



































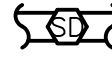














SYMBOL LEGEND

	WIRING & CONDUIT CONCEALED ABOVE HUNG CEILING
	EXIT SIGNS (CONTRACTOR TO COORDINATE # OF FACES AND THE FINAL MOUNTING REQUIREMENTS).
	LED LIGHT
	LIGHT FIXTURE PROVIDING EMERGENCY LIGHTING VIA GENERATOR.
	BATTERY POWERED EXIT SIGN WITH LIGHTING HEADS. (CONTRACTOR TO COORDINATE # OF FACES AND THE FINAL MOUNTING REQUIREMENTS)
	EMERGENCY BATTERY UNIT WITH LIGHTING HEADS
	NEW CEILING MOUNTED SENSOR AND ASSOCIATED ROOM CONTROLLERS. IN THIS EXAMPLE, SENSOR SHALL CONTROL FIXTURES ON SWITCH LEG "a". OCCUPANCY OR VACANCY CONTROL DETERMINED BY LIGHTING CONTROL SCHEDULE.
	CEILING MOUNTED SENSOR FOR HIGH BAY MOUNTING LOCATIONS AND ASSOCIATED POWER PACKS. IN THIS EXAMPLE, SENSOR SHALL CONTROL FIXTURES ON SWITCH LEG "a". OCCUPANCY OR VACANCY CONTROL DETERMINED BY LIGHTING CONTROL SCHEDULE.
	WALL MOUNTED SWITCH TYPE OCCUPANCY SENSOR, CONTROLLING SWITCH LEG "a".
	VACANCY SENSOR – WALL SWITCH TYPE.
	SINGLE POLE SWITCH, CONTROLLING SWITCH LEG "a".
	KEYED SWITCH
	THREE WAY SWITCH, CONTROLLING SWITCH LEG "a".
	FOUR BUTTON DIGITAL DIMMER SWITCH, CONTROLLING SWITCH LEG "a" WITH ON/OFF/RAISE/LOWER FUNCTIONS.
	ON/OFF 2 BUTTON DIGITAL SWITCH, CONTROLLING SWITCH LEG "a".
	3 PRESET BUTTON DIGITAL SWITCH, CONTROLLING SWITCH LEG "a".
DD1;12	ELECTRICAL CIRCUITING INFORMATION. IN THIS EXAMPLE, EC SHALL WIRE DEVICE TO CIRCUIT #12 IN PANEL "DD1".
e/2	LIGHTING CIRCUITING INFORMATION. IN THIS EXAMPLE, EC SHALL WIRE FIXTURE TO CIRCUIT #2, VIA SWITCH LEG "e".
	LIGHTING CONTROL INFORMATION. EC SHALL PROVIDE ALL PARTS AND PIECES TO CONTROL LIGHTS IN THE SPACES AS NOTED IN THE LIGHTING CONTROL SCHEDULE.
	NEW ELECTRICAL PANEL
	DUPLEX CONVENIENCE RECEPTACLE, MOUNT AT 18" AFF UNLESS OTHERWISE NOTED.
	QUAD CONVENIENCE RECEPTACLE, MOUNT AT 18" AFF UNLESS OTHERWISE NOTED.
	GROUND FAULT INTERRUPTER QUAD CONVENIENCE RECEPTACLE, MOUNT ABOVE COUNTER AT 45" AFF TO TOP OF BOX.
	DUPLEX RECEPTACLE RECESSED IN CEILING FOR POWERED CORD REEL. PROVIDE (1) HUBBELL HBLCA0123TT CORD REEL AT EACH LOCATION. MOUNT CORD REEL ON UNDERSIDE OF ACT CEILING MOUNTED TO UNISTRUT TO STRUCTURE ABOVE CEILING.
	DUPLEX CONVENIENCE RECEPTACLE WITH (2) USB CHARGING PORTS, WALL MOUNTED AT 18" AFF, UNLESS OTHERWISE NOTED.
	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE
	GROUND FAULT INTERRUPTER WEATHER RESISTANT DUPLEX RECEPTACLE WITH CAST ALUMINUM WHILE IN USE COVER HUBBELL TAYMAC MX4280S
	SPECIAL RECEPTACLE. PROVIDE NEMA RATING AS INDICATED ON DRAWING. COORDINATE FINAL REQUIREMENTS WITH APPLIANCES IN THE FIELD.
	JUNCTION BOX
	JUNCTION BOX FOR WATER COOLER, FURNISHED AND INSTALLED BY PC, WIRED BY BEC. COORDINATE FINAL WIRING AND INSTALLATION REQUIREMENTS AND MOUNTING HEIGHTS IN FIELD WITH PC. BEC TO PROVIDE GFI CIRCUIT BREAKER,
	ABOVE CEILING MOUNTED JUNCTION BOX FOR INFRARED SENSOR OPERATED PLUMBING FIXTURES. BEC TO INSTALL JUNCTION BOX AND LOW-VOLTAGE POWER SUPPLY BY PC. LOW-VOLTAGE WIRING BETWEEN POWER SUPPLY AND PLUMBING FIXTURES TO BE FURNISHED AND INSTALLED BY PC. REFER TO DETAIL 2/E402. WIRE TO TOILET ROOM GFI RECEPTACLE CIRCUIT AHEAD OF ANY GFI DEVICES. COORDINATE FINAL LOCATION AND QUANTITY WITH PC.
	FIRE ALARM STROBE (CEILING MOUNT).
	FIRE ALARM HORN AND STROBE (CEILING MOUNT).
	FIRE ALARM HORN AND STROBE (WALL MOUNT AT MIN 80" AFF OR MAX 96" AFF TO BOTTOM OF DEVICE).
	MANUAL PULL STATION WITH PROTECTIVE COVER WITHOUT ALARM HORN. (WALL MOUNT AT 42" AFF).
	SMOKE DETECTOR
	HEAT DETECTOR
	CEILING MOUNT COMBINATION SMOKE DETECTOR AND CARBON MONOXIDE DETECTOR BASE. PROVIDE SUPERVISORY SIGNAL AT FIRE ALARM PANEL FOR CO.
	DUCT DETECTOR
	INTERFACE ADDRESSABLE MODULE FOR FIRE ALARM SYSTEM
RTS	DUCT SMOKE DETECTOR LED KEYED REMOTE TEST STATION MOUNTED IN ACCESSIBLE CEILING. PROVIDE (1) TEST STATION PER DUCT DETECTOR. LABEL WITH ASSOCIATED MECHANICAL EQUIPMENT NAME AND WHETHER SUPPLY OR RETURN. LOCATE REMOTE INDICATING LIGHT/TEST SWITCH ASSOCIATED WITH EACH DUCT SMOKE DETECTOR. COORDINATE FINAL LOCATIONS WITH ARCHITECT. * MOUNTED IN ACCESSIBLE CEILING.
	WALL MOUNTED AV SPEAKER. EC SHALL PROVIDE SPEAKER WIRING BACK TO AV SYSTEM HEAD END.
X▷	(X) QUANTITY RJ-45 DATA JACKS WITH DOUBLE GANG BACKBOX WITH SINGLE GANG FACEPLATE AND 1-1/4" CONDUIT IN WALL TO ABOVE FINISHED CEILING WITH (1) CAT 6 PLENUM RATED CABLE FOR EACH DATA JACK BACK TO CLOSEST MDF/IDF RACK. MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED. FURNISH AND INSTALL STAINLESS STEEL COVER PLATE.
T▷	(1) RJ-45 TELEPHONE JACK WITH BACKBOX AND 1" CONDUIT IN WALL TO ABOVE FINISHED CEILING WITH (1) CAT 6 PLENUM RATED CABLE BACK TO CLOSEST MDF/IDF RACK. MOUNTED AT 44" AFF TOP OF BOX. FURNISH AND INSTALL STAINLESS STEEL COVER PLATE.
	CEILING MOUNT WIRELESS ACCESS POINT. WIRELESS ACCESS EQUIPMENT WILL BE PROVIDED AND INSTALLED BY NC. AT EACH LOCATION THERE SHALL BE (1) RJ-45 DATA JACK AND (1) CATEGORY 6A PLENUM RATED CABLE WITH 20' SERVICE LOOP FOR EACH JACK BACK TO IDF RACK. MOUNT IN ACCESSIBLE AREA ABOVE FINISHED CEILING.
	WALL MOUNT WIRELESS ACCESS POINT. WIRELESS ACCESS EQUIPMENT WILL BE PROVIDED AND INSTALLED BY NC. AT EACH LOCATION THERE SHALL BE (1) RJ-45 DATA JACK AND (1) CATEGORY 6A PLENUM RATED CABLE BACK TO IDF RACK WITH SINGLE GANG BACKBOX AND 3/4" TO ABOVE ACCESSIBLE CEILING. MOUNT AT 12'-0" AFG
	2 POST OPEN FLOOR MOUNTED 19"W DATA EQUIPMENT RACK.
	CARD READER PROVIDED, INSTALLED AND WIRED BY TRI-M. EC TO PROVIDE SINGLE GANG BOX WITH 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING.
	POWER SUPPLY FOR DOOR HARDWARE, PROVIDED AND INSTALLED BY GC, WIRED BY BEC. POWER SUPPLY TO BE MOUNTED ABOVE ACCESSIBLE CEILING.
	DOOR CONTACT PROVIDED AND INSTALLED BY GC. PROVIDE 1/2" TO ABOVE ACCESSIBLE CEILING. WIRING BY TRI-M AND BEC.
	WALL MOUNTED CCTV CAMERA. CAMERA PROVIDED AND INSTALLED BY SSL. BEC TO INSTALL (1) CAT6 CABLE FROM CAMERA LOCATION BACK IDF AND TERMINATE IN PATCH PANEL. CABLE TO BE INSTALLED IN CONDUIT WHERE EXPOSED, EXCEPT WHERE ROUTED ABOVE ACCESSIBLE CEILINGS. MOUNT AT 12'-0" AFG.
	CAMERA BOX. REFER TO DETAIL 5/E403.
	POLE FOR CCTV, WAP, AND/OR SPORTS CAMERAS. REFER TO DETAIL 6/E403.
	EMERGENCY CALL TOWER TO MATCH EXISTING TOWERS. PROVIDE CODE BLUE CB 1-S EMERGENCY CALL TOWER WITH SAFETY BLUE PAINT, SPEAKER PHONE, PUSH FOR HELP BEZEL AND WHITE EMERGENCY GRAPHICS. MOUNT CALL TOWER ON FOUNDATION PER CIVIL DRAWINGS.

