

SECURITY

M CARD ACCESS READER; LETTER INDICATES AS FOLLOWS:
M= MOUNT
 C-CEILING D-DESK F-FLUSH H-HIDDEN
 M-MULLION P-PEDESTAL R-RACK
 S-SURFACE W-WALL
T= TECHNOLOGY/TYPE
 B-BARCODE F-ELEVATOR FLOOR CALL
 H-ELEVATOR HALL CALL M-MAG STRIP
 P-PROXIMITY S-SMART CARD T-TOKEN

M ELECTRONIC LOCK; LETTER INDICATES AS FOLLOWS:
M= MOUNT
 C-CEILING D-DESK F-FLUSH H-HIDDEN M-MULLION
 P-PEDESTAL R-RACK S-SURFACE W-WALL
T= TECHNOLOGY/TYPE
 D-DEADBOLT H-HYBRID L-LATCH SET
 M-MAGNETIC S-STRIKE

SECURITY ACCESS, VIDEO CAMERA WITH LENS
 REFER TO CAMERA LEGEND FOR MANUFACTURER AND
 MODEL NO. INFORMATION

DOOR CONTACT CLOSURE

DOOR SWITCH

INTRUSION DETECTION DEVICE

NOTE: WIRING SHALL BE IN EMT.

FIRE ALARM

F FIRE ALARM PULL STATION. MOUNTED 48" AFF TO
 CENTERLINE OF STATION.

15 AUDIO/VISUAL ALARM. COMBINATION SPEAKER WITH
 ADJUSTABLE CANDELA STROBE LIGHT. WALL MOUNTED
 90" AFF TO TOP. CEILING MOUNT WHERE INDICATED.
 NUMBER INDICATES CANDELA RATING OF STROBE. 'WP'
 INDICATES WEATHERPROOF UNIT.

15 VISUAL ALARM. ADJUSTABLE CANDELA STROBE LIGHT.
 WALL MOUNTED 90" AFF TO TOP. CEILING MOUNT
 WHERE INDICATED. NUMBER INDICATES CANDELA RATING
 OF STROBE. REFER TO SPECIAL REQUIREMENTS IN
 SLEEPING AREAS. NS INDICATES NON-SUPERVISED 120
 VOLT REMOTE VISUAL SIGNAL, 177 CANDELA, CONNECTED
 TO NON-SUPERVISED SMOKE DETECTOR.

S EXISTING CEILING MOUNTED SPEAKER (AUDIO ALARM)
 WIRING SHALL BE IN EMT.

S PHOTOELECTRIC SMOKE DETECTOR WITH ADDRESSABLE
 BASE. CEILING MOUNTED.

D DUCT MOUNTED SMOKE DETECTOR WITH REMOTE TEST
 AND RESET STATION. FURNISHED AND WIRED BY
 ELECTRICAL CONTRACTOR, INSTALLED BY MECHANICAL
 CONTRACTOR.
 'S' INDICATES LOCATED IN SUPPLY AIR DUCT
 'R' INDICATES LOCATED IN RETURN AIR DUCT

TS REMOTE TEST STATION WITH RESET FOR DUCT SMOKE
 DETECTOR

H 200' HEAT DETECTOR

LEGEND

LIGHTING

N/L LED LUMINAIRE (LIGHTING FIXTURE)
 SURFACE OR RECESSED MOUNTED
 HATCH INDICATES EMERGENCY CIRCUIT
 'N/L' INDICATES NIGHT LIGHT CIRCUIT
 UPPERCASE LETTER INDICATES TYPE (TYPICAL)

W WALL MOUNTED LUMINAIRE

R SURFACE LUMINAIRE OR RECESSED DOWNLIGHT LUMINAIRE

X1 EXIT SIGN - DIRECTIONAL ARROWS AS INDICATED. CEILING
 OR WALL MOUNT AT 7'-6" AFF TO CENTER OR ABOVE
 DOOR

E EXPLOSION PROOF EXIT SIGN WITH EMERGENCY LIGHTS

CH PHOTOELECTRIC CELL

S SWITCH MOUNTED 48" AFF UNLESS NOTED OTHERWISE
 'o' INDICATES SWITCH CONTROL

3 '3' INDICATES THREE-WAY

4 '4' INDICATES FOUR-WAY

D 'D' INDICATES DIMMER SWITCH

T 'T' INDICATES TIMER SWITCH

WP 'WP' INDICATES WEATHERPROOF COVER

O 'O' INDICATES OCCUPANCY SENSOR

O1 'O1' INDICATES OCCUPANCY SENSOR

OC CEILING MOUNTED OCCUPANCY SENSOR WITH POWER PACK

R EMERGENCY LIGHTING BY-PASS RELAY

S WALL MOUNTED OCCUPANCY SENSOR

P POLE MOUNTED LIGHT FIXTURE

W WALL MOUNTED EXTERIOR LIGHT FIXTURE

COMMUNICATIONS

V DATA ONLY OUTLET MOUNTED AS NOTED. INDICATES
 SINGLE DATA PORT. PIPE TO CABLE TRAY.

TV CATV OUTLET MOUNTED AS NOTED. HOMERUN COAX
 CABLE TO VA SELECTED SOURCE. SYSTEM SHALL BE IN
 EMT.

WAP WIRELESS ACCESS POINT. PROVIDE (1) DATA OUTLET FOR
 ANTENNA AT ACCESSIBLE LOCATION ABOVE CEILING.
 PROVIDE (1) LEVEL 6 CABLE BACK TO RACK MOUNTED
 PATCH PANEL. PROVIDE DUPLEX RECEPTACLE AND
 CONNECT TO BRANCH CIRCUIT AS INDICATED ON FLOOR
 PLANS. ALL IN CABLE TRAY.

(4) VOIP OUTLET, (VOICE AND DATA) INDICATES (4) PORTS
 PIPE TO CABLE TRAY. EACH VOIP OUTLET CONTAINS (4)
 CATEGORY 6A CABLES.

D DOOR BELL CHIME

POWER

NUE UNDERGROUND WIRING
 'NUE' INDICATES NEW UNDERGROUND ELECTRIC WIRING
 'EUE' INDICATES EXISTING UNDERGROUND ELECTRIC WIRING
 'NUC' INDICATES NEW UNDERGROUND COMMUNICATIONS WIRING
 'EUC' INDICATES EXIST. UNDERGROUND COMMUNICATIONS
 WIRING

**NEW INTERIOR WIRING - ABOVE GRADE - CONCEALED OR
 EXPOSED**

G GROUNDING CONDUCTOR

**HOMERUN - ARROWS INDICATE NUMBER OF CIRCUITS (GND
 NOT SHOWN) CONDUCTORS ARE #12 UNLESS NOTED
 OTHERWISE.**

AGA-23 CIRCUIT NUMBER DESIGNATION
 PANELBOARD DESIGNATION

J JUNCTION BOX - SIZE AS INDICATED OR REQUIRED.

T THERMOSTAT

AGA PANELBOARD, RECESSED OR SURFACE MOUNT AS SPECIFIED.
 DESIGNATION PER CLIENT STANDARD

T1 30 DRY-TYPE TRANSFORMER - KVA AS INDICATED, 'T1'
 INDICATES DESIGNATION

A/P/V/N SAFETY DISCONNECT SWITCH
 A INDICATES AMPS
 P INDICATES POLES
 V INDICATES LINE TO LINE VOLTS
 N INDICATES NEMA ENCLOSURE DESIGNATION
 \ (SLASH) INDICATES FUSIBLE

2 MAGNETIC MOTOR STARTER - 'Pr' INDICATES PROVIDE PHASE
 PROTECTION RELAY. NUMBER INDICATES NEMA SIZE

2 COMBINATION TYPE MAGNETIC MOTOR STARTER/DISCONNECT
 NUMBER INDICATES NEMA SIZE

10 MOTOR - NUMBER INDICATES HORSEPOWER. WIRE COMPLETE
 WITH DISCONNECT SWITCH AS INDICATED OR REQUIRED, 'M'
 INDICATES FRACTIONAL HORSEPOWER

I INDICATES KEY NOTE

Q DUPLEX RECEPTACLE - 125V, 20A, GROUND TYPE
 MOUNT 18" AFF UNLESS NOTED OTHERWISE
 'WP' INDICATES WEATHER-PROOF. PROVIDE WEATHER
 RESISTANT PER NEC 406.8.
 'GFI' INDICATES GROUND FAULT CIRCUIT INTERRUPTER

Q SINGLE RECEPTACLE - 125V, 20A, GROUND TYPE - MOUNT
 18" AFF UNLESS NOTED OTHERWISE

Q DOUBLE DUPLEX RECEPTACLE - 125V, 20A, GROUND TYPE -
 MOUNT 18" AFF UNLESS NOTED OTHERWISE

Q SINGLE POWER RECEPTACLE - SPECIAL PURPOSE - NEMA
 CONFIGURATION AS INDICATED

M 'M' INDICATES MANUAL MOTOR STARTER (WITH OVERLOAD
 PROTECTION)

**POWER STRIP. INDICATES 4 SINGLE RECEPTACLES, UNLESS
 OTHERWISE NOTED.**

P/B PULL BOX, SEE DRAWINGS FOR SIZE

EPO EMERGENCY POWER OFF (ABORT) BUTTON
 MUSHROOM HEAD STYLE

ISOLATED GROUNDING SYSTEM

ABBREVIATIONS

A AMP
 AC ALTERNATING CURRENT
 ADA AMERICANS WITH DISABILITIES ACT
 AF AMP FRAME
 AFCI ARC FAULT CIRCUIT INTERRUPTER
 AFF ABOVE FINISHED FLOOR
 AFG ABOVE FINISHED GRADE
 AIC AMPERES INTERRUPTING CAPACITY
 AL ALUMINUM
 AT AMP TRIP
 ATC AUTOMATIC TEMPERATURE CONTROL
 AWG AMERICAN WIRE GAUGE
 BLDG BUILDING
 C CONDUIT
 CB CIRCUIT BREAKER
 CKT CIRCUIT
 CEIL CEILING
 CL CENTERLINE
 CMU CONCRETE MASONRY UNIT
 CONC CONCRETE
 CONT'D CONTINUED
 CR CRITICAL
 CU COPPER
 CUH CABINET UNIT HEATER
 DC DIRECT CURRENT
 DW DISH WASHER
 EC ELECTRICAL CONTRACTOR
 EF EXHAUST FAN
 EGC EQUIPMENT GROUNDING CONDUCTOR
 EM EMERGENCY
 EUH ELECTRIC UNIT HEATER
 EWC ELECTRIC WATER COOLER
 FACP FIRE ALARM CONTROL PANEL
 GD GARBAGE DISPOSAL
 GEC GROUNDING ELECTRODE CONDUCTOR
 GFI GROUND FAULT INTERRUPTER
 GND GROUND
 HID HIGH INTENSITY DISCHARGE
 HOA HAND-OFF-AUTOMATIC
 HP HORSEPOWER
 HPS HIGH PRESSURE SODIUM
 HZ HERTZ
 JB JUNCTION BOX
 KAIC THOUSAND AMP INTERRUPTING CAPACITY
 KCML THOUSAND CIRCULAR MIL
 KV THOUSAND VOLTS (KILOVOLT)
 KVA THOUSAND VOLT-AMPS
 KW THOUSAND WATTS (KILOWATT)
 LC LIGHTING CONTACTORS
 LCP LATERAL CONTROL PIT
 LED LIGHT EMITTING DIODE
 LP LIGHTING PANELBOARD
 LTG LIGHTING
 MCC MOTOR CONTROL CENTER
 MCCB MOLDED CASE CIRCUIT BREAKER
 MCB MAIN CIRCUIT BREAKER
 MH MANHOLE OR METAL HALIDE
 MIC MICROWAVE OR MICROPHONE
 MLO MAIN LUGS ONLY
 MTS MANUAL TRANSFER SWITCH

NC NORMALLY CLOSED OR NURSE CALL
 NEC NATIONAL ELECTRICAL CODE
 NFPA NATIONAL FIRE PROTECTION ASSOCIATION
 NO NORMALLY OPEN
 NO. NUMBER
 OL OVERLOAD
 P POLE
 PA PUBLIC ADDRESS
 PB PUSH BUTTON
 PF POWER FACTOR
 PH PHASE
 PNL PANEL
 PT POTENTIAL TRANSFORMER
 PVC POLYVINYL CHLORIDE
 REF REFRIGERATOR
 RSC RIGID STEEL CONDUIT
 RTU ROOF TOP UNIT
 SCCR SHORT CIRCUIT CURRENT RATING
 SF SUPPLY FAN
 SLD SINGLE LINE DIAGRAM
 SS SOLID STATE
 SWBD1 SWITCHBOARD, NUMBER AS INDICATED
 TC TIME CLOCK
 TS TRANSFER SWITCH
 T&B TOP AND BOTTOM
 TYP TYPICAL
 TV TELEVISION
 UC UNDER COUNTER
 UG UNDERGROUND
 V VOLT
 VA DEPARTMENT OF VETERAN AFFAIRS
 VA VOLT-AMPERE
 VAMC VA MEDICAL CENTER
 VFD VARIABLE FREQUENCY DRIVE
 W WATT
 W/ WITH
 WP WEATHERPROOF
 WRG WIRING
 XFMR TRANSFORMER
 XP EXPLOSION-PROOF
 3PH THREE PHASE (Ø)
 3W THREE WIRE
 4W FOUR WIRE
 (R) LOCATION OF RELOCATED DEVICE OR
 EQUIPMENT
 (RR) REMOVE AND RELOCATE EXISTING DEVICE OR
 EQUIPMENT
 (RX) REMOVE EXISTING DEVICE OR EQUIPMENT
 (X) EXISTING DEVICE OR EQUIPMENT TO REMAIN
 (XR) EXISTING DEVICE OR EQUIPMENT TO BE
 REMOVED AND REPLACED AT SAME LOCATION

GENERAL NOTES

A. NOT ALL SYMBOLS INDICATED IN THE LEGEND, OR
 LISTED ABBREVIATIONS, APPEAR ON THE DRAWINGS.
 COORDINATE WORK ACCORDINGLY. COMPLY WITH
 SPECIFICATIONS AND NOTES BELOW AS APPLICABLE.

B. ALL RECEPTACLES SHALL BE INSTALLED 18" AFF
 UNLESS NOTED OTHERWISE.

C. ALL WIRING SHALL BE COPPER. ALUMINUM WIRING IS
 NOT ALLOWED. UNLESS OTHERWISE NOTED, ALL
 WIRING SHALL BE 2#12 AWG AND 1#12 AWG
 EQUIPMENT GROUNDING CONDUCTOR IN EMT.
 HOMERUNS FED FROM A 20A-1P, 120V CIRCUIT IN
 EXCESS OF 70' SHALL BE #10 AWG SOLID.

D. CONDUCTORS SHALL BE SOLID AND #8 OR SMALLER.

E. SEE MECHANICAL PLANS FOR HVAC UNITS, PUMPS
 AND FANS CONTROLLED BY THERMOSTATS AND
 OVERRIDE SWITCHES (PROVIDED BY ATC
 CONTRACTOR).

