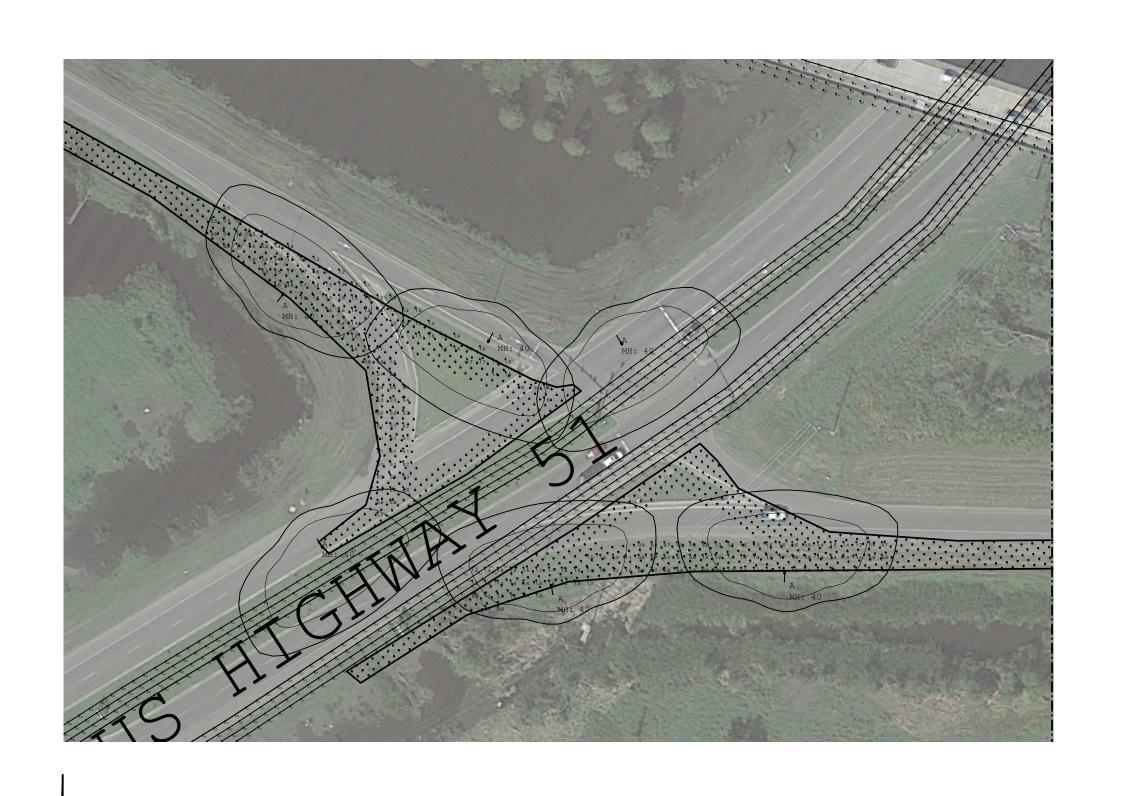
3.) Product information can be obtained at www.Holophane.com or through your local agent.

4.) Calculations do not account for topography and possible obstructions such as existing old growth trees or foliage.