ABBREVIATIONS LIST									
1P	ONE POLE	IDF	INTERMEDIATE DISTRIBUTION FRAME						
2P	TWO POLE	IG	ISOLATED GROUND						
3P	THREE POLE	IR	INFRARED						
#	PHASE	KVA	KILOVOLT AMPERE						
A	AMPERE	KW	KILOWATT						
ACT	ARCHITECTURAL CEILING TILE	LLC	WIRE TO LOCAL LIGHTING CIRCUIT						
AF	AMP FRAME	LS	LIFE SAFETY						
AFC	ABOVE FINISHED CEILING	LSI	LONG TIME, SHORT TIME, AND INSTANTANEOUS PROTECTION						
AFF	ABOVE FINISHED FLOOR	MC	MECHANICAL CONTRACTOR						
AFG	ABOVE FINISHED GRADE	MCA	MINIMUM CIRCUIT AMPACITY						
AL	ALUMINUM	MCB	MAIN CIRCUIT BREAKER						
ALIC	AUXILIARY LIGHTING INTERFACE CABINET	MOD	MAIN DISTRIBUTION FRAME						
ARMS	ARC FLASH REDUCTION MAINTENANCE SWITCH	MDP	MAIN DISTRIBUTION PANEL						
AT	AMP TRIP	MH	MAN-HOLE						
ATC	AUTOMATIC TEMPERATURE CONTROL	MLO	MAIN LUGS ONLY						
ATS	AUTOMATIC TRANSFER SWITCH	NC	NETWORK CONTRACTOR						
AV	AUDIO VISUAL	NE	WIRED ON NORMAL EMERGENCY CIRCUIT						
BFC	BELOW FINISHED CEILING	OS	OPTIONAL STANDBY						
C	CONDUIT	PC	PLUMBING CONTRACTOR						
C/B	CIRCUIT BREAKER	PV	PHOTOVOLTAC						
CCTV	CLOSE CIRCUIT TELEVISION	PVEC	PHOTOVOLTAC ELECTRICAL CONTRACTOR						
CKT	CIRCUIT	RCP	REFLECTED CEILING PLAN						
CT	CURRENT TRANSFORMER	(RAR)	REMOVE AND REINSTALL						
DWG	DRAWING	(REL)	RELOCATE						
(E)	EXISTING	S	LIGHT SWITCH						
EC	ELECTRICAL CONTRACTOR	SMFO	SINGLE MODE FIBER OPTIC CABLE						
EMH	ELECTRIC POWER MANHOLE	SPD	SURGE PROTECTIVE DEVICE						
FA	FIRE ALARM	SSI	SECURITY SYSTEM INTERGRATOR						
FLA	FULL LOAD AMPS	STP	SHIELDED TWISTED PAIR						
FPC	FIRE PROTECTION CONTRACTOR	TR	TAMPER RESISTANT						
FU	FUSE	(TYP)	TYPICAL						
GC	GENERAL CONTRACTOR	V	VOLT						
GFI	GROUND FAULT INTERRUPTER	W	WATT						
GND	GROUND	WP	WEATHERPROOF						
		WG	WIRE GUARD						
		WWF	WELDED WIRE FABRIC						
		Z	IMPEDANCE						

LIST OF DRAWINGS									
DRAWING NUMBER	DRAWING TITLE	BEC	SEC	PVEC					
E001	ELECTRICAL COVER SHEET	X	X	X					
ES01	ELECTRICAL SITE PLAN		X						
ES02	LIGHTING SITE PLAN		X						
ES03	ELECTRICAL SITE WIRING SCHEDULES		X						
E101	ELECTRICAL FIRST FLOOR PLANS - FIELD HOUSE	X	X	X					
E102	ELECTRICAL FIRST FLOOR PLANS - GROUNDS & FIELDS BUILDING	X	X						
E103	ELECTRICAL PLANS - ATHLETIC STANDS & DUGOUTS		X						
E201	ELECTRICAL SINGLE LINE DIAGRAM	X	X	X					
E301	ELECTRICAL SCHEDULES - SEC		X						
E302	ELECTRICAL SCHEDULES - BEC		X					BEC	BUILDING ELECTRICAL CONTRACTOR
E303	ELECTRICAL SCHEDULES - BEC		X						
E401	ELECTRICAL DETAILS		X					PVEC	PHOTOVOLTAC ELECTRICAL CONTRACTOR
E402	ELECTRICAL DETAILS		X	X					
E403	ELECTRICAL DETAILS		X	X				SEC	SITE ELECTRICAL CONTRACTOR
ES01	PV ROOF PLAN - FIELD HOUSE			X					