F. FUSES AND OVERLOAD UNITS FOR MOTORS SHALL BE
 SIZED BASED ON ACTUAL MOTOR NAMEPLATE DATA
 AND IN ACCORDANCE WITH NEC.

G. ALL WORK SHALL COMPLY WITH LATEST EDITION OF
 NFPA70, NFPA72, NFPA99, NFPA101, NEC & ALL
 FEDERAL, STATE & LOCAL REGULATIONS.

H. ALL PENETRATIONS THROUGH FLOORS, RATED WALLS
 AND PARTITIONS SHALL BE SEALED WITH UL
 APPROVED FIRE SEALANT MATERIAL TO MAINTAIN
 FIRE RATING FOR THE SEPARATION.

I. ALL ENCLOSURES, CONDUIT BODIES AND THEIR
 COVERS CONTAINING FIRE ALARM SYSTEM
 CONDUCTORS SHALL BE PAINTED RED.

J. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE
 INSTALLED WITH ALL FEEDER AND BRANCH CIRCUITS.
 SIZE IN ACCORDANCE WITH NFPA 70 ARTICLE 250.

K. FLEXIBLE CONNECTIONS TO MOTORS SHALL BE LIQUID
 TIGHT FLEXIBLE METAL CONDUIT IN A 360° LOOP
 EXCEPT AS NOTED OTHERWISE.

L. COORDINATE INSTALLATION OF COMMUNICATION
 OUTLETS WITH THE VA.

M. LOCATE DISCONNECTS AT EQUIPMENT AS REQUIRED
 BY MANUFACTURER. LOCATIONS ON DRAWINGS ARE
 APPROXIMATE.

N. IDENTIFICATION:
 RECEPTACLES CONNECTED TO THE ESSENTIAL
 ELECTRICAL SYSTEM SHALL BE RED WITH A WHITE
 LABEL CONTAINING THE WORD "EMERGENCY" IN
 BLACK ON THE TOP OF THE PLATE AND A WHITE
 LABEL WITH THE CIRCUIT NUMBER IN BLACK ON THE
 BOTTOM. "NORMAL" RECEPTACLES SHALL HAVE A
 WHITE LABEL WITH THE CIRCUIT NUMBER IN BLACK
 AT THE BOTTOM OF THE PLATE.

O. PROVIDE WIRE MARKERS TO IDENTIFY CABLES FOR
 ALL SYSTEMS AT THE ORIGIN, PULL BOXES, AND
 TERMINATION POINTS. LABELS SHALL BE SELF
 ADHESIVE OR HEAT SHRINK TYPE.

P. NO LIVE WORK WILL BE ALLOWED. EVERY CIRCUIT
 SHALL BE LOCKED-OUT AND TAGGED-OUT BEFORE
 COMMENCING WORK.

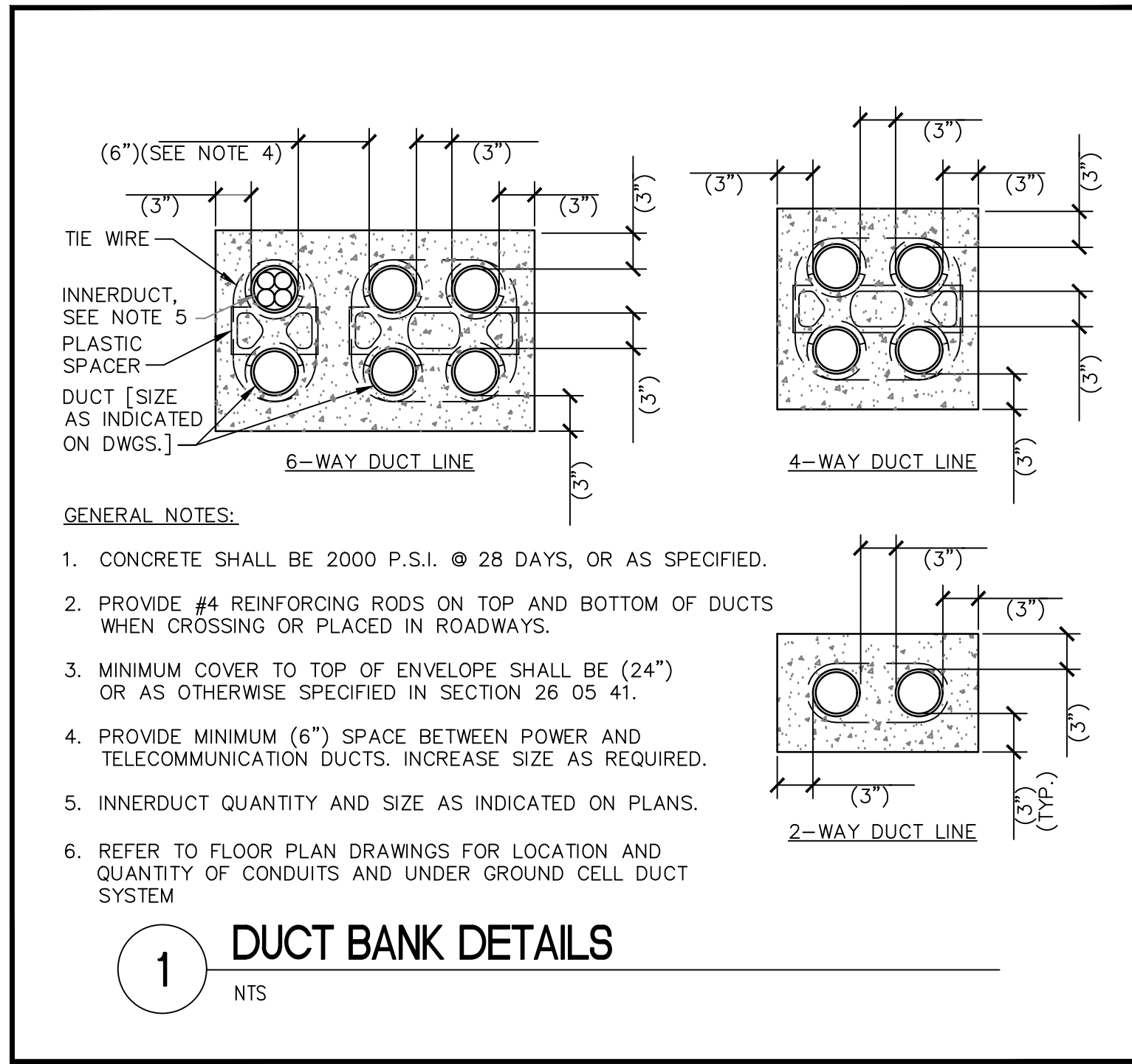
Q. ALL WIRING SHALL BE IN RACEWAY.
 -INSTALL CABLE TRAY FOR COMM / DATA WIRING.
 -CONTROL SYSTEMS SHALL BE IN BLUE EMT.
 -FIRE ALARM SYSTEMS SHALL BE IN RED EMT.
 -NO "J" HOOKS

R. MINIMUM CONDUIT SIZE SHALL BE 3/4".

		CONSULTANT		ARCHITECT/ENGINEER OF RECORD		STAMP		Office of Construction and Facilities Management		Drawing Title ELECTRICAL LEGEND, GENERAL NOTES, AND ABBREVIATIONS		Phase 100% CONSTRUCTION DOCUMENTS		Project Title SIOUX FALLS BOILER PLANT		Project Number 438-22-900	
										Approved: Project Director		FULLY SPRINKLERED		Location VAMC-Sioux Falls: 2501 W 22nd St, Sioux Falls, SD 57105		Building Number 12	
Revisions:		Date:												Issue Date 06/25/2024		Checked WLM	
																Drawn KMB	
																E-001	

ELECTRICAL DETAILS GENERAL NOTES

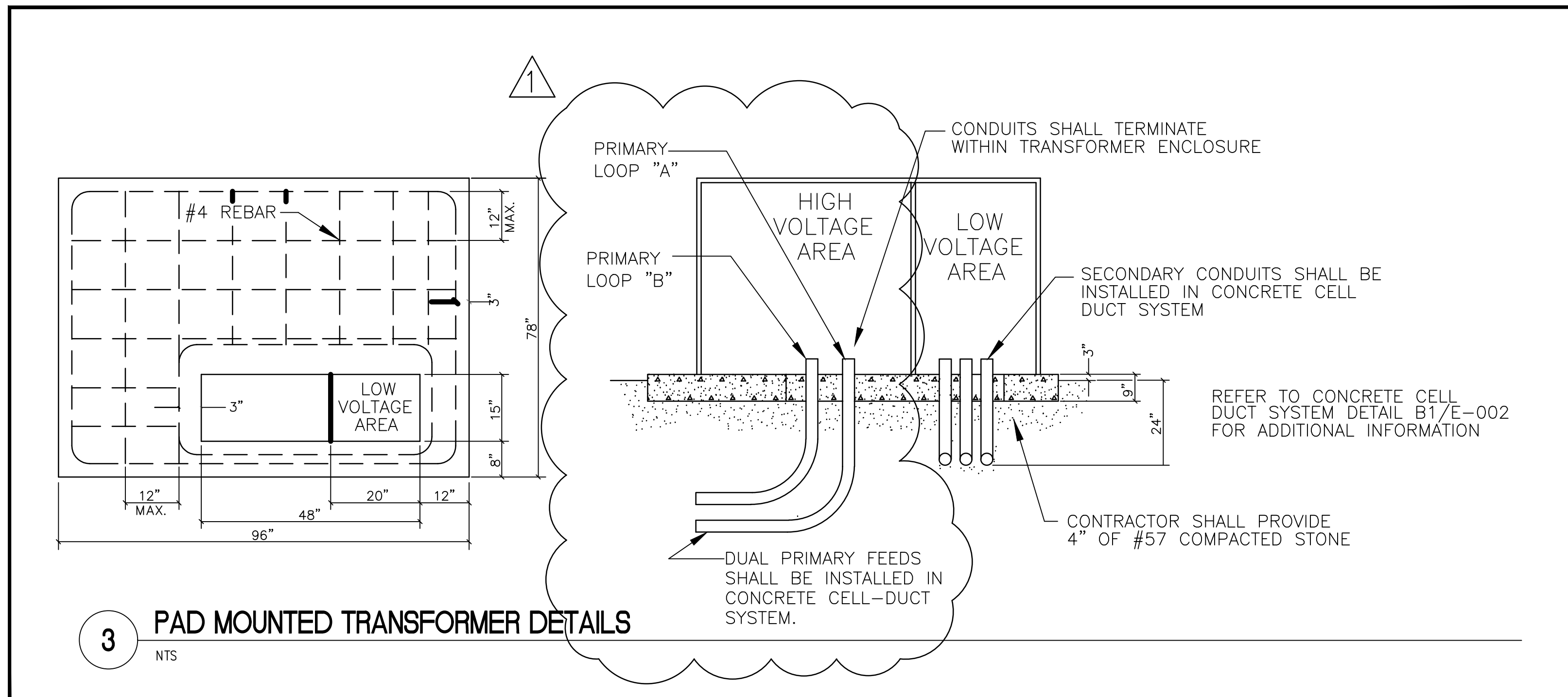
- A. REFER TO DRAWING E-001 FOR ELECTRICAL LEGEND, GENERAL NOTES, AND ABBREVIATIONS.
- B. TRANSFORMER INSTALLATION SHALL COMPLY WITH NEC ARTICLE 450.3B.
- C. REFER TO TRANSFORMER SCHEDULE DETAIL 7/EP504 FOR ADDITIONAL TRANSFORMER INFORMATION.
- D. THE EXACT TRANSFORMER PAD DIMENSIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE AT THE TIME OF SHOP DRAWING SUBMITTALS. THE CONTRACTOR SHALL PROVIDE TRANSFORMER PAD 6-INCHES-BEYOND FOOT-PRINT OF TRANSFORMER.



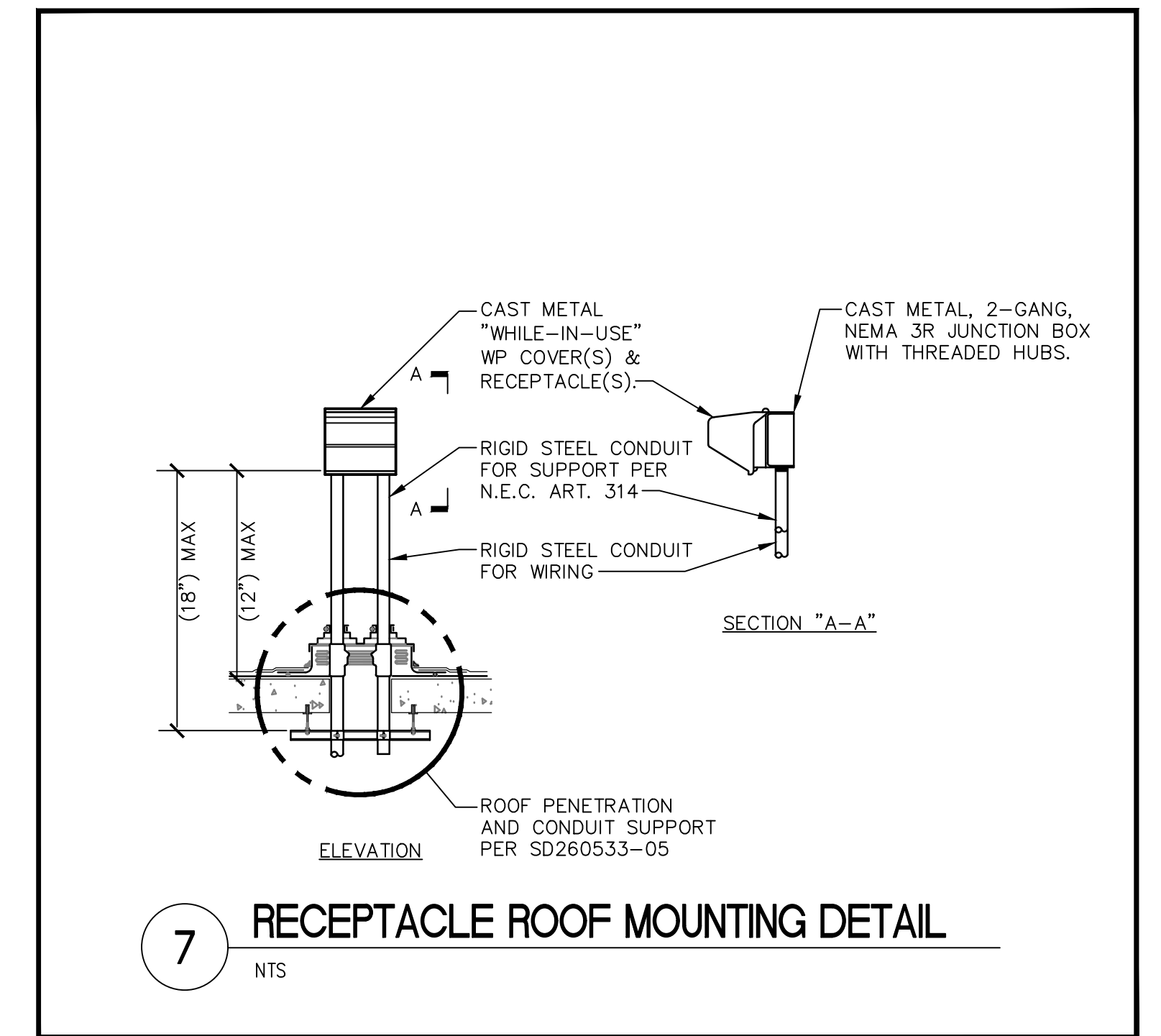
GENERAL NOTES:

1. CONCRETE SHALL BE 2000 P.S.I. @ 28 DAYS, OR AS SPECIFIED.
2. PROVIDE #4 REINFORCING RODS ON TOP AND BOTTOM OF DUCTS WHEN CROSSING OR PLACED IN ROADWAYS.
3. MINIMUM COVER TO TOP OF ENVELOPE SHALL BE (24") OR AS OTHERWISE SPECIFIED IN SECTION 26 05 41.
4. PROVIDE MINIMUM (6") SPACE BETWEEN POWER AND TELECOMMUNICATION DUCTS. INCREASE SIZE AS REQUIRED.
5. INNERDUCT QUANTITY AND SIZE AS INDICATED ON PLANS.
6. REFER TO FLOOR PLAN DRAWINGS FOR LOCATION AND QUANTITY OF CONDUITS AND UNDER GROUND CELL DUCT SYSTEM

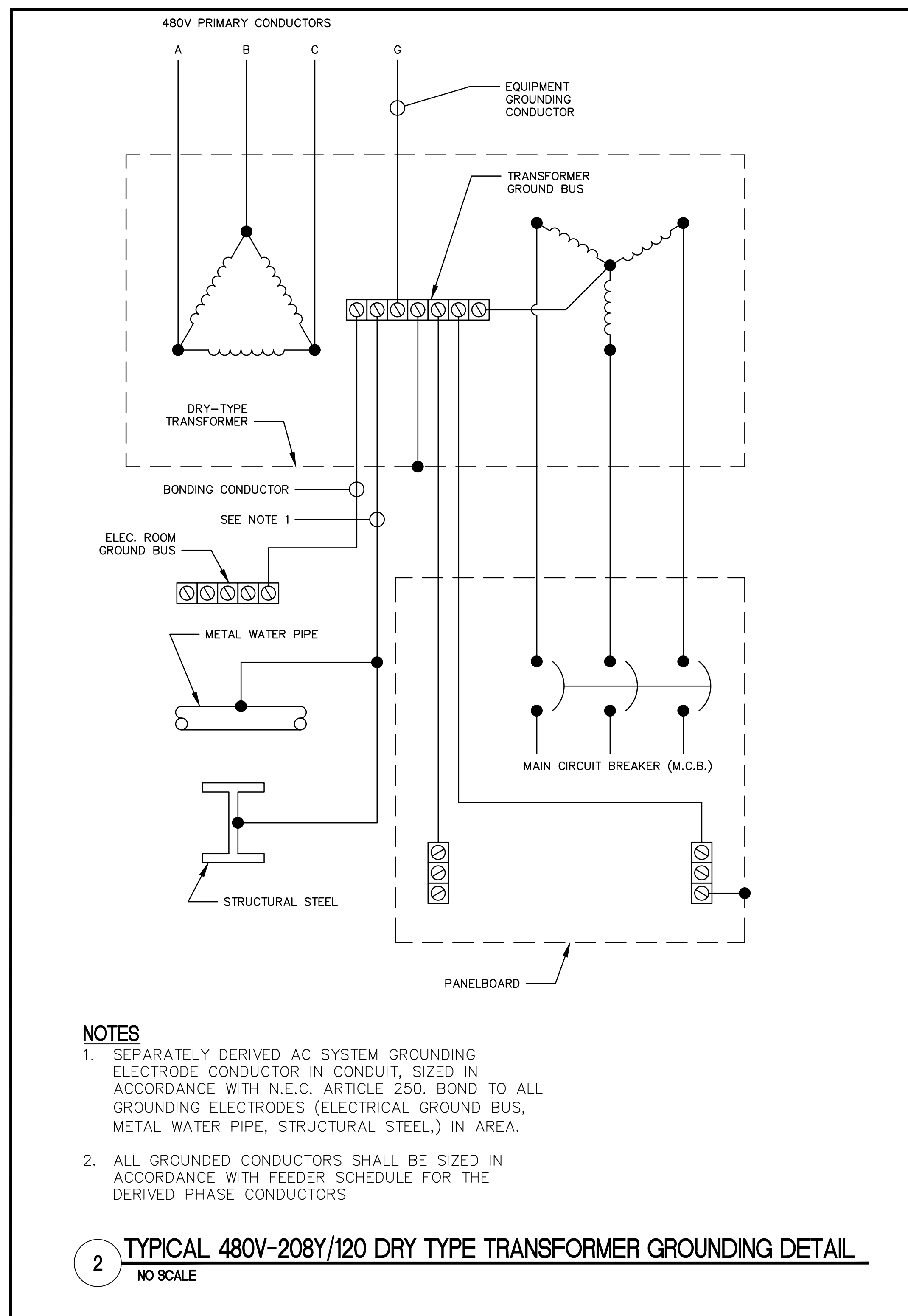
1 DUCT BANK DETAILS
NTS



3 PAD MOUNTED TRANSFORMER DETAILS
NTS



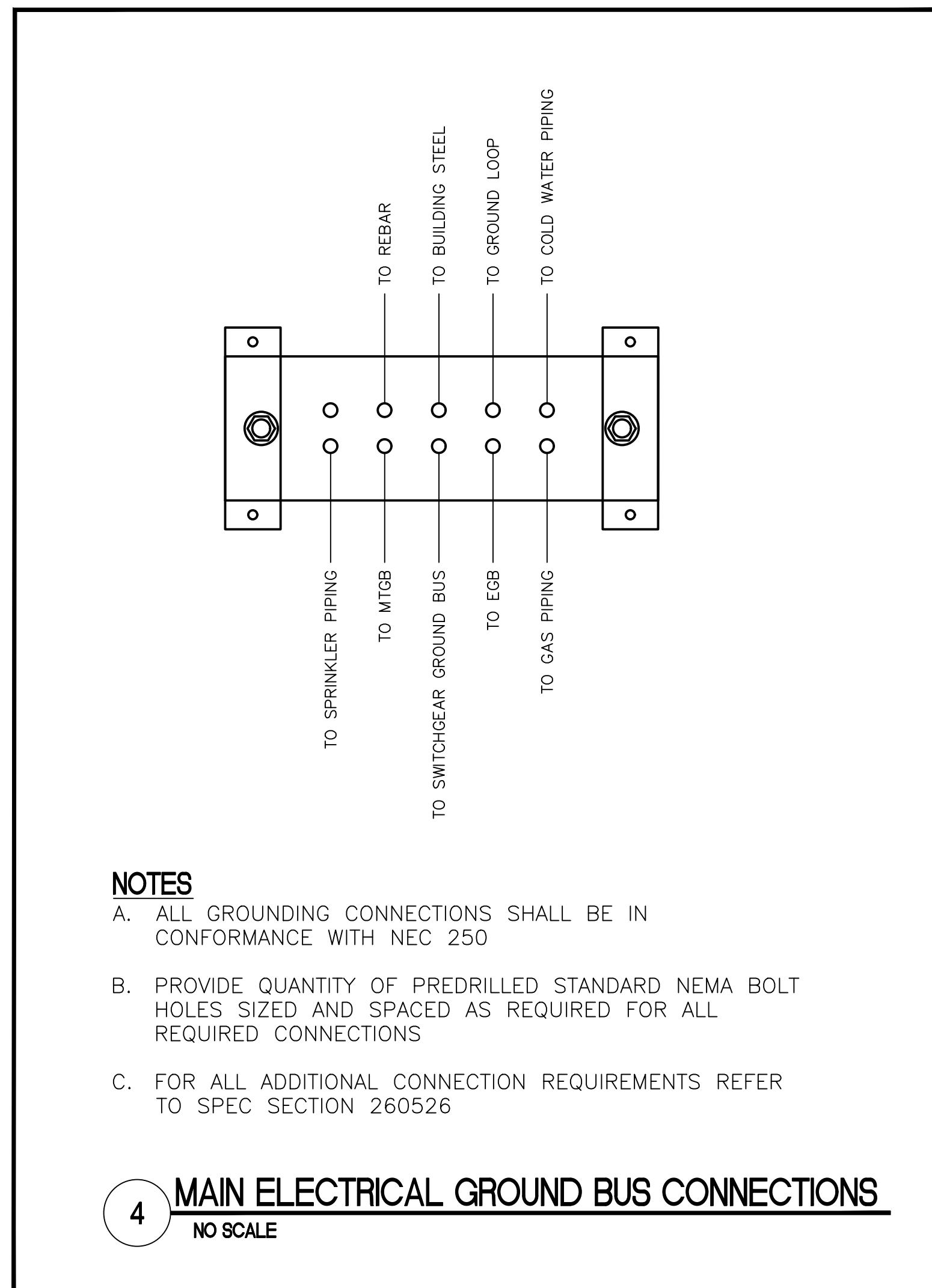
7 RECEPTACLE ROOF MOUNTING DETAIL
NTS



NOTES

1. SEPARATELY DERIVED AC SYSTEM GROUNDING ELECTRODE CONDUCTOR IN CONDUIT, SIZED IN ACCORDANCE WITH N.E.C. ARTICLE 250. BOND TO ALL GROUNDING ELECTRODES (ELECTRICAL GROUND BUS, METAL WATER PIPE, STRUCTURAL STEEL,) IN AREA.
2. ALL GROUNDED CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH FEEDER SCHEDULE FOR THE DERIVED PHASE CONDUCTORS

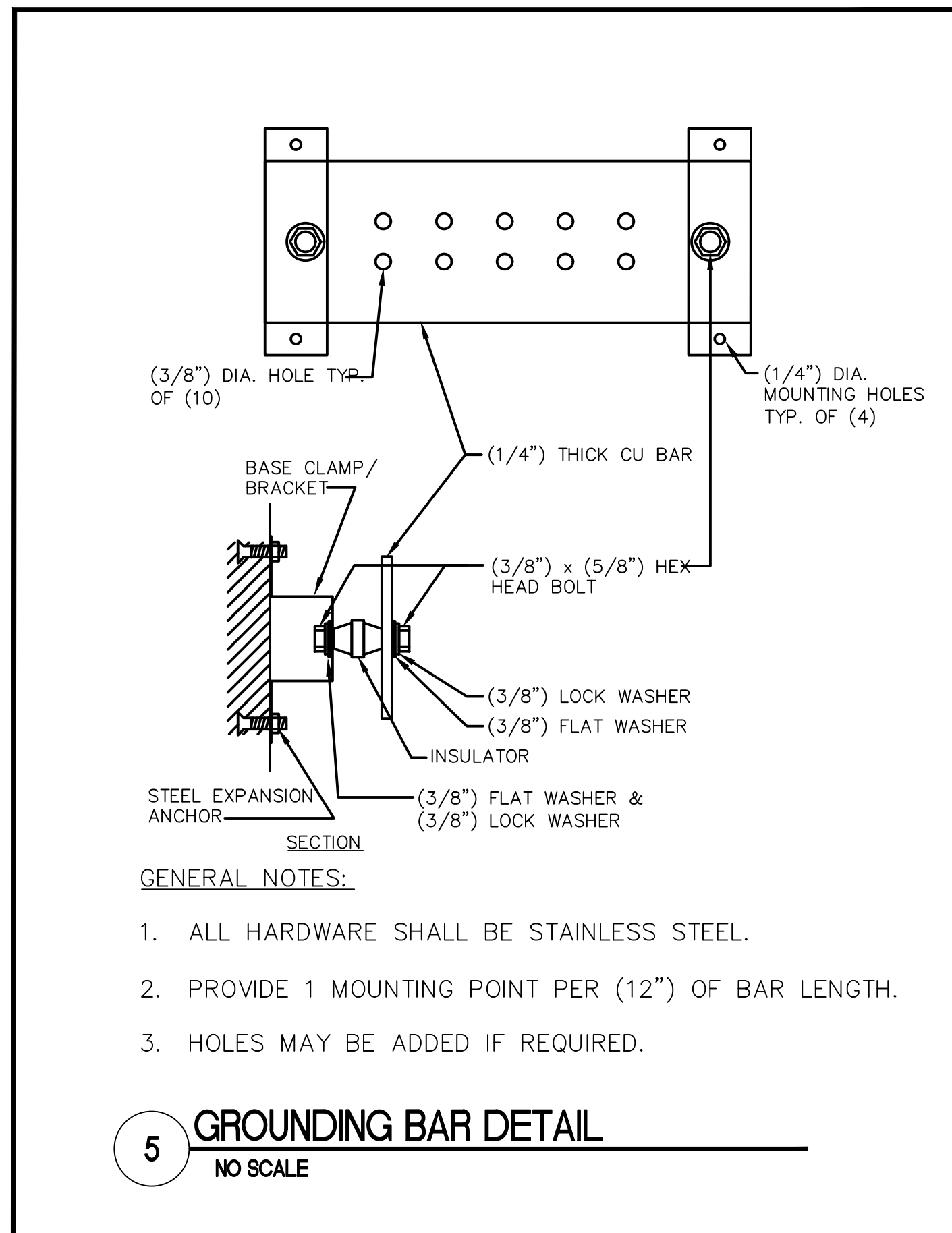
2 TYPICAL 480V-208Y/120 DRY TYPE TRANSFORMER GROUNDING DETAIL
NO SCALE



NOTES

- A. ALL GROUNDING CONNECTIONS SHALL BE IN CONFORMANCE WITH NEC 250
- B. PROVIDE QUANTITY OF PREDRILLED STANDARD NEMA BOLT HOLES SIZED AND SPACED AS REQUIRED FOR ALL REQUIRED CONNECTIONS
- C. FOR ALL ADDITIONAL CONNECTION REQUIREMENTS REFER TO SPEC SECTION 260526