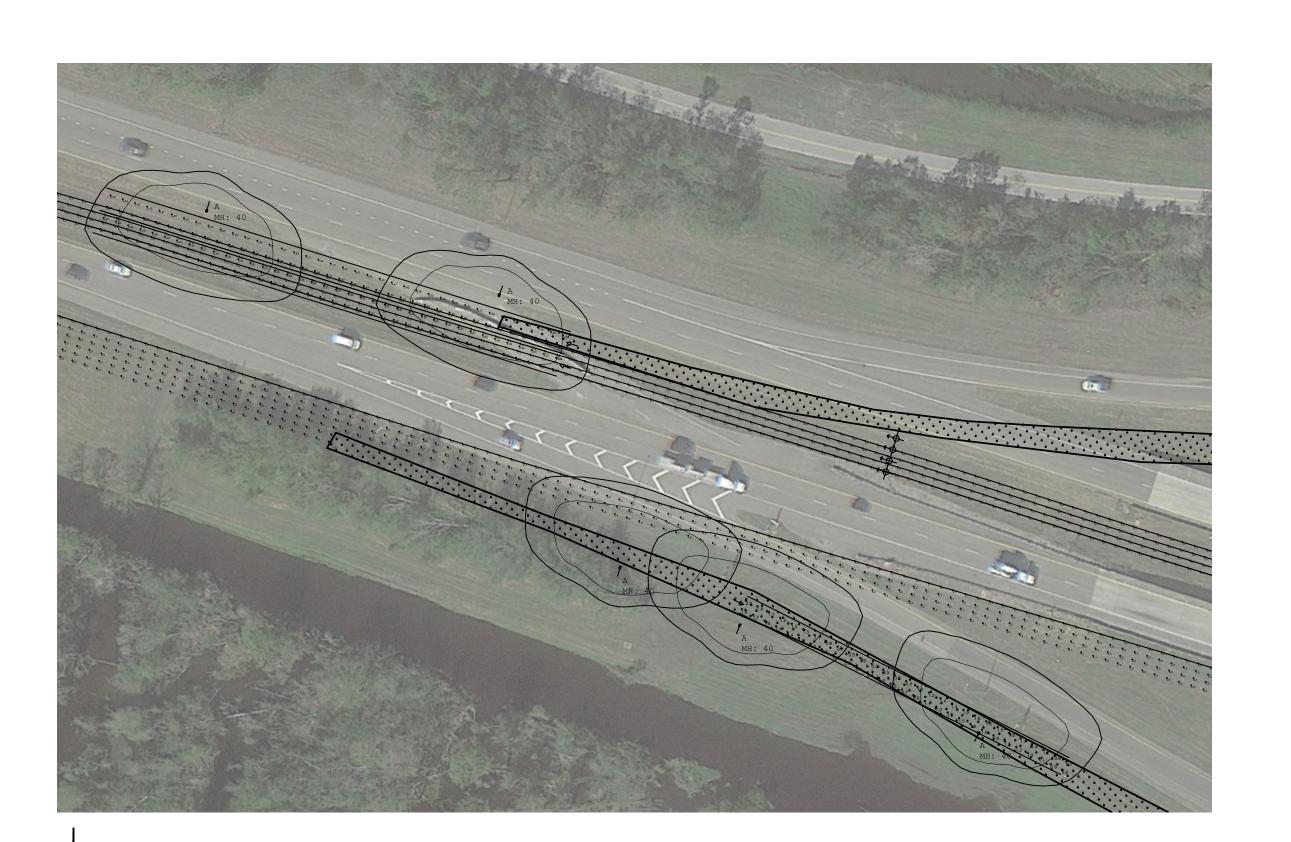








2 LIGHTING PLAN SOUTH
1" = 75'-0"



LIGHTING PLAN WEST



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51 **I-**10

FOOTING TO EDGE OF APRON

FORM 6 BELOW GROUND LINE See attachments to this sheet His

SCHEDULE 40 PVC CONDUT

-#2 SPIRAL REINFORCEMENT

CONCRETE APRON

Note: Connection box added in aprony LOWER SLIP PLATE

KEEP CONCRETE LEVEL INSIDE

See oftenments to this exect, PIPE 9"BELOW PLATE.

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sheet no.

E3.0

of 10 sheets

2 2 20 1 12 3/4" RACK RECEPT. | 4 | 4 | 20 | 1 | SPARE 6 | 6 | 20 | 1 | 8 8 20 1 SPARE 10 10 30 2 10 3/4" SPD total amps per phase 15.4 13.3

Baton Rouge, LA 70820 parisheng.com | #24-06 P:\Active Projects\24-063 MEYER ENG_Interstate Lighting LED Retrofit\24-063 XREF\24-063 I-10 & HWY 51 INTERSTATE LIGHTING - UPDATED.dwg

3-WIRE FEEDER SCHEDULE STD. FUSE OR # OF WIRE QUANTITY AND SIZE **CONDUIT SIZE** (MINIMUM) BKR TRIP SIZE SETS **20**> 3/4" 3#12 THWN, 1#12 GND 3#1 THWN, 1#6 GND 1-1/4" **₹30** 3#10 THWN, 1#10 GND 3/4" 1-1/4" 3#8 THWN, 1#10 GND 3#3 THWN, 1#8 GND 1-1/4" **(150)** 3#1/0 THWN, 1#6 GND **200** 3#3/0 THWN, 1#4 GND 2" **600** 3#350 THWN MCM, 1#1 GND 3 3#300 THWN MCM, 1#1/0 GND

DIAGRAM.

ELECTRICAL CONTRACTOR TO VERIFY SIZE REQUIRED IF WIRE TYPES OTHER THAN THOSE LISTED ABOVE ARE USED. REFER TO THE LATEST EDITION OF THE NEC FOR CONDUIT TYPES

ALL CONDUCTORS TO BE COPPER. "VD" INDICATES WIRE UPSIZED FOR VOLTAGE DROP. "NG" INDICATES NO GROUND CONDUCTOR REQUIRED.