CONTRACTOR RESPONSIBILITY MATRIX									
EQUIPMENT	PROVIDED BY	INSTALLED BY	LOW VOLTAGE WIRING BY	POWER, BACKBOX/HANDHOLE/POLE AND/OR CONDUIT BY	PROGRAMMING/ HEAD END TERMINATIONS/TESTING				
DATA JACKS, CAT6E CABLING, FACEPLATES	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR				
FIBER OPTIC CABLES, IDF RACKS, PATCH PANELS	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR				
SITE WIRELESS ACCESS POINTS, NETWORK SWITCHES, RACK UPS	NETWORK CONTRACTOR	NETWORK CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	NETWORK CONTRACTOR				
BUILDING WIRELESS ACCESS POINTS, NETWORK SWITCHES, RACK UPS	NETWORK CONTRACTOR	NETWORK CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	NETWORK CONTRACTOR				
TELEPHONES AND TELEPHONE EQUIPMENT	OWNER	OWNER	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	OWNER				
CARD ACCESS	OWNER'S VENDOR - TRI-M	OWNER'S VENDOR - TRI-M	OWNER'S VENDOR - TRI-M	BUILDING ELECTRICAL CONTRACTOR	OWNER'S VENDOR - TRI-M				
HUDL SPORT CAMERAS	OWNER	OWNER	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	OWNER				
POLE MOUNTED SITE CCTV CAMERAS	SSI CONTRACTOR	SSI CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SSI CONTRACTOR				
BUILDING MOUNTED CCTV CAMERAS	SSI CONTRACTOR	SSI CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	SSI CONTRACTOR				
PA SYSTEM AND SPEAKERS	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR				
FIRE ALARM	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR				
BUILDING LIGHTING AND CONTROLS	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR				
SITE LIGHTING	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	-	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR				
SITE LIGHTING CONTROLS	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	OWNER'S VENDOR - TRI-M	SITE ELECTRICAL CONTRACTOR	-				
MUSCO SPORTS LIGHTING AND CONTROLS	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR				
PHOTOVALTIC SYSTEM	PV ELECTRICAL CONTRACTOR	PV ELECTRICAL CONTRACTOR	PV ELECTRICAL CONTRACTOR	PV ELECTRICAL CONTRACTOR	PV ELECTRICAL CONTRACTOR				
PANELBOARDS, MINI POWER CENTERS	REFER TO DRAWING E201	REFER TO DRAWING E201	-	REFER TO DRAWING E201	-				
GENERATOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR				
AUTOMATIC TRANSFER SWITCHES	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	-	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR				
LOW VOLTAGE TRANSFORMERS	BUILD								

GENERAL NOTES	
1.	ALL OF THE NOTES UNDER THE "GENERAL NOTES" SHALL APPLY TO ALL OF THE ELECTRICAL DRAWINGS.
2.	FOR LOCATIONS OF ALL MECHANICAL AND PLUMBING EQUIPMENT REFER TO THE RESPECTIVE MECHANICAL AND PLUMBING DRAWINGS. REFER TO POWER WIRING SCHEDULE FOR MECHANICAL AND PLUMBING EQUIPMENT.
3.	ALL DEVICE LOCATIONS SUCH AS RECEPTACLE, DATA JACK, TV JACK, AND FLOOR OUTLETS, ETC., ARE APPROXIMATE. FINAL LOCATIONS AND MOUNTING HEIGHTS SHALL BE FIELD LOCATED BY THE ARCHITECT. THE CONTRACTOR SHALL INSTALL ALL DEVICES AT LOCATIONS AS DIRECTED BY THE ARCHITECT WITHOUT ADDITIONAL COMPENSATION.
4.	ALL BRANCH WIRING SHALL BE MINIMUM 3/4"C-2#12+1#12GND.
5.	ALL LIGHTING WIRING FOR LED DIMMABLE LIGHTING BRANCH CIRCUITS SHALL BE 2#12+1#12GND +2#16 0-10V IN 3/4"C (ALL 600V RATED WIRING) OR MC-PCS CABLE WHERE ALLOWABLE IN THE SPECIFICATION.
6.	EXACT LOCATIONS OF ALL ELECTRICAL EQUIPMENT SHALL BE COORDINATE IN THE FIELD WITH MECHANICAL AND PLUMBING CONTRACTORS. ALL CLEARANCES AS REQUIRED BY ARTICLE 110 OF THE NEC SHALL BE MAINTAINED.
7.	RECEPTACLES, DATA JACKS AND OTHER FLUSH MOUNTED DEVICES MOUNTED ON OPPOSITE SIDE OF SAME WALL MUST BE STAGGERED IN SEPARATE JOISTS FOR ACOUSTICS. USE OF BACK TO BACK BOXES IS NOT ACCEPTABLE.
8.	COORDINATE OCCUPANCY SENSOR, AND FIRE ALARM DEVICE LOCATIONS WITH LIGHTING FIXTURES, AIR DIFFUSERS, AND OTHER CEILING MOUNTED EQUIPMENT. COORDINATE WITH THE REFLECTED CEILING PLAN.
9.	ALL EQUIPMENT ON FIRE ALARM DRAWINGS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE COORDINATED WITH THE ARCHITECT. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT SHOWN, AT LOCATIONS AS DIRECTED BY THE ARCHITECT WITHOUT ADDITIONAL COMPENSATION.
10.	FOLLOW DIMENSIONS, DO NOT SCALE DRAWINGS.
11.	ALL WORK SHALL BE IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE AND OTHER APPLICABLE CODES AND STANDARDS.
12.	FUSES SHALL BE DUAL ELEMENT, TIME DELAY TYPE UNLESS OTHERWISE NOTED. COORDINATE FUSE SIZES WITH THE MOTORS FURNISHED UNDER THE MECHANICAL AND GENERAL CONTRACTS.
13.	ALL CONDUCTORS SHALL BE COPPER.
14.	FIRE STOPPING: WHERE CONDUITS PENETRATE FIRE AND SMOKE BARRIERS INCLUDING WALLS, PARTITIONS, FLOORS, AND CEILINGS, INSTALL FIRE--STOPPING AT PENETRATIONS AFTER CABLES ARE INSTALLED.
15.	MATERIALS FOR FIRE STOPPING SHALL BE UL LISTED AND LABELED AND FM APPROVED FOR FIRE RATINGS CONSISTENT WITH PENETRATED BARRIERS. SLEEVES SHALL BE SCHEDULE 40, WELDED, BLACK STEEL PIPE SLEEVES. SIZES AS REQUIRED FOR EQUIVALENT AREA AS THE WIRESKAYS. SEALING FITTINGS SHALL BE SUITABLE FOR SEALING CABLES IN SLEEVES OR CORE DRILLED HOLES. TWO-PART SEALANT: FORMED-IN-PLACE SEALANT FIRE-RESISTANT JOINT SEALERS.
16.	UNLESS OTHERWISE NOTED ALL INDOOR ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH, AND HOUSED IN, A NEMA 1 ENCLOSURE. ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN NEMA 3R ENCLOSURE.
17.	COMMON NEUTRALS ARE NOT ACCEPTABLE.
18.	ELECTRICAL CONTRACTORS SHALL EXAMINE THE DRAWINGS OF ALL TRADES AND COORDINATE THEIR WORK TO AVOID INTERFERENCE WITH STRUCTURE, AND ALL EQUIPMENT ABOVE AND BELOW THE CEILING.
19.	THE ELECTRICAL CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.
20.	PROVIDE MATCHING CORD AND PLUGS FOR ALL RECEPTACLES OTHER THAN STANDARD 20A DUPLEX RECEPTACLES.
21.	COORDINATION OF THE WORK: COORDINATE LAYOUT AND INSTALLATION OF MANHOLES AND HANDHOLES WITH FINAL ARRANGEMENT OF DUCTS AS INFLUENCED BY ACTUAL FINAL LOCATION OF OTHER UTILITIES IN THE FIELD. COORDINATE ELEVATIONS OF DUCT AND RACEWAY ENTRANCES INTO MANHOLES AND HANDHOLES WITH FINAL PROFILES OF CONDUITS AS DETERMINED BY COORDINATION WITH OTHER UTILITIES AND UNDERGROUND OBSTRUCTIONS. REVISE LOCATIONS AND ELEVATIONS FROM THOSE INDICATED AS REQUIRED TO SUIT FIELD CONDITIONS AND ASSURE DUCT RUNS DRAIN TO MANHOLES AND HANDHOLES AND AS APPROVED BY THE ARCHITECT. IF DUCT ENTRANCE ELEVATIONS IN BUILDINGS ARE HIGHER THAN MANHOLES/HANDHOLES INSTALL RAYCHEM RAYFLATE KITS IN BOTH MANHOLE/HANDHOLES AND IN BUILDINGS.
22.	THE BUILDING ELECTRICAL CONTRACTOR SHALL COORDINATE THE MOUNTINGS AND NUMBER OF FACES FOR THE EXIT SIGNS. THE LIGHTING FIXTURE SHOP DRAWING SUBMISSION SHALL REFLECT THIS COORDINATION.
23.	CONTRACTOR MUST COORDINATE ROOMS NAMES ON THE PANEL SCHEDULES WITH THE FINAL ROOM NAMES, IN THE FIELD. ALL PANELS SHALL BE PROVIDED WITH TYPED PANEL SCHEDULE.
24.	PROVIDE FIBER BUSHINGS ON THE ENDS OF ALL CONDUIT STUDS.
25.	CALL BEFORE YOU DIG. PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND TO WORKING DAYS IN DESIGN STAGE – STOP CALL – Pennsylvania One Call System, Inc.1-800-242-1776.
26.	ALL DEVICES/BOXES IN BLOCK WALLS SHALL HAVE MIN 3/4"C (UNLESS OTHERWISE NOTED) FROM BOX TO ABOVE AN ADJACENT ACCESSIBLE CEILING.
27.	ALL SWITCHES, RECEPTACLES, PANELBOARDS, FIRE ALARM PANELS, POWER SUPPLIES AND DISCONNECTS SHALL BE LABELED WITH SOURCE PANEL AND CIRCUIT.
28.	ALL EXTERIOR RECEPTACLES SHALL BE PROVIDED WITH A LOCKABLE CAST ALUMINUM WHILE-IN-USE COVER.
29.	ALL SPARE AND EXTERIOR CONDUITS SHALL BE PROVIDED WITH A PULL STRING.
30.	ALL SPARE INTERIOR UNDERGROUND CONDUITS SHALL BE STUBBED UP IN THEIR FINAL LOCATION AT 6" AFF. CONDUITS SHALL BE CAPPED AND LABELED.
31.	ALL SPARE EXTERIOR UNDERGROUND CONDUITS SHALL BE STUBBED UP IN THEIR FINAL LOCATION AT 6" BFG. CONDUITS SHALL BE CAPPED AND MARKED AT THE SURFACE WITH AN OWNER APPROVED MARKER.
32.	THESE DRAWINGS SHOW EXISTING CONDITIONS AT THE TIME OF DESIGN. ACTUAL FIELD CONDITIONS MAY CHANGE PRIOR TO CONSTRUCTION. ALL DISCREPANCIES AFFECTING THE COMPLETION OF WORK SHALL BE REPORTED TO ENGINEER FOR RESOLUTION.