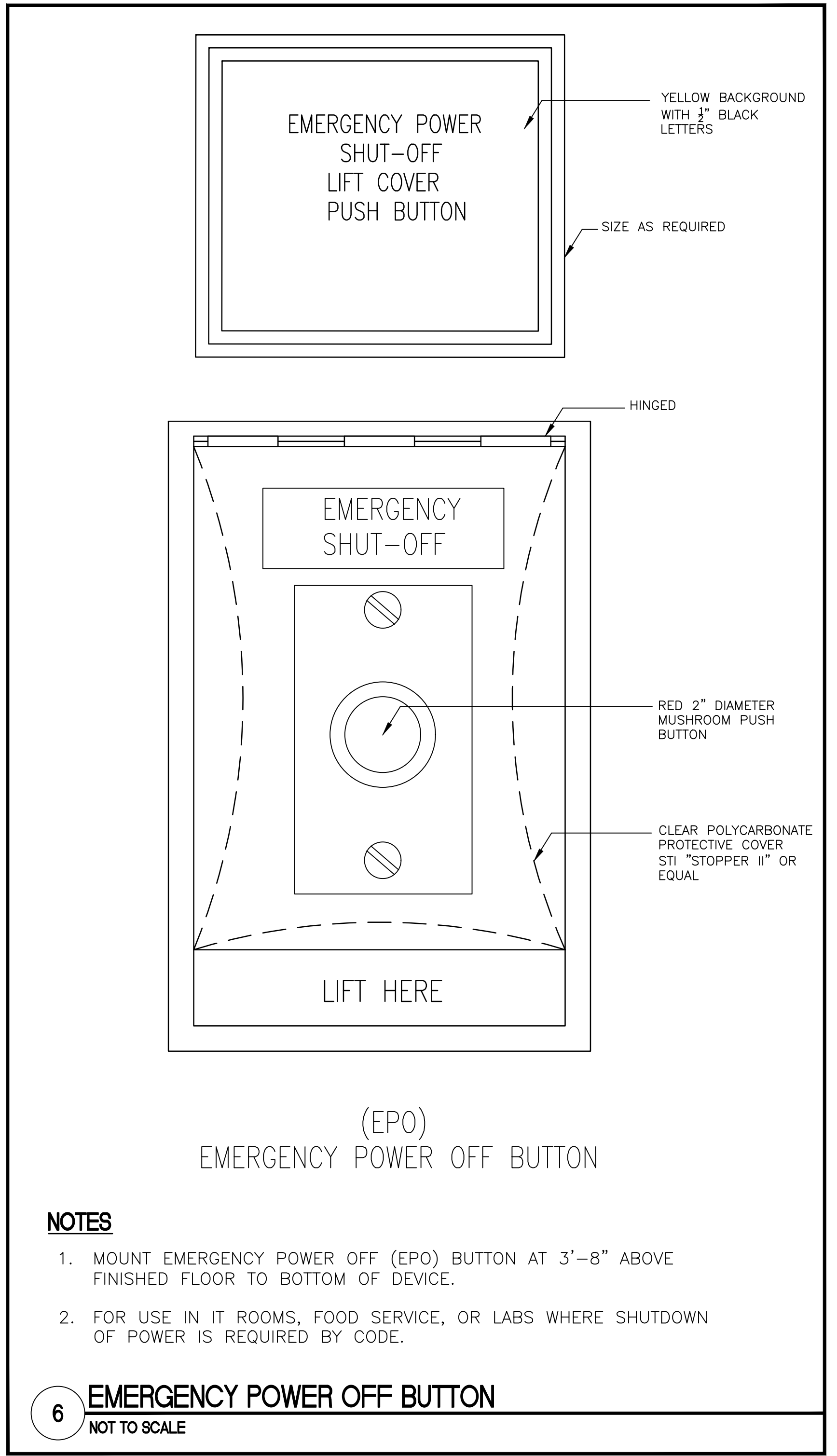
4 MAIN ELECTRICAL GROUND BUS CONNECTIONS
NO SCALE



GENERAL NOTES:

1. ALL HARDWARE SHALL BE STAINLESS STEEL.
2. PROVIDE 1 MOUNTING POINT PER (12") OF BAR LENGTH.
3. HOLES MAY BE ADDED IF REQUIRED.

5 GROUNDING BAR DETAIL
NO SCALE



NOTES

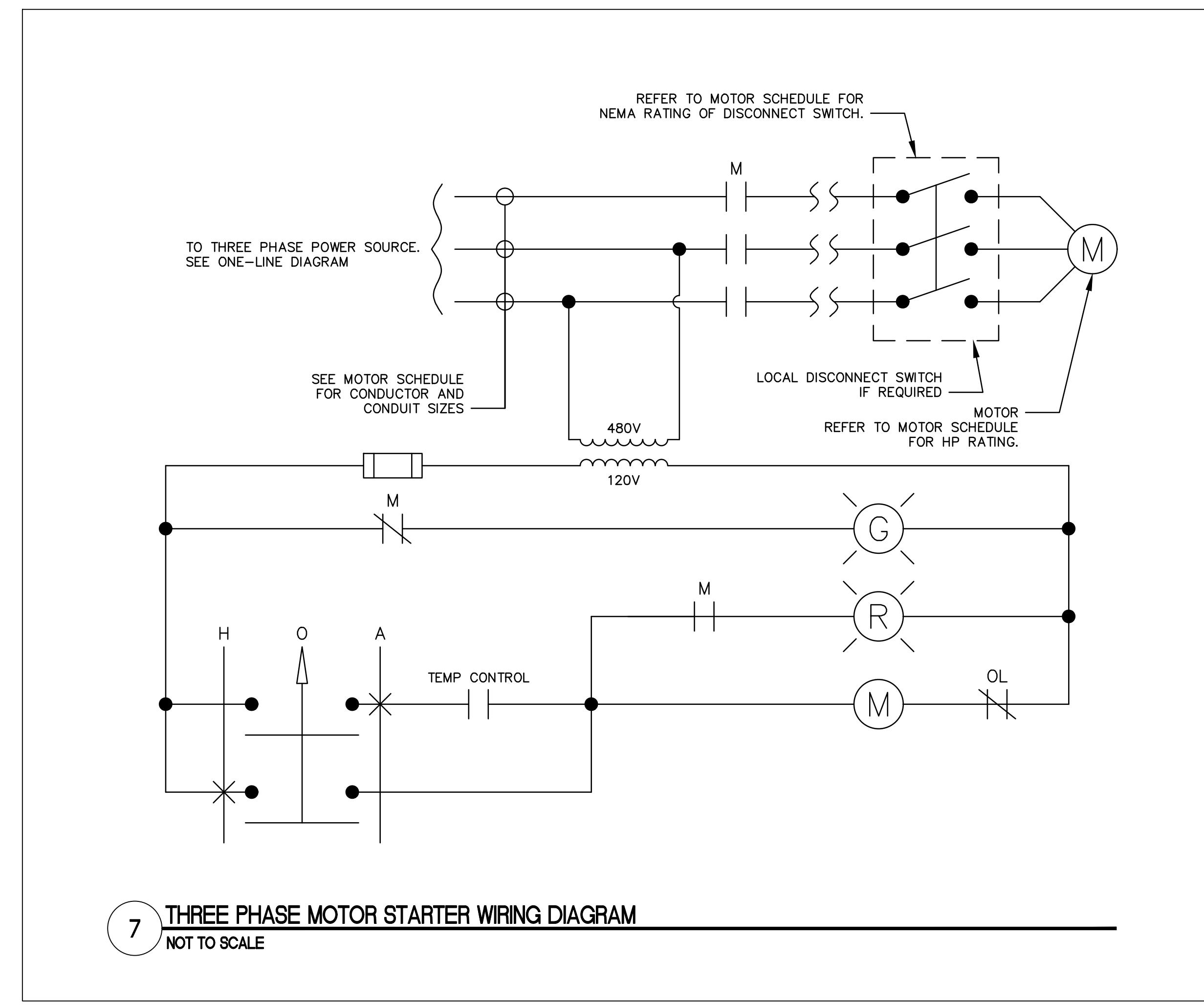
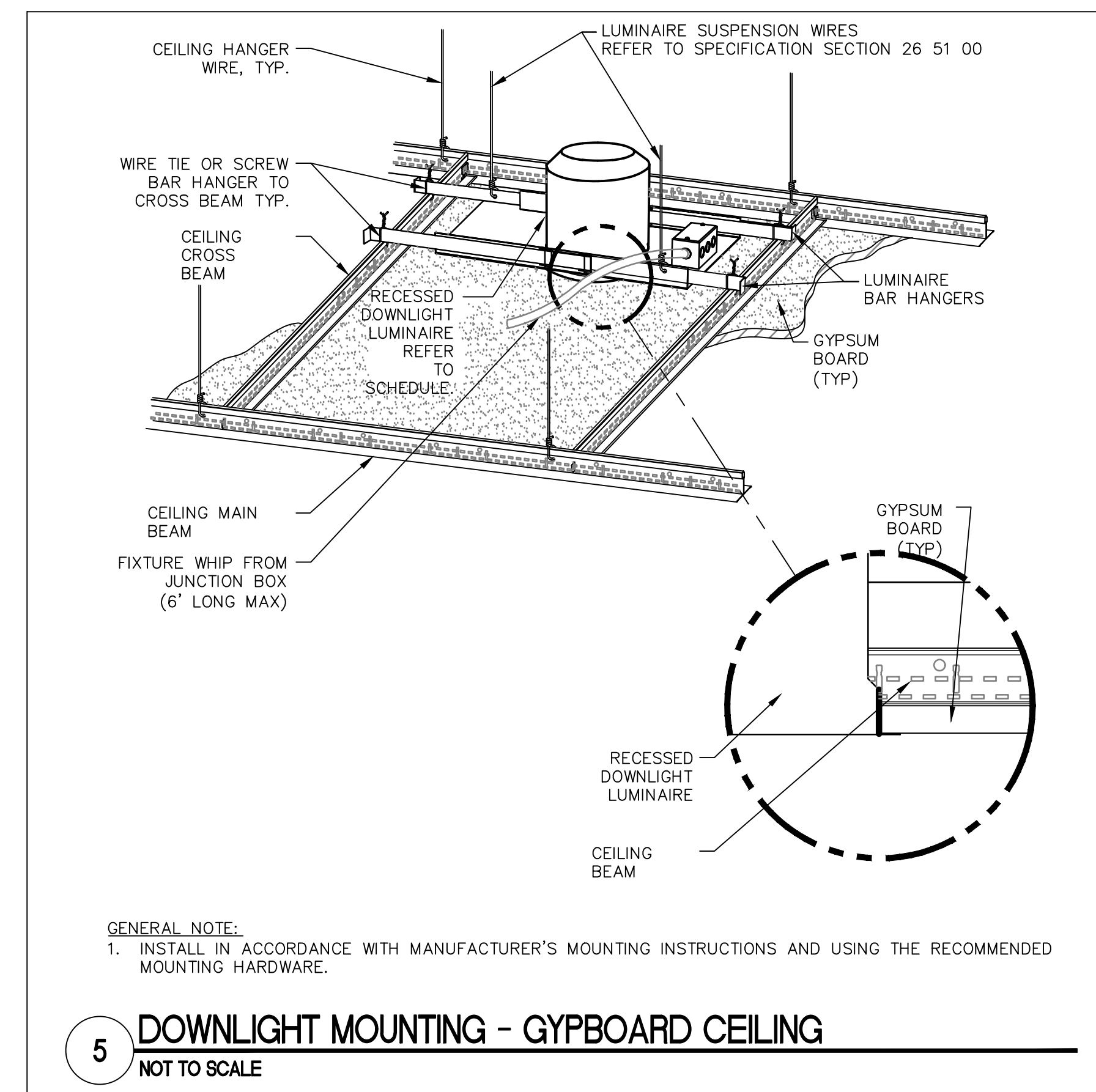
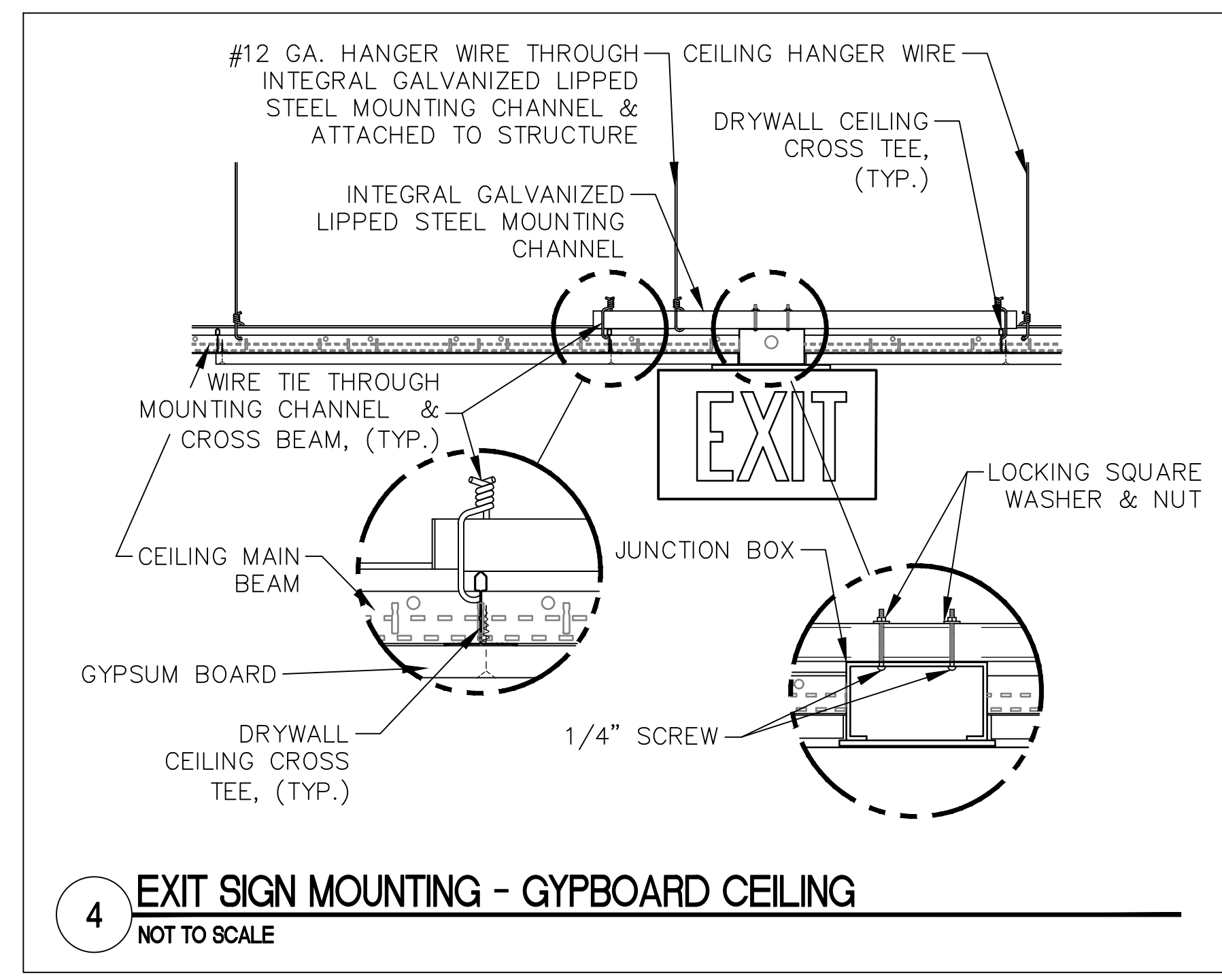
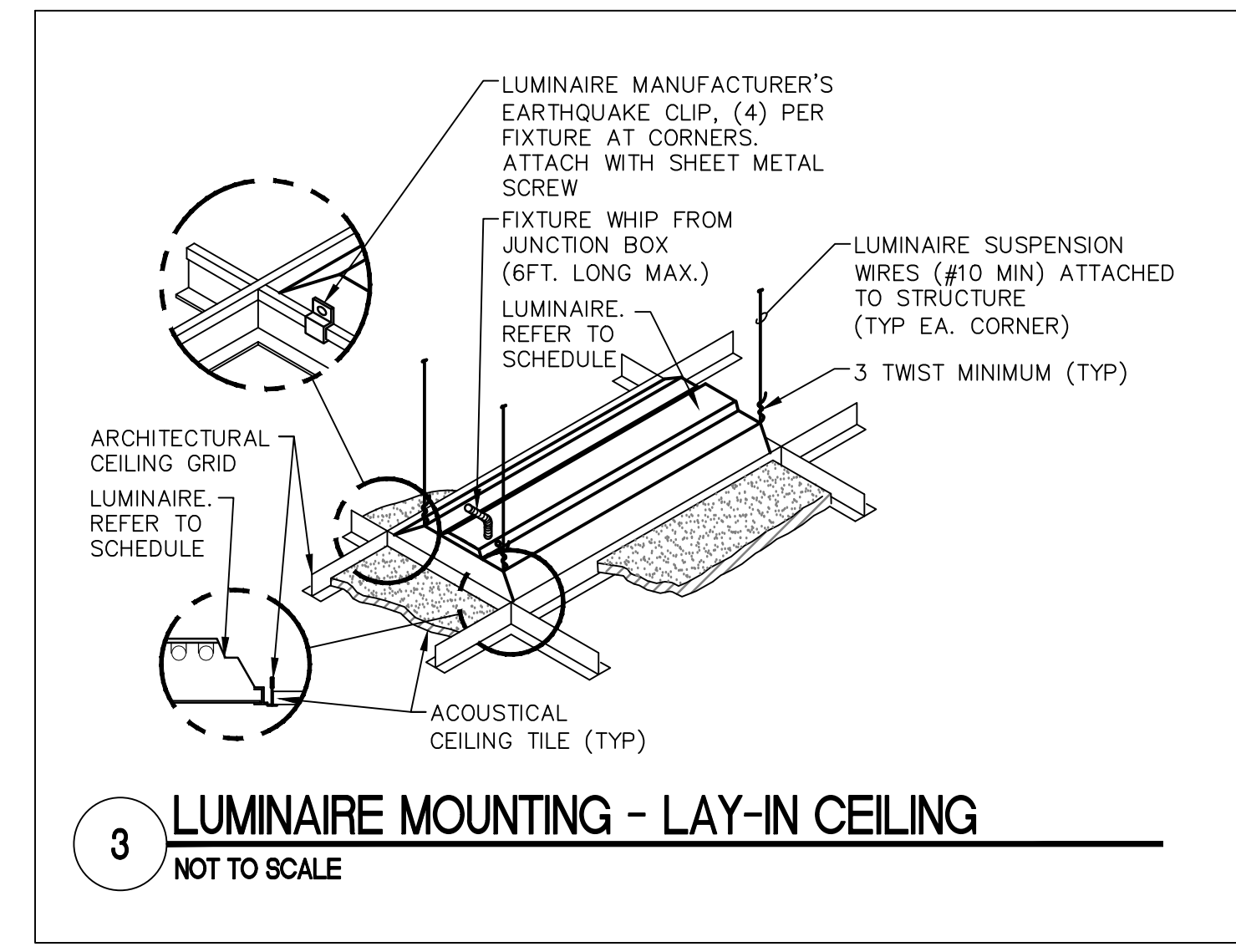
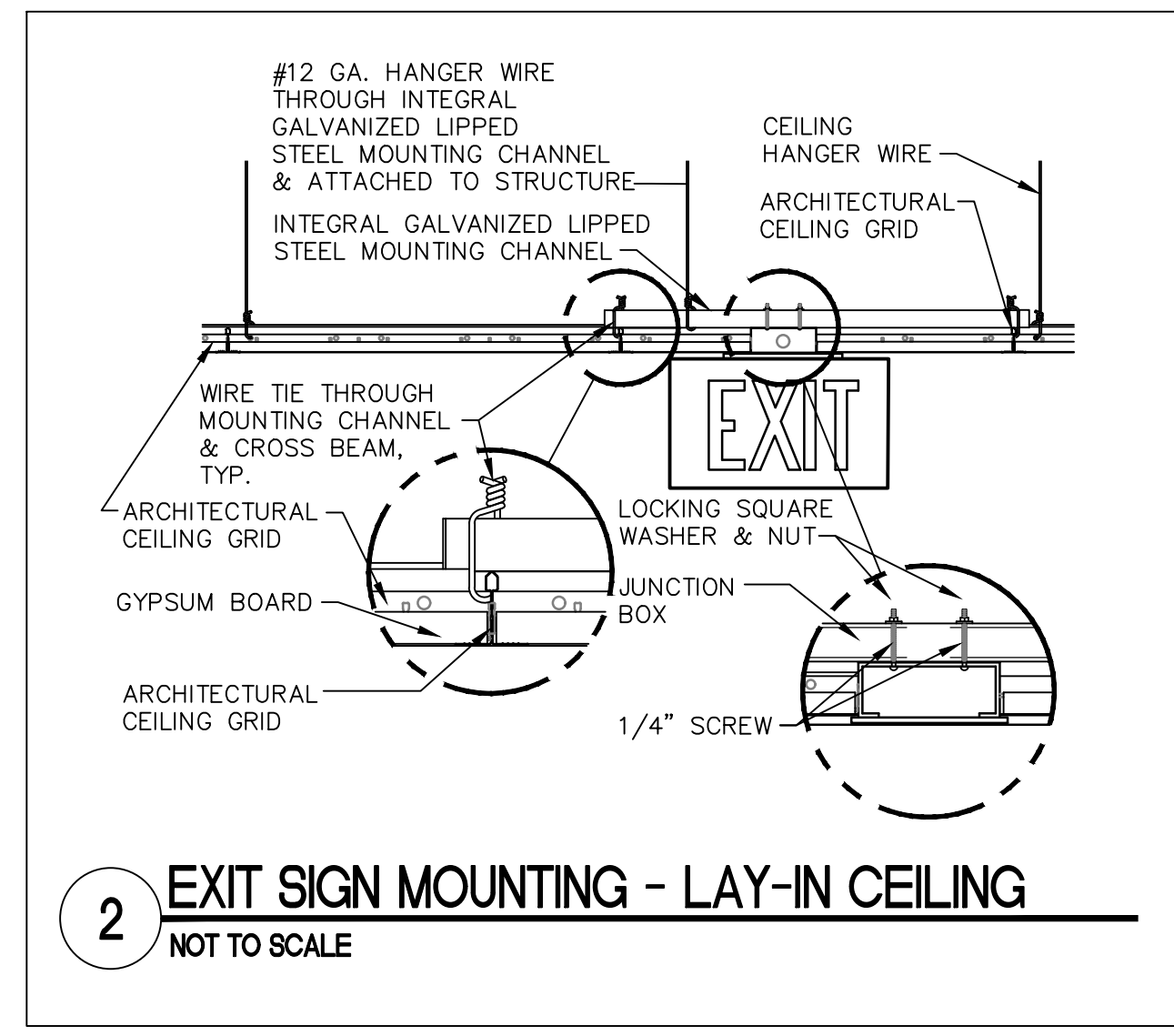
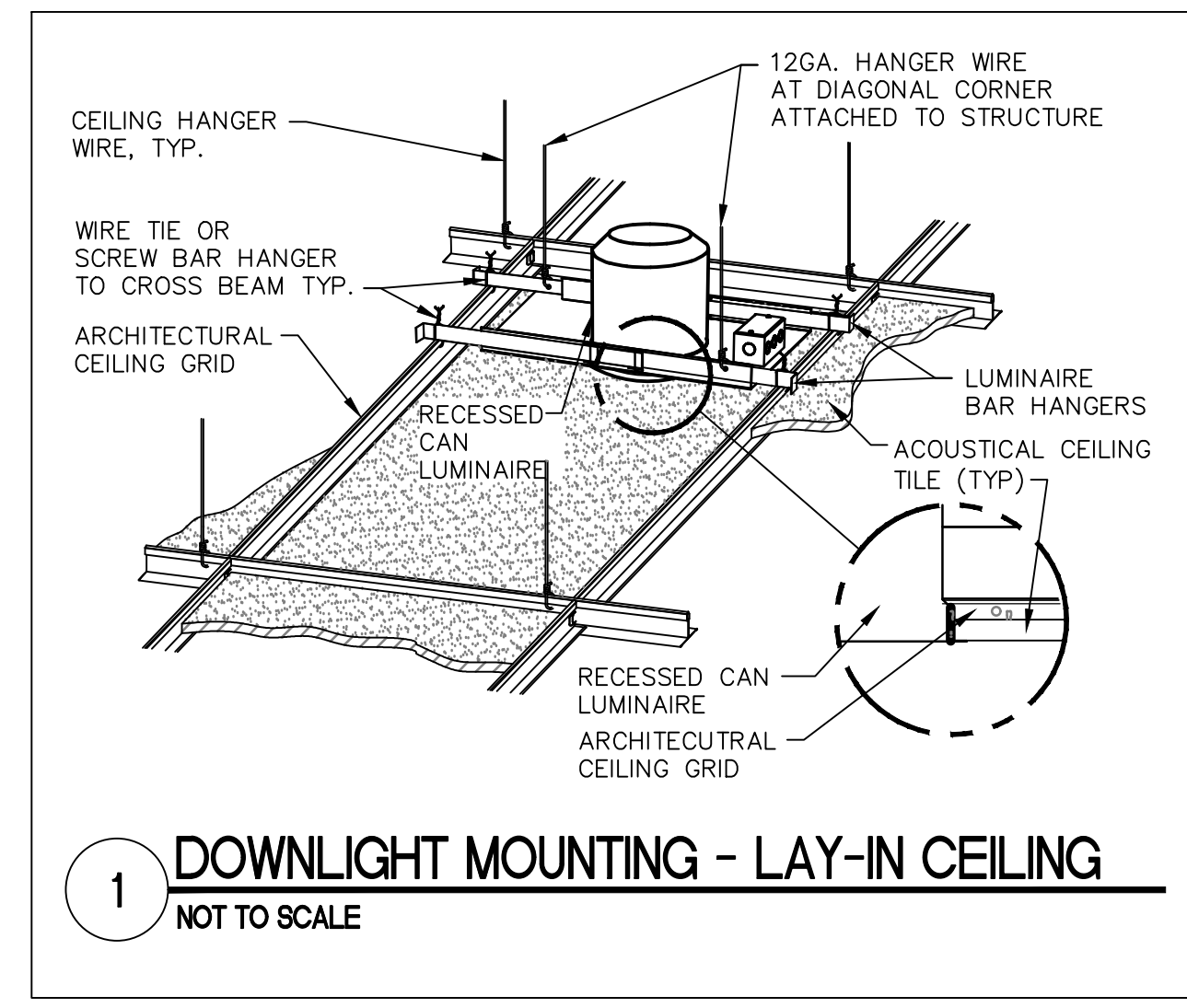
1. MOUNT EMERGENCY POWER OFF (EPO) BUTTON AT 3'-8" ABOVE FINISHED FLOOR TO BOTTOM OF DEVICE.
2. FOR USE IN IT ROOMS, FOOD SERVICE, OR LABS WHERE SHUTDOWN OF POWER IS REQUIRED BY CODE.