ALL FEEDER SIZES LISTED MAY NOT BE SHOWN IN POWER RISER REQUIRED PER THEIR TABLES.

(SEE LAYOUT SHEETS) CONDUCTORS:

THREE (3) AWG #12 COPPER

CONDUCTORS; GOO VOLT

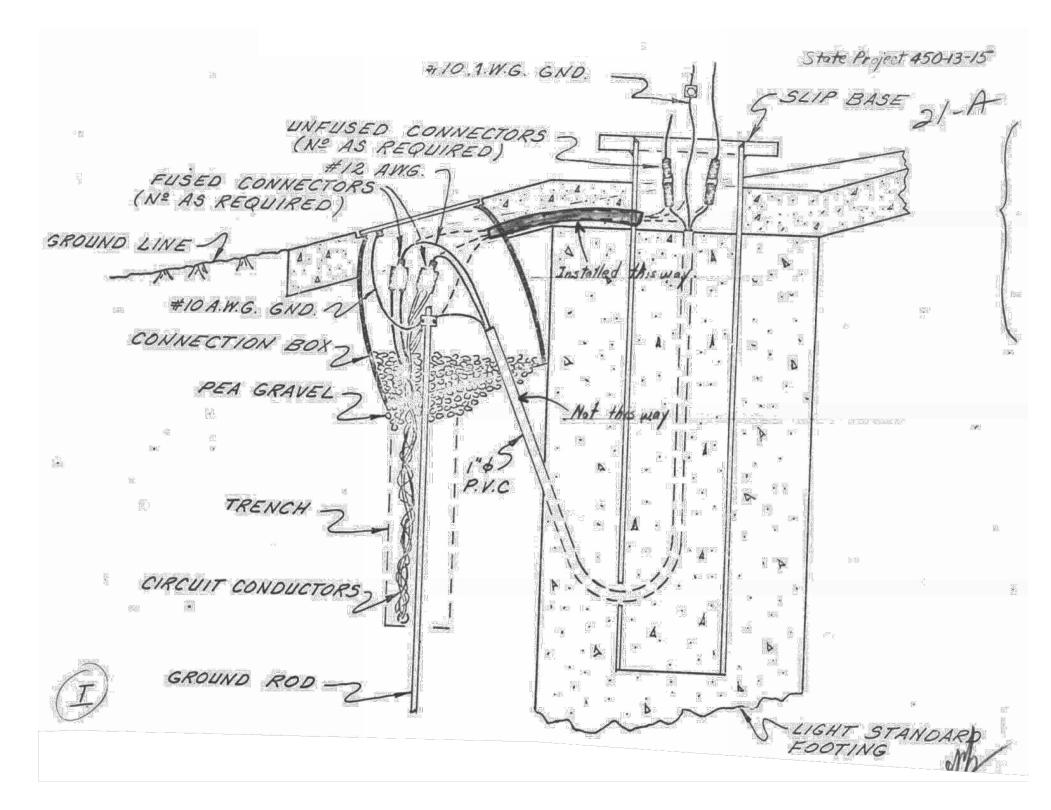
X-LINKED POLYETHYLENE
INSULATION, TYPE XHHW,
IPCEA SPEC. 566-524; COLOR

CODE, ONE RED, ONE BLACK,
ONE GREEN (EACH LUMINAIRE) NOTE:

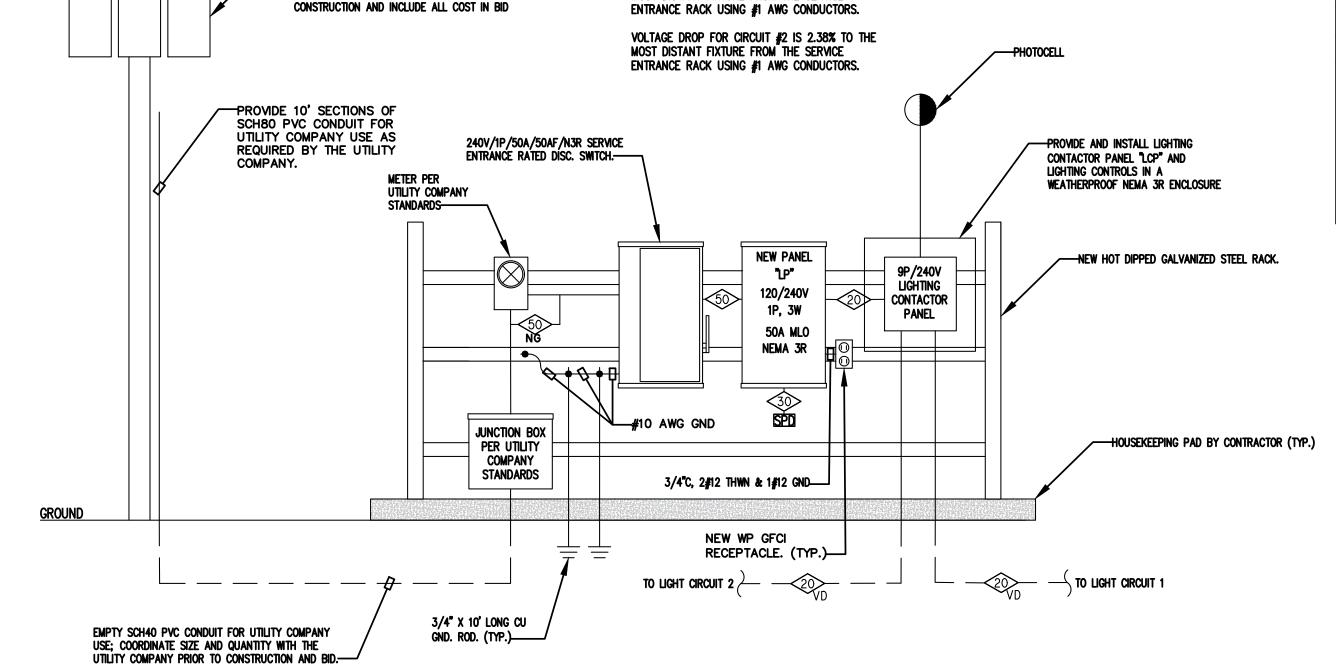
LOCATE LIGHT STANDARD

SUCH THAT END OF BRACKET
IS ALIGNED WITH EDGE OF
SHOLDER OR AS DIRECTED
BY THE PROJECT ENGINEER. FOOTING 10'MIN. RAMPS 15 MIN. MAIN ROADS

- 8#7 BARS OTE: CHECK ALIGNMENT OF LUMINAIRE SUPPORT ARMS BEFORE SETTING LOWER SLIP PLATE ASSEMBLY -GROUNDING ELECTRODE (SEE LIGHTING CONTROLLER DETAIL) ALL CLASS A CONCRETE. 2 LIGHT STD INSTALLATION DETAIL 3 FOOTING DETAIL



6 CONNECTION BOX INSTALLATION DETAIL
NOT TO SCALE



VOLTAGE DROP FOR CIRCUIT #1 IS 2.68% TO THE

MOST DISTANT FIXTURE FROM THE SERVICE

ELECTRICAL RISER DIAGRAM

-EXISTING 120/240V, 1P, 3W POLE MOUNTED

TRANSFORMER AND OVERHEAD SERVICE BY UTILITY

COMPANY TO BE REUSED; COORDINATE THE EXACT

REQUIREMENTS WITH THE UTILITY COMPANY PRIOR TO

TO LUMINAIRES TSOURCE TWIN LUMINAIRES	TO LUMINAIRE SOURCE SINGLE LUMINAIRE	TO LIGHT STDS. SOURCE TWIN LUMINAIRE LT. STD. FEEDING TWO ROWS OF STDS.				
SINGLE LUMI	NAIRE SOURCE NAIRE LT STD. E ROW OF STOS.	TO LUMINAIRES TO LIGHT STOS. SOURCE TWIN LUMINAIRE LT. STO. FEEDING ONE ROW OF STOS.				
TO LIGHT STOS. SINGLE LUMI	SOURCE SOURCE VAIRE LT STO. ROWS OF STOS.	-Y" UNFUSED CONNECTOR -Y" FUSED CONNECTOR -STRAIGHT FUSED CONNECTOR LEGEND				
	CONNECTION	NOTES				

CONNECTOR DIAGRAMS ARE SHOWN FOR SINGLE CONDUCTOR; CONNECTORS ARE REQUIRED FOR EACH UNGROUNDED COND. ALL CONNECTIONS SHALL BE MADE WITH WATERPROOF CONNECTORS (SEE STANDARD SPECIFICATIONS SEC. 7.3010) FUSE CONNECTORS WITH 10 AMP., 600 VOLT, 100,000 A.I.C. FUSE.