H1A
480Y/277V, 3Φ, 4W, 100A
FED FROM MDP:3

NAME PLATE NOTES:

- REFER TO SPECIFICATIONS FOR ADDITIONAL NAMEPLATE REQUIREMENTS.
- NAMEPLATE TO BE 1/16" THICK WHITE LAMINATED ACRYLIC OR MELAMINE LABEL WITH BLACK CENTER LAMINATE. FACE SHALL BE WHITE, ENGRAVED 1/4" LETTERS SHALL BE BLACK.
- NAMEPLATE INFORMATION SHALL INCLUDE PANEL NAME, SUPPLY VOLTAGE, AMPERAGE AND SOURCE PANEL NAME AND CIRCUIT NUMBER.

2

(FOOT) NOT TO SCALE

TYPICAL PANELBOARD NAMEPLATE DETAIL

TYPICAL 120V RECEPTACLE

TYPICAL LIGHT SWITCH

VOLTAGE, POLES, PHASE
TYPICAL SPECIAL RECEPTACLE

PROVIDE CLEAR, SELF-ADHESIVE LABEL WITH MINIMUM 10 PT BLACK LETTING WITH SOURCE PANEL NAME AND CIRCUIT NUMBER (TYP)

1

(FOOT) NOT TO SCALE

TYPICAL DETAIL FOR DEVICE CIRCUIT LABELING

TREDYFFRIN TOWNSHIP CHESTER COUNTY, PA		
HSA PROJECT # :21-019		
<div><div>HSA</div><div>Heckendorn Shiles Architect</div></div>		
PROJECT TEAM		
CLIENT		
Tredyffrin/Easttown School District 940 West Valley Road, Suite 1700 Wayne, PA 19087 (610) 240-1907		
ARCHITECTURAL		
Heckendorn Shiles Architects 347 East Conestoga Road Wayne, PA 19087 610-994-3500		
STRUCTURAL ENGINEER		
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Teranel Consulting & Technical Services (215) 527-9825		
ISSUE HISTORY		
A	DATE	ISSUED FOR
	2024-03-18	BID ISSUE
SHEET TITLE		
ELECTRICAL COVER SHEET		
DRAWING NUMBER		
E001		

TESD CONESTOGA
ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

Heckendorn Shiles Architects

PROJECT TEAM

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NOTES:

1. REFER TO DRAWING E001 FOR GENERAL NOTES.
2. ALL WORK SHOWN IS NEW WORK, UNLESS OTHERWISE NOTED AS EXISTING (E), OR RELOCATED (REL).
3. REFER TO DRAWINGS ES03 FOR WIRE SIZES.
4. ALL CONDUIT SHALL BE SCHEDULE 40 PVC AND MIN 24" BELOW GRADE UNLESS OTHERWISE NOTED. NOT ALL CONDUIT ROUTING SHOWN.
5. COORDINATE ALL RECEPTACLE LOCATIONS WITH OWNER PRIOR TO INSTALLATION.
6. ALL EXTERIOR RECEPTABLES SHALL GFI AND BE PROVIDED WITH A LOCKABLE GAST ALUMINUM WHILE-IN-USE COVER.

DRAWING SPECIFIC KEYED NOTES:

- 1 SPORTS LIGHTING FIXTURE INSTALLATION TO BE COMPLETE WITH LIGHT FIXTURES, SPEAKERS, WIFI, CCTV CAMERAS, RECEPTACLE, POLE AND FOUNDATION. REFER TO DETAIL 8/E401 AND E301 FOR DETAILED INFORMATION. FROM HANDHOLE TO MUSCO POLE, PROVIDE 2-1/2" C EMPTY AND 2" C WITH WIRING FOR RECEPTACLE AND CONTACTORS. WIRING AS PER SITE WIRING SCHEDULE ON DRAWING ES03.
- 2 PROVIDE NEMA 3R LOCKABLE DISCONNECT FOR SCOREBOARD POWER
- 3 SPARE (3) 2" C STUBBED OUT THROUGH FOUNDATION, CAPPED AND MARKED FOR FUTURE USE.



ISSUE HISTORY

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SHEET TITLE
ELECTRICAL SITE PLAN