6 EMERGENCY POWER OFF BUTTON
NOT TO SCALE

ADDENDUM 1 08-09-2024 CONSULTANT	ARCHITECT/ENGINEER OF RECORD paradigm Architecture Engineering Design-Build 9000 Westex Place, Louisville, KY 40222 www.paradigmusa.com	STAMP TYLER M. MONTGOMERY LICENSE NO. 0047142 9/12/2024	Office of Construction and Facilities Management U.S. Department of Veterans Affairs	Drawing Title ELECTRICAL DETAILS	Phase 100% CONSTRUCTION DOCUMENTS	Project Title SIOUX FALLS BOILER PLANT	Project Number 438-22-900
				Approved: Project Director	FULLY SPRINKLERED	Location VAMC-Sioux Falls: 2501 W 22nd St, Sioux Falls, SD 57105	Building Number 12
Revisions:	Date:	Issue Date 06/25/2024	Checked WLM	Drawn KMB	Drawing Number E-501		

NOTES

- A. REFER TO DRAWING E-001 FOR ELECTRICAL LEGEND, GENERAL NOTES, AND ABBREVIATIONS.
- B. REFER TO LIGHT FIXTURE SCHEDULE ON DRAWING EL501 FOR MANUFACTURER AND MODEL NUMBER INFORMATION OF LIGHT FIXTURES.
- C. REFER TO DRAWINGS EL101 AND EL102 FOR LOCATIONS AND QUANTITY OF LIGHT FIXTURES.



Revisions: Date:	CONSULTANT	ARCHITECT/ENGINEER OF RECORD	STAMP	Office of Construction and Facilities Management	Drawing Title ELECTRICAL DETAILS	Phase 100% CONSTRUCTION DOCUMENTS	Project Title SIOUX FALLS BOILER PLANT	Project Number 438-22-900
			 9000 Wesley Place, Louisville, KY 40222 www.paradigmusa.com		Approved: Project Director	FULLY SPRINKLERED	Location VAMC-Sioux Falls: 2501 W 22nd St, Sioux Falls, SD 57105	Building Number 12
				U.S. Department of Veterans Affairs			Issue Date 06/25/2024	Drawing Number E-502
							Checked: WLM Drawn: KMB	

NOTES

- A. PICTURES INDICATED ON DRAWING REPRESENT FIELD CONDITION PRESENT AT SITE.
- B. PICTURES INDICATED ON DRAWING WERE TAKEN BY A/E PERSONNEL WHILE ON SITE, CHANGES AND OR MODIFICATIONS MADE TO EQUIPMENT AFTER SITE INVESTIGATION ARE NOT THE RESPONSIBILITY OF THE A/E.
- C. REFER TO DRAWING ES101 FOR APPROXIMATE LOCATION OF EXISTING JUNCTION BOX NO. 3.



1 EXISTING CONDITIONS PHOTOS - 13,800 VOLTS - JBOX 3
NOT TO SCALE

Revisions: Date:	CONSULTANT	ARCHITECT/ENGINEER OF RECORD Architecture Engineering Design-Build 9000 Wesley Place, Louisville, KY 40222 www.paradigmusa.com	STAMP 	Office of Construction and Facilities Management U.S. Department of Veterans Affairs	Drawing Title ELECTRICAL PHOTOGRAPHS - 13,800 VOLTS - JBOX 3	Phase 100% CONSTRUCTION DOCUMENTS	Project Title SIOUX FALLS BOILER PLANT	Project Number 438-22-900	
					Approved: Project Director	FULLY SPRINKLERED	Location VAMC-Sioux Falls: 2501 W 22nd St, Sioux Falls, SD 57105	Building Number 12	
						Issue Date 06/25/2024	Checked WLM	Drawn KMB	Drawing Number E-901

NOTES


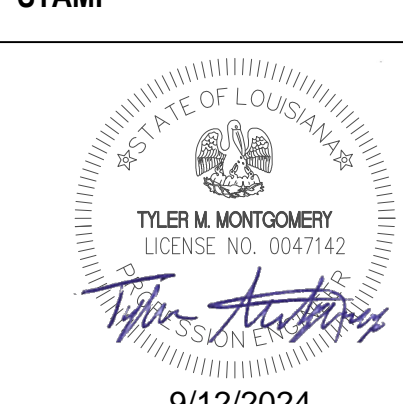

- A. PICTURES INDICATED ON DRAWING REPRESENT FIELD CONDITION PRESENT AT SITE.
- B. PICTURES INDICATED ON DRAWING WERE TAKEN BY A/E PERSONNEL WHILE ON SITE, CHANGES AND OR MODIFICATIONS MADE TO EQUIPMENT AFTER SITE INVESTIGATION ARE NOT THE RESPONSIBILITY OF THE A/E.
- C. EXISTING 3-POSITION TRANSFORMER IS EXISTING TO REMAIN AND SHOWN FOR REFERENCE ONLY.
- D. EXISTING FIRE ALARM CONTROL PANEL LOCATED IN THE EXISTING BOILER PLANT SHALL BE CONNECTED TO THE NEW FACP LOCATED IN THE NEW BOILER PLANT, REFER TO DRAWINGS ES101, ES102, AND FA101 FOR ADDITIONAL INFORMATION.