STANDARD CONNECTION DETAIL

5 STEEL LIGHT STD NOT TO SCALE

OVALIZE TO 2% 4

WERTICAL DIMENSION
FOR TOP & BOTTOM
MEMBERS. TAPER TO
2" SLIP FITTER END.

BRACKET LENGTH SEE LAYOUT SHEETS

GRAVITY SIMPLEX TYPE, WITH STAINLESS STEEL

ALUM. LT. STO. BKT. SCHEDULE

LENGTH AND BOTTOM MEMBERS

10'-0" *3" × 0.125"

15'-0" #3" × 0.188"

6'-0"

2" SCHEDULE 40 PIPE

LOCK WASHERS AND HEX-HEAD BOLTS. 2 BOLTS FOR EACH ATTACHMENT.

-BRACKET

2" Ø 5CHED 40 PIPE THROUGHOUT

POLE CAP: -CAST WITH 3 SET SCREWS.

WIRE INLET:
WIRE ENTRANCE
HOLE TO BKT. SHALL
BE DRILLED AND
FITTED WITH
NEOPRENE GROMMET.

STEEL POLES: 1. THE SHAFT SHALL HAVE A CONTINUOUS

UNIFORM TAPER.

2. ALL PARTS OF
LIGHT STANDARD
SHALL BE HOT DIP

FABRICATION

ACCORDING TO

ALUMINUM POLES:
1. UNIFORMLY
TAPERED SHAFT
2. 6063-T6

GALVANIZED, INSIDE AND OUTSIDE AFTER

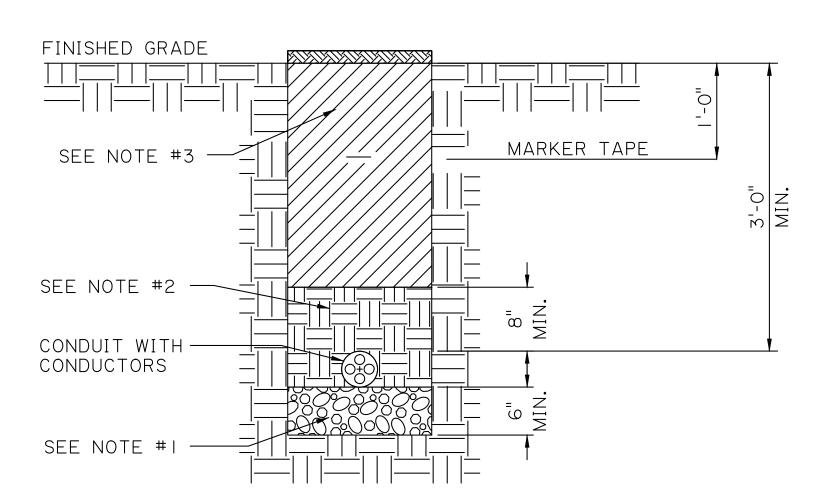
MOUNTING:SURFACE TYPE:BOLT-ON BREAKER PANELBOARD PANEL "LP" SERVICE:120/240 VOLT, 1ø, 3W REMARKS:GROUND BUS MAIN:50 AMP MLO NEMA 3R S.E.R. pos. bkr. trip bkr. wire no. no. amp pole size cd service 1 1 20 2 12 3/4" CONTACTOR "LCP" 5 3 20 1 7 5 20 1 SPARE 9 7 20 1 SPARE

11 | 9 | 20 | 1 | SPARE connected V.A. per phase 1,850 1,600 SUBMIT DIGITAL PHOTOS OF ALL GROUNDING TERMINATIONS

GROUNDING ROD INSTALLATION

DETAIL **KEYNOTES** EQUIVALENT. (3) ENCLOSURE. ADDITIONAL CONDUITS (AS REQUIRED). (5) INCOMING CONDUIT. 6 INTEGRAL BRACKET FOR ATTACHMENT OF BONDING GROUNDING INSTALLATION SHALL ALL REQUIREMENTS OF NEC 250.92.

