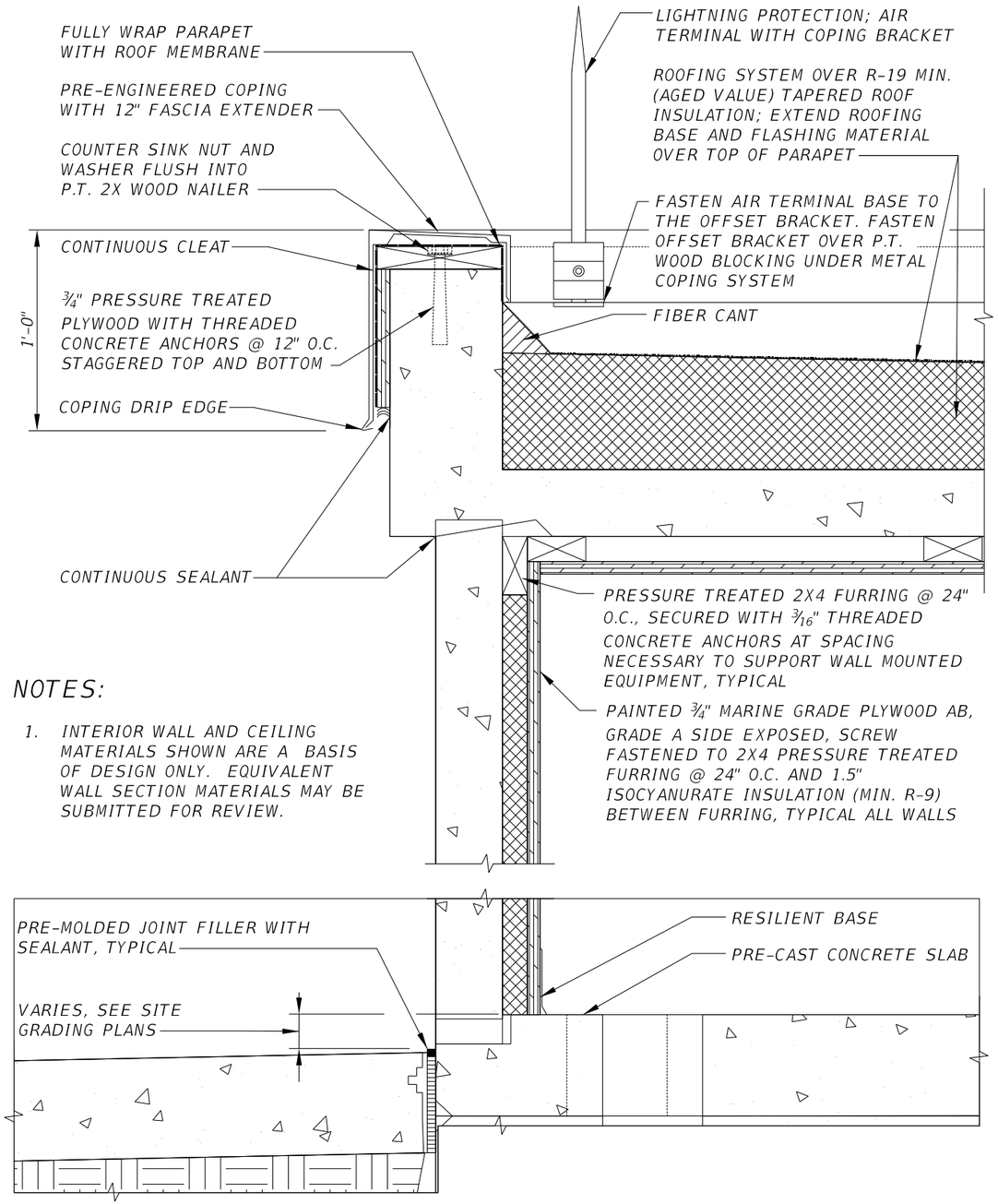
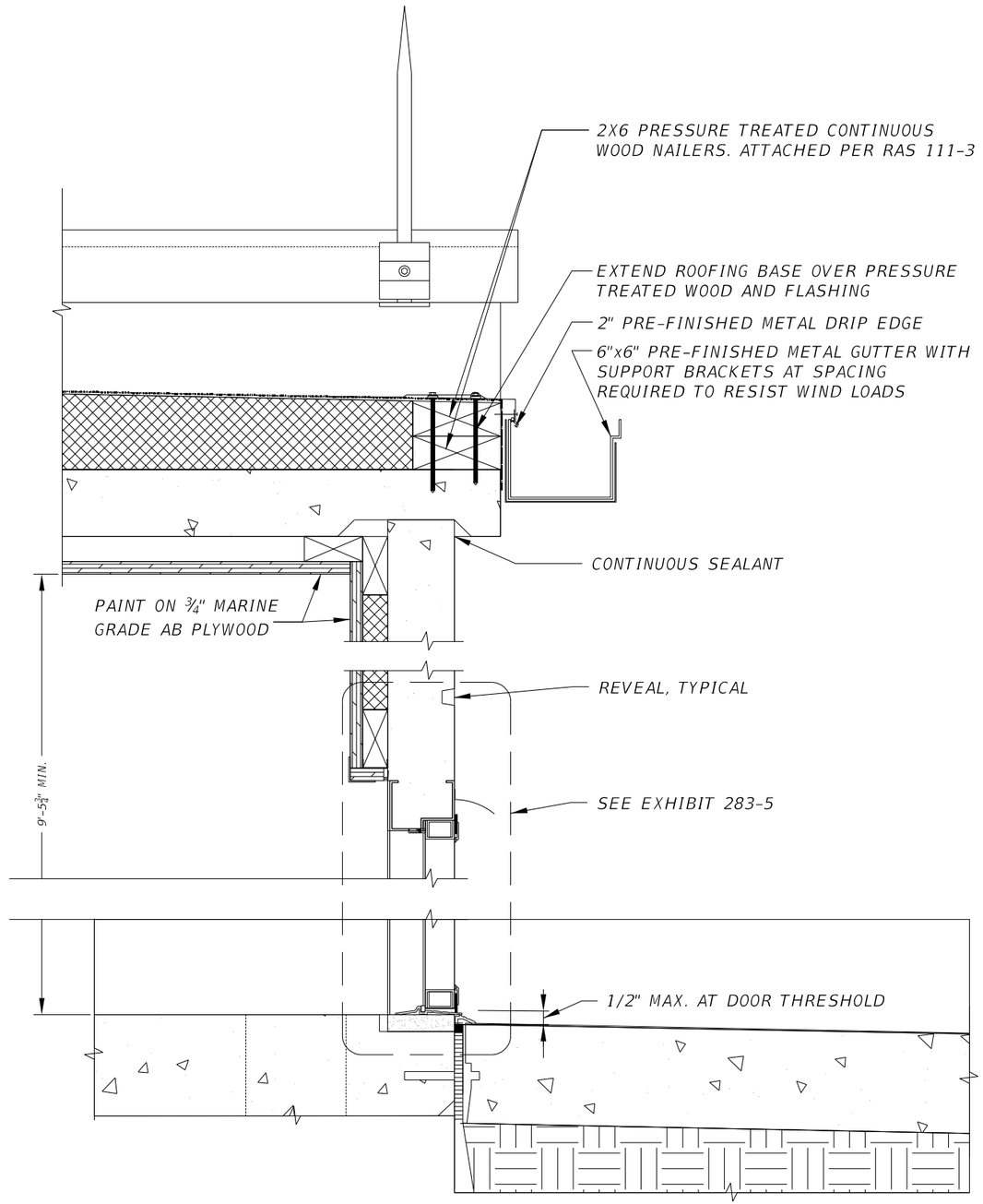
TEB WALL SECTIONS



NOTES:

1. INTERIOR WALL AND CEILING MATERIALS SHOWN ARE A BASIS OF DESIGN ONLY. EQUIVALENT WALL SECTION MATERIALS MAY BE SUBMITTED FOR REVIEW.

BUILDING SECTION

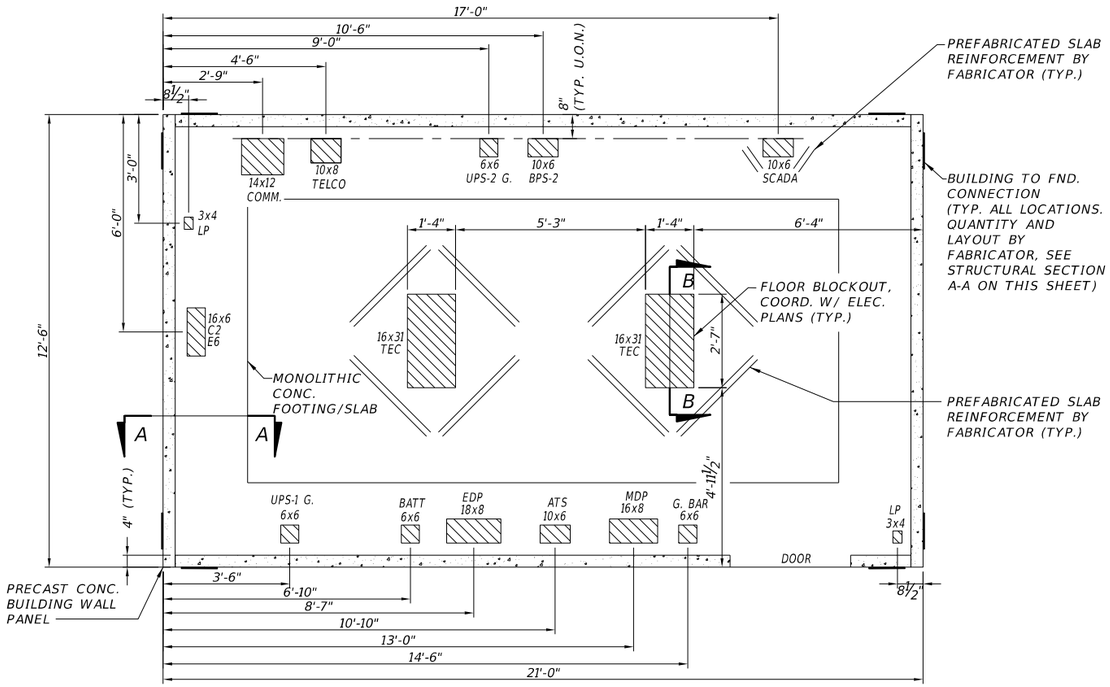


BUILDING SECTION - AT DOOR

NOT TO SCALE

EXHIBIT 283-1
01/01/2027

TEB FOUNDATION



PRECAST CONCRETE TEB FLOOR SLAB PLAN

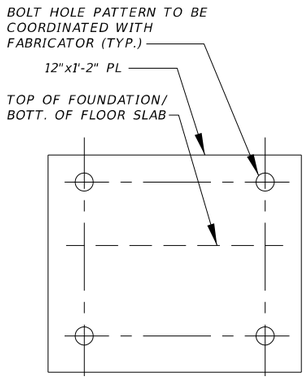
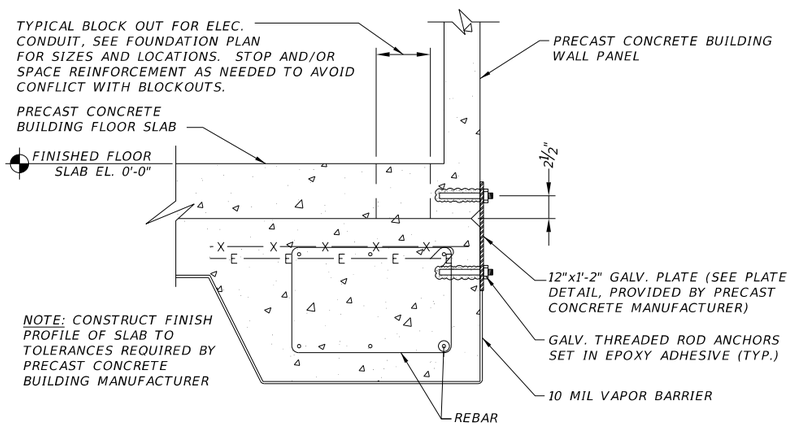


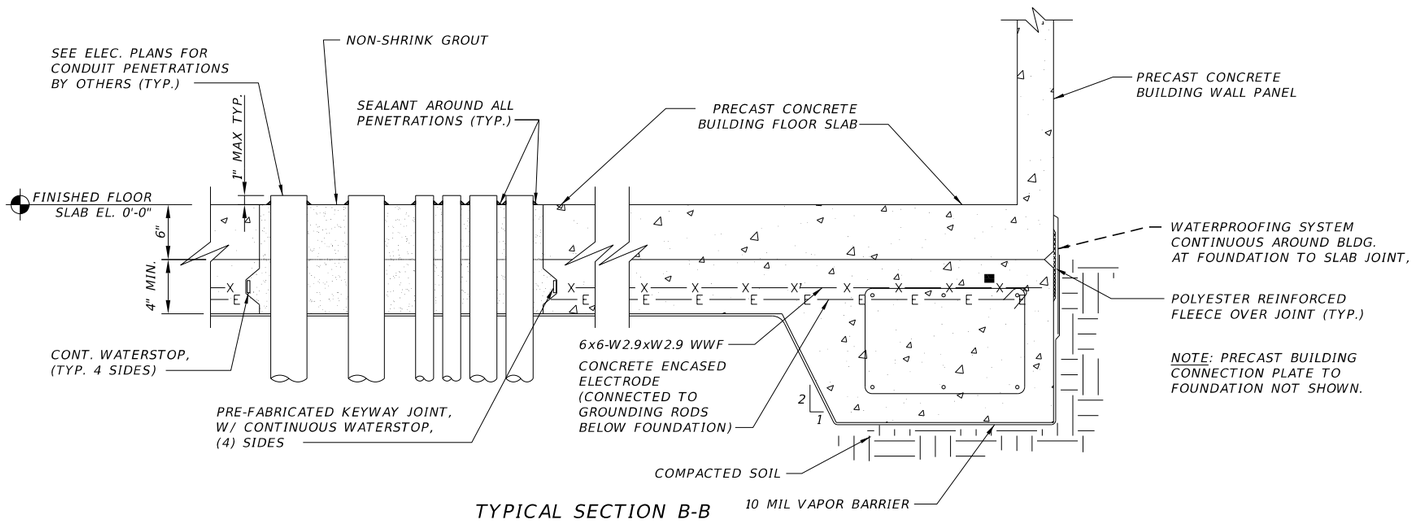
PLATE DETAIL

NOTES:

1. TOP OF CONCRETE FOUNDATION MUST BE CONSTRUCTED WITHIN A ±1/4" TOLERANCE TO ALLOW FOR AN EVEN BEARING SURFACE FOR THE PRECAST CONCRETE BUILDING. GALVANIZED STEEL SHIMS MUST BE USED TO ENSURE THAT ALL LOAD BEARING SURFACES ARE AT THE SAME ELEVATION (WITHIN A TOLERANCE OF ±1/16"). IT IS RECOMMENDED BY THE PRECAST BUILDING MFR. THAT SHIMS BE COMPLETELY ENCASED IN GROUT. WHEN THE BUILDING IS SET WITH THE CORRECT SHIMS IN PLACE, GROUT THE PERIMETER OF THE FOUNDATION AT THE BOTTOM OF THE SHELTER TO PREVENT WATER INTRUSION. A NON-SHRINK, HIGH-STRENGTH GROUT RECOMMENDED BY THE PRECAST CONCRETE BUILDING MFR. MUST BE USED. REFER TO THE PRECAST CONCRETE BUILDING MFR. FOR ADDITIONAL INFORMATION.
2. PROVIDE A NOTCH TROWELED MORTAR BED MIN. ¼" THICK TO THE ENTIRE CAST-IN-PLACE FOUNDATION SURFACE PRIOR TO SETTING THE PRECAST BUILDING IN PLACE.
3. COORDINATE LOCATION AND SIZE OF FLOOR PENETRATIONS WITH ELECTRICAL PLANS TO ENSURE THE PENETRATION ACCOMMODATES THE QUANTITY OF CONDUITS SERVING ELECTRICAL EQUIPMENT.
4. INSTALL WATERPROOFING SYSTEM AROUND JOINT OF PRECAST BUILDING AND FOUNDATION FOUNDATION PER MANUFACTURER'S REQUIREMENTS.
5. PROVIDE ADDITIONAL REBAR AT MID-DEPTH OF POURED SLAB FOR ALL RE-ENTRANT CORNERS. (TYP.)