DRAWING NUMBER

ES01

ELECTRICAL SITE PLAN

1 ES01 1" = 50'-0"

CAMERA BOX SCHEDULE	
CAMERA BOX #	MOUNTED TO
CB #1	SPORTS LIGHTING POLE F4
CB #2	SPORTS LIGHTING POLE F3
CB #3	TURF FIELD #1 SCOREBOARD
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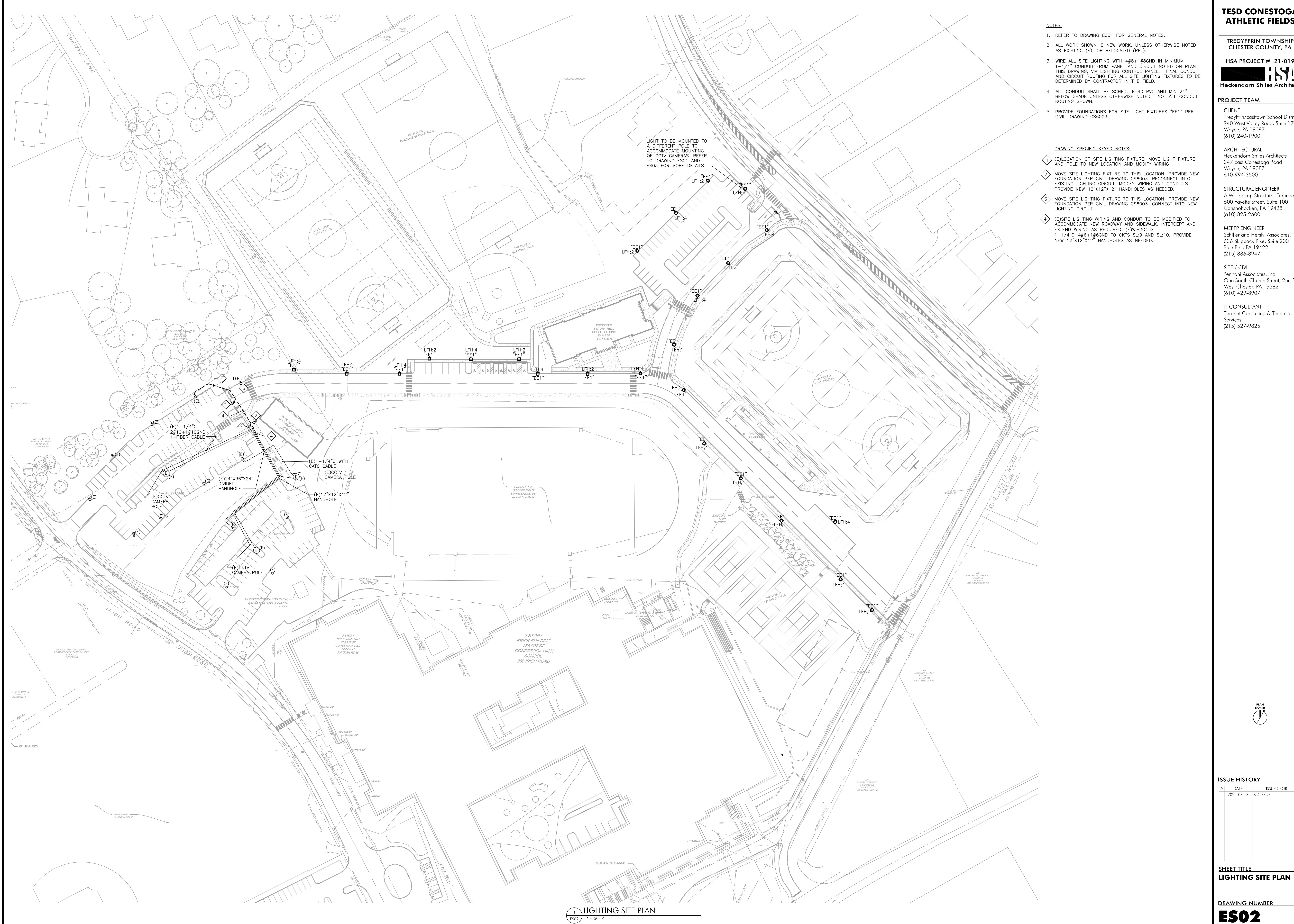
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NOTES:

1. REFER TO DRAWING E001 FOR GENERAL NOTES.
2. ALL WORK SHOWN IS NEW WORK, UNLESS OTHERWISE NOTED AS EXISTING (E), OR RELOCATED (REL).
3. WIRE ALL SITE LIGHTING WITH 4#8+1#6GND IN MINIMUM 1-1/4" CONDUIT FROM PANEL AND CIRCUIT NOTED ON PLAN THIS DRAWING, VIA LIGHTING CONTROL PANEL. FINAL CONDUIT AND CIRCUIT ROUTING FOR ALL SITE LIGHTING FIXTURES TO BE DETERMINED BY CONTRACTOR IN THE FIELD.
4. ALL CONDUIT SHALL BE SCHEDULE 40 PVC AND MIN 24" BELOW GRADE UNLESS OTHERWISE NOTED. NOT ALL CONDUIT ROUTING SHOWN.
5. PROVIDE FOUNDATIONS FOR SITE LIGHT FIXTURES "EE1" PER CIVIL DRAWING CS6003.

DRAWING SPECIFIC KEYED NOTES:

- 1 (E)LOCATION OF SITE LIGHTING FIXTURE. MOVE LIGHT FIXTURE AND POLE TO NEW LOCATION AND MODIFY WIRING
- 2 MOVE SITE LIGHTING FIXTURE TO THIS LOCATION. PROVIDE NEW FOUNDATION PER CIVIL DRAWING CS6003. RECONNECT INTO EXISTING LIGHTING CIRCUIT. MODIFY WIRING AND CONDUITS. PROVIDE NEW 12"x12"x12" HANDHOLES AS NEEDED.
- 3 MOVE SITE LIGHTING FIXTURE TO THIS LOCATION. PROVIDE NEW FOUNDATION PER CIVIL DRAWING CS6003. CONNECT INTO NEW LIGHTING CIRCUIT.
- 4 (E)SITE LIGHTING WIRING AND CONDUIT TO BE MODIFIED TO ACCOMMODATE NEW ROADWAY AND SIDEWALK. INTERCEPT AND EXTEND WIRING AS REQUIRED. (E)WIRING IS 1-1/4"C-4#6+1#6GND TO CKTS SL:9 AND SL:10. PROVIDE NEW 12"x12"x12" HANDHOLES AS NEEDED.



1 LIGHTING SITE PLAN
E502 1" = 50'-0"

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1

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ELECTRICAL SITE WIRING SCHEDULES

ES03

DRAWING SPECIFIC KEYED NOTES:
1. COORDINATE TRANSFORMER KVA RATING WITH MUSCO.

- NOTES:
1. ALL WORK SHOWN IS NEW UNLESS OTHERWISE NOTED.
 2. REFER TO DRAWING E001 FOR LEGEND, ABBREVIATION, GENERAL NOTES.
 3. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR FINAL LOCATIONS OF MECHANICAL AND PLUMBING EQUIPMENT.
 4. ALL EMERGENCY LIGHTING SHALL BE WIRED TO PANEL "ELS;2".
 5. ALL "AA1" LIGHT FIXTURES SHALL BE WIRED TO PANEL "ELS;4".