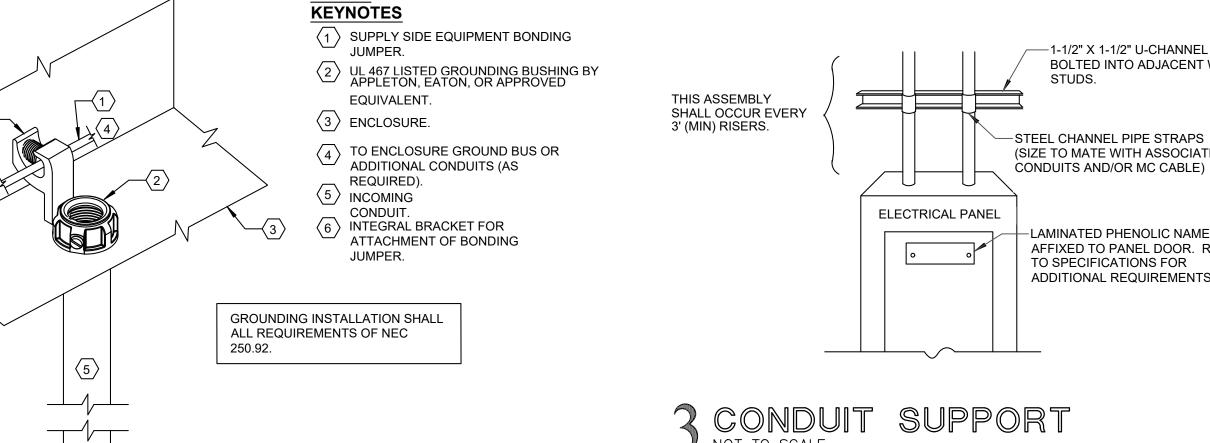
2 CONDUIT GROUND BUSHING



- INITIAL BACKFILL AND BEDDING OF TAMPED GRANULAR MATERIAL. FOR SPECIFICATIONS ON TAMPED GRANULAR MATERIAL, REFER TO SECTION 723 OF LADOTD'S STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.
- FINAL BACKFILL FREE OF LARGE STONES, ROCKS, CLUMPS, AND DEBRIS. ANY ASPHALT OR CONCRETE MATERIAL REMOVED DURING TRENCHING SHALL BE REPLACED WITH LIKE MATERIAL TO MATCH EXISTING.

(CONDUIT WITH CONDUCTORS RATED 600 VOLTS AND BELOW)

5 TRENCHING DETAIL
NOT TO SCALE



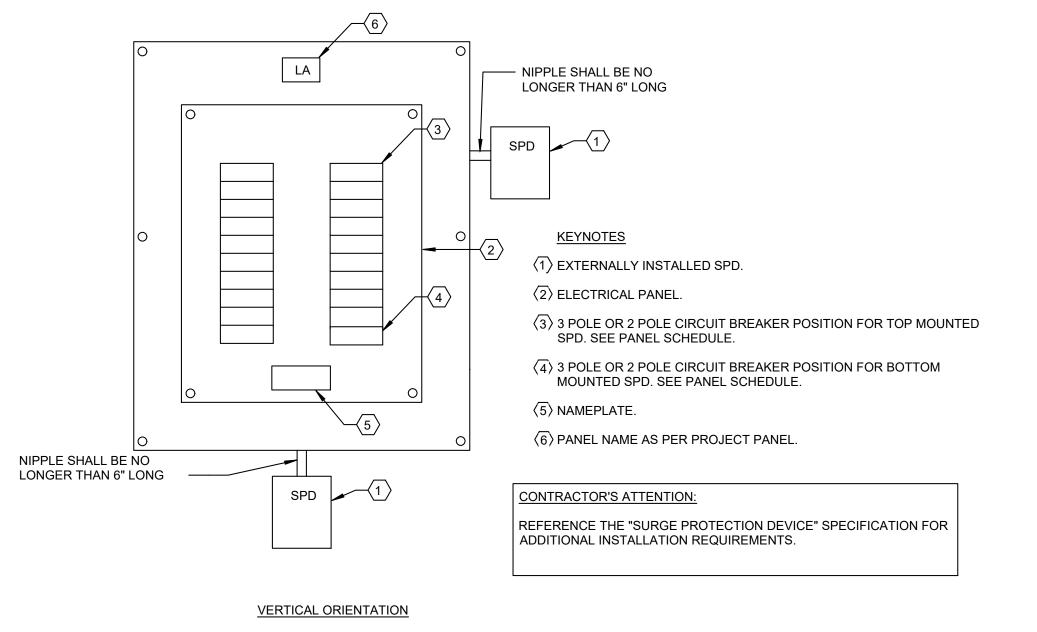
BOLTED INTO ADJACENT WALL -STEEL CHANNEL PIPE STRAPS (SIZE TO MATE WITH ASSOCIATED CONDUITS AND/OR MC CABLE) LAMINATED PHENOLIC NAMETAG AFFIXED TO PANEL DOOR. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

TYPICAL PANELBOARD PLAQUE (INDICATE PANEL DESIGNATION) __/_VOLTS__PHASE__WIRE AMPS MAIN___ FED FROM (INDICATE FEEDER ORIGINATION I.D.) (PANEL AND CIRCUIT NO.)