STRUCTURAL SECTION A-A

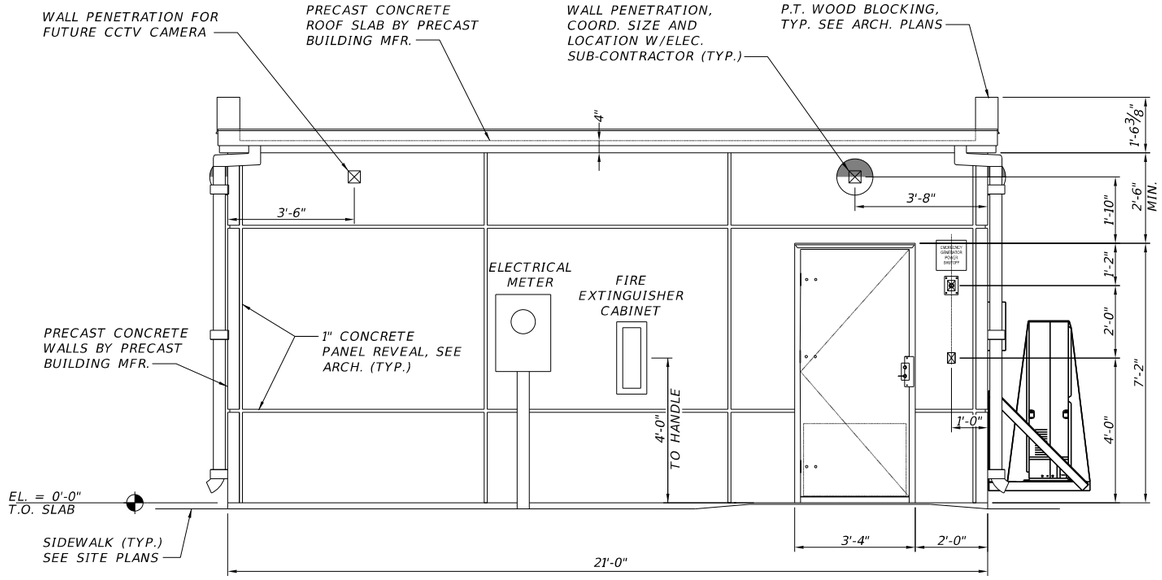


TYPICAL SECTION B-B

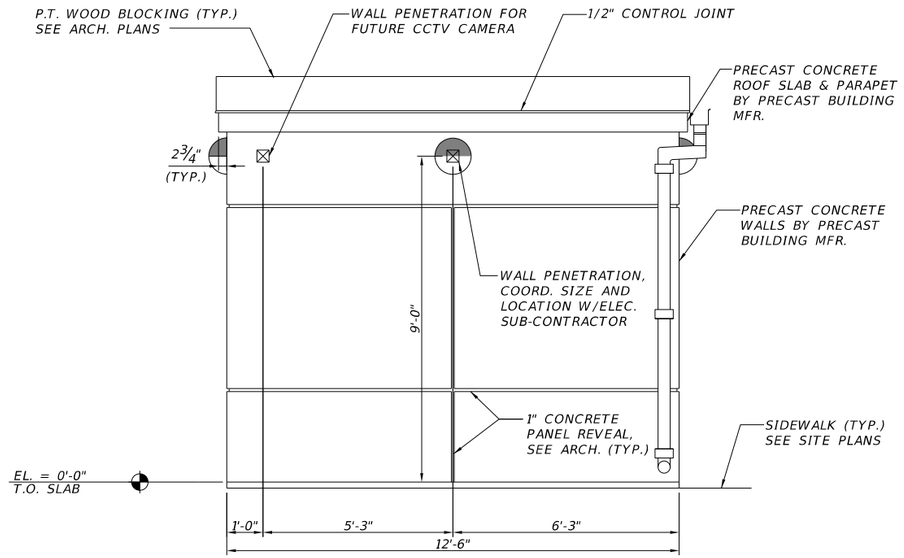
NOT TO SCALE

EXHIBIT 283-2
01/01/2027

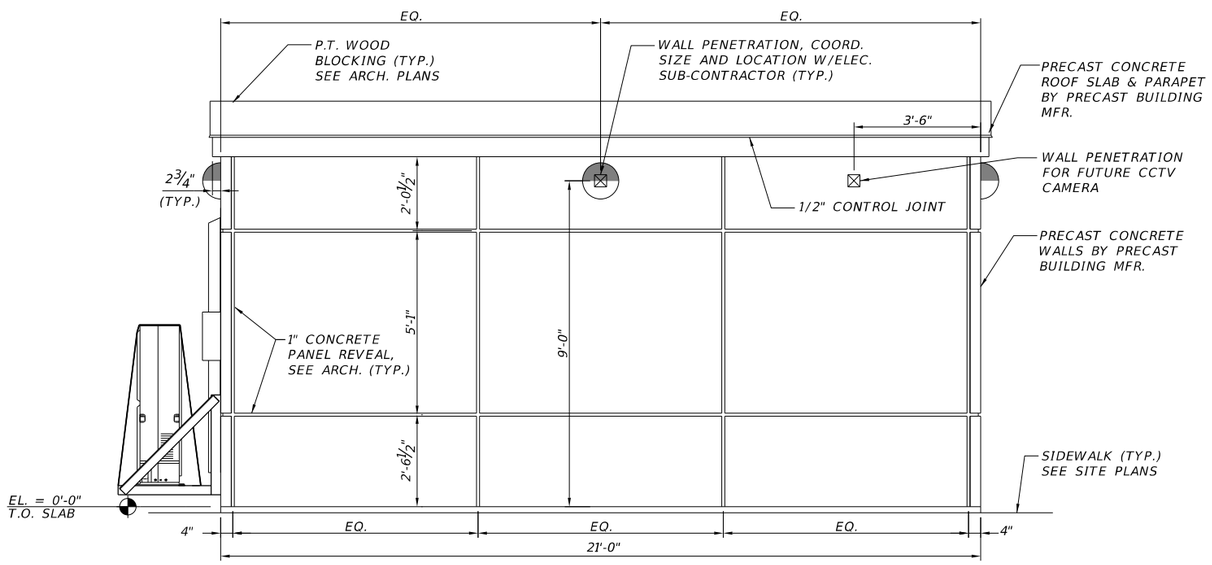
TEB EXTERIOR ELEVATIONS



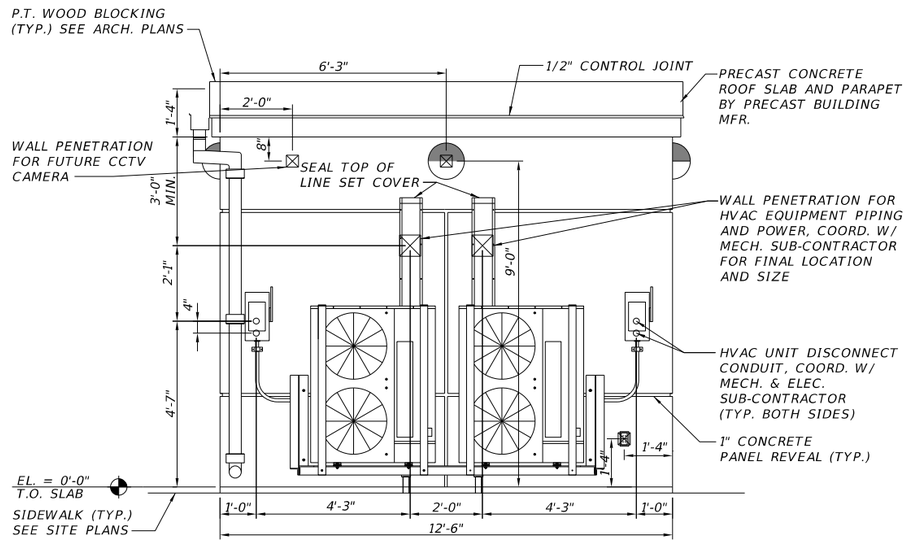
ELEVATION



ELEVATION



ELEVATION

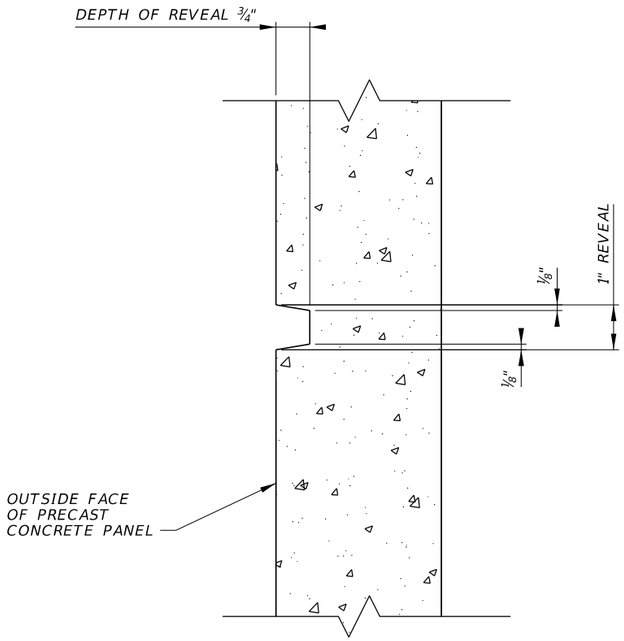


ELEVATION

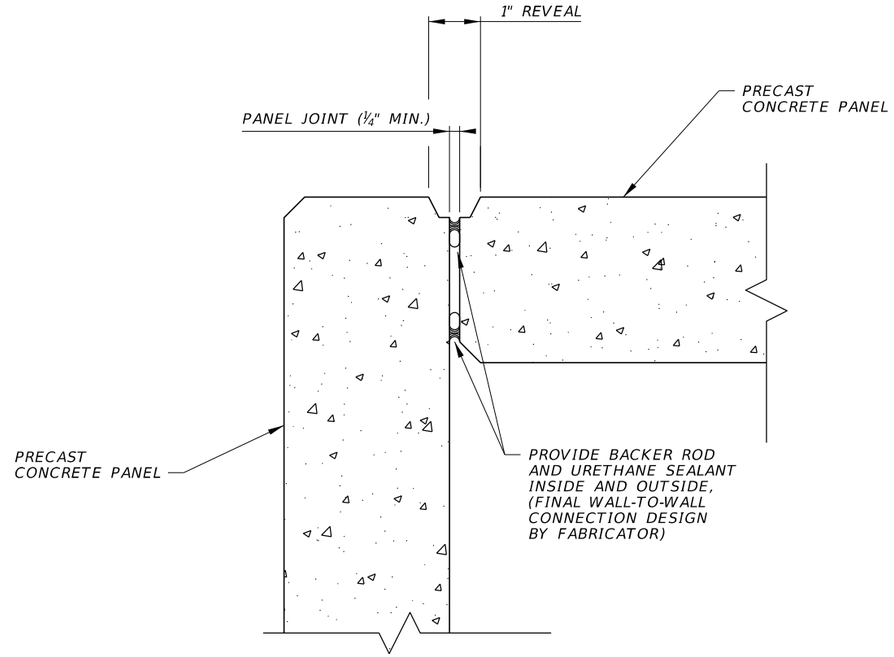
NOT TO SCALE

EXHIBIT 283-3
01/01/2027

TEB REVEAL DETAILS



SECTION

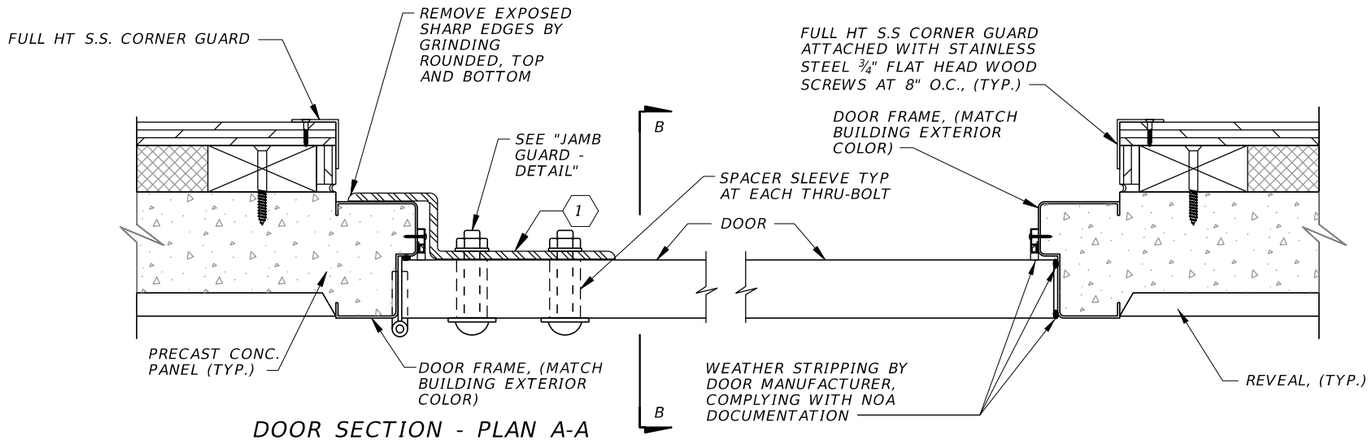


PLAN

NOT TO SCALE

EXHIBIT 283-4
01/01/2027

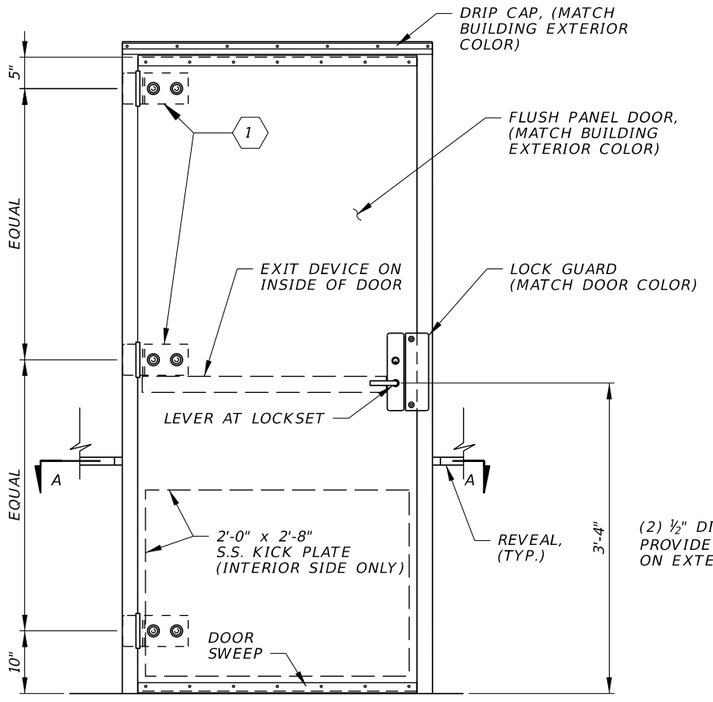
TEB DOOR DETAILS



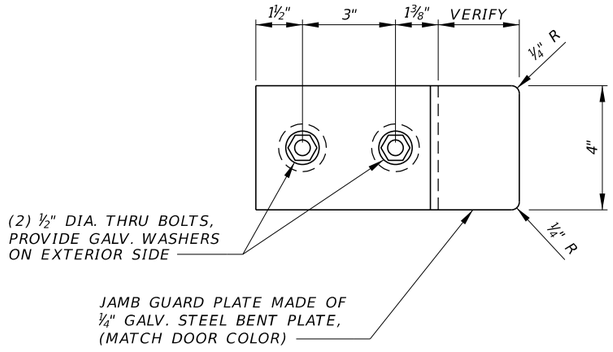
DOOR SECTION - PLAN A-A

NOTE:

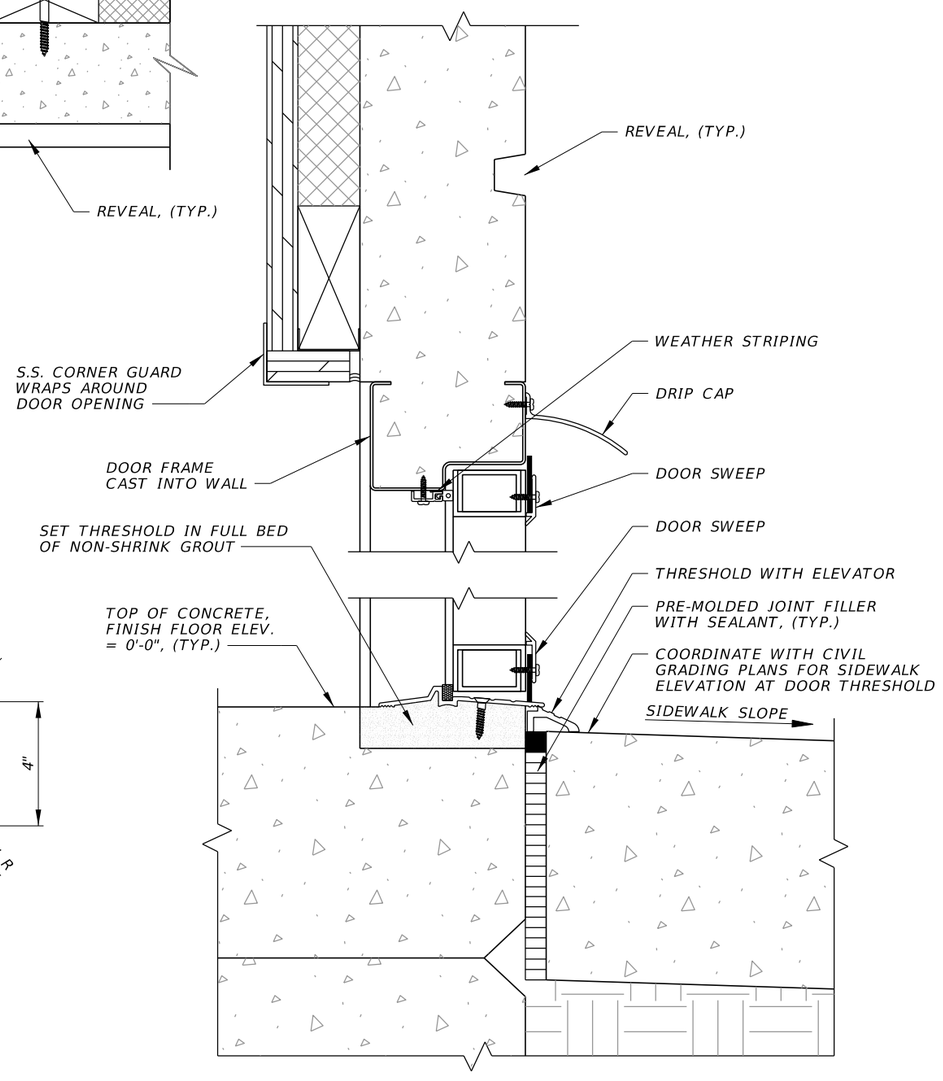
1. PROVIDE THREE JAMB GUARD PLATES ON THE INTERIOR SIDE AT LOCATIONS INDICATED. COORDINATE SIZE OF JAMB GUARD WITH DOOR FRAME PROVIDED BY TOLL EQUIPMENT BUILDING MANUFACTURER. SEE JAMB GUARD DETAIL.



DOOR ELEVATION (EXTERIOR)



JAMB GUARD DETAIL

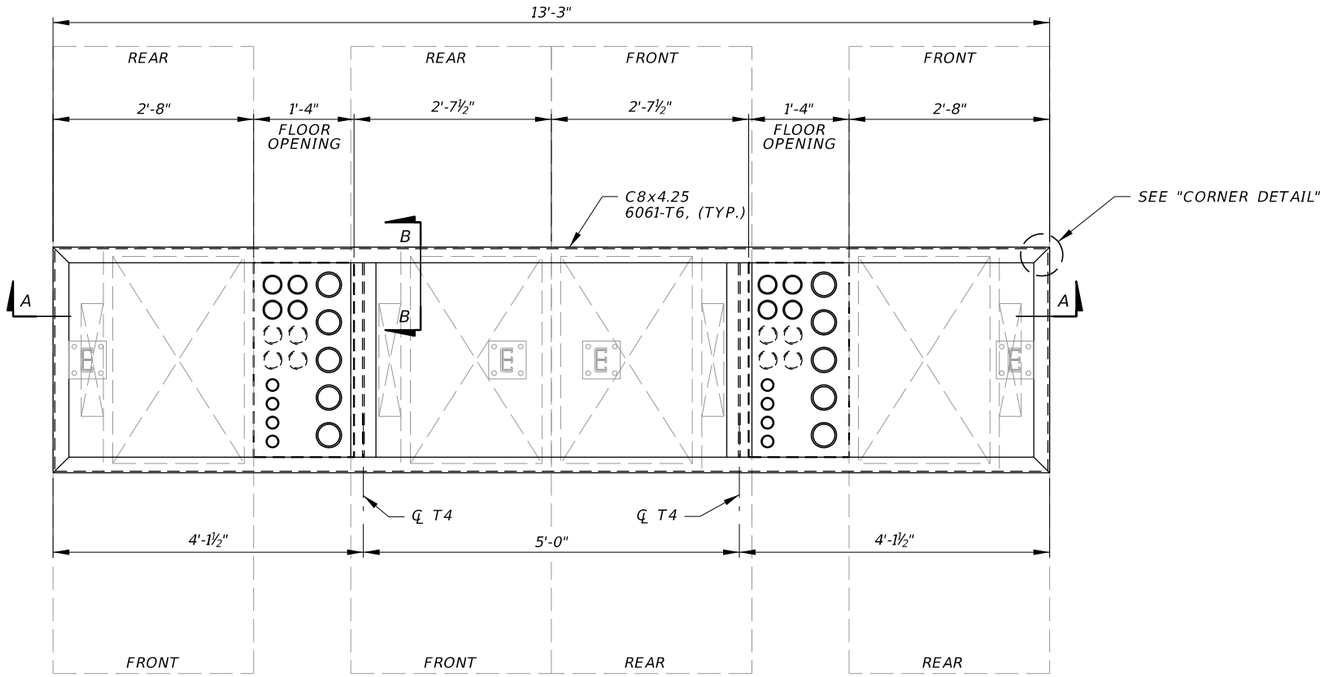


DOOR SECTION B-B

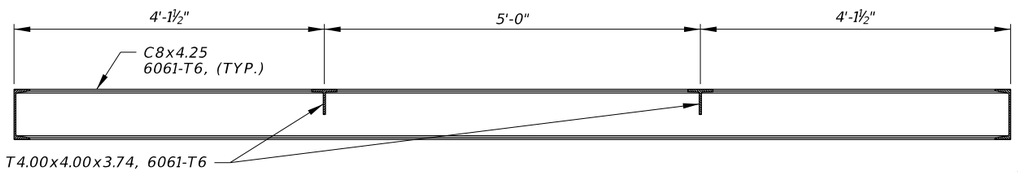
NOT TO SCALE

EXHIBIT 283-5
01/01/2027

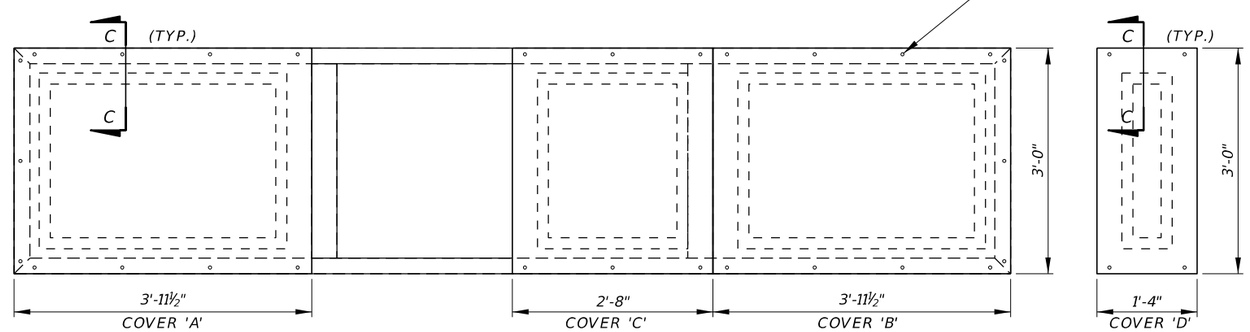
TOLL EQUIPMENT SUPPORT FRAME



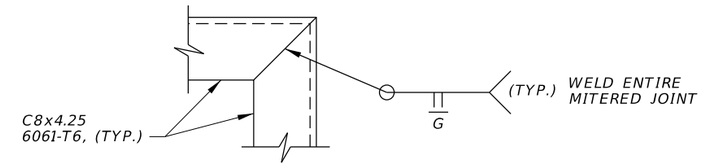
TOLL EQUIPMENT SUPPORT FRAME - PLAN



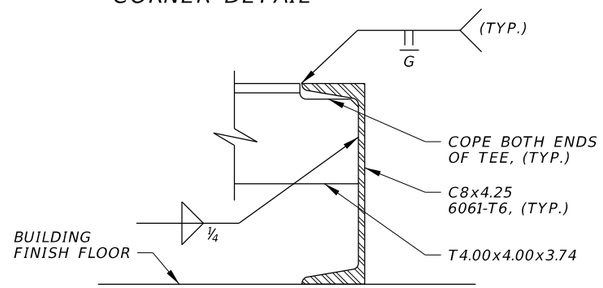
TOLL EQUIPMENT SUPPORT FRAME - SECTION A-A



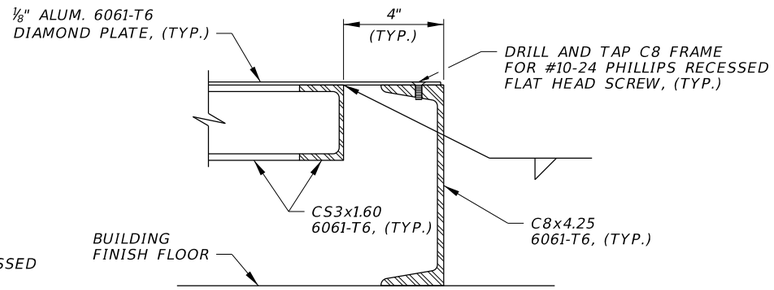
IN-FILL COVER PLATES PLAN



CORNER DETAIL



SECTION B-B



DIAMOND PLATE DETAIL C-C

NOTES:

1. THE BUILDING WILL BE FABRICATED OFF SITE. CONDUIT STUB-UP LOCATIONS MUST BE COORDINATED WITH BUILDING FABRICATOR PRIOR TO SHOP DRAWING SUBMITTAL.
2. PROVIDE WIDTH AS REQUIRED TO COVER ALL OPENINGS BETWEEN TEC EQUIPMENT.
3. PROVIDE COVERS 'A', 'B', AND 'C' FOR A SINGLE TOLL MOVEMENT.
4. PROVIDE COVERS 'A' AND 'B' FOR TWO TOLL MOVEMENTS.
5. PROVIDE COVERS 'B' AND 'D' FOR THREE TOLL MOVEMENTS.
6. PROVIDE (2) COVERS 'D' FOR FOUR TOLL MOVEMENTS.