1 EXISTING TRANSFORMER WITH 3-POSITION SWITCH
NOT TO SCALE

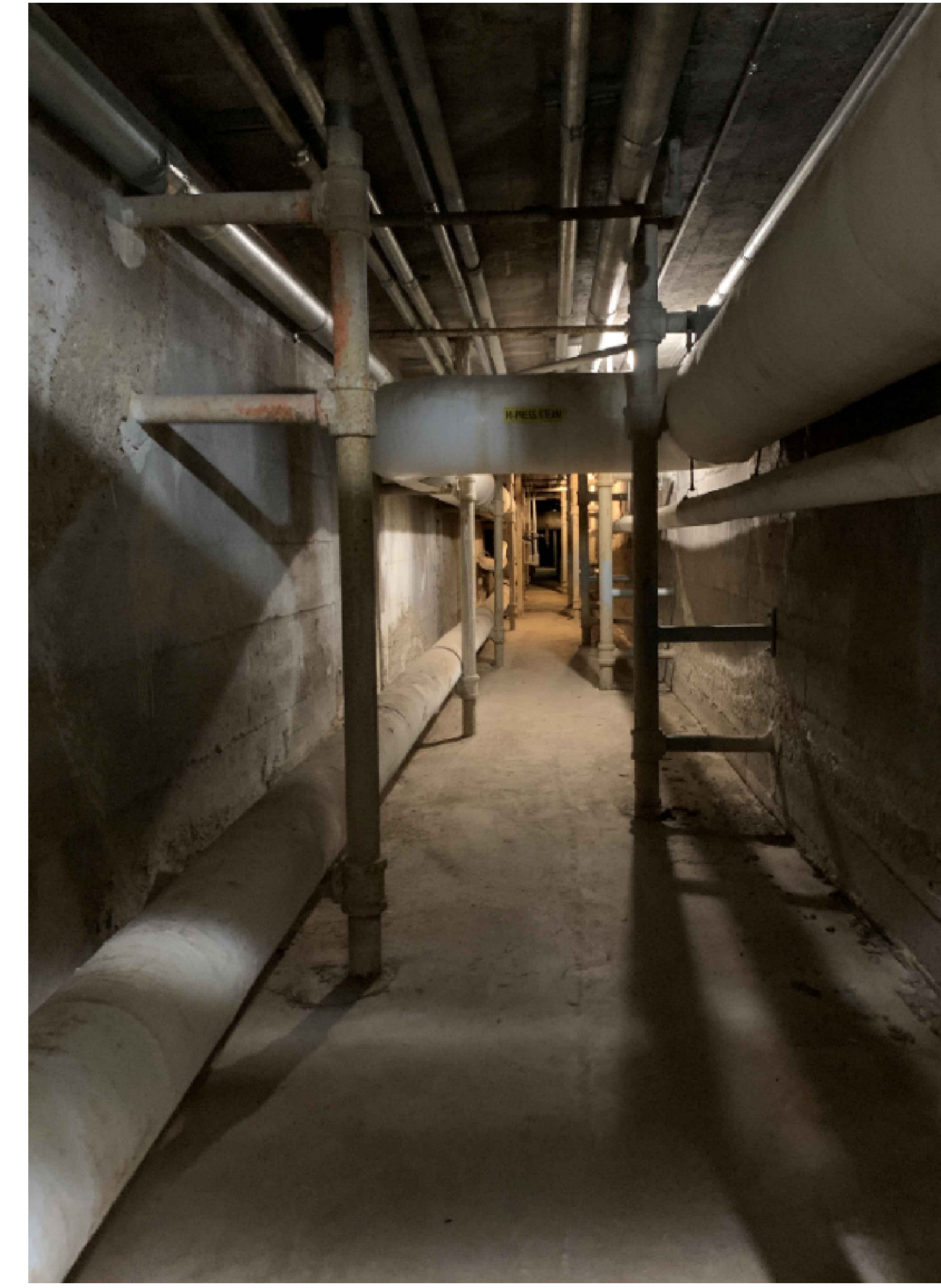


2 EXISTING FACP - BOILER BUILDING
NOT TO SCALE

Revisions: Date:	CONSULTANT	ARCHITECT/ENGINEER OF RECORD  Architecture Engineering Design-Build 9000 Westex Place, Louisville, KY 40222 www.paradigmusa.com	STAMP 	Office of Construction and Facilities Management 	Drawing Title ELECTRICAL PHOTOGRAPHS - EXISTING FACP AND TRANSFORMER	Phase 100% CONSTRUCTION DOCUMENTS	Project Title SIOUX FALLS BOILER PLANT	Project Number 438-22-900	
					Approved: Project Director	FULLY SPRINKLERED	Location VAMC-Sioux Falls: 2501 W 22nd St, Sioux Falls, SD 57105	Building Number 12	
						Issue Date 06/25/2024	Checked WLM	Drawn KMB	Drawing Number E-902

NOTES

- A. PICTURES INDICATED ON DRAWING REPRESENT FIELD CONDITION PRESENT AT SITE.
- B. PICTURES INDICATED ON DRAWING WERE TAKEN BY A/E PERSONNEL WHILE ON SITE, CHANGES AND OR MODIFICATIONS MADE TO EQUIPMENT AFTER SITE INVESTIGATION ARE NOT THE RESPONSIBILITY OF THE A/E.



1 EXISTING NORTH TUNNEL
NOT TO SCALE



2 EXISTING SOUTH TUNNEL
NOT TO SCALE

Revisions:	Date:

CONSULTANT

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STAMP
STATE OF LOUISIANA
TYLER M. MONTGOMERY
LICENSE NO. 0047142
9/12/2024

Office of
Construction
and Facilities
Management
VA U.S. Department
of Veterans
Affairs

Drawing Title
ELECTRICAL PHOTOGRAPHS - NORTH AND SOUTH TUNNEL
Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

Project Title
SIOUX FALLS BOILER PLANT
Location
VAMC-Sioux Falls: 2501 W 22nd St, Sioux Falls, SD 57105
Issue Date
06/25/2024
Checked
WLM
Drawn
KMB

Project Number
438-22-900
Building Number
12
Drawing Number
E-903

GENERAL NOTES

- A. THIS DRAWING IS BASED ON SITE PLANS PROVIDED BY OTHERS, AND MAY NOT SHOW EXACT LOCATION OF EXISTING EQUIPMENT, UTILITIES ETC. CONTRACTOR SHALL FIELD INVESTIGATE AND CONFIRM/VERIFY CONDITIONS. THIS DRAWING PROVIDED FOR ORIENTATION AND INFORMATIONAL PURPOSES - DO NOT SCALE.
- B. ALL EXISTING UNDERGROUND UTILITIES SHALL BE PROTECTED DURING CONSTRUCTION UNLESS NOTED OTHERWISE.
- C. ALL EXISTING DISTURBED GROUND, ASPHALT, SIDEWALKS, CURBS AND GUTTERS ETC. SHALL BE REPAIRED TO MATCH EXISTING. CONTRACTOR SHALL RE-GRADE, RE-FEED/BRING ALL AREAS TO PRESENT "LIKE NEW" CONDITION UPON COMPLETION OF PROJECT.
- D. PRIOR TO BEGINNING EXTERIOR DIGGING/TRENCHING THE CONTRACTOR SHALL PERFORM GPR (GROUND PENETRATING RADAR) OF THE PROPOSED AREA PRIOR TO BEGINNING WORK. THE CONTRACTOR SHALL AVOID ANY EXISTING UTILITIES OR OBSTRUCTIONS WHEN INSTALLING UNDERGROUND INSTALLATION.
- E. REFER TO DRAWING E-901 FOR PICTURE INFORMATION OF EXISTING JUNCTION BOX NO. 3.
- F. THE CONTRACTOR SHALL MAINTAIN CIRCUIT CONTINUITY OF EXTERIOR LIGHT FIXTURES THROUGHOUT WHEN DISCONNECTING AND REMOVING LIGHT FIXTURES.

KEY NOTES

- 1. APPROXIMATE LOCATION OF EXISTING MEDIUM VOLTAGE JUNCTION BOX NO. 3. THE CONTRACTOR SHALL DISCONNECT, REMOVE AND REPLACE WITH NEW AT EXACT SAME LOCATION. REFER TO DRAWING ES101 FOR ADDITIONAL INFORMATION OF NEW J-BOX. REFER TO DRAWING E-901 FOR PICTURE INFORMATION OF EXISTING JUNCTION BOX NO. 3.
- 2. APPROXIMATE LOCATION OF EXISTING ELECTRICAL DUCT-BANK, NO WORK REQUIRED, SHOWN FOR REFERENCE ONLY.
- 3. APPROXIMATE LOCATION OF EXISTING COMMUNICATION CABLING, NO WORK REQUIRED, SHOWN FOR REFERENCE ONLY.
- 4. FIBER OPTIC CABLE IS EXISTING TO REMAIN, SHOWN FOR REFERENCE ONLY. FIBER OPTIC CABLE SERVICES THE STATE RADIO/EMERGENCY RADIO EQUIPMENT.
- 5. THE CONTRACTOR SHALL DISCONNECT, REMOVE, AND RETURN TO OWNER, EXISTING LIGHT POLE.
- 6. LIGHT POLE IS EXISTING TO REMAIN.



1 ELECTRICAL DEMOLITION - SITE PLAN
SCALE 1/32" = 1'-0"

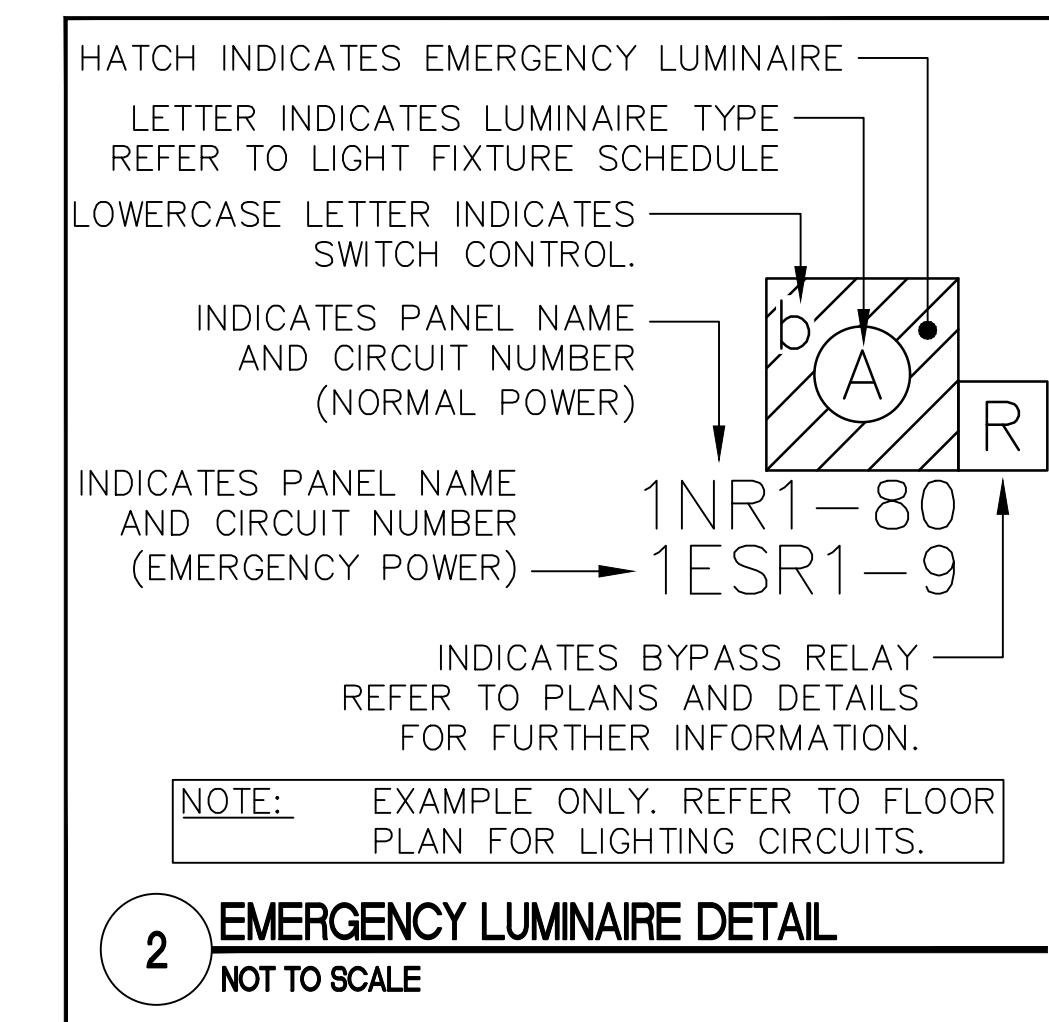
ADDENDUM 1 08-09-2024 Revisions: Date:	CONSULTANT	ARCHITECT/ENGINEER OF RECORD paradigm Architecture Engineering Design-Build 9000 Wesssex Place, Louisville, KY 40222 www.paradigmusa.com	STAMP TYLER M. MONTGOMERY LICENSE NO. 0047142 9/12/2024	Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs	Drawing Title ELECTRICAL DEMOLITION - SITE PLAN	Phase 100% CONSTRUCTION DOCUMENTS	Project Title SIOUX FALLS BOILER PLANT	Project Number 438-22-900
					Approved: Project Director	FULLY SPRINKLERED	Location VAMC-Sioux Falls: 2501 W 22nd St, Sioux Falls, SD 57105	Building Number 12
					Issue Date 06/25/2024	Checked WLM	Drawn KMB	Drawing Number ED101