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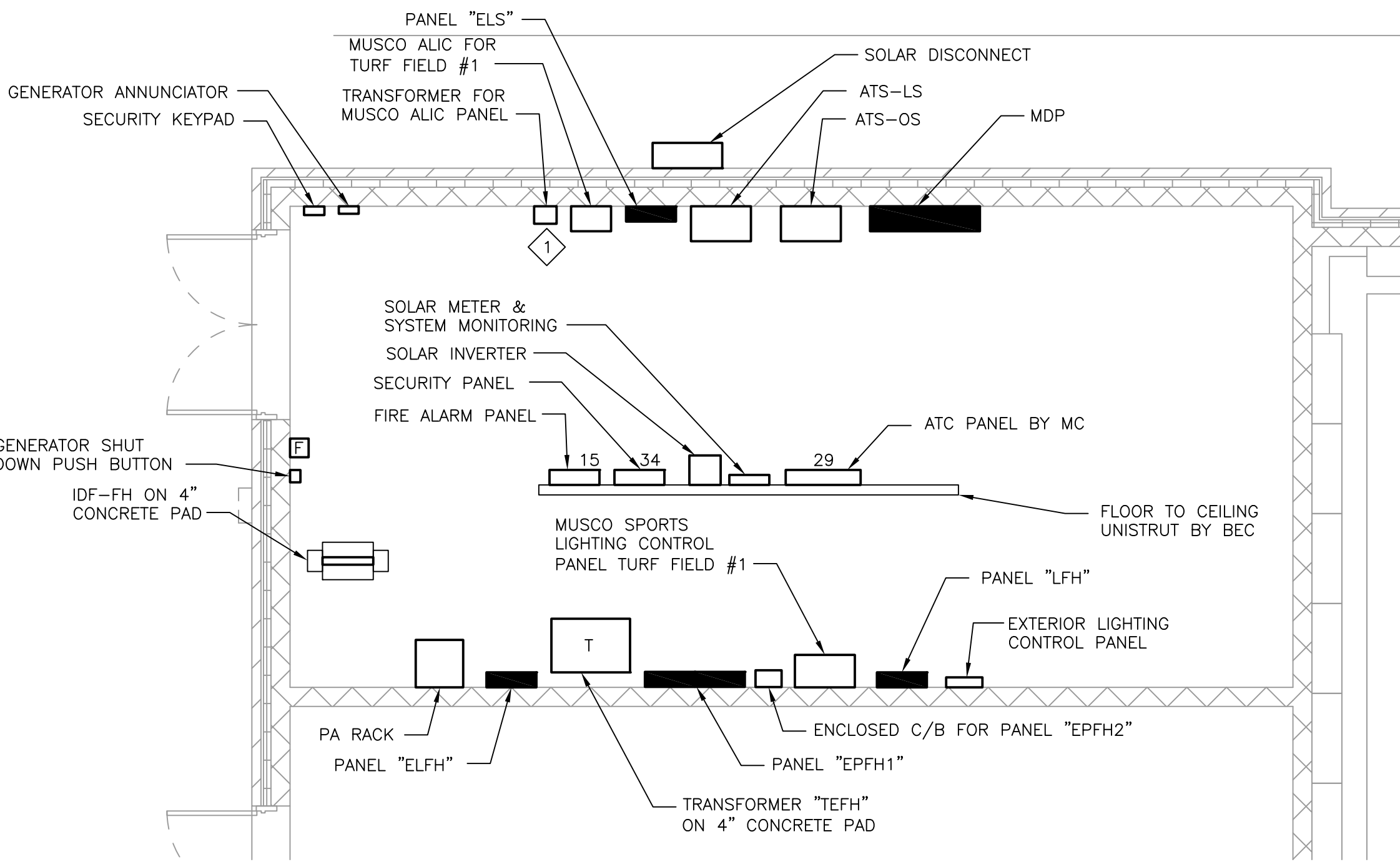
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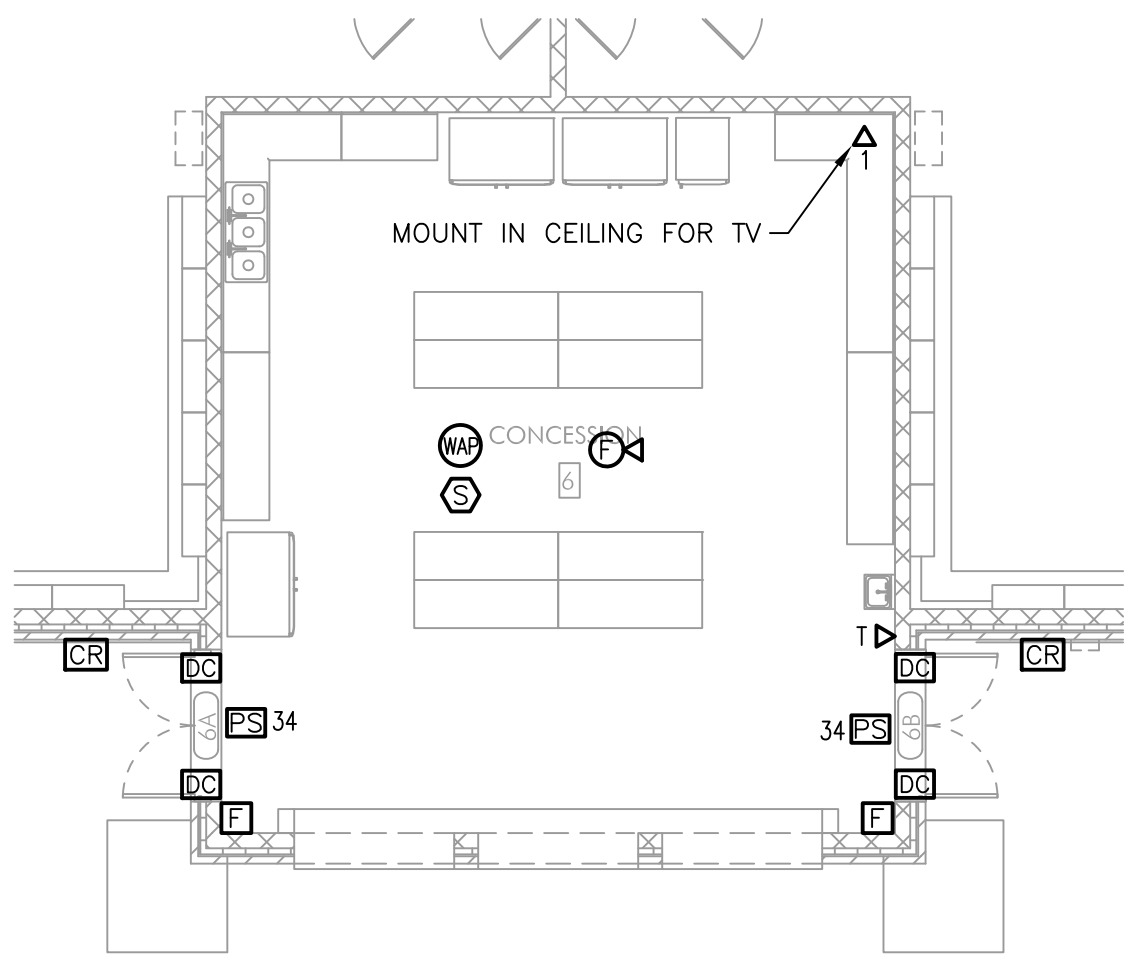
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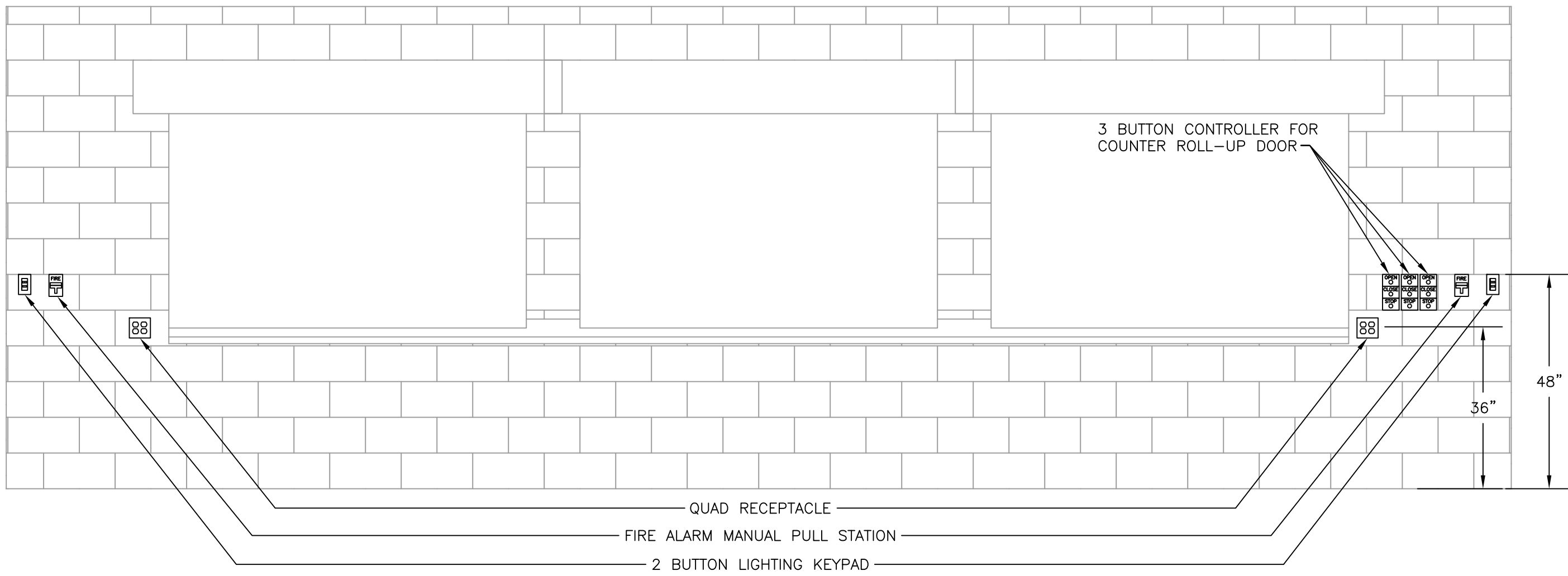
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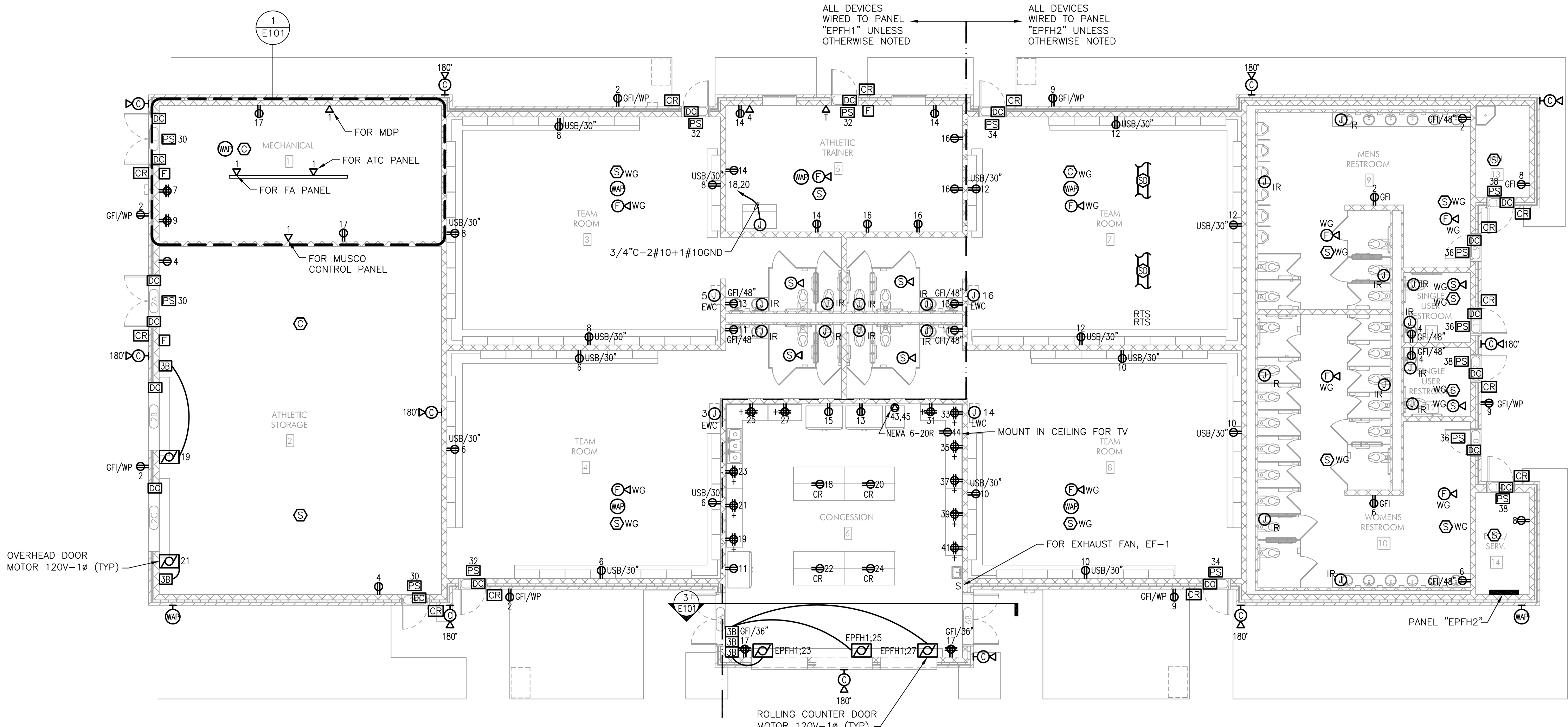
5 ENLARGED MECHANICAL 1 PLAN
E101 1/4" = 1'-0"