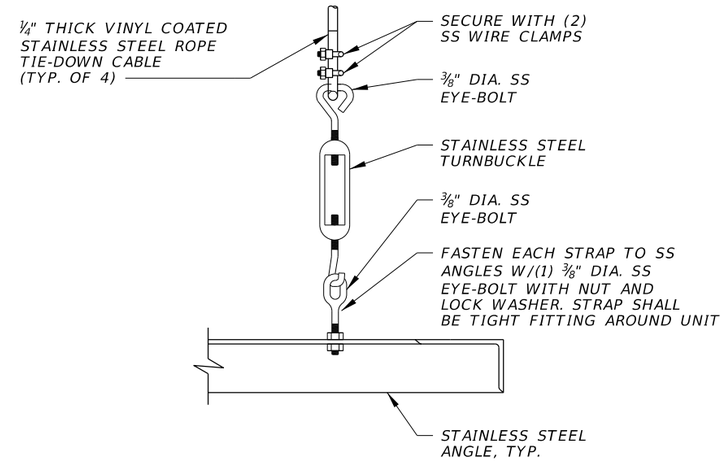
NOT TO SCALE

EXHIBIT 283-6
01/01/2027

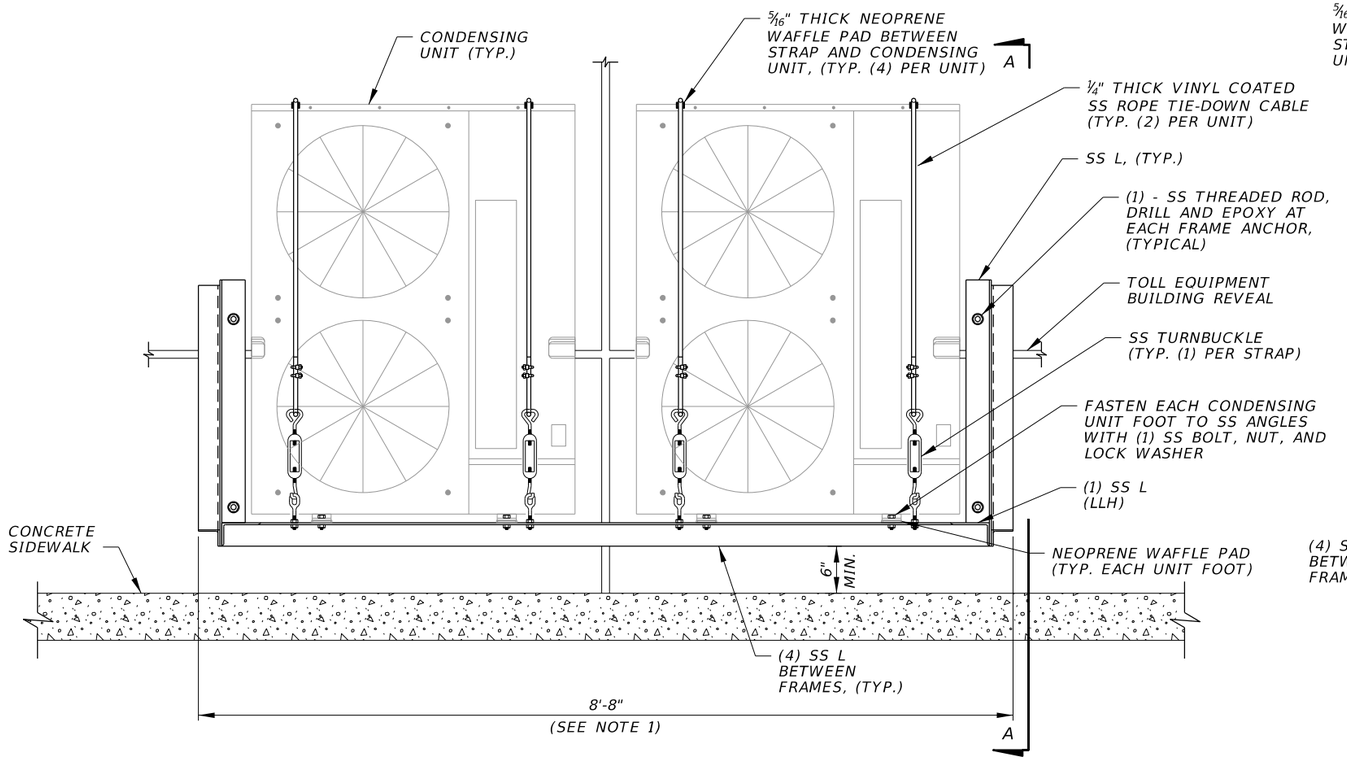
CONDENSING UNITS SUPPORT FRAME

NOTE:

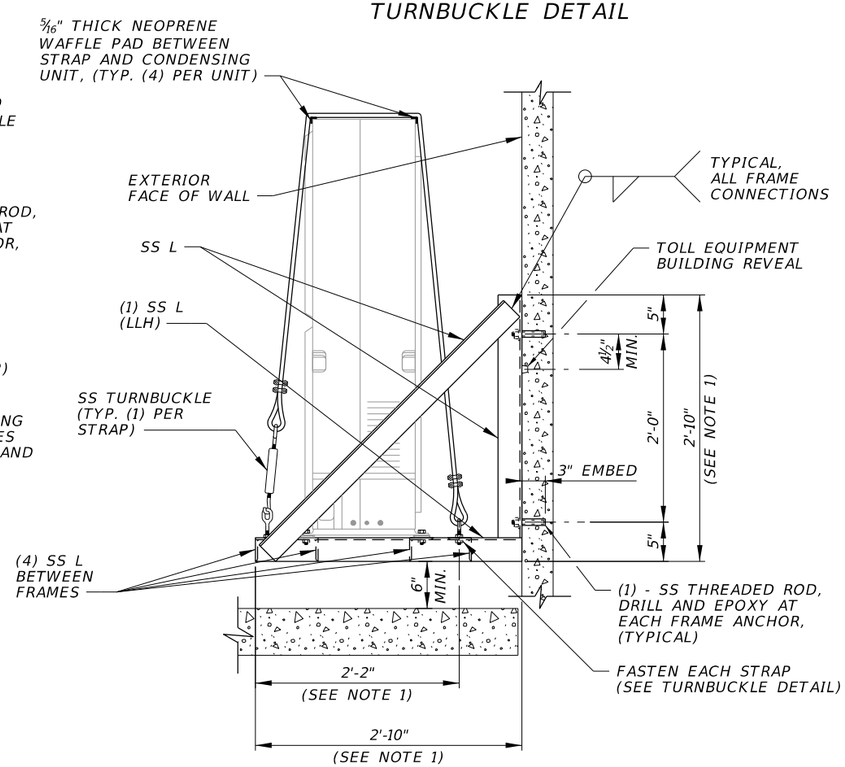
1. COORDINATE WALL MOUNTED FRAME SIZE WITH CONDENSING UNIT MANUFACTURER'S REQUIREMENTS.



TURNBUCKLE DETAIL



WALL MOUNTED CONDENSING UNIT FRAME - FRONT VIEW

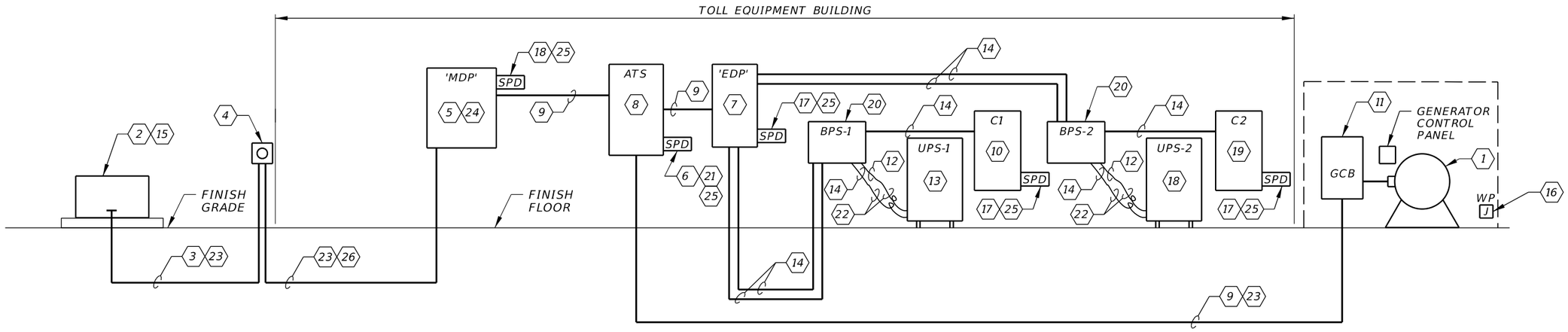


WALL MOUNTED CONDENSING UNIT FRAME - SECTION A-A

NOT TO SCALE

EXHIBIT 283-7
01/01/2027

TEB POWER RISER DIAGRAM



AVAILABLE FAULT CURRENT AT EQUIPMENT (KA)	
	BUILDING
PANEL 'MDP'	XX*
ATS (NORM)	XX*
ATS (EMERGENCY)	XX*
PANEL 'EDP'	XX*
PANEL C1	XX*
UPS-1	XX*
BYPASS SWITCH BPS-1	XX*
PANEL C2	XX*
UPS-2	XX*
BYPASS SWITCH BPS-2	XX*

XX* = BY EOR

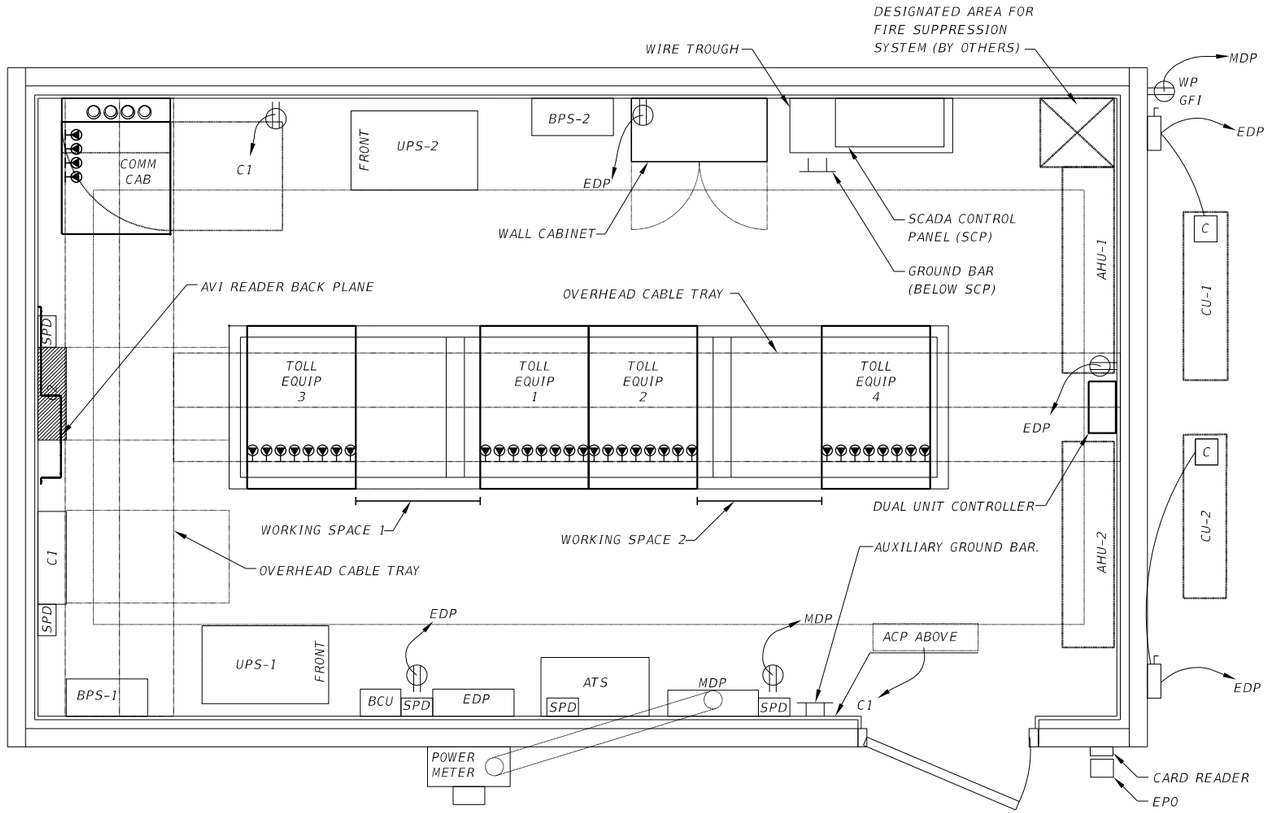
NOTES:

1. PROVIDE A GENERATOR SET (SIZED BY EOR) 120/240V, 1Ø, 3W WITH WEATHERPROOF ENCLOSURE. PROVIDE WITH MODBUS RTU MODULE.
2. PAD MOUNTED UTILITY TRANSFORMER. 120/240V, SINGLE PHASE, 3W, 60HZ SECONDARY. COORDINATE REQUIREMENTS WITH LOCAL POWER COMPANY.
3. SERVICE LATERAL: (SIZED BY EOR) 36" MIN. BELOW GRADE. RISER SHALL BE RGS CONDUIT.
4. 400A, WALL MOUNTED METER SOCKET, GROUNDING PER POWER CO. REQUIREMENTS.
5. PANELBOARD 'MDP'-400A, 2P MCB, 3W, 240V, N.O. AUXILIARY CONTACT WITH GND BUS, INSULATED NEUTRAL BUS, NEMA 1 ENCLOSURE. PROVIDE NAMEPLATE "MAIN #1 OF 2. MAIN #2 IS LOCATED INSIDE GENERATOR ENCLOSURE" MUST BE LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
6. PROVIDE TYPE 1 MODULAR PRIMARY SERVICE (ENTRANCE) SPD WITH INTEGRAL DISCONNECTING MEANS. PROVIDE #6 AWG LEADS IN 3/4"C. NIPPLE.
7. EMERGENCY DISTRIBUTION PANELBOARD 'EDP', 120/240V, SINGLE PHASE, 3W.
8. AUTOMATIC TRANSFER SWITCH, 400 AMPS, 120/240V, 3W (OVERLAPPING NEUTRAL), NEMA TYPE 1 ENCLOSURE.
9. CONDUCTORS AND CONDUIT SIZED BY EOR.
10. C1 PANELBOARD.
11. GENERATOR CIRCUIT BREAKER "GCB", 400A, 2P, 240V, AUXILIARY CONTACT SOLID NEUTRAL, GROUND BUS IN NEMA 3R ENCLOSURE. PROVIDE NAMEPLATE "MAIN #2 OF 2. MAIN #1 IS LOCATED INSIDE BUILDING".
12. CONDUCTORS AND CONDUIT SIZED BY EOR.
13. 15 kVA UPS, 120/240 VAC, SINGLE PHASE, 3W WITH MODBUS TCP/IP NETWORK MONITOR CARD WITH DB-9 CONNECTION, BATTERY MODULES AND GROUNDING LUG.
14. CONDUCTORS AND CONDUIT SIZED BY EOR.
15. POWER COMPANY UTILITY XFMR.
16. ENGINE JACKET HEATER.
17. PROVIDE TYPE 2 SECONDARY SERVICE SPD.
18. TYPE 1 PRIMARY SERVICE ENTRANCE SPD.
19. C2 PANELBOARD.
20. PROVIDE 240V, 125A, WALL MOUNTED BYPASS SWITCH.
21. SPLICE SPD CONDUCTORS TO INCOMING GENERATOR CONDUCTORS INSIDE ATS ENCLOSURE WITH A UL LISTED SPLICE.
22. PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT TO UPS.
23. TRANSITION DIRECT BURIED SCHEDULE 80 PVC CONDUIT TO RGS AT LAST 90 DEGREE ELBOW BEFORE RISING UP AND EMERGE FROM GRADE TO BECOME EXPOSED. APPLY 2-COAT BITUMASTIC PAINT FINISH TO DIRECT BURIED PORTION OF RGS CONDUIT, UP TO AND INCLUDING 6" ABOVE FINAL GRADE.
24. PANELBOARD.
25. SPD SHALL BE LOCATED SUCH THAT THE LEADS DO NOT EXCEED 24". MAINTAIN LEADS AS SHORT AND STRAIGHT AS POSSIBLE FROM C.B. TO SPD.
26. CONDUCTORS AND CONDUIT SIZED BY EOR, 36" MIN. BELOW GRADE RISER SHALL BE RGS CONDUIT.

NOT TO SCALE

EXHIBIT 283-8
01/01/2027

TEB ELECTRICAL LAYOUT



PLAN

NOTES:

1. EACH TOLL EQUIPMENT SPACE RECEIVES (8) EIGHT TWIST-LOCK RECEPTACLES IN THE POWER SECTION CABLE TRAY DIRECTLY ABOVE. THE QUANTITY OF TOLL EQUIPMENT SPACES MAY VARY BETWEEN 1 AND 4; THEREFORE, THE QUANTITY OF ASSOCIATED CABLE TRAY-MOUNTED RECEPTACLES WILL VARY AND MUST BE PLACED AT THE LOCATIONS SHOWN WHEN APPLICABLE.

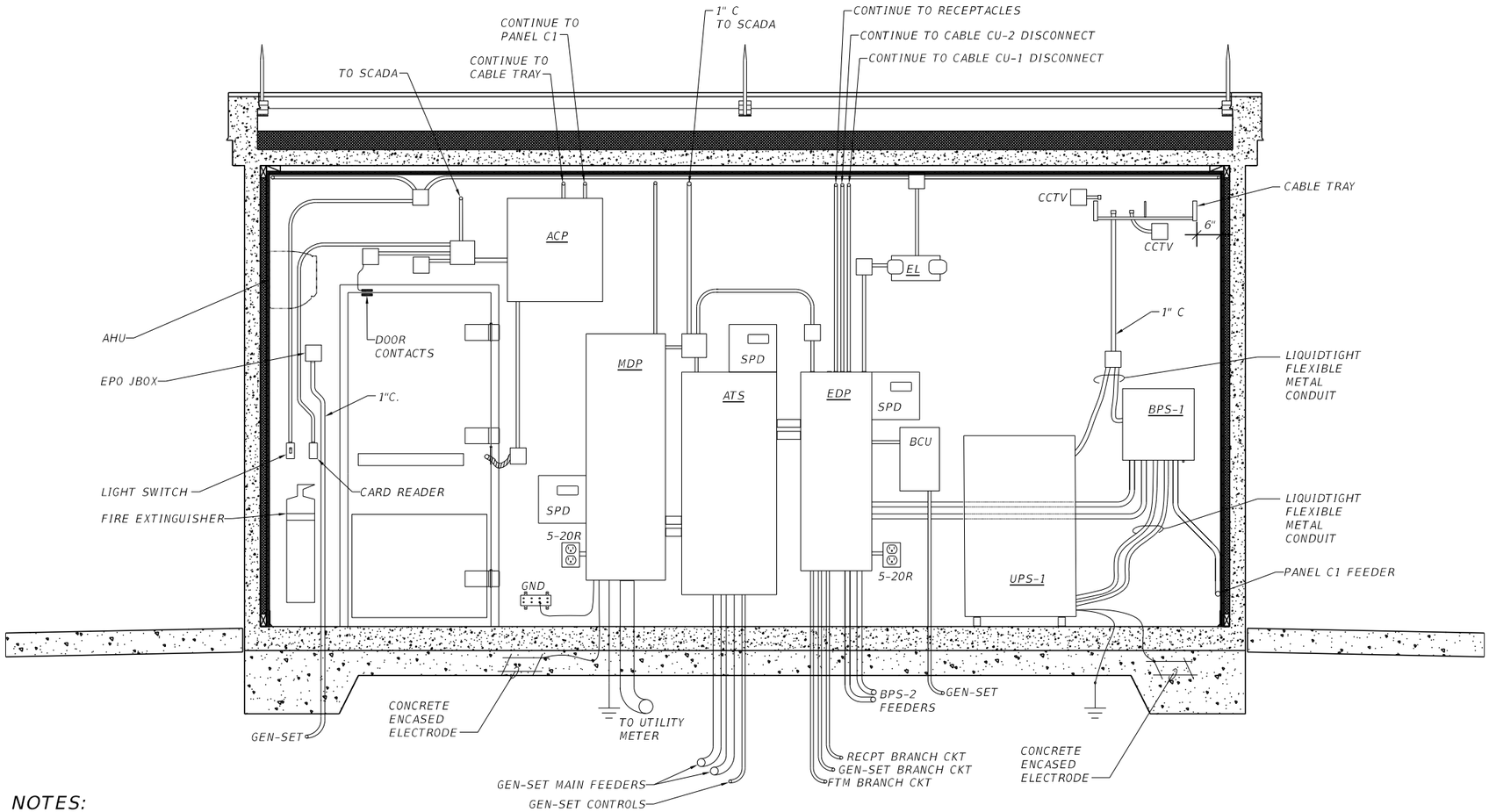
2. FOR BUILDING SUPPORTING SINGLE TOLLING MOVEMENTS, PANEL C2, BPS-2, AND UPS-2 MUST BE OMITTED. THESE COMPONENTS ARE REQUIRED FOR BUILDINGS SUPPORTING TWO OR MORE TOLLING MOVEMENTS.