ELECTRICAL LIGHTING GENERAL NOTES

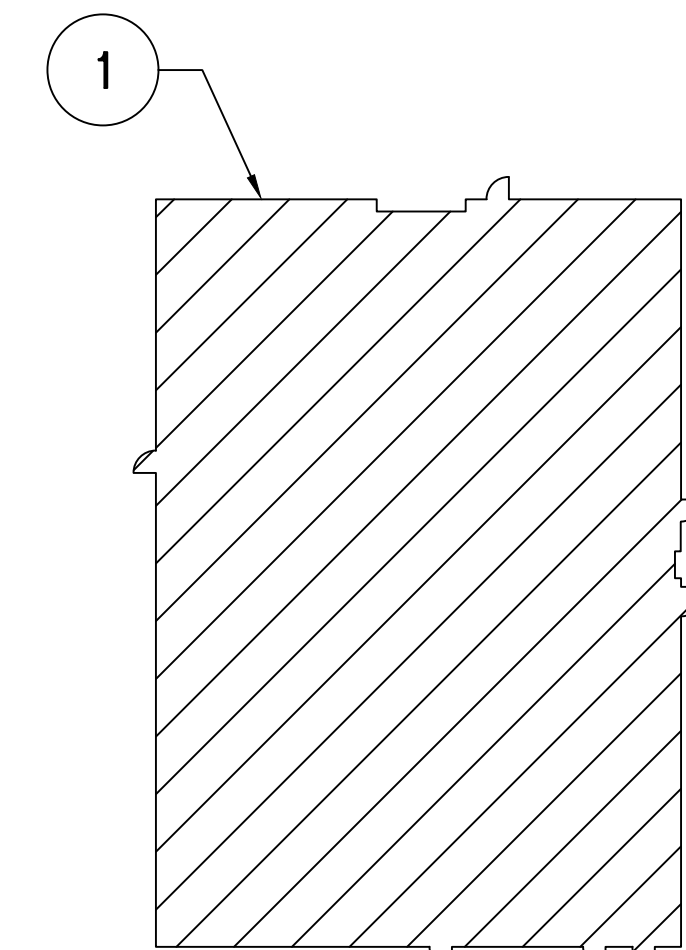
- A. REFER TO DRAWING E-001 FOR ELECTRICAL LEGEND, GENERAL NOTES, AND ABBREVIATIONS.
- B. REFER TO ELECTRICAL DETAILS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
- C. REFER TO LUMINAIRE SCHEDULE ON DRAWING EL501 FOR MANUFACTURER AND MODEL NUMBERS OF LUMINAIRES.
- D. ALL LIGHTING SWITCHES SHALL BE INSTALLED AT 48" A.F.F. UNLESS OTHERWISE NOTED.
- E. CIRCUIT NUMBERS SHOWN NEXT TO LIGHTING CONTROLS OR LUMINAIRES INDICATE PANEL NAME AND CIRCUIT USED TO POWER LIGHTING IN THE AREA SHOWN.
- F. ALL CONDUIT SHALL BE 3/4" CONDUIT MINIMUM.
- G. REFER TO DRAWING EL102 FOR LIGHTING REQUIREMENTS ON UPPER LEVEL.
- H. REFER TO LIGHTING CALCULATIONS ON DRAWING EL504 AND EL505 FOR ADDITIONAL INFORMATION.
- I. PROVIDE KNOCK-OUT ARROWS ON EXIT SIGNS AS INDICATED.

ELECTRICAL LIGHTING KEY NOTES

- 1. PROVIDE LOW VOLTAGE DIGITAL SWITCHES AS INDICATED, REFER TO DETAIL 2/EL503 FOR ADDITIONAL INFORMATION.
- 2. PROVIDE EMERGENCY BY-PASS RELAY, SHALL BE UL 924 LISTED, BASIS OF DESIGN SHALL BE MANUFACTURED BY FUNCTIONAL DEVICES, MODEL NO. ESRBE01C, MOUNT DEVICE AS CLOSE TO LIGHT FIXTURE AS POSSIBLE, RELAY SHALL OPERATE AT EITHER 120-277 VOLTS, REFER TO DETAIL 2/EL501 FOR ADDITIONAL INFORMATION.
- 3. PROVIDE WALL MOUNTED, LINE VOLTAGE, INFRARED OCCUPANCY SENSOR, REFER TO WIRING DIAGRAM ON DETAIL 3/EL501 FOR ADDITIONAL INFORMATION.
- 4. PROVIDE CEILING MOUNTED OCCUPANCY SENSOR, REFER TO WIRING DIAGRAM ON DETAIL 4/EL501 FOR ADDITIONAL INFORMATION.
- 5. PROVIDE CEILING MOUNTED OCCUPANCY SENSOR, REFER TO WIRING DIAGRAM ON DETAIL 5/EL501 FOR ADDITIONAL INFORMATION.
- 6. CONNECT TO LOCKED HANDLE CIRCUIT BREAKER WITHIN PANEL.
- 7. REFER TO DETAILS 2/EL102 AND 3/EL102 FOR ADDITIONAL INFORMATION.
- 8. EXIT LIGHT FIXTURE MOUNTED IN THE CATWALK SYSTEM ABOVE.



2 EMERGENCY LUMINAIRE DETAIL
NOT TO SCALE



KEY PLAN - FIRST FLOOR
NOT TO SCALE

1 ELECTRICAL LIGHTING PLAN - FIRST FLOOR
SCALE 3/16" = 1'-0"

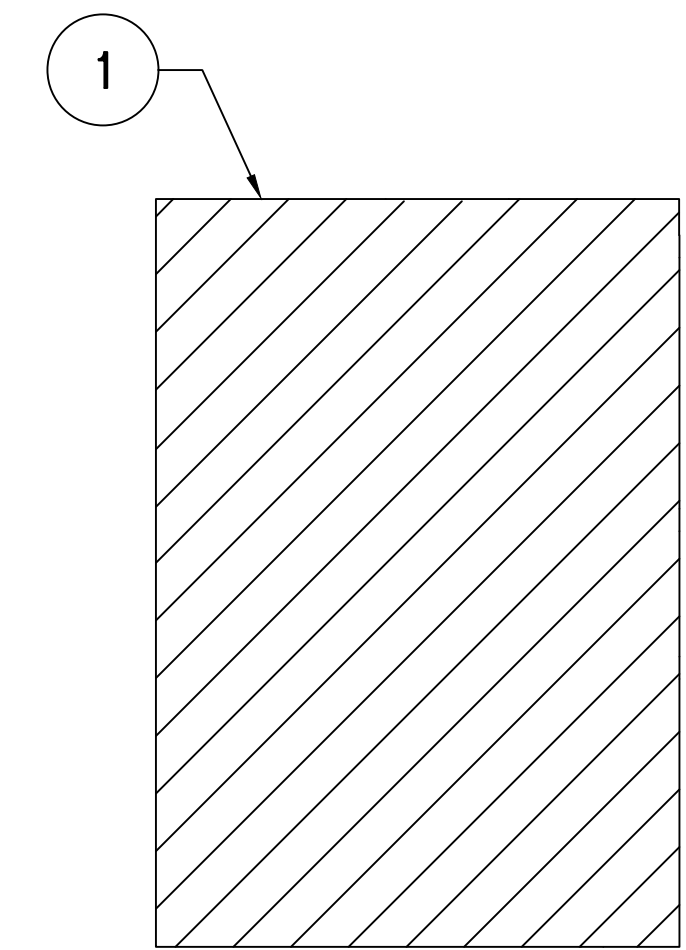
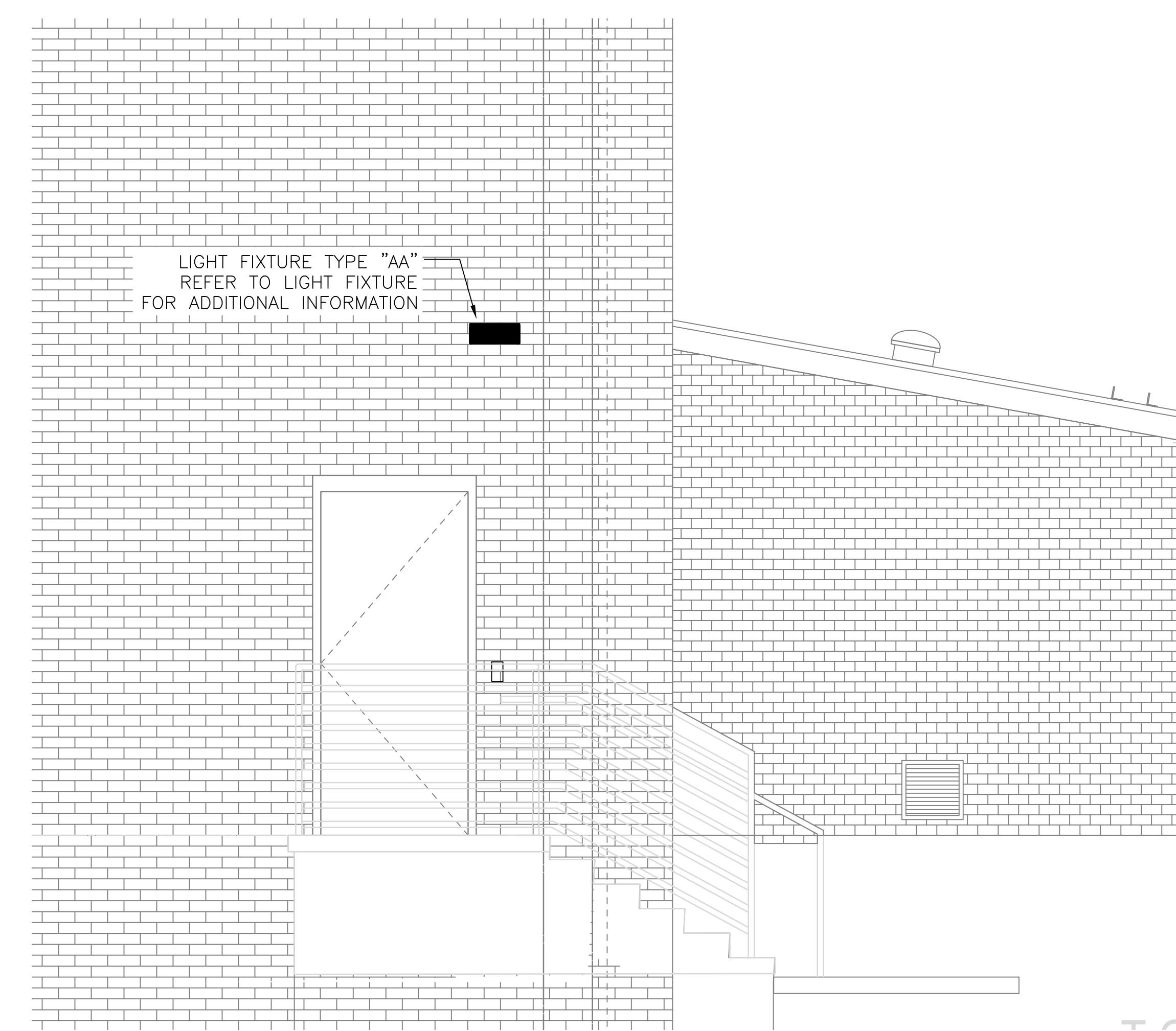
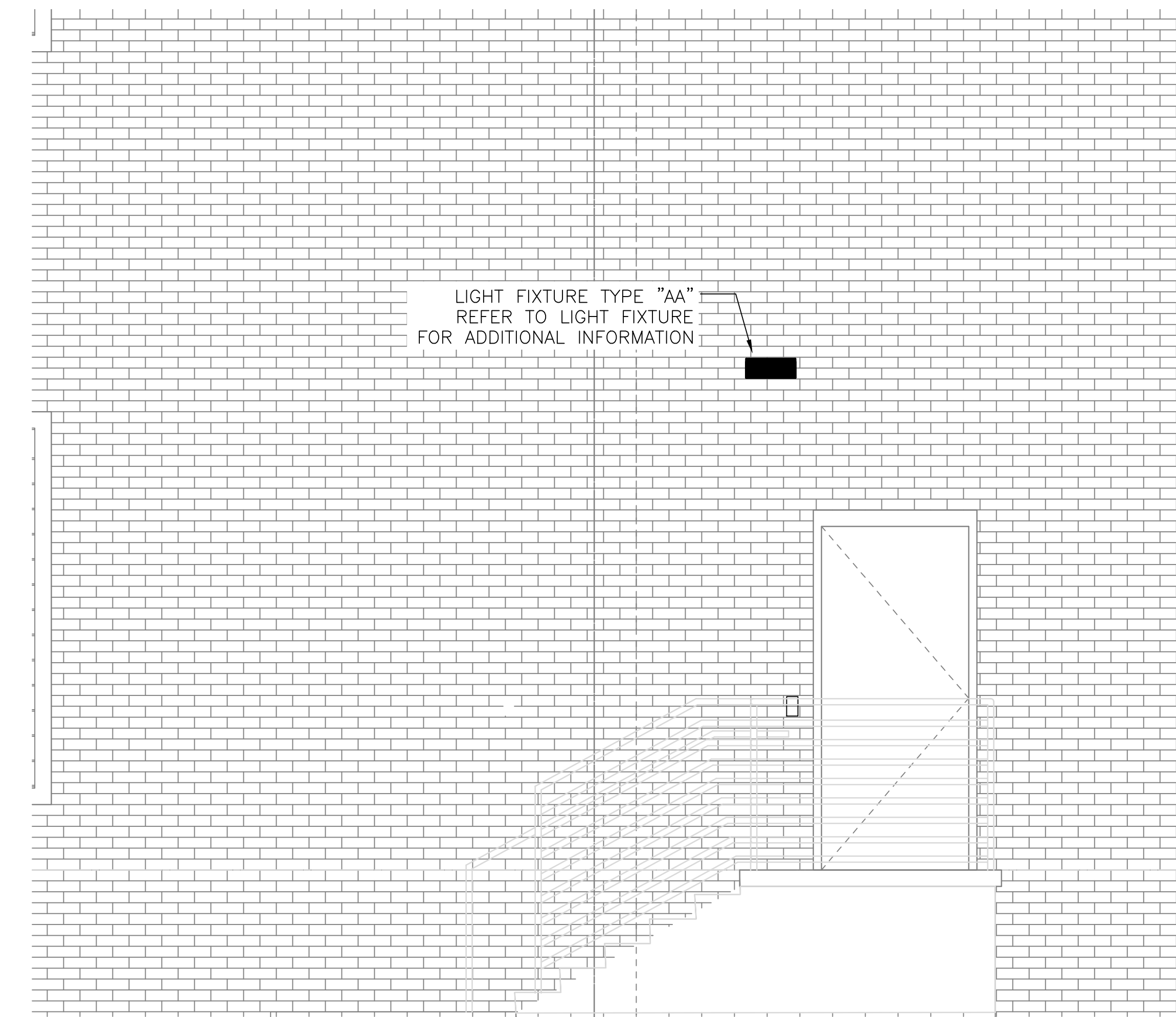
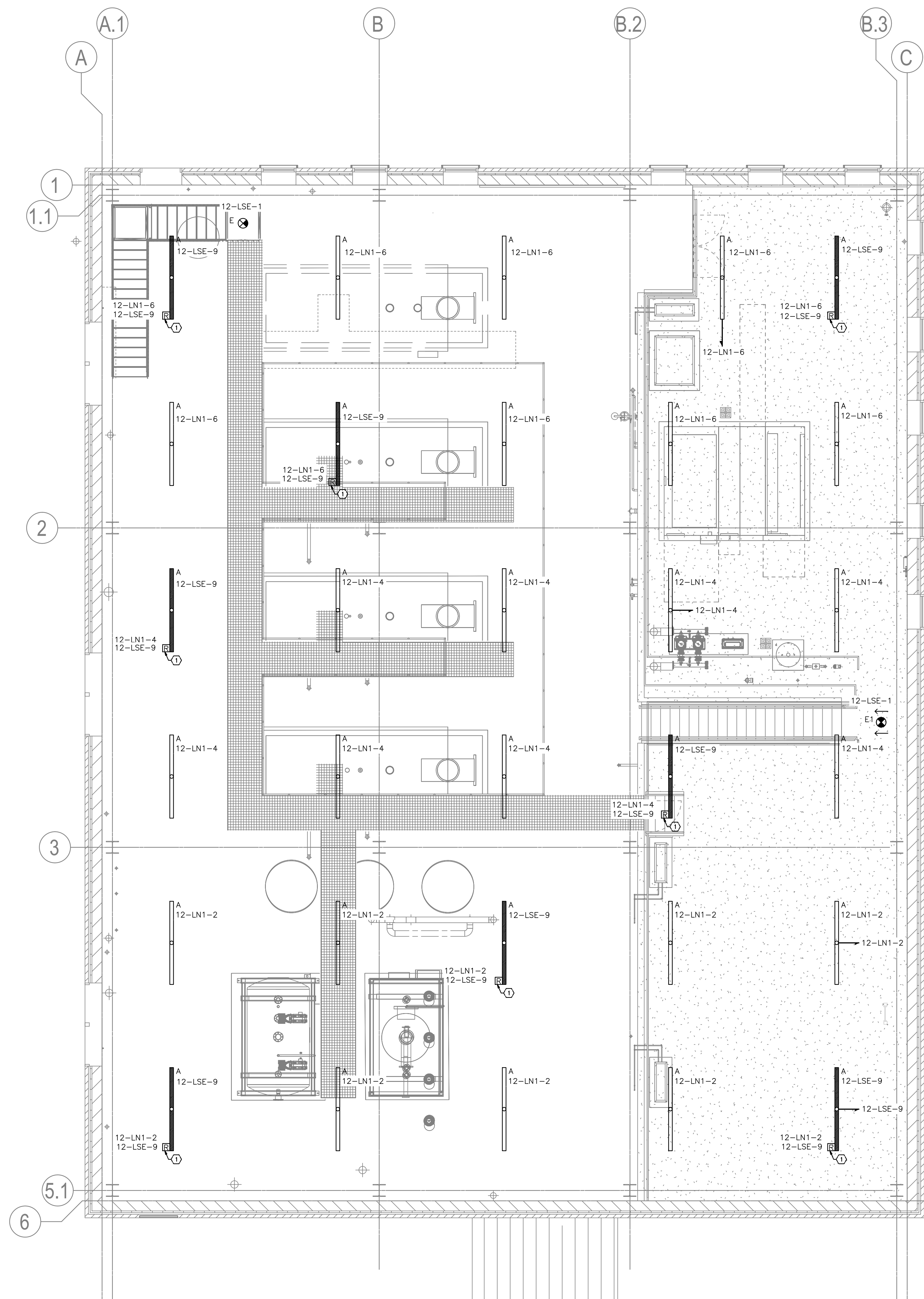
Revisions: _____ Date: _____ _____ Date: _____ _____ Date: _____	CONSULTANT _____ _____	ARCHITECT/ENGINEER OF RECORD Architecture Engineering Design-Build 9000 Weesax Place, Louisville, KY 40222 www.paradigmusa.com	STAMP 	Office of Construction and Facilities Management U.S. Department of Veterans Affairs	Drawing Title ELECTRICAL LIGHTING PLAN - FIRST FLOOR	Phase 100% CONSTRUCTION DOCUMENTS	Project Title SIOUX FALLS BOILER PLANT	Project Number 438-22-900 Building Number 12
			Approved: Project Director	FULLY SPRINKLERED	Location VAMC-Sioux Falls: 2501 W 22nd St, Sioux Falls, SD 57105	Issue Date 06/25/2024	Checked WLM	Drawn KMB