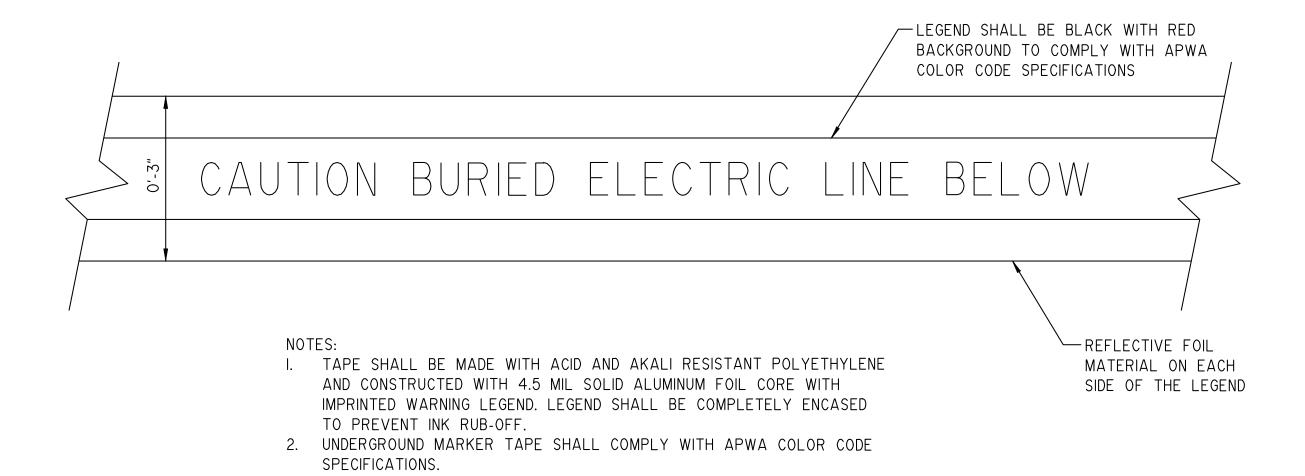
TYPICAL DISCONNECT PLAQUE

(INDICATE EQUIPMENT DESCRIPTION)
FUSED AT ___AMPERES FED FROM (INDICATE FEEDER ORIGINATION I.D.) (PANEL AND CIRCUIT NO.)

PLAQUES SHALL BE ENGRAVED LAMINATED PLASTIC; BLACK WITH WHITE LETTERING. LETTERING SHALL BE 1/4" HIGH, AND ALL CAPS. ATTACH PLAQUES USING INDUSTRIAL GRADE DOUBLE FACE ADHESIVE.



6 EQUIPMENT SIGNAGE NOT TO SCALE



EQUIPMENT SIGNAGE NOT TO SCALE



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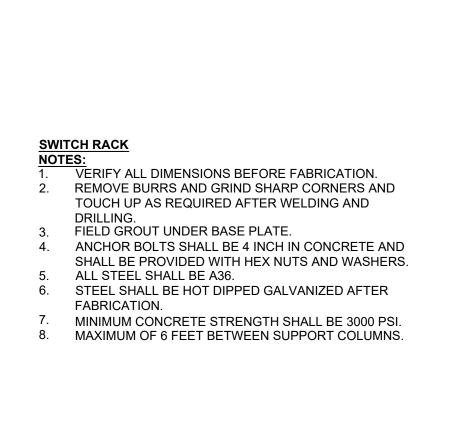
HJM/MRQ checked 06/17/2025 revised