3. THE AVI READER BACK PLANE MAY ONLY BE USED FOR BUILDINGS SUPPORTING A SINGLE TOLLING MOVEMENT.

NOT TO SCALE

EXHIBIT 283-9
01/01/2027

INTERIOR ELECTRICAL ELEVATIONS (1 OF 4)



INTERIOR ELEVATION

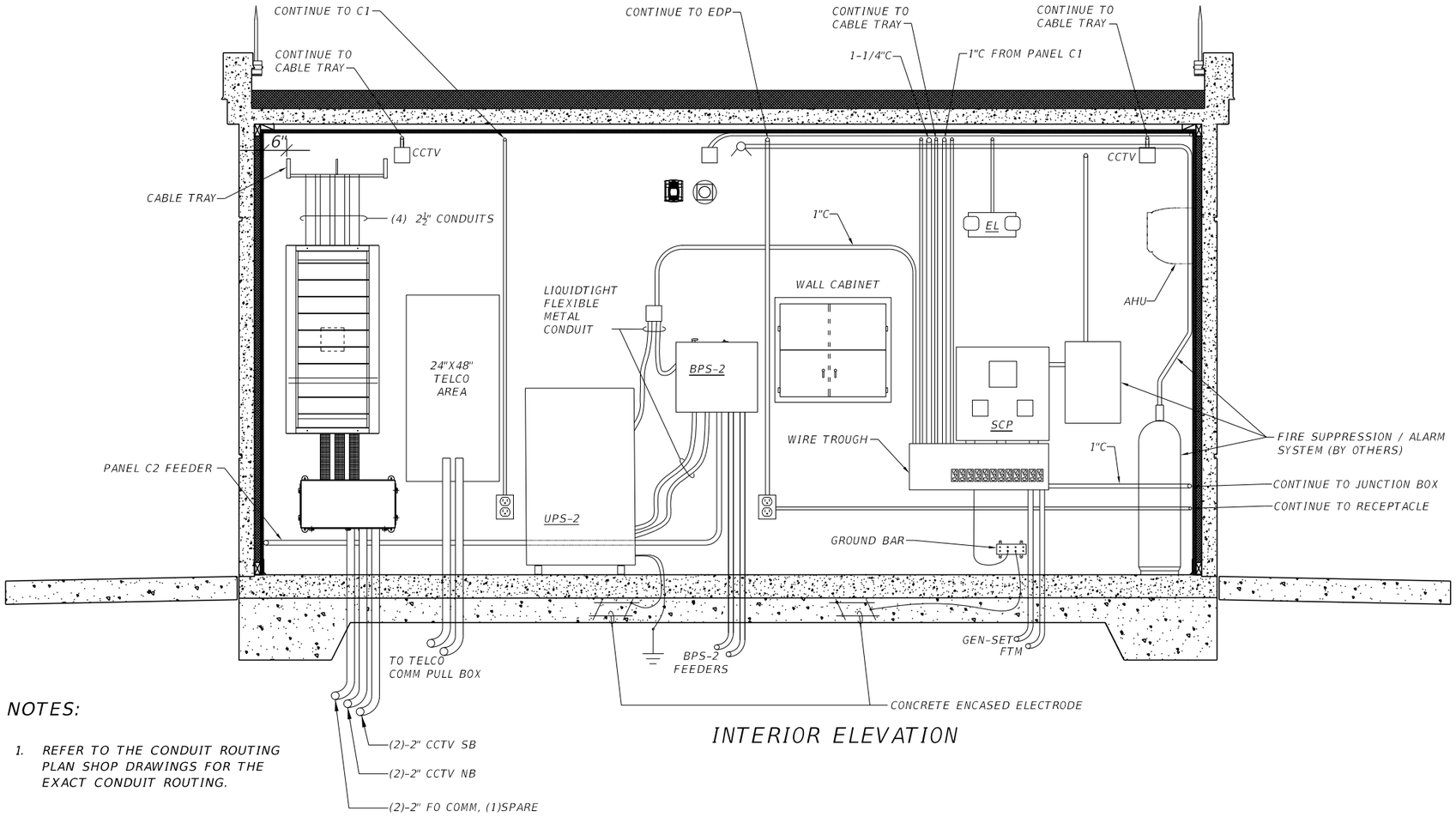
NOTES:

1. REFER TO THE CONDUIT ROUTING PLAN SHOP DRAWINGS FOR THE EXACT CONDUIT ROUTING.

NOT TO SCALE

EXHIBIT 283-10
01/01/2027

INTERIOR ELECTRICAL ELEVATIONS (2 OF 4)



INTERIOR ELEVATION

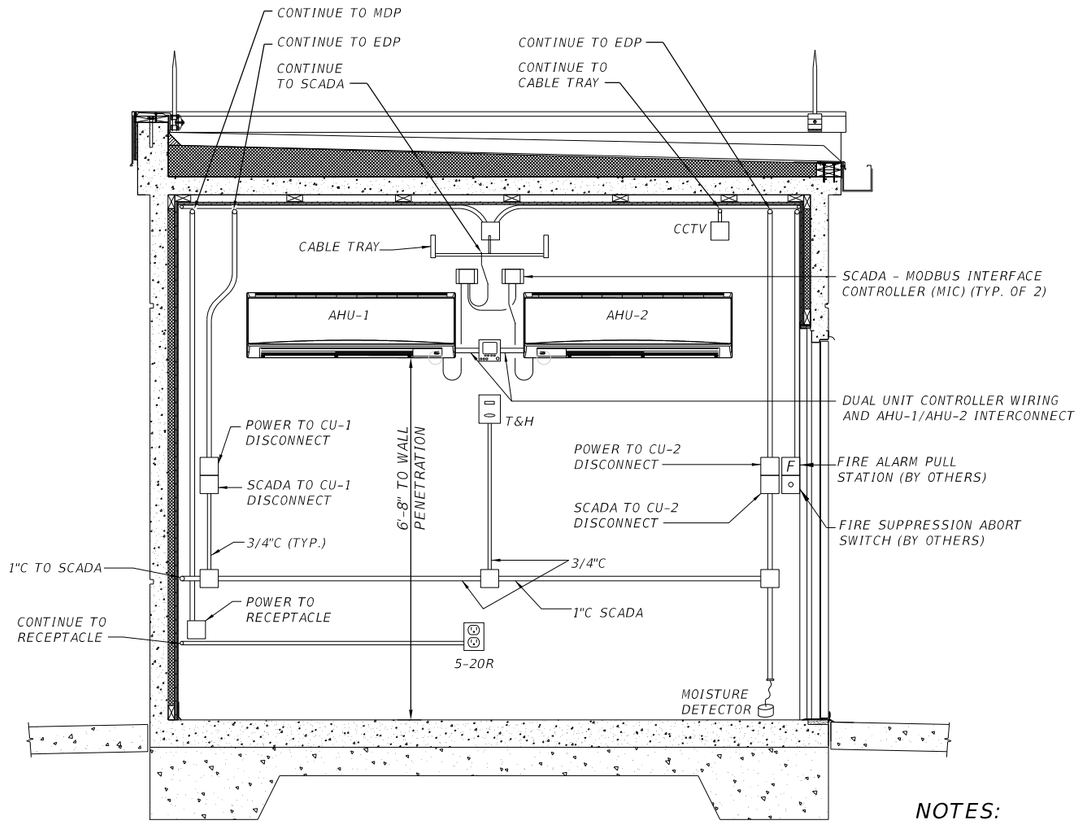
NOTES:

1. REFER TO THE CONDUIT ROUTING PLAN SHOP DRAWINGS FOR THE EXACT CONDUIT ROUTING.

NOT TO SCALE

EXHIBIT 283-11
01/01/2027

INTERIOR ELECTRICAL ELEVATIONS (3 OF 4)



INTERIOR ELEVATION

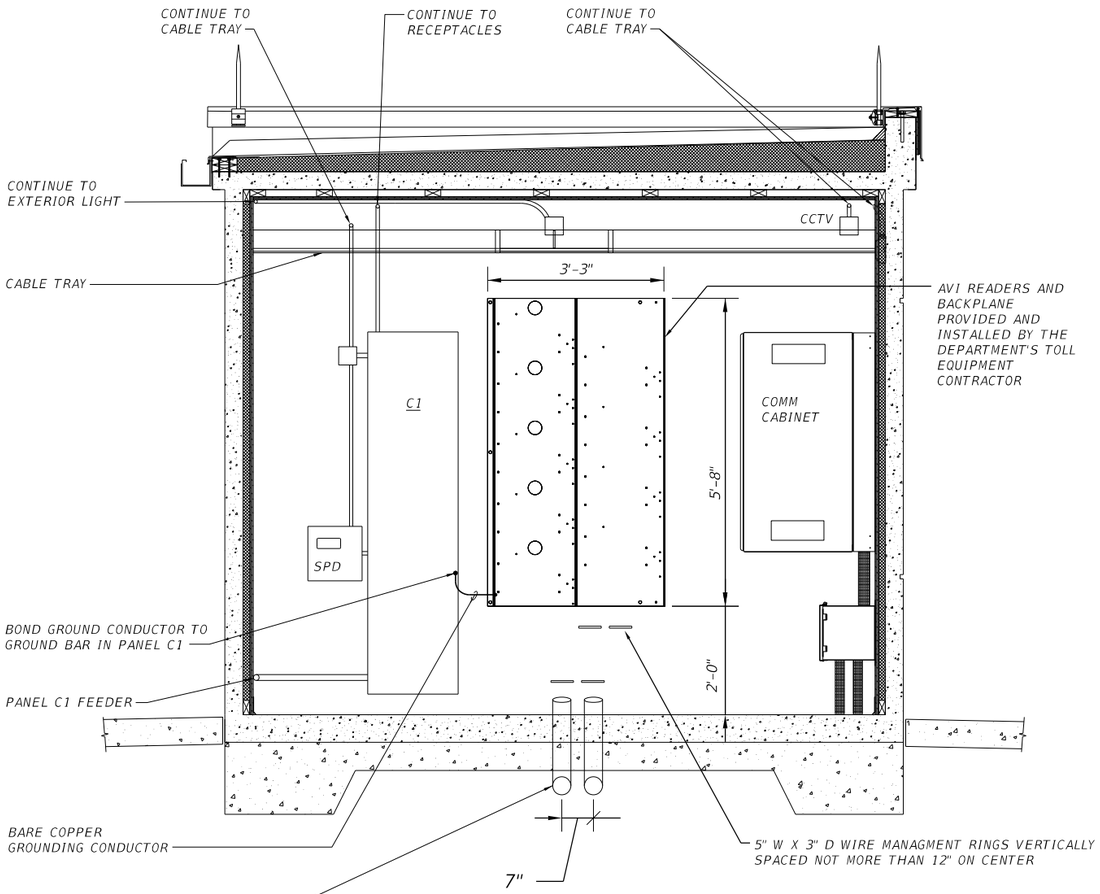
NOTES:

1. REFER TO THE CONDUIT ROUTING PLAN SHOP DRAWINGS FOR THE EXACT CONDUIT ROUTING.

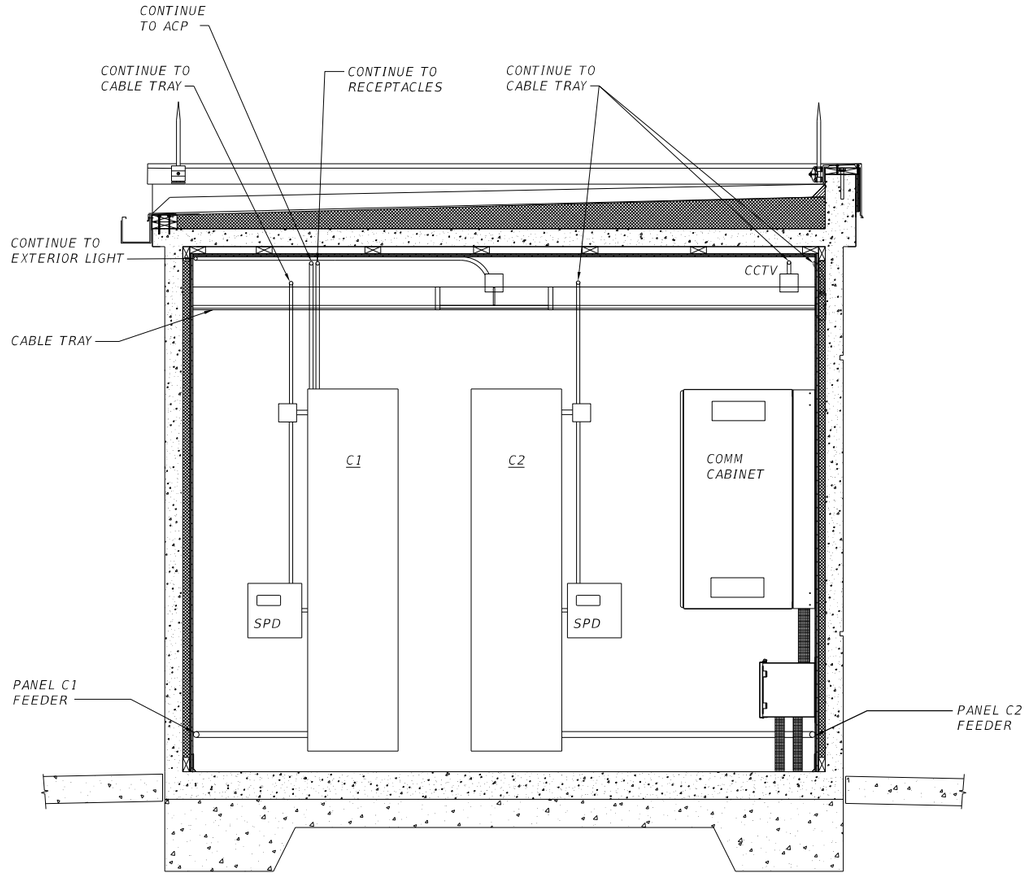
NOT TO SCALE

EXHIBIT 283-12
01/01/2027

INTERIOR ELECTRICAL ELEVATIONS (4 OF 4)



INTERIOR ELEVATION – AVI OPTION



INTERIOR ELEVATION – C2 OPTION

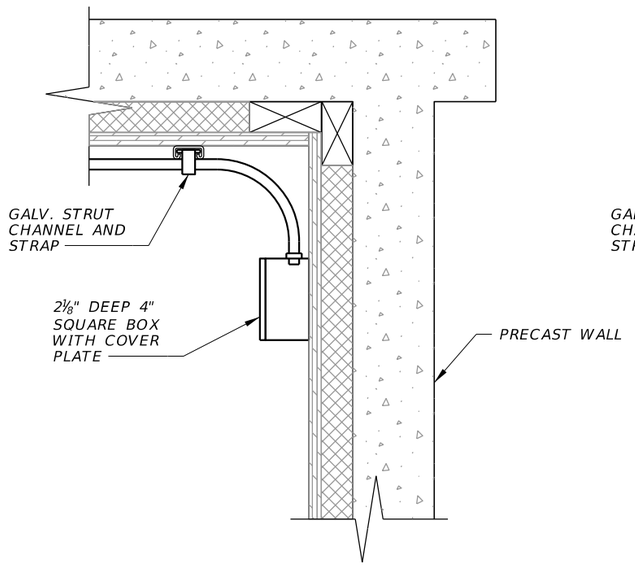
NOTES:

1. AVI OPTION IS ONLY AVAILABLE FOR SINGLE TOLLING MOVEMENT FACILITIES.
2. BLANK OPTION IS AVAILABLE WHICH PROVIDES NO PANEL C2 OR E6 BACKPLANE. (NOT SHOWN.)
3. REFER TO THE CONDUIT ROUTING PLAN SHOP DRAWINGS FOR THE EXACT CONDUIT ROUTING.

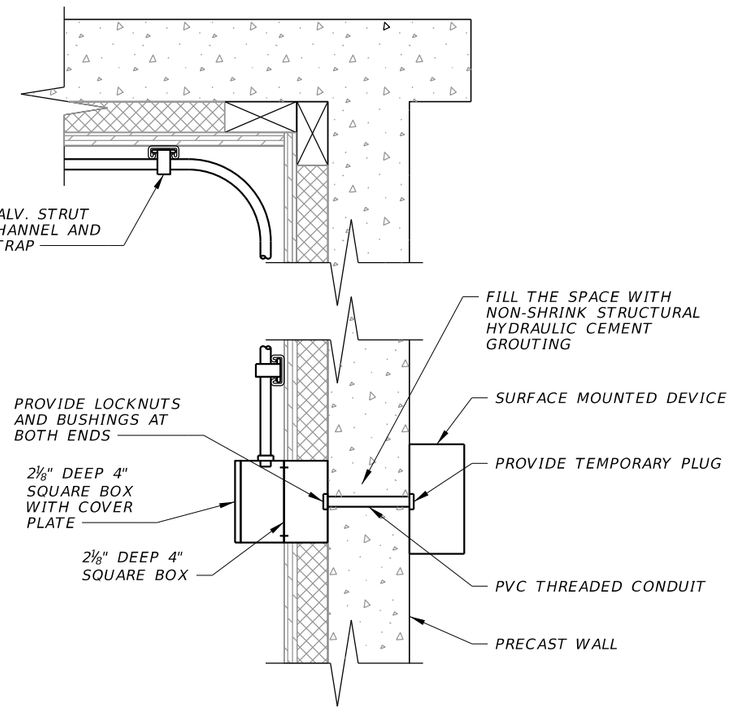
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EXHIBIT 283-13
01/01/2027

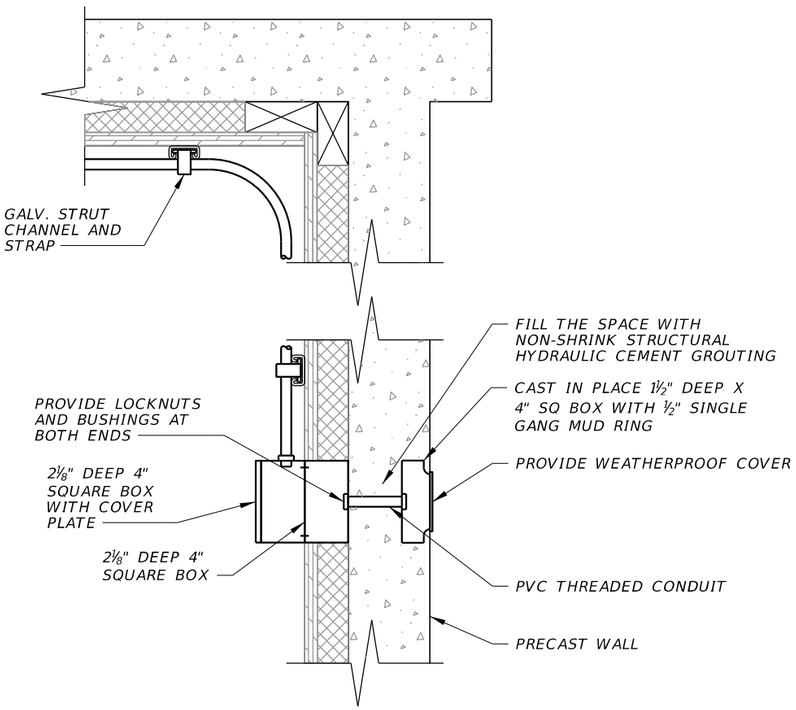
WALL MOUNTED WIRING DEVICE DETAILS



SURFACE MOUNTED INTERIOR DEVICE



SURFACE MOUNTED EXTERIOR DEVICE

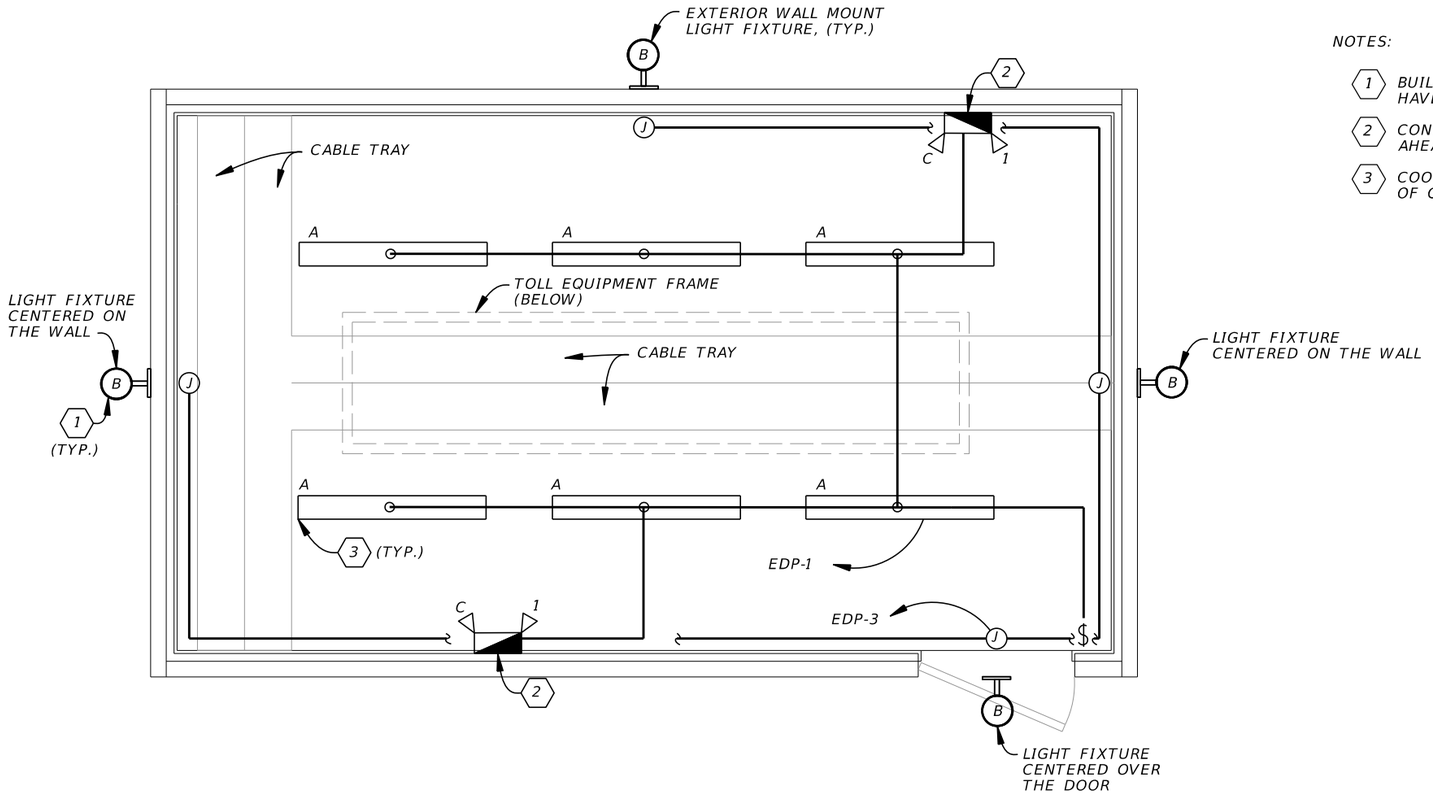


RECESSED MOUNTED EXTERIOR DEVICE

NOT TO SCALE

EXHIBIT 283-14
01/01/2027

TEB LIGHTING



NOTES:

1. BUILDING-MOUNTED LIGHT FIXTURE TYPE 'B' MUST HAVE AN INTEGRAL PHOTOCELL.
2. CONNECT EMERGENCY LIGHTS TO LOCAL AREA LIGHTING CIRCUIT AHEAD OF ALL SWITCHING DEVICES.
3. COORDINATE LOCATION AS TO NOT INTERERE WITH INSTALLATION OF CABLE TRAY.