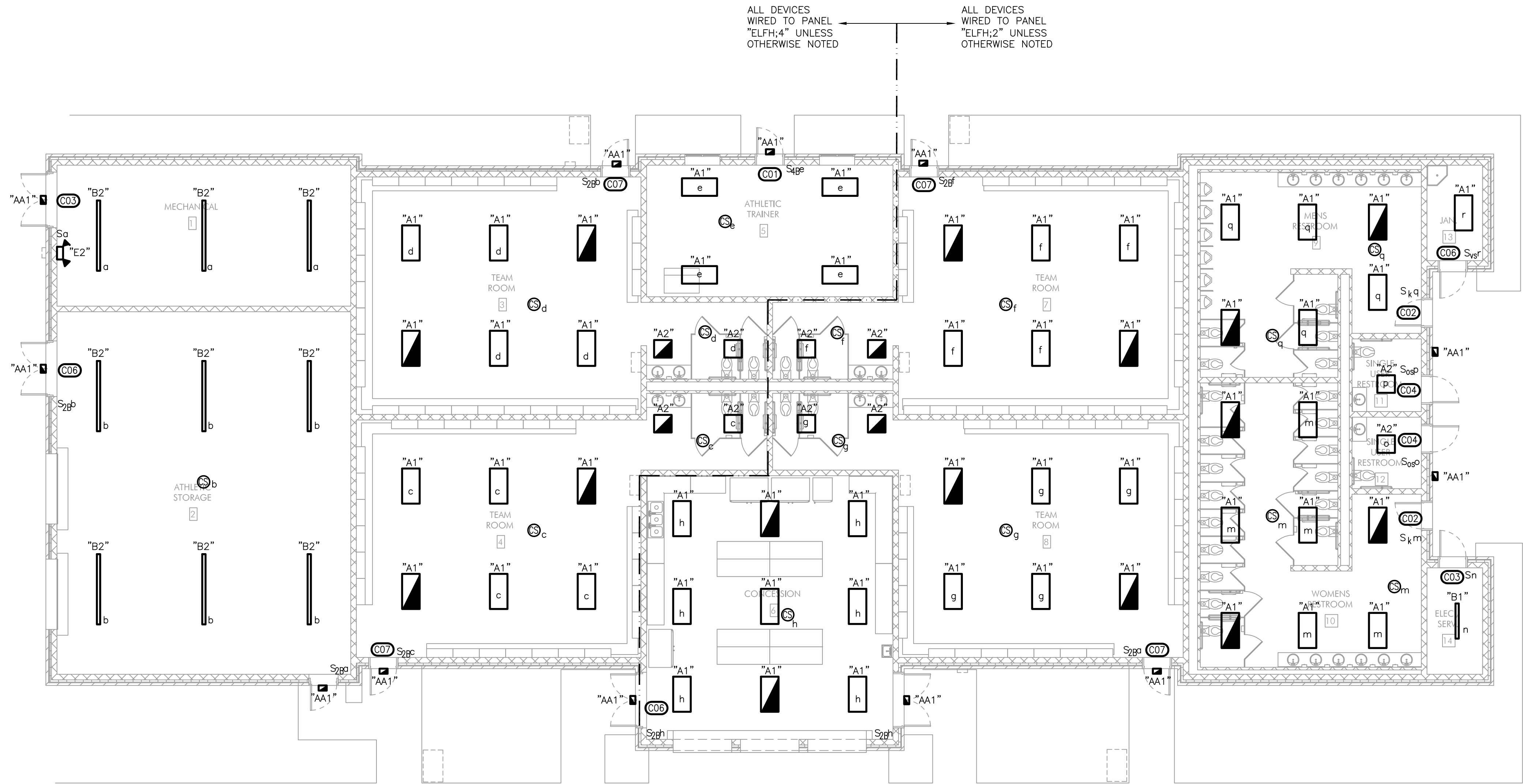
4 CONCESSION 6 - FIRE/COMM
E101 1/8" = 1'-0"