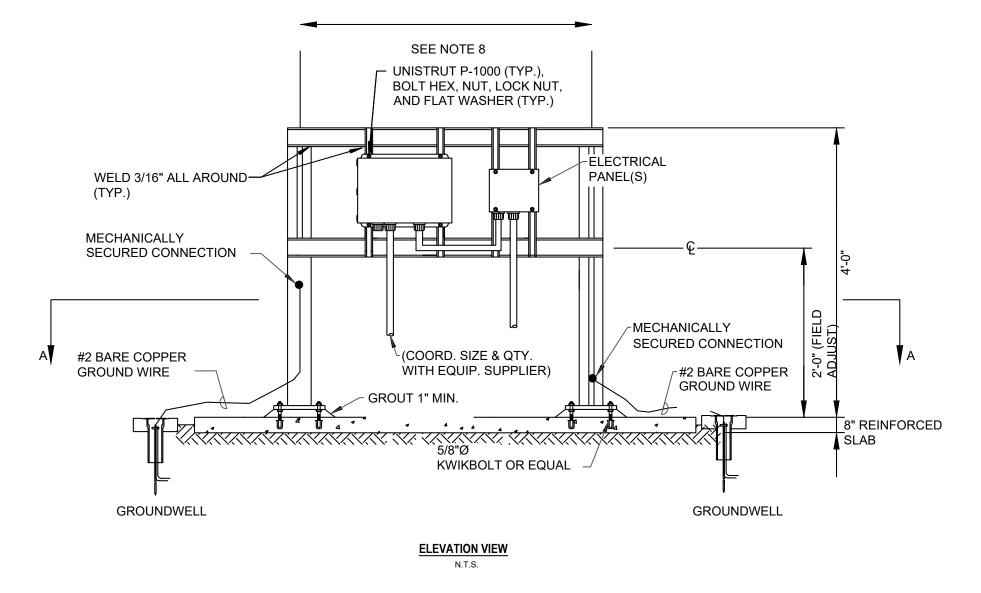
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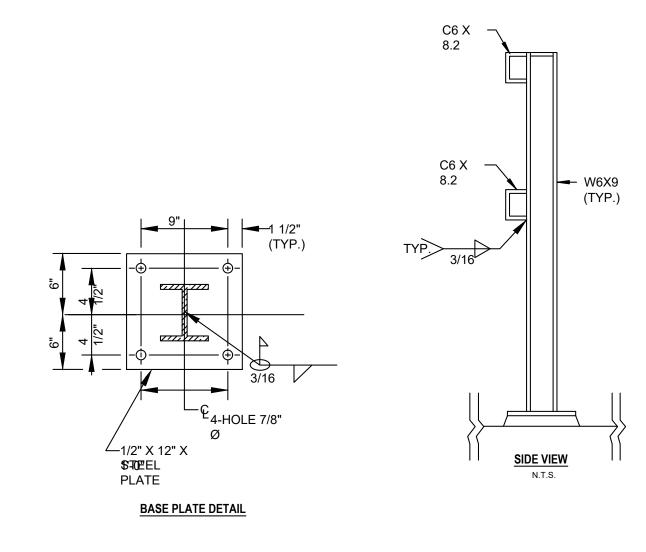
REPAIRS F PARISH **DETAILS**

> sheet no. E4.0

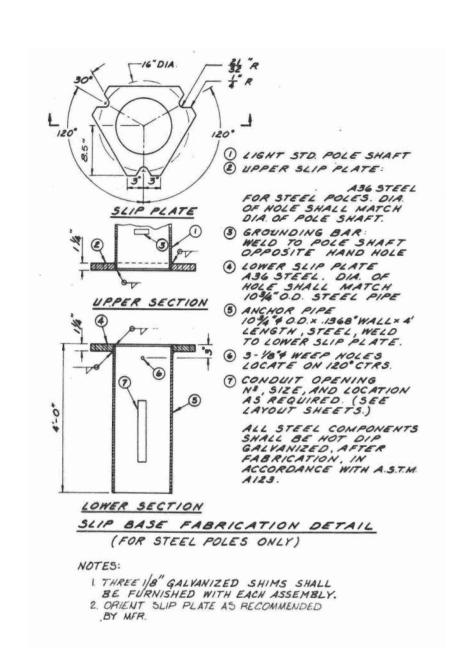
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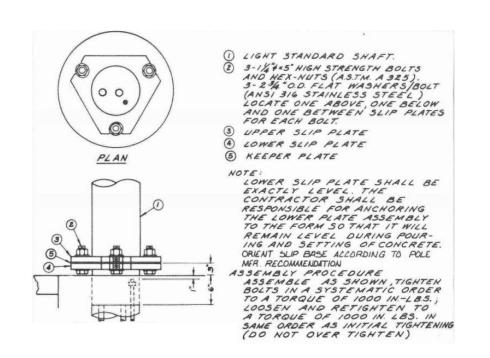






ELECTRICAL SWITCH RACK





2 SLIP BASE FABRICATION DETAIL
NOT TO SCALE



24-1130-0013 HJM/MRQ checked 06/17/2025 date revised

ELECTRICAL DETAILS INTERSTATE I ST JOHN THE OWNER

sheet no.

of 10 sheets

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