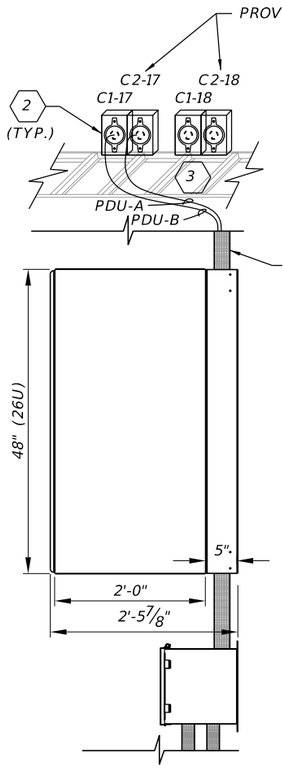
LIGHTING FIXTURE SCHEDULE

Type/Mark	MANUFACTURER AND CATALOG NO.	DESCRIPTION	VOLTAGE	LAMPS	MOUNTING	REMARKS
A	LITHONIA #LBL4-4000LM-80CRI-40K-NODIM OR COLUMBIA LIGHTING #LAW4-40MW-EU OR APPROVED EQUAL	LITHONIA - 4' LENGTH LED WRAPAROUND 32W OR COLUMBIA - 4' LENGTH LED WRAPAROUND 31W OR APPROVED EQUAL	120	4000K	8'-6" AFF TO BOTTOM OF FIXTURE PENDANT MOUNTED	COORDINATE MOUNTING HEIGHT WITH TOP OF TOLLING CABINET
B	KENNALL #MRI3EL-PP-DB-10L35K-120-BPC OR APPROVED EQUAL	HIGH ABUSE DIECAST ALUMINUM WALL MTD, 10W, 3500K LED, DARK BRONZE FINISH OR APPROVED EQUAL	120	10L35K	WALL SURFACE MTD 9'-0" AFF	FOR WET LOCATION SEE ARCHITECTURAL ELEVATIONS
C	LITHONIA ELMLT W LP06VS LTP SD, OR HUBBELL DUAL-LITE EV-2 OR APPROVED EQUAL	LITHONIA BATTERY PACK EMERGENCY LIGHT, 5.4W, LED, WHITE OR HUBBELL BATTERY PACK EMERGENCY LIGHT, (2) 1W LED HEADS OR APPROVED EQUAL	120	W/UNIT	WALL SURFACE 2'-0" BELOW CEILING	

NOT TO SCALE

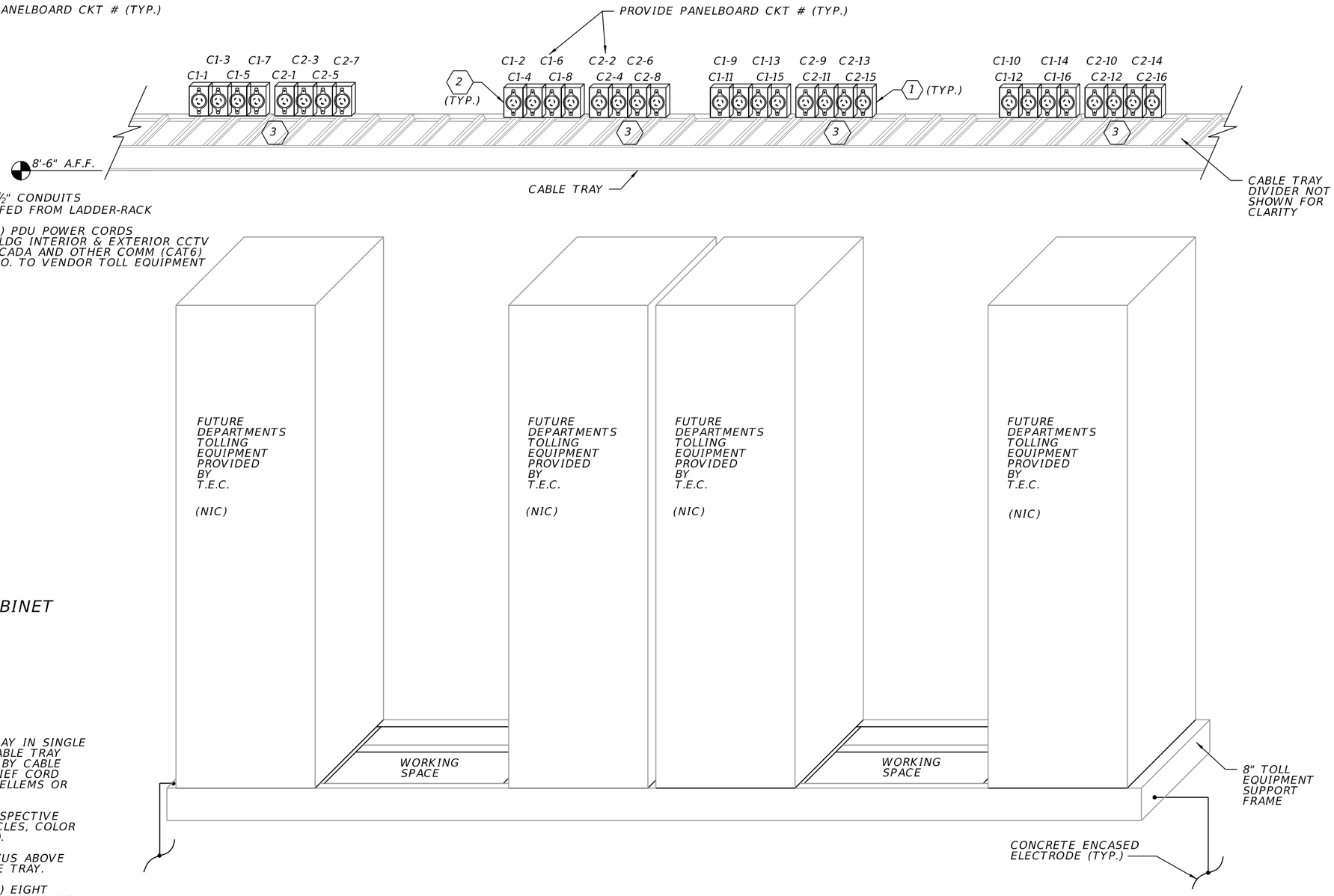
EXHIBIT 283-15
01/01/2027

RECEPTACLES OVER TOLLING EQUIPMENT



TOLL COMMUNICATIONS CABINET
(CRITICAL POWER)

1. (2) PDU POWER CORDS
2. BLDG INTERIOR & EXTERIOR CCTV
3. SCADA AND OTHER COMM (CAT6)
4. F.O. TO VENDOR TOLL EQUIPMENT



TOLL EQUIPMENT (CRITICAL POWER)

NOTES:

1. MOUNT RECEPTACLES TO TOP OF CABLE TRAY IN SINGLE GANG BACK BOX. SECURE BACK BOX TO CABLE TRAY WITH MOUNTING BRACKET MANUFACTURED BY CABLE TRAY MANUFACTURER. PROVIDE STRAIN RELIEF CORD GRIPS FOR CABLES ENTERING BACK BOX, KELLEMS OR EQUAL. BOND BACK BOX TO CABLE TRAY.
2. 120VAC 20A DEDICATED CIRCUITS FROM RESPECTIVE CRITICAL POWER PANEL. SIMPLEX RECEPTACLES, COLOR TO BE ORANGE, TWIST LOCK (NEMA L5-20R).
3. PROVIDE DROP-OUT FITTINGS WITH 4" RADIUS ABOVE EACH CABINET WHERE CABLES LEAVE CABLE TRAY.
4. EACH TOLL EQUIPMENT SPACE RECEIVES (8) EIGHT TWIST-LOCK RECEPTACLES IN THE POWER SECTION OF THE CABLE TRAY DIRECTLY ABOVE. THE QUANTITIES OF TOLL EQUIPMENT SPACES MAY VARY BETWEEN 1 AND 4; THEREFORE, THE QUANTITY OF ASSOCIATED CABLE TRAY-MOUNTED RECEPTACLES WILL VARY AND MUST BE PLACED AT THE LOCATION SHOWN WHEN APPLICABLE.

NOT TO SCALE

EXHIBIT 283-16
01/01/2027

SCADA RISER DIAGRAM (1 OF 2)

NOTES:

1. ALL CABLES AND CONDUCTORS INSTALLED IN CONDUIT BELOW GRADE SHALL BE LISTED FOR USE IN WET LOCATIONS OR LISTED FOR DIRECT BURIAL INSTALLATION.
2. DATA WIRING AND POWER WIRING MUST BE RUN IN SEPARATE CONDUITS.
3. THE CONTRACTOR-INSTALLED SCADA ROUGH-IN MUST BE INSPECTED BY THE DEPARTMENT PRIOR TO ACCEPTANCE.

NOTES (CONTINUED):

1. LINE SIDE CURRENT AND VOLTAGE SENSING. FACTORY INSTALLED CLASS B CURRENT TRANSFORMERS WITH 0-5 AMP SECONDARY FOR EACH PHASE WITH CT SHORTING BLOCK. FACTORY INSTALLED VOLTAGE SENSING FOR EACH PHASE AND NEUTRAL WITH A FUSED TERMINAL BLOCK.
2. CONTACTS TO MONITOR THE POSITION OF THE CIRCUIT BREAKER. AUXILIARY CONTACTS CLOSE WHEN THE BREAKER IS CLOSED AND OPEN WHEN THE BREAKER IS OPEN.
3. LINE SIDE CURRENT AND VOLTAGE SENSING. FIELD INSTALLED, CLASS B CURRENT TRANSFORMERS WITH 0-5 AMP SECONDARY FOR EACH PHASE WITH CT SHORTING BLOCK. ALSO FIELD INSTALL VOLTAGE SENSING FOR EACH PHASE AND NEUTRAL WITH A FUSED TERMINAL BLOCK.
4. BRANCH CIRCUIT MONITOR, FACTORY INSTALLED.
5. CONTROLLER CAPABLE OF REMOTELY OPERATING THE TOLLING SYSTEM BRANCH CIRCUIT BREAKERS IN THE CLEAN POWER PANEL.
6. FINAL CONNECTION MUST BE RUN OVERHEAD UTILIZING THE LADDER TYPE CABLE TRAY, THEN TO THE COMMUNICATION CABINET.
7. AUXILIARY CONTACTS TO MONITOR THE POSITION OF THE ATS. CONTACTS ARE CLOSED WHEN THE ATS IS IN NORMAL POSITION AND OPEN WHEN ATS IS IN EMERGENCY POSITION.
8. NETWORK INTERFACE CARD IN THE UPS. COMMUNICATES WITH THE NETWORK ROUTER BY ETHERNET PROTOCOL. MONITORS THE UPS PARAMETERS AND ALARMS, BY-PASS CONDITION AND BATTERY CONDITION.
9. PROVIDE MONITORING, PER MANUFACTURERS SPECIFICATIONS, OF THE EXTERNAL UPS MAINTENANCE BYPASS SWITCH POSITION.
10. SCADA CONTROL PANEL.
11. SURGE PROTECTION DEVICE. DIN RAIL MOUNTED. ALL EXTERIOR METALLIC WIRING RUNS ENTERING THE BUILDING MUST BE CONNECTED FIRST TO A SPD, PRIOR TO ANY EQUIPMENT CONNECTION WITHIN THE TOLL EQUIPMENT BUILDING.
12. MOISTURE DETECTOR - FLOOR MOUNTED UNDER SCP. TIP OF SENSOR MUST TOUCH THE FLOOR.

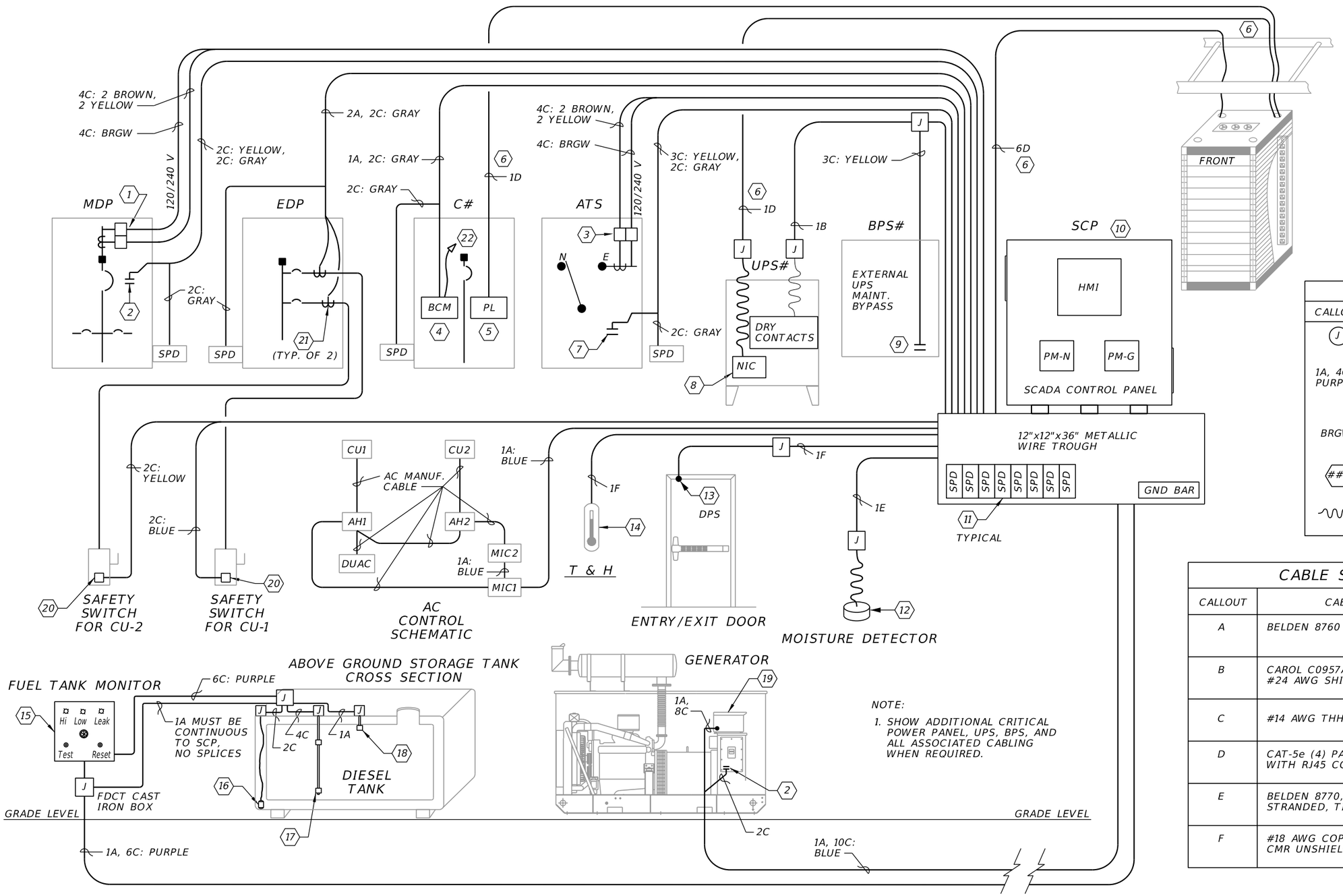
NOTES (CONTINUED):

13. DOOR POSITION SWITCH. PRE-INSTALLED AS PART OF THE ACCESS CONTROL SYSTEM. MOUNTED ON THE SECURE SIDE OF THE DOOR.
14. TEMPERATURE AND HUMIDITY SENSOR, WALL MOUNTED AT +6 FT. ADJACENT TO THE DUAL UNIT AC CONTROLLER (DUAC).
15. FUEL TANK MONITOR - THE SCADA SYSTEM MONITORS THE FUEL TANK LEAK DETECTOR ALARM CONTACTS AND THE ANALOG FUEL LEVEL SENSOR 4-20 MILLIAMP SIGNAL.
16. FUEL TANK LEAK ALARM.
17. FUEL LEVEL MONITOR WITH ONE HIGH LEVEL FLOAT SWITCH AND ONE LOW LEVEL FLOAT SWITCH.
18. ULTRASONIC FUEL LEVEL SENSOR, INTRINSICALLY SAFE WITH 24 VDC INPUT, AND 4-20 mA ANALOG OUTPUT SIGNAL. FUEL LEVEL ACCURACY OF 0.125" AND AN ENCLOSURE RATING IP68. INCLUDE AN FOB USB ADAPTOR TO CONFIGURE THE SENSOR. INSTALL THE SENSOR IN A 2" NPT PORT.
19. GENERATOR CONTROLLER - COMMUNICATES WITH SCADA SYSTEM BY MODBUS RTU PROTOCOL TO MONITOR EMERGENCY POWER V, A, W, Hz, pf, ALL GENERATOR ALARMS, LOW BATTERY VOLTS, LOSS OF BATTERY CHARGER AC POWER, GENERATOR START/STOP CONTROL, AND RUN RELAY.
20. 240 VAC VOLTAGE MONITOR RELAY CONNECTED TO THE LOAD SIDE OF THE FUSED SAFETY SWITCH FOR EACH AIR CONDITIONER. THE SCADA CONTROLLER WILL MONITOR THE POSITION OF THE RELAY CONTACTS. INSTALL VOLTAGE MONITOR. USE INSULATED TAP CONNECTORS TO TAP THE CONDUCTORS.
21. CURRENT TRANSDUCER TO MEASURE THE CURRENT IN THE BRANCH CIRCUIT OF EACH AIR CONDITIONER.
22. INSTALL A MODBUS COMMUNICATIONS CABLE (ONE PAIR #18 AWG, SHIELDED) AND EXTEND TO THE NEXT BCM IN PANEL C2. (WHEN REQUIRED)

NOT TO SCALE

EXHIBIT 283-17
01/01/2027

SCADA RISER DIAGRAM (2 OF 2)



NOTE:

1. SHOW ADDITIONAL CRITICAL POWER PANEL, UPS, BPS, AND ALL ASSOCIATED CABLING WHEN REQUIRED.

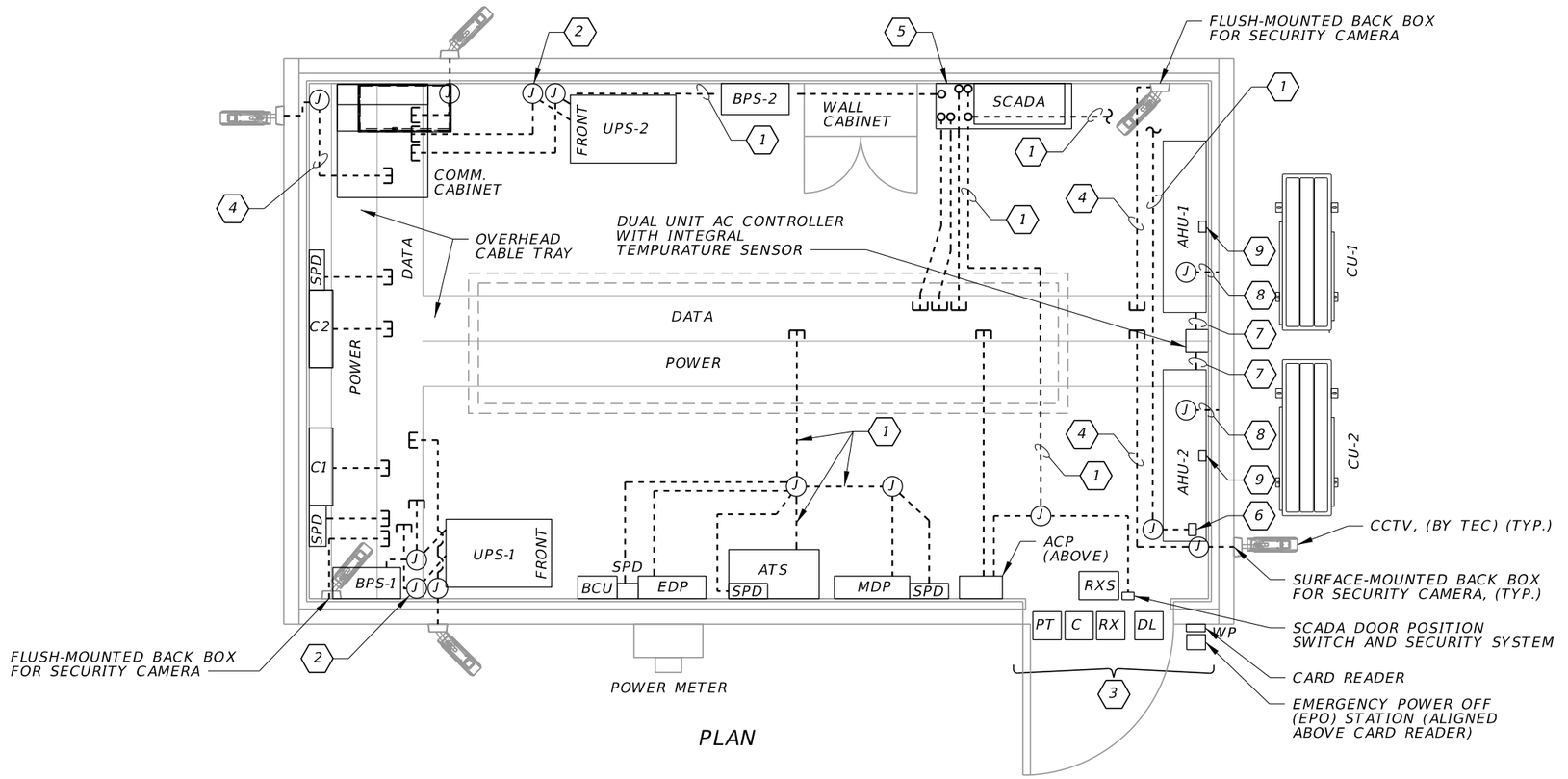
LEGEND	
CALLOUT	DESCRIPTION
(J)	JUNCTION BOX
1A, 4C: PURPLE	ONE TYPE A CABLE AND FOUR TYPE C CONDUCTORS WITH PURPLE COLOR INSULATION
BRGW	ONE BLACK, ONE RED, ONE GREEN, ONE WHITE COLORED CONDUCTORS
(##)	REFERENCE NOTE, SEE FDM EXHIBIT 283-17 FOR DETAILED DESCRIPTION
~~	CABLE NOT INSIDE CONDUIT

CABLE SCHEDULE	
CALLOUT	CABLE DESCRIPTION
A	BELDEN 8760 - (1) PAIR, #18 AWG SHIELDED
B	CAROL C0957A (9) CONDUCTORS, #24 AWG SHIELDED
C	#14 AWG THHN/THWN STRANDED COPPER
D	CAT-5e (4) PAIR SOLID, CMR CABLE, WITH RJ45 CONNECTORS
E	BELDEN 8770, (3) CONDUCTORS, #18 AWG, STRANDED, TINNED COPPER
F	#18 AWG COPPER, (4) CONDUCTORS, CMR UNSHIELDED

NOT TO SCALE

EXHIBIT 283-18
01/01/2027

TEB SCADA AND SECURITY SYSTEM PLAN



PLAN

KEY NOTES:

1. CONDUIT FOR SCADA CONNECTIONS.
2. SINGLE GANG BACK BOX AND 1"C. ROUTED TO DATA SIDE OF CABLE TRAY FOR UPS NETWORK CONNECTIONS. LOCATE BACK BOX NOT MORE THAN 12" FROM UPS NETWORK TERMINATIONS.
3. SECURITY ACCESS EQUIPMENT.
4. 1"C (DATA) FOR CCTV CAMERA. CONDUIT TO BE ROUTED FROM J-BOX TO CABLE TRAY. COORDINATE EXACT LOCATION WITH DEPARTMENT.
5. PAINTED STEEL WIRING THROUGH. PROVIDE (2) 3" NIPPLES BETWEEN TOP OF WIRING THROUGH AND BOTTOM OF SCADA CONTROL PNL (SCP).
6. MOISTURE DETECTOR.
7. CONDUCTORS AND CONDUIT. (AC DUAL UNIT CONTROLLER WIRING).
8. CONDUCTORS AND CONDUIT. (AHU-1/AHU-2 INTERCONNECT).
9. BACnet/MODBUS INTERFACE CONTROLLER BOARD.