ELECTRICAL LIGHTING GENERAL NOTES

- A. REFER TO DRAWING E-001 FOR ELECTRICAL LEGEND, GENERAL NOTES, AND ABBREVIATIONS.
- B. REFER TO ELECTRICAL DETAILS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
- C. REFER TO LUMINAIRE SCHEDULE ON DRAWING EL501 FOR MANUFACTURER AND MODEL NUMBERS OF LUMINAIRES.
- D. ALL LIGHTING SWITCHES SHALL BE INSTALLED AT 48" A.F.F. UNLESS OTHERWISE NOTED.
- E. CIRCUIT NUMBERS SHOWN NEXT TO LIGHTING CONTROLS OR LUMINAIRES INDICATE PANEL NAME AND CIRCUIT USED TO POWER LIGHTING IN THE AREA SHOWN.
- F. ALL CONDUIT SHALL BE 3/4" CONDUIT MINIMUM.
- G. REFER TO DRAWING EL101 FOR LIGHTING REQUIREMENTS ON LOWER LEVEL.
- H. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING UNI-STRUT MOUNTING SYSTEM OR ANY OTHER MOUNTING ACCESSORIES TO INSTALL LIGHT FIXTURES AS INDICATED ON THIS DRAWING.
- I. THE CONTRACTOR SHALL INSTALL MEZZANINE LIGHTS AT 25'-0" A.F.F.
- J. PROVIDE KNOCK-OUT ARROWS ON EXIT SIGNS AS INDICATED.

ELECTRICAL LIGHTING KEY NOTES

- 1. PROVIDE EMERGENCY BY-PASS RELAY, SHALL BE UL 924 LISTED, BASIS OF DESIGN SHALL BE MANUFACTURED BY FUNCTIONAL DEVICES, MODEL NO. ESRBED1C, MOUNT DEVICE AS CLOSE TO LIGHT FIXTURE AS POSSIBLE, RELAY SHALL OPERATE AT EITHER 120-277 VOLTS, REFER TO DETAIL 2/EL501 FOR ADDITIONAL INFORMATION.



1 ELECTRICAL LIGHTING PLAN - MEZZANINE
SCALE 3/16" = 1'-0"

2 BUILDING SECTION - WEST WALL
SCALE 1/2" = 1'-0"

3 BUILDING SECTION - WEST WALL
SCALE 1/2" = 1'-0"

KEY PLAN - MEZZANINE
NOT TO SCALE

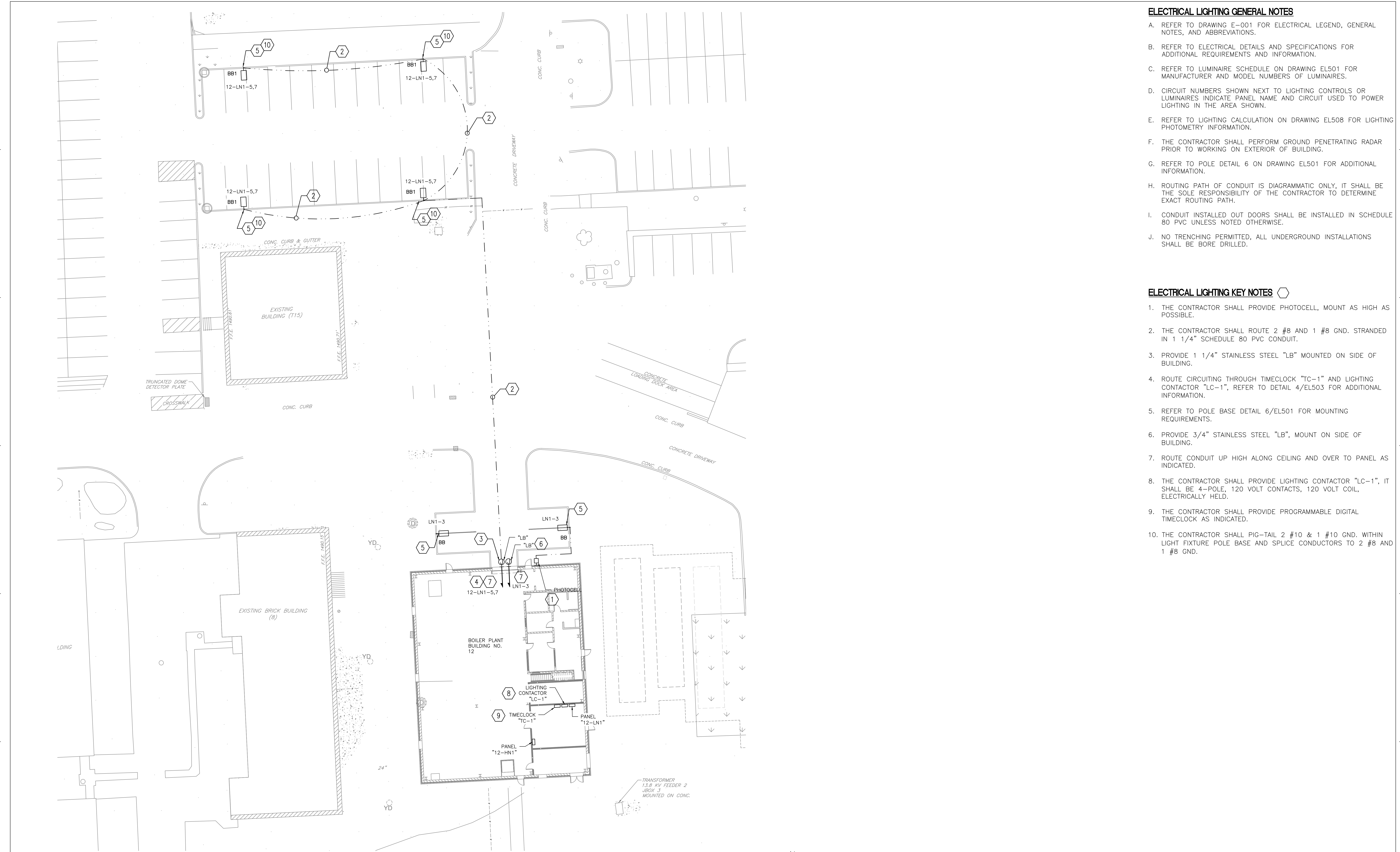
Revisions: Date:	CONSULTANT	ARCHITECT/ENGINEER OF RECORD	STAMP	Office of Construction and Facilities Management	Drawing Title	Phase	Project Title	Project Number		
				U.S. Department of Veterans Affairs	ELECTRICAL POWER PLAN MEZZANINE	100% CONSTRUCTION DOCUMENTS	SIoux FALLS BOILER PLANT	438-22-900		
		 9000 Weissex Place, Louisville, KY 40222 www.paradigmusa.com			Approved: Project Director	FULLY SPRINKLERED	Location	Building Number		
							VAMC-Sioux Falls: 2501 W 22nd St, Sioux Falls, SD 57105	12		
							Issue Date	Checked	Drawn	Drawing Number
							06/25/2024	WLM	KMB	EL102

ELECTRICAL LIGHTING GENERAL NOTES

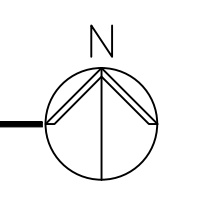
- REFER TO DRAWING E-001 FOR ELECTRICAL LEGEND, GENERAL NOTES, AND ABBREVIATIONS.
- REFER TO ELECTRICAL DETAILS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
- REFER TO LUMINAIRE SCHEDULE ON DRAWING EL501 FOR MANUFACTURER AND MODEL NUMBERS OF LUMINAIRES.
- CIRCUIT NUMBERS SHOWN NEXT TO LIGHTING CONTROLS OR LUMINAIRES INDICATE PANEL NAME AND CIRCUIT USED TO POWER LIGHTING IN THE AREA SHOWN.
- REFER TO LIGHTING CALCULATION ON DRAWING EL508 FOR LIGHTING PHOTOMETRY INFORMATION.
- THE CONTRACTOR SHALL PERFORM GROUND PENETRATING RADAR PRIOR TO WORKING ON EXTERIOR OF BUILDING.
- REFER TO POLE DETAIL 6 ON DRAWING EL501 FOR ADDITIONAL INFORMATION.
- ROUTING PATH OF CONDUIT IS DIAGRAMMATIC ONLY, IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE EXACT ROUTING PATH.
- CONDUIT INSTALLED OUT DOORS SHALL BE INSTALLED IN SCHEDULE 80 PVC UNLESS NOTED OTHERWISE.
- NO TRENCHING PERMITTED, ALL UNDERGROUND INSTALLATIONS SHALL BE BORE DRILLED.

ELECTRICAL LIGHTING KEY NOTES

- THE CONTRACTOR SHALL PROVIDE PHOTOCELL, MOUNT AS HIGH AS POSSIBLE.
- THE CONTRACTOR SHALL ROUTE 2 #8 AND 1 #8 GND. STRANDED IN 1 1/4" SCHEDULE 80 PVC CONDUIT.
- PROVIDE 1 1/4" STAINLESS STEEL "LB" MOUNTED ON SIDE OF BUILDING.
- ROUTE CIRCUITING THROUGH TIMECLOCK "TC-1" AND LIGHTING CONTACTOR "LC-1", REFER TO DETAIL 4/EL503 FOR ADDITIONAL INFORMATION.
- REFER TO POLE BASE DETAIL 6/EL501 FOR MOUNTING REQUIREMENTS.
- PROVIDE 3/4" STAINLESS STEEL "LB", MOUNT ON SIDE OF BUILDING.
- ROUTE CONDUIT UP HIGH ALONG CEILING AND OVER TO PANEL AS INDICATED.
- THE CONTRACTOR SHALL PROVIDE LIGHTING CONTACTOR "LC-1", IT SHALL BE 4-POLE, 120 VOLT CONTACTS, 120 VOLT COIL, ELECTRICALLY HELD.
- THE CONTRACTOR SHALL PROVIDE PROGRAMMABLE DIGITAL TIMECLOCK AS INDICATED.
- THE CONTRACTOR SHALL PIG-TAIL 2 #10 & 1 #10 GND. WITHIN LIGHT FIXTURE POLE BASE AND SPLICE CONDUCTORS TO 2 #8 AND 1 #8 GND.



1 ELECTRICAL LIGHTING PLAN - PARKING LOT
SCALE 3/4" = 1'-0"



		CONSULTANT		ARCHITECT/ENGINEER OF RECORD		STAMP		Office of Construction and Facilities Management		Drawing Title ELECTRICAL LIGHTING PLAN PARKING LOT		Phase 100% CONSTRUCTION DOCUMENTS		Project Title SIOUX FALLS BOILER PLANT		Project Number 438-22-900	
Revisions:		Date:		 Architecture Engineering Design-Build 9000 Wesley Place, Louisville, KY 40222 www.paradigmusa.com				 U.S. Department of Veterans Affairs		Approved: Project Director		FULLY SPRINKLERED		Location VAMC-Sioux Falls: 2501 W 22nd St, Sioux Falls, SD 57105		Building Number 12	
												Issue Date 06/25/2024		Checked WLM		Drawn KMB	
																Drawing Number EL103	