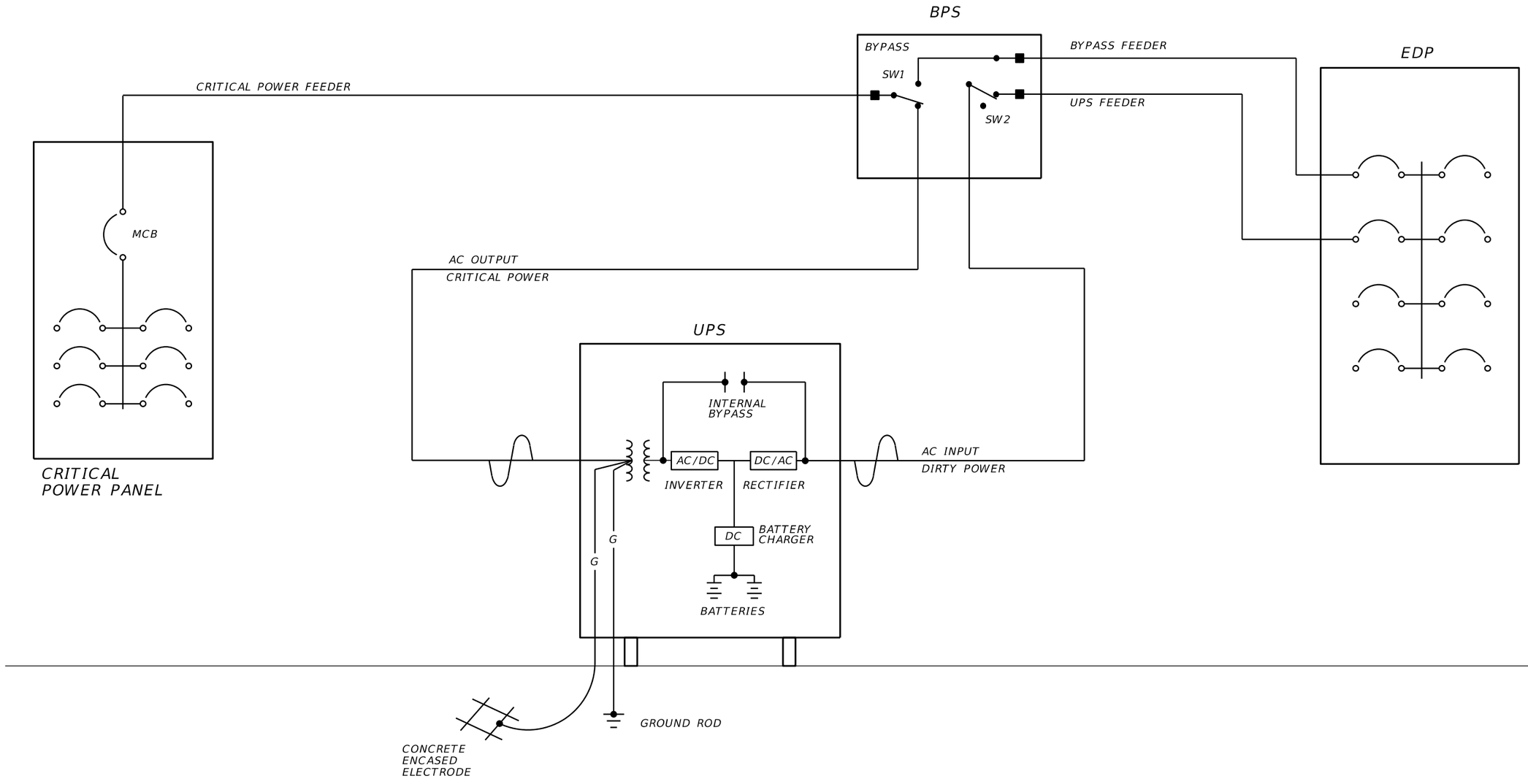
NOTE:

WALL-MOUNTED EQUIPMENT MUST BE SECURED TO WALL VIA UNISTRUT SUPPORTS.

NOT TO SCALE

EXHIBIT 283-19
01/01/2027

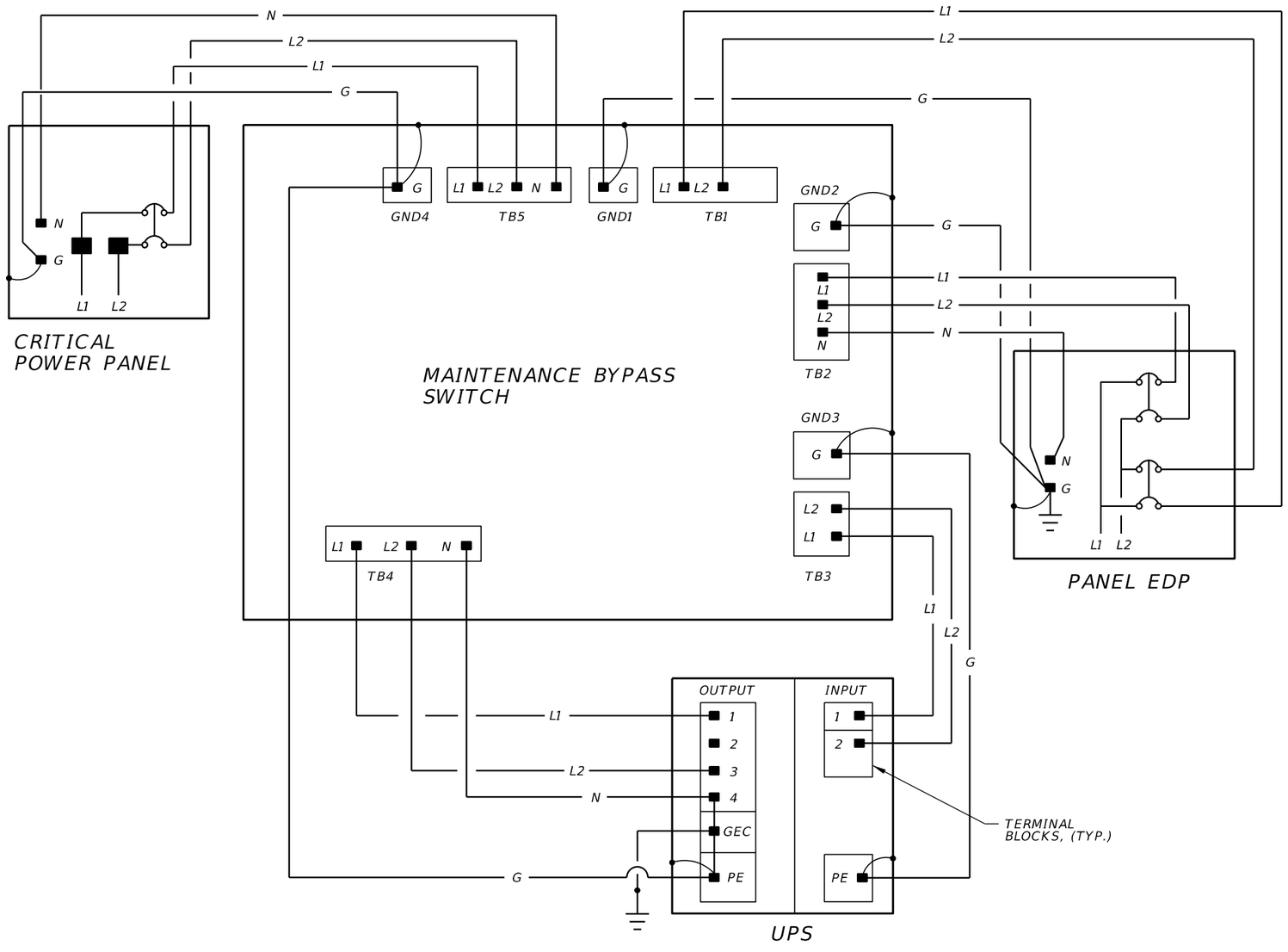
UPS AND BPS RISER DIAGRAM (1 OF 2)



NOT TO SCALE

EXHIBIT 283-20
01/01/2027

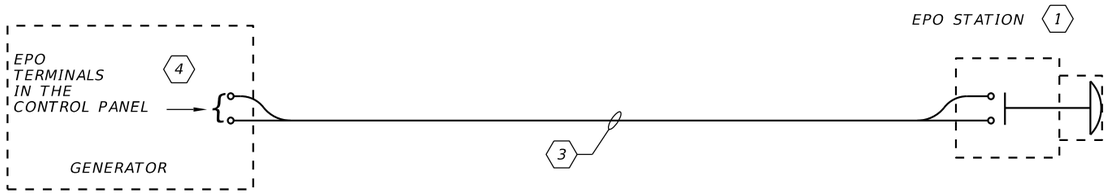
UPS AND BPS RISER DIAGRAM (2 OF 2)



NOT TO SCALE

EXHIBIT 283-21
01/01/2027

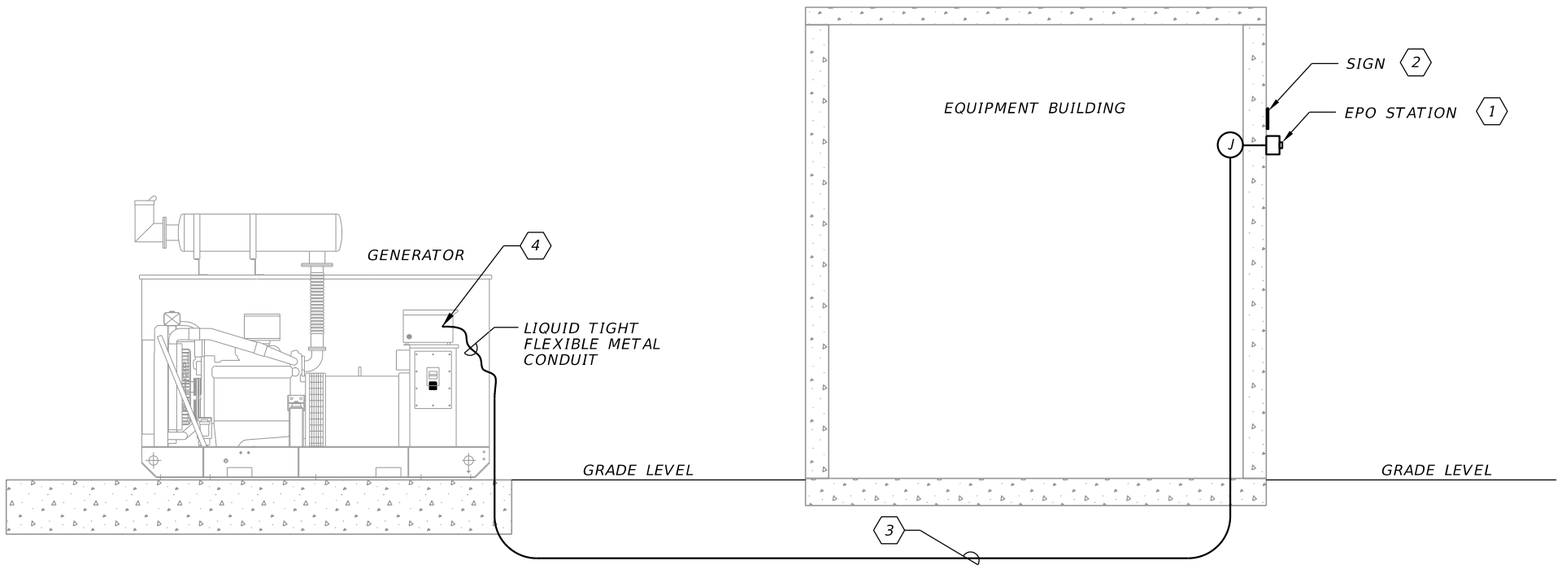
EPO RISER AND WIRING DIAGRAM



EMERGENCY POWER OFF WIRING DIAGRAM

NOTES:

1. EPO STATION MOUNTED 6 FT ABOVE GRADE ON THE OUTSIDE WALL ADJACENT TO THE TOLL EQUIPMENT BUILDING DOOR.
2. INSTALL AN ALUMINUM SIGN WITH RED FIELD DIRECTLY ABOVE THE EPO STATION.
3. (1) PAIR OF #18AWG SHIELDED CABLE IN 1"C TO EPO.
4. EMERGENCY POWER OFF TERMINALS ON THE GENERATOR.



EMERGENCY POWER OFF RISER DIAGRAM

NOT TO SCALE

EXHIBIT 283-22
01/01/2027

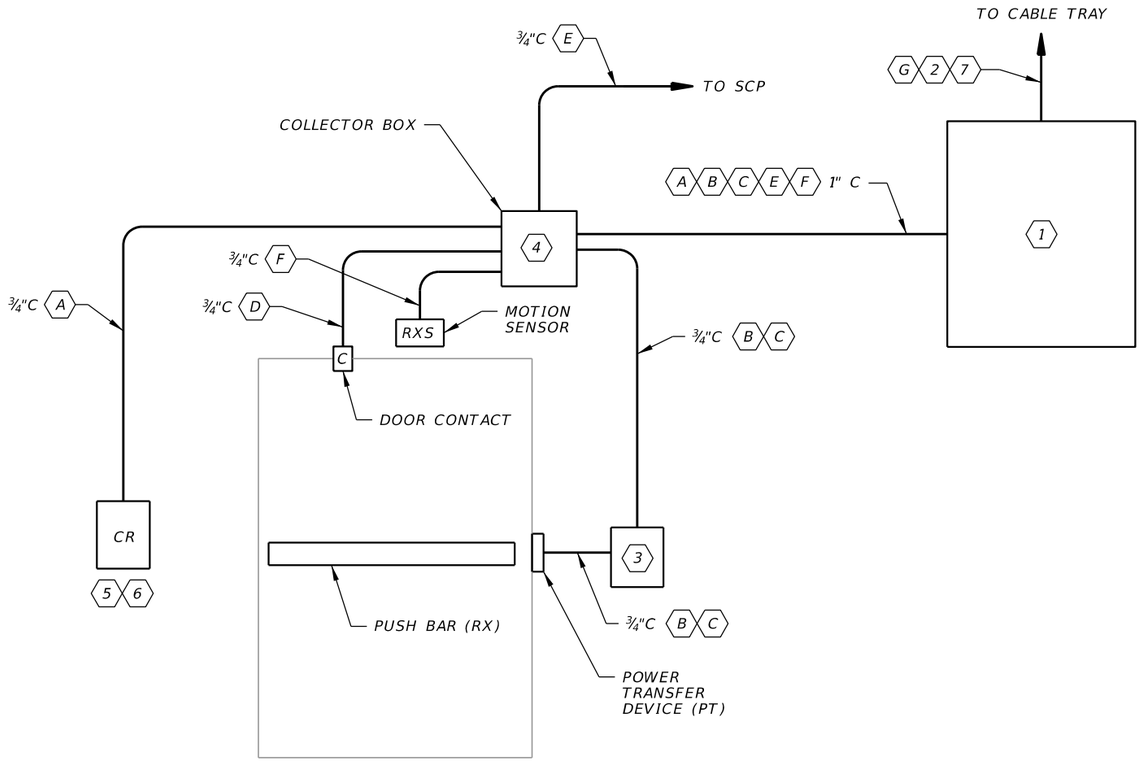
ACCESS CONTROL DETAILS

NOTES:

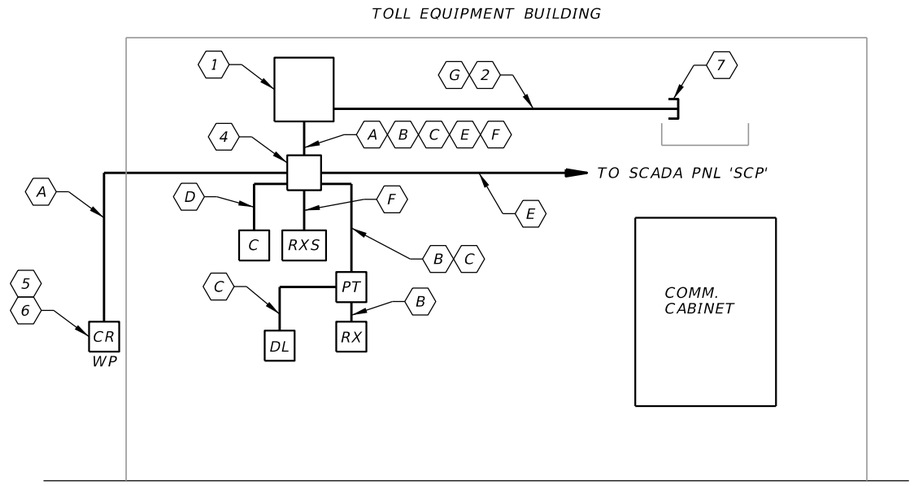
1. ACCESS CONTROL PANEL ENCLOSURE 20"Wx24"H, HINGED DOOR AND BACK PANEL.
2. 1"C.
3. 4" SQUARE, SURFACE MOUNTED BOX WITH BLANK PLATE.
4. 6" X 6" X 3" METAL JUNCTION BOX. MOUNT ON SECURE SIDE ABOVE DOOR.
5. BACK BOXES FOR CARD READERS MUST BE MOUNTED 48" AFF.
6. BACK BOXES FOR EXTERIOR CARD ACCESS DEVICES MUST BE SINGLE GANG AND FLUSH MOUNTED.
7. STUB CONDUIT OVER CABLE TRAY. PROVIDE INSULATED THROAT GROUNDING BUSHING ON END OF CONDUIT AND BOND CONDUIT TO CABLE TRAY WITH #6 AWG BARE COPPER GROUNDING CONDUCTOR.

NOTES:

1. PROVIDE DOOR MOUNTED SECURITY/ACCESS CONTROL DEVICE, OUTLET BOXES, WIRING, ELECTRIC LEVER TRIM, ENCLOSURES AND ALL REQUIRED CABLING.
2. CONDUCTORS MUST BE UNSHIELDED, STRANDED UON.



SECURITY/ACCESS CONTROL BUILDING DOOR DETAIL - SECURE SIDE



SECURITY CARD ACCESS SYSTEM RISER DIAGRAM

LEGEND:

C	DOOR CONTACT
CR	CARD READER
DL	ELEC. LEVER TRIM
PT	POWER TRANSFER DEVICE
RX	REQUEST TO EXIT DEVICE
RXS	REQUEST TO EXIT SENSOR
SCP	SCADA CONTROL PANEL
WP	WEATHER PROOF

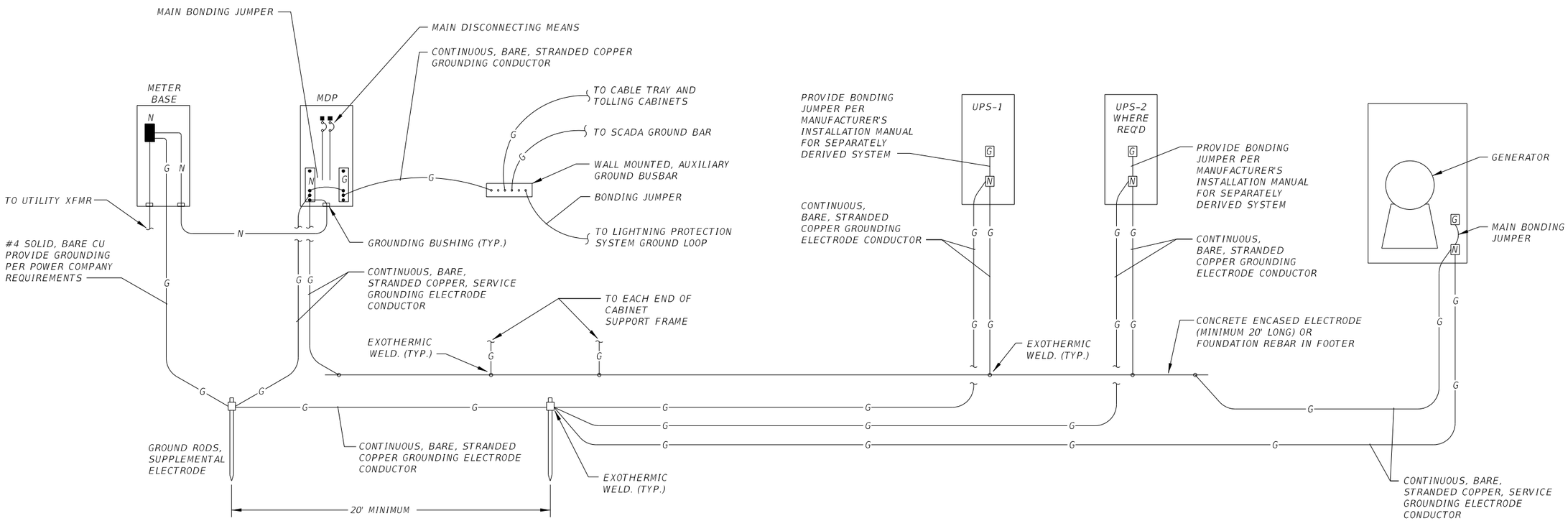
NOTES:

A	CARD READER:	18AWG-6 CONDUCTOR SHIELDED
B	REQUEST TO EXIT:	18AWG-4 CONDUCTOR
C	ELECTRIFIED LEVER TRIM:	18AWG-2 CONDUCTOR
D	DOOR CONTACT:	18AWG-4 CONDUCTOR (PROVIDED WITH DOOR CONTACT)
E	DOOR CONTACT:	18AWG-4 CONDUCTOR FOR SCADA
F	REQUEST TO EXIT INFRARED SENSOR:	18AWG-4 CONDUCTOR
G	ACP TO COMM. CABINET:	RJ45 CONNECTORS CMR CABLE, WITH CAT-5e 4 PAIR, UTP

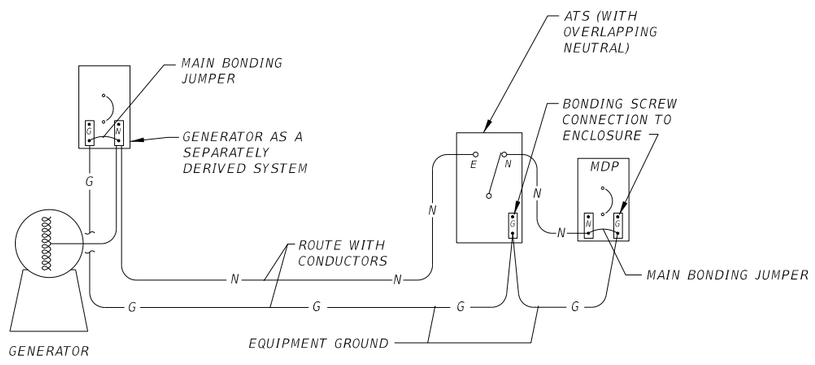
NOT TO SCALE

EXHIBIT 283-23
01/01/2027

TEB GROUNDING DETAILS



SERVICE ENTRANCE, UPS AND GENERATOR GROUND REQUIREMENTS

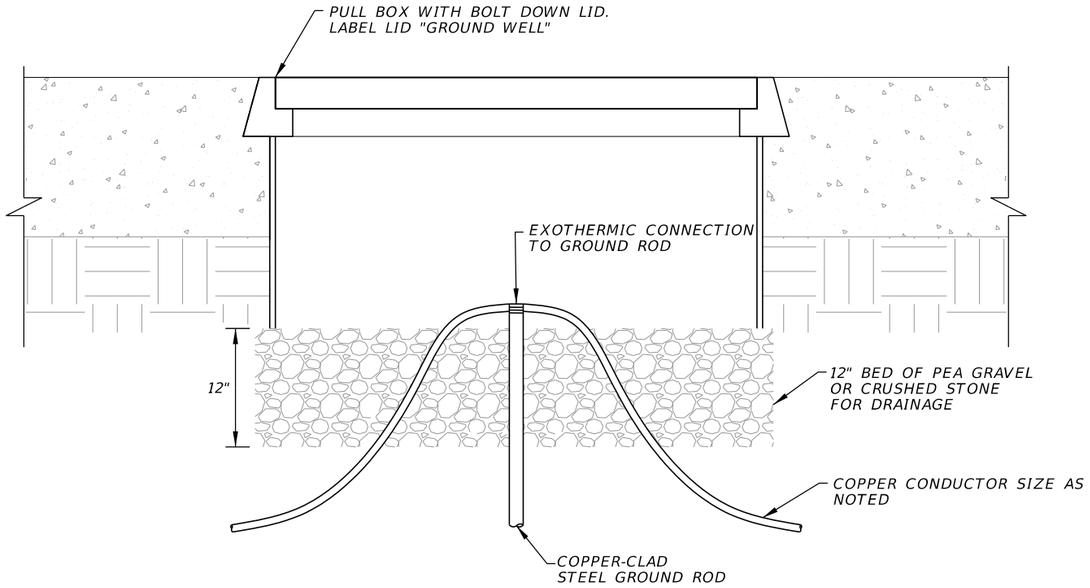


GROUND DETAIL

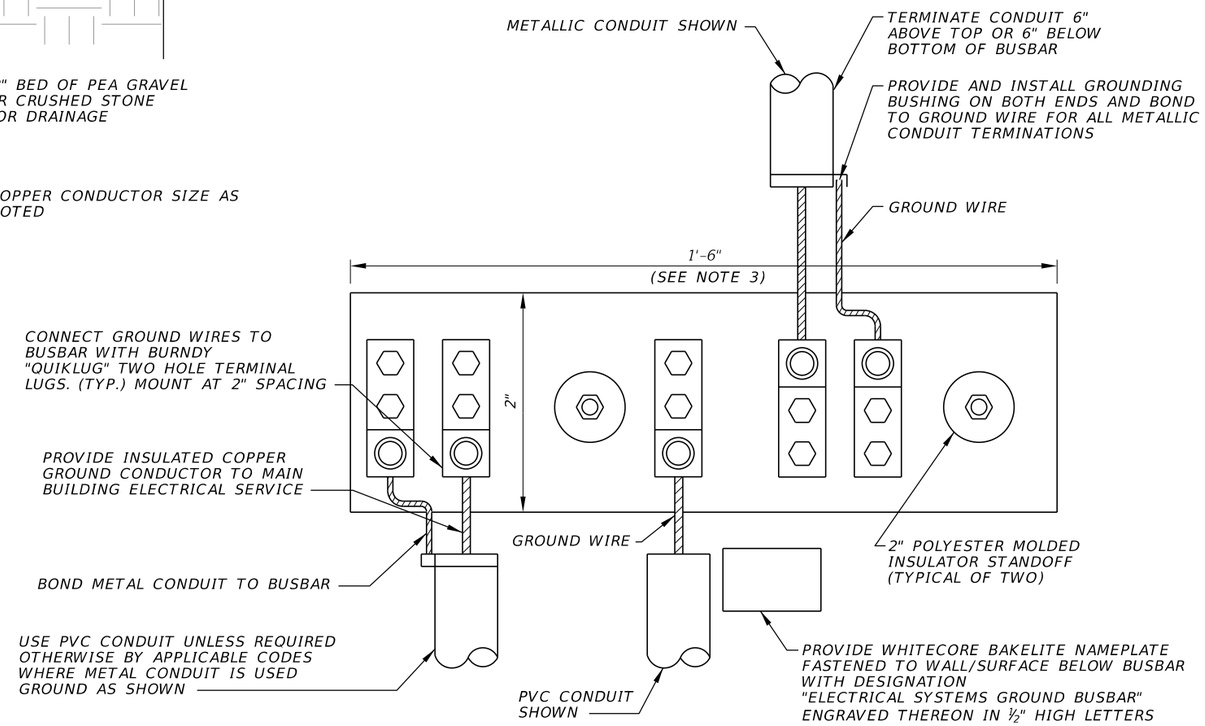
NOT TO SCALE

EXHIBIT 283-24
01/01/2027

GROUNDING DETAILS



GROUND INSPECTION WELL DETAIL



AUXILIARY GROUND BUSBAR DETAIL

NOTES:

1. ALL HARDWARE BOLTS, NUTS, WASHERS, ETC. MUST BE SOLID COPPER OR BRONZE.
2. COPPERPLATING IS NOT ACCEPTABLE. BUSBAR MUST BE FLAT COPPER.
3. INCREASE LENGTH AS REQUIRED FOR NUMBER OF CONNECTIONS. PROVIDE 2" SPACING BETWEEN LUGS.

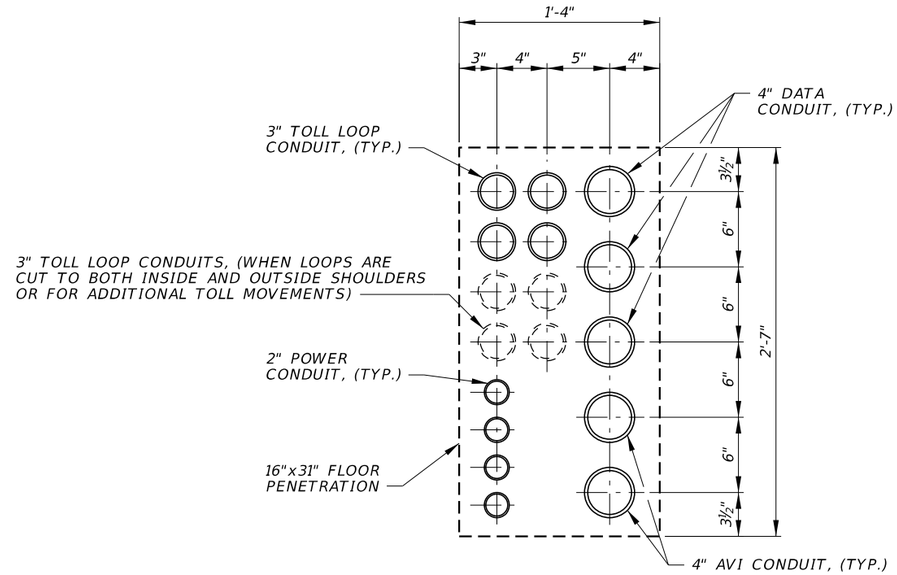
NOT TO SCALE

EXHIBIT 283-25
01/01/2027

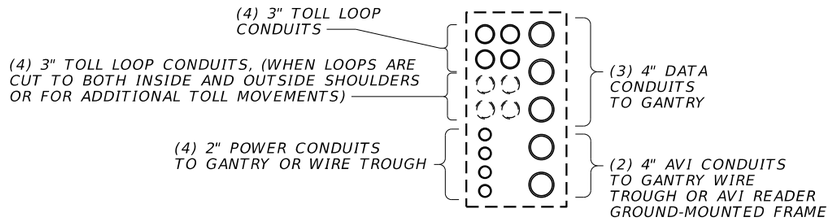
WORKING SPACE CONDUIT STUB-UP

NOTES:

1. CONDUIT BELOW CABINETS MUST BE STUBBED UP 1" AFF.
2. PROVIDE END BELL FITTINGS ON ALL PVC (LOOP) CONDUITS STUBBED UP IN THE WORKING SPACE.



PLAN

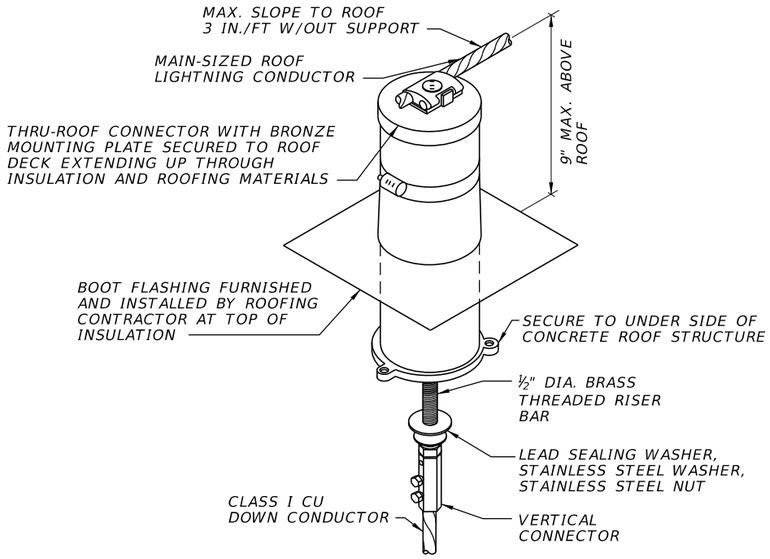


CONDUIT SCHEDULE

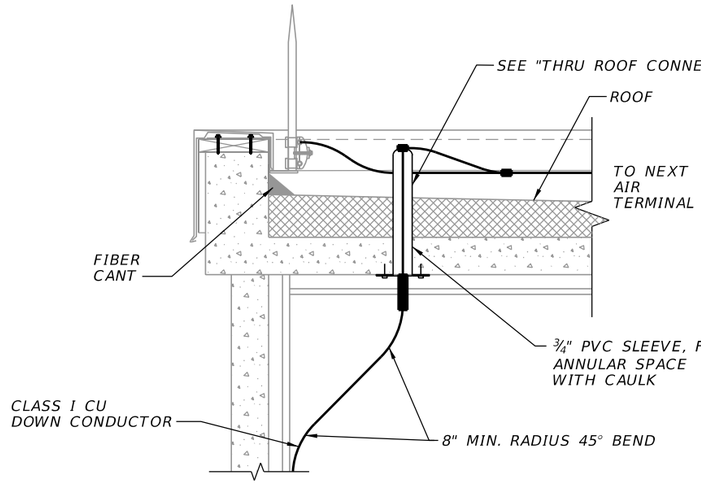
NOT TO SCALE

EXHIBIT 283-26
01/01/2027

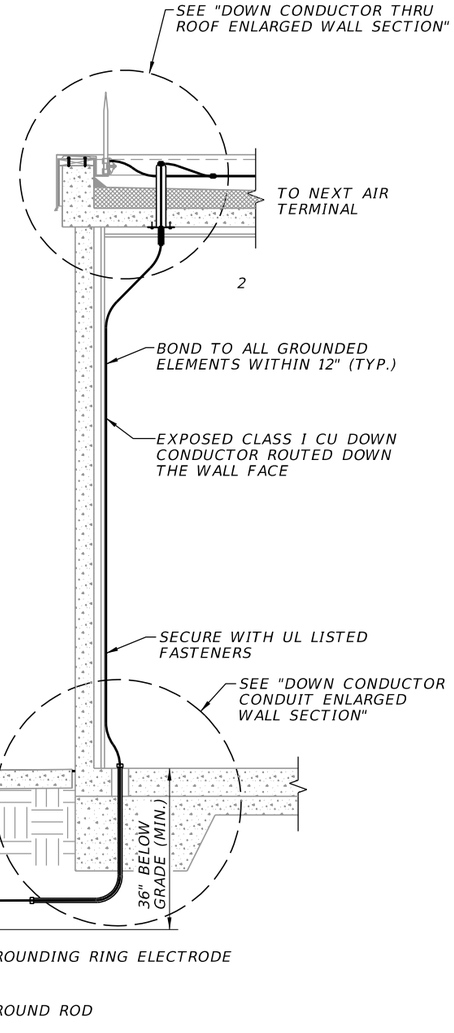
DOWN CONDUCTOR CONDUIT

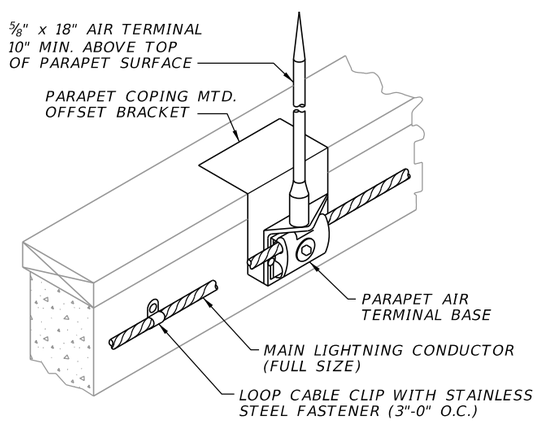


THRU ROOF CONNECTOR WITH FLASHING TUBE AND CABLE BASE

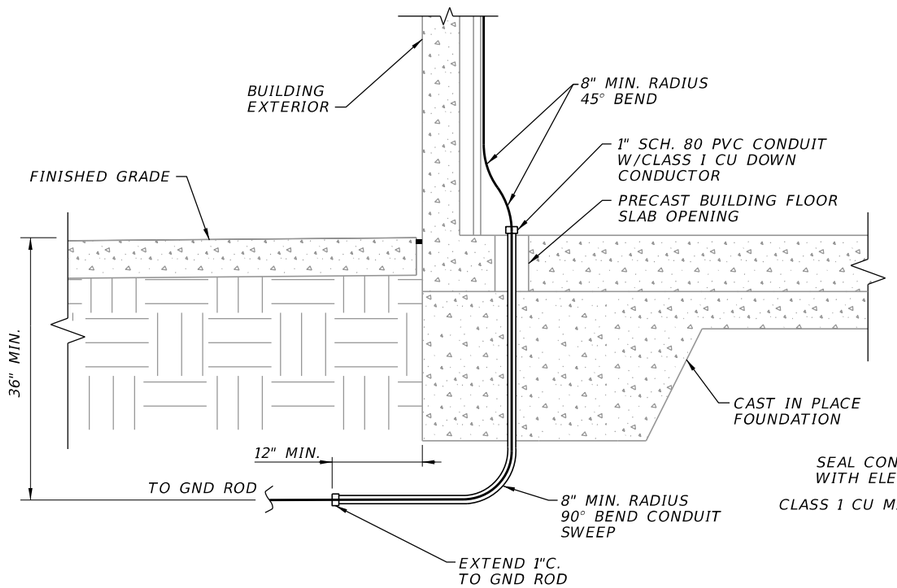


DOWN CONDUCTOR THRU ROOF ENLARGED WALL SECTION





PARAPET AIR TERMINAL DETAIL



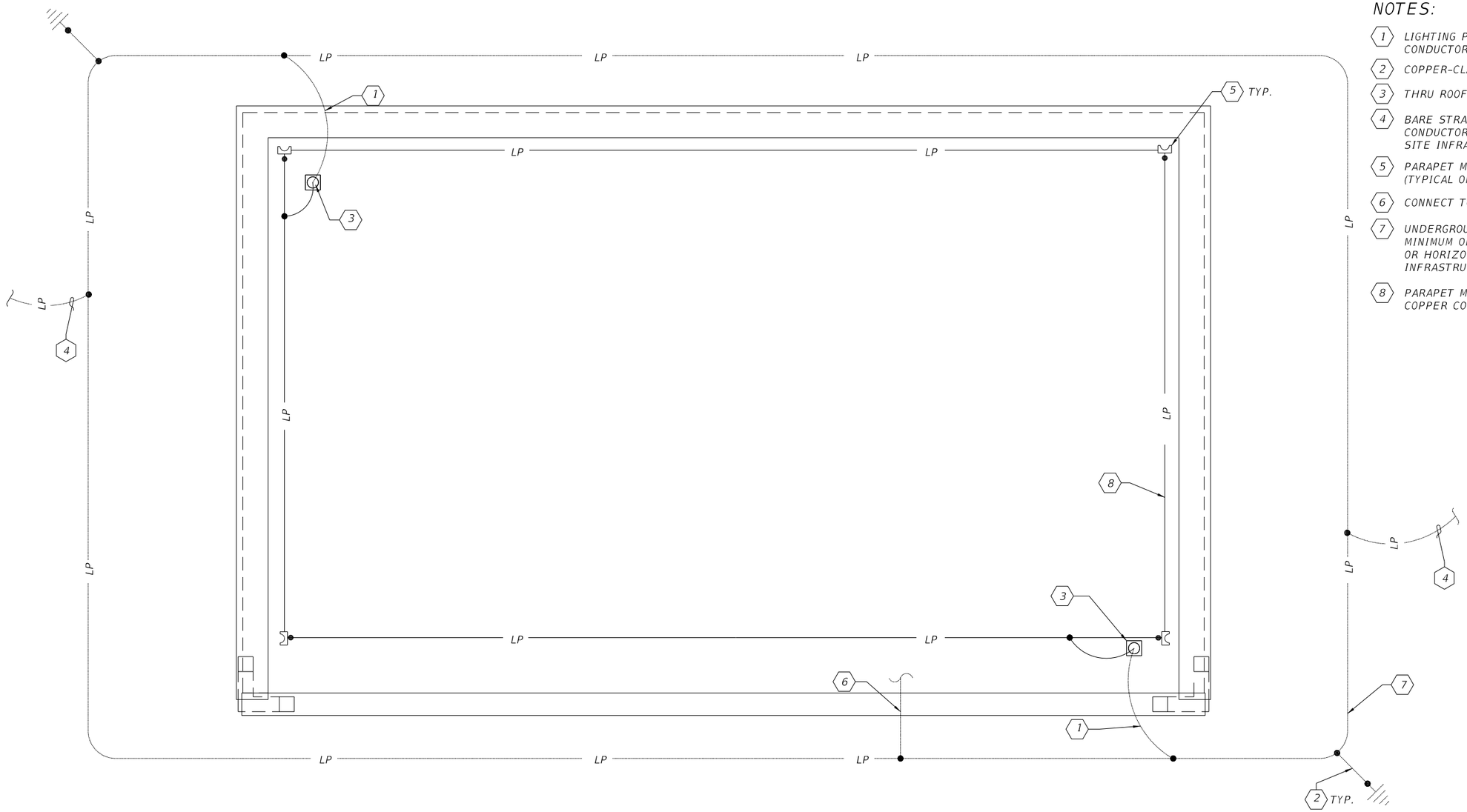
DOWN CONDUCTOR CONDUIT ENLARGED WALL SECTION

DOWN CONDUCTOR BUILDING WALL SECTION

NOT TO SCALE

EXHIBIT 283-27
01/01/2027

TEB LIGHTNING PROTECTION PLAN



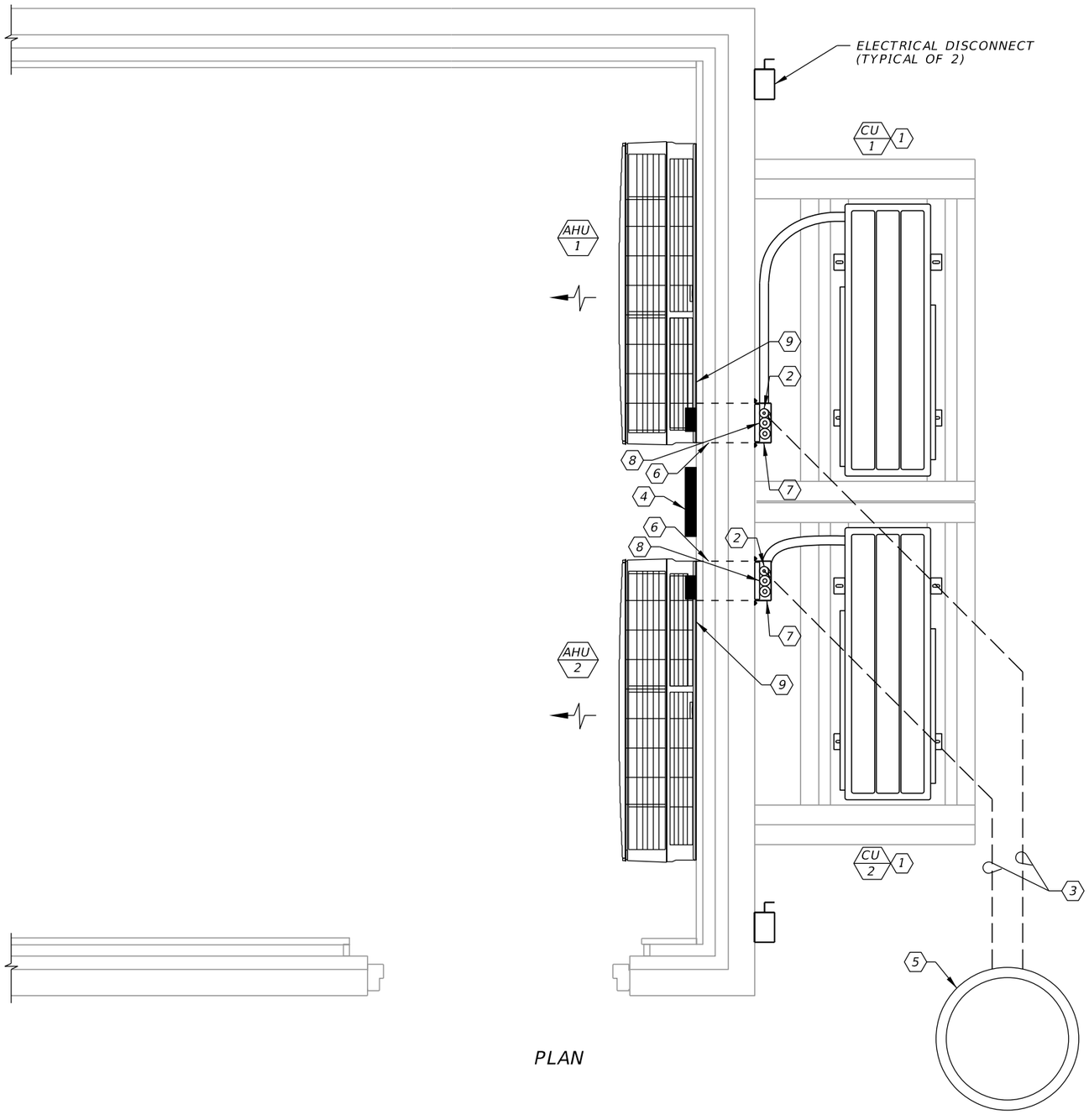
NOTES:

1. LIGHTING PROTECTION SYSTEM DOWN CONDUCTOR
2. COPPER-CLAD STEEL GROUND ROD
3. THRU ROOF PENETRATION
4. BARE STRANDED COPPER GROUND CONDUCTOR BURIED UNDERGROUND TO TOLL SITE INFRASTRUCTURE
5. PARAPET MOUNTED AIR TERMINAL (TYPICAL OF 5)
6. CONNECT TO AUXILLIARY GROUND BUS
7. UNDERGROUND COUNTER POISE LOOP MINIMUM OF 36" OF SEPARATION (VERTICAL OR HORIZONTAL) FROM TOLL INFRASTRUCTURE CONDUITS
8. PARAPET MOUNTED LIGHTNING PROTECTION COPPER CONDUCTOR

NOT TO SCALE

EXHIBIT 283-28
01/01/2027

AC INFRASTRUCTURE



PLAN

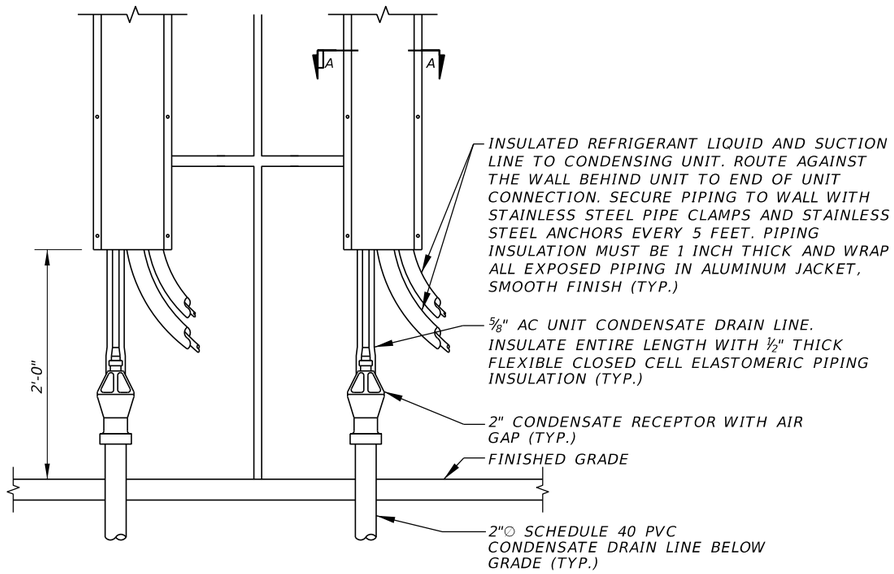
NOTES:

1. CONDENSING UNIT IS WALL MOUNTED AND SUSPENDED ABOVE THE FINISHED GRADE.
2. AC UNIT CONDENSATE DRAIN LINE. UNIT PROVIDED WITH INTERNAL DRAIN TRAP, EXTERNAL TRAP NOT REQUIRED. INDIRECT WASTE TO 2" CONDENSATE RECEPTOR WITH AIR GAP, TYPICAL OF 2.
3. 2 INCH DIAMETER SCHEDULE 40 PVC CONDENSATE DRAIN LINE ROUTED UNDERGROUND TO IN-GROUND CONDENSATE DRYWELL. MINIMUM SLOPE MUST BE ⅛" PER FOOT.
4. DUAL UNIT CONTROLLER WITH INTEGRAL THERMOSTAT AND TIMER. INSTALL CONTROLLER AT 84" AFF TO TOP. COORDINATE ALL THERMOSTAT SEQUENCING AND ALARM SET-POINTS WITH FTE REPRESENTATIVE.
5. CONTRACTOR MUST FIELD COORDINATE WITH CIVIL SITE AND GRADING PLANS, UTILITY PLANS AND ALL OTHER TRADES FOR THE EXACT LOCATION OF THE CONDENSATE DRYWELL. SEE CIVIL SITE FOR DRYWELL LOCATION.
6. WALL SLEEVE FOR REFRIGERANT AND CONDENSATE PIPING. MOUNT BOTTOM OF SLEEVE AT APPROXIMATELY 80" AFF. COORDINATE PENETRATION WITH AC UNIT MANUFACTURER'S REQUIREMENTS PRIOR TO CASTING THE SLEEVE. FILL ANY SLEEVE SPACE ONCE PIPING IS INSTALLED WITH EXPANDABLE FOAM TO SEAL PENETRATION AIR TIGHT. TRIM FOAM EVEN WITH SLEEVE EDGES.
7. PIPING COVER PLATE TO CONCEAL PIPING FROM SOFFIT ABOVE DOWN TO 24" A.F.G. ENSURE ALL REVEAL CROSSINGS AND FITTING ENDS ARE SEALED TO PREVENT WATER INTRUSION.
8. INSULATED REFRIGERANT LIQUID, SUCTION LINE, AND ELECTRICAL INTERCONNECT TO CONDENSING UNIT.
9. BACnet/MODBUS INTERFACE CONTROLLER BOARD.

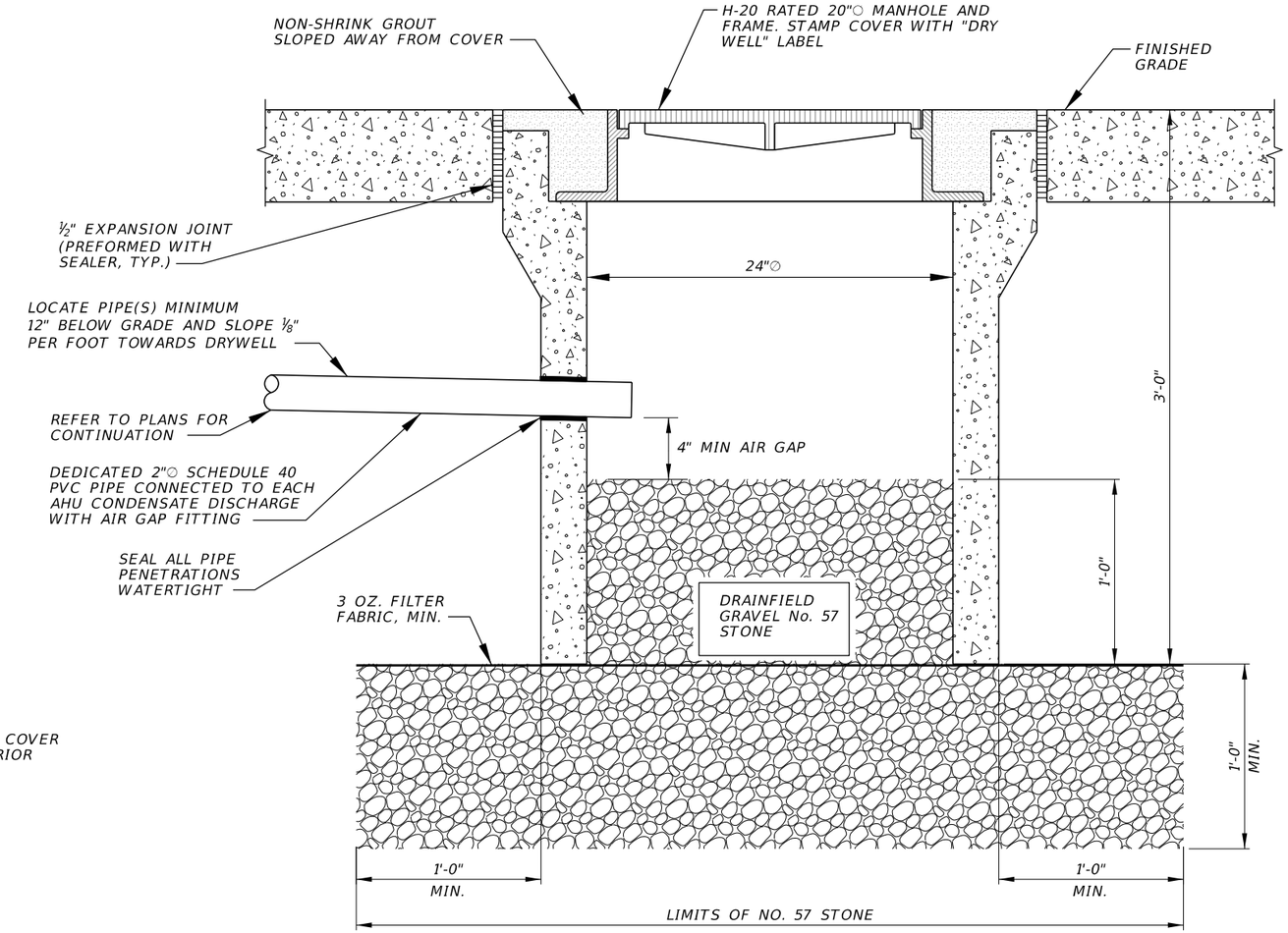
NOT TO SCALE

EXHIBIT 283-29
01/01/2027

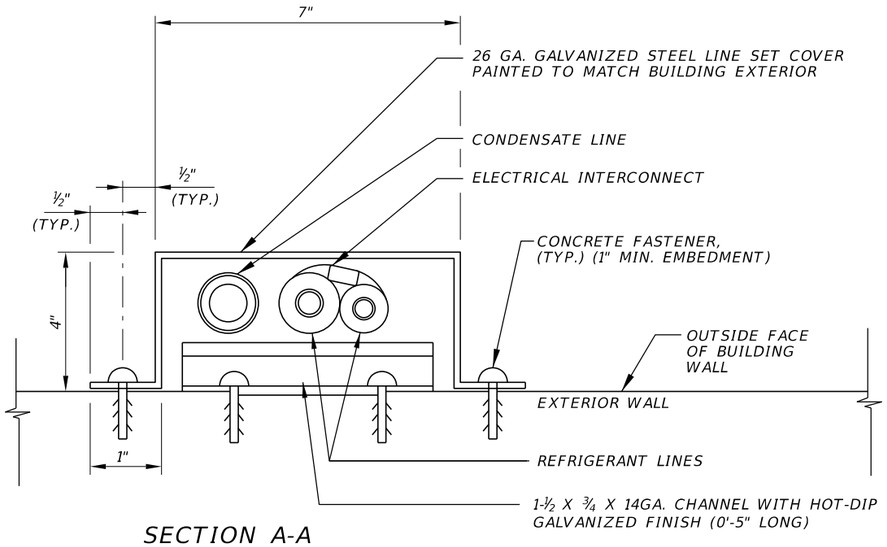
DRY WELL AND AC CONDENSATE PIPING DETAILS



AC EQUIPMENT AND CONDENSATE PIPING DETAIL



CONDENSATE DRYWELL DETAIL



SECTION A-A

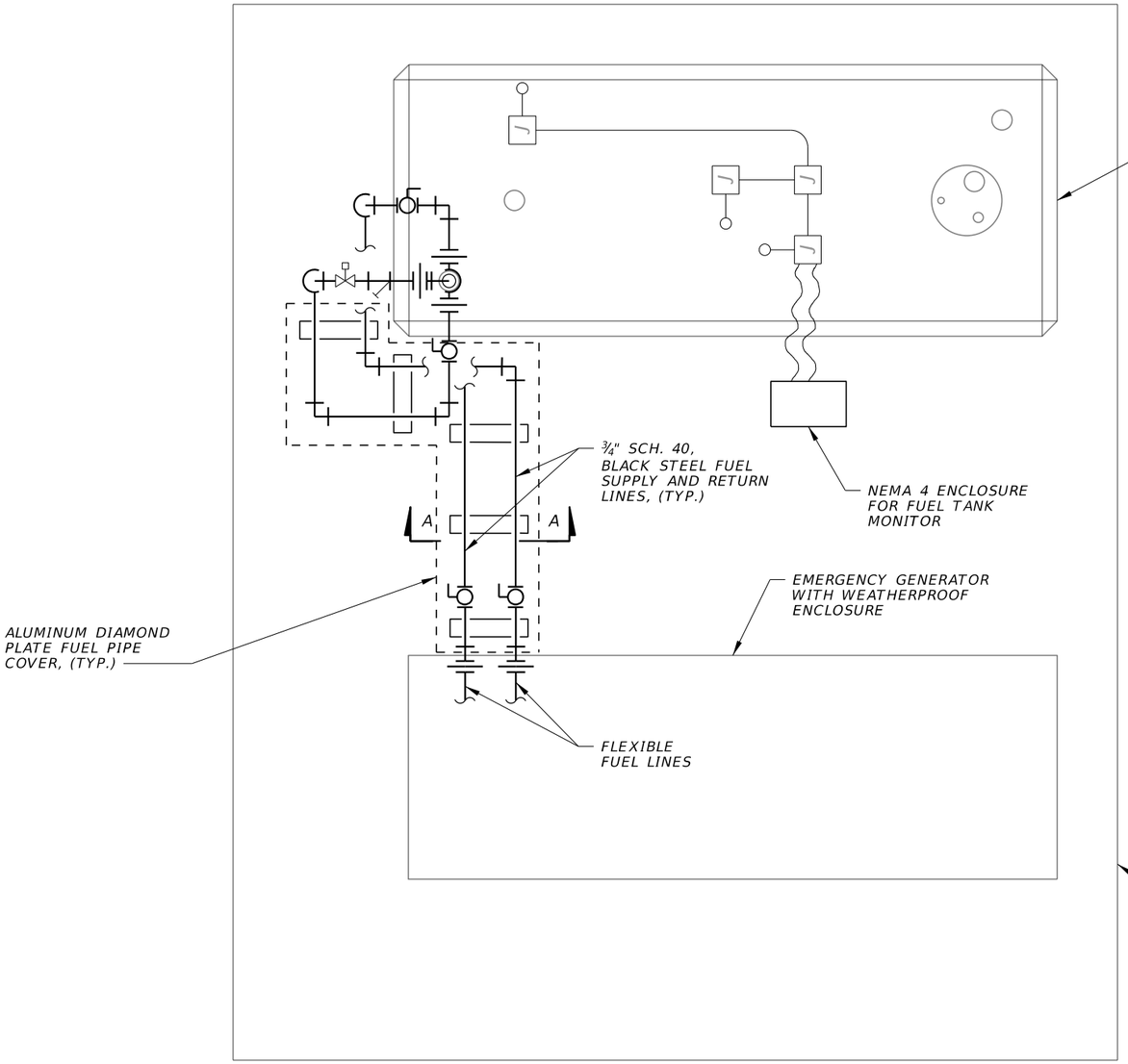
NOTES:

1. ALL HARDWARE MUST BE STAINLESS STEEL AND SUPPORT FRAME SHALL BE CONSTRUCTED OF STAINLESS STEEL. (BOLTS, NUTS, STRAPS, ANCHORS, SUPPORT FRAME, ETC.)
2. MOUNT BOTTOM OF CONDENSING UNIT FRAME AT A MINIMUM OF 6" A.F.G.
3. COORDINATE FINAL LENGTHS OF ALL SUPPORT FRAME COMPONENTS WITH FINAL DIMENSIONS OF MECHANICAL EQUIPMENT.

NOT TO SCALE

EXHIBIT 283-30
01/01/2027

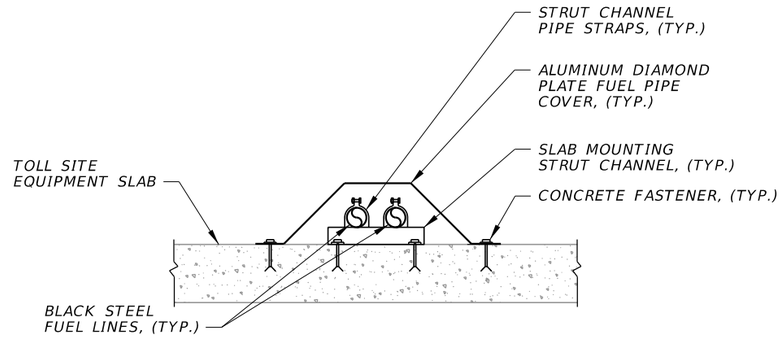
GENERATOR FUEL TANK PIPING



PLAN

NOTE:

1. FUEL PIPE COVER PLATE MUST BE PROVIDED FOR ALL EXPOSED PIPING ROUTED WITHIN SERVICE WALKWAYS OR PATHS.



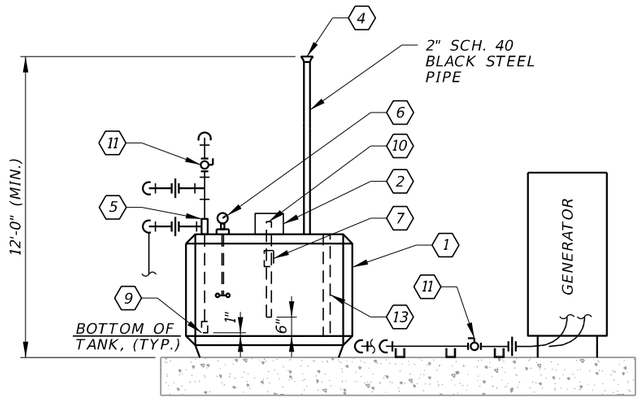
FUEL PIPING COVER PLATE DETAIL

SECTION A-A

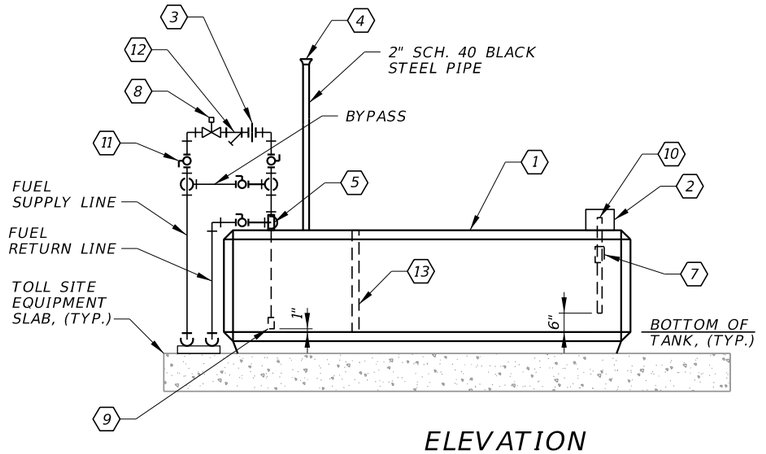
NOT TO SCALE

EXHIBIT 283-31
01/01/2027

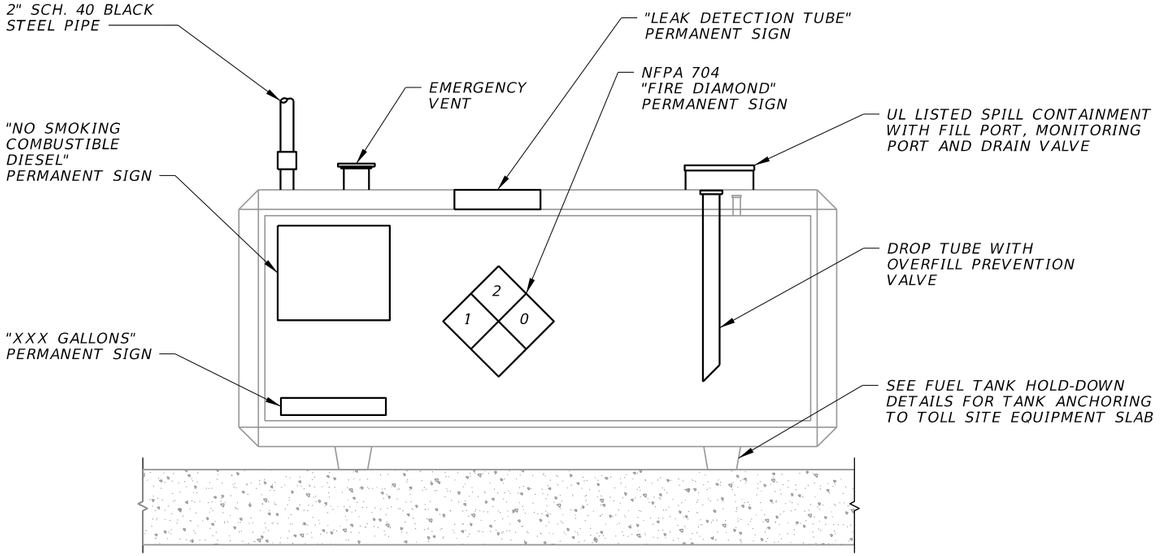
FUEL TANK DETAILS



ELEVATION



ELEVATION



FUEL TANK DETAIL

NOTES:

1. ABOVE GROUND, DOUBLE WALL, FIRE RATED VAULTED DIESEL FUEL TANK (AST), SIZED BY EOR.
2. 7 GALLON CAPACITY, (UL) LISTED OVERSPILL CONTAINMENT WITH FILL PORT, MANUAL DRAIN VALVE, AND LOCKABLE LID.
3. ¾" UNION, TYPICAL.
4. 2" PRIMARY VENT FITTING WITH RAIN SHIELD AND INSECT SCREEN.
5. 2" TANK FITTING FOR COMBINATION FUEL SUPPLY AND RETURN LINE.
6. LIQUID LEVEL CLOCK GAUGE WITH STAINLESS STEEL BALL AND CHAIN.
7. (AST) OVERFILL PREVENTION VALVE ASSEMBLY. SET TO SHUT-OFF FUEL SUPPLY AT 90% TANK FILL.
8. ANTI-SYPHON VALVE MUST BE ¾" UL LISTED AND DESIGNED FOR DIESEL FUEL APPLICATIONS. THE ANTI-SYPHON VALVE MUST BE IN THE FUEL SUPPLY LINE FROM THE TANK WITH MANUAL BALL VALVES FOR BYPASSING AND ISOLATING THE ANTI-SYPHON VALVE. VALVE MUST BE SELECTED FOR ACTUAL EQUIPMENT AND PIPING LAYOUT HEAD REQUIREMENTS AND VERIFIED WITH HEAD LOSS CALCULATIONS.
9. DOUBLE POPPET FOOT VALVE WITH SUCTION STRAINER AND TYPE 304 STAINLESS STEEL 20 MESH SCREEN.
10. 4" CARBON STEEL FILL PORT WITH INLET SPOUT ADAPTOR AND DUST CAP.
11. CARBON STEEL FULL PORT BALL VALVE, TYPICAL.
12. ¾" Y-STRAINER WITH 20 MESH SCREEN.
13. 2" TANK FITTING AND TUBE FOR LEAK DETECTION FLOAT PROBES AND STEM WITH SENSOR CABLE FOR TANK INTERSTITIAL SPACE MONITORING.

NOT TO SCALE

EXHIBIT 283-32
01/01/2027