3 CONCESSION 6 - SOUTH ELEVATION
E101 1/2" = 1'-0"



2 FIELD HOUSE - POWER/FIRE/COMM
E101 1/8" = 1'-0"



1 FIELD HOUSE - LIGHTING
E101 1/8" = 1'-0"



ISSUE HISTORY

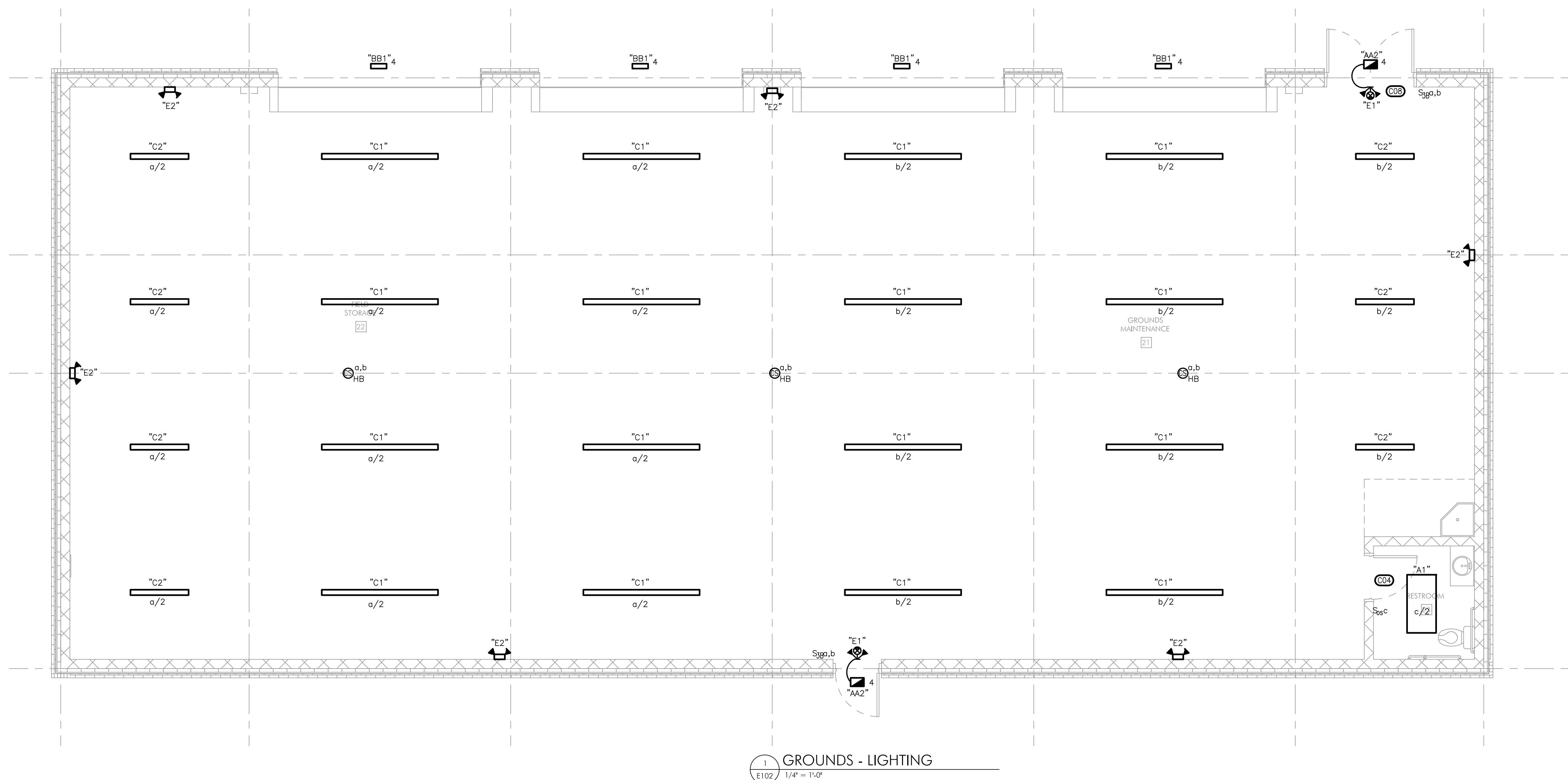
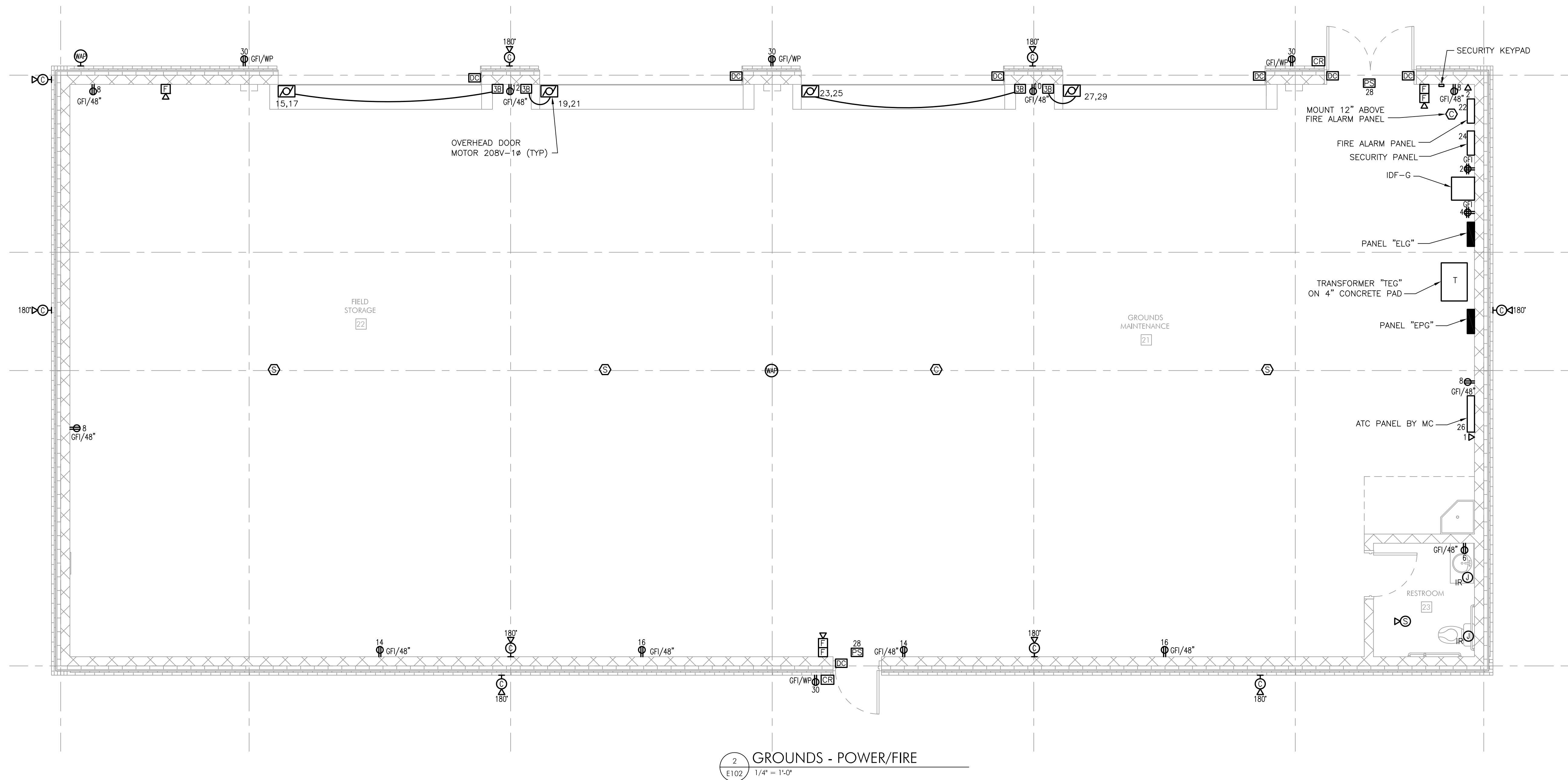
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SHEET TITLE

ELECTRICAL FIRST
FLOOR PLANS -
FIELD HOUSE

DRAWING NUMBER

E101



NOTES:

1. ALL WORK SHOWN IS NEW UNLESS OTHERWISE NOTED.
2. REFER TO DRAWING EG01 FOR LEGEND, ABBREVIATION, GENERAL NOTES.
3. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR FINAL LOCATIONS OF MECHANICAL AND PLUMBING EQUIPMENT.
4. WIRE ALL FIXTURE TYPES "E1" AND "E2" TO LOCAL LIGHTING CIRCUIT AHEAD OF ANY SWITCHING DEVICES. WIRE EMERGENCY DRIVER IN FIXTURE TYPE "A&2" TO "E1".
5. WIRE ALL RECEPTABLES, OVERHEAD DOORS AND EQUIPMENT SHOWN IN DETAIL 2 TO PANEL "EFG" UNLESS OTHERWISE NOTED.
6. WIRE ALL LIGHTING TO PANEL "ELG" UNLESS OTHERWISE NOTED.

**TESD CONESTOGA
ATHLETIC FIELDS**

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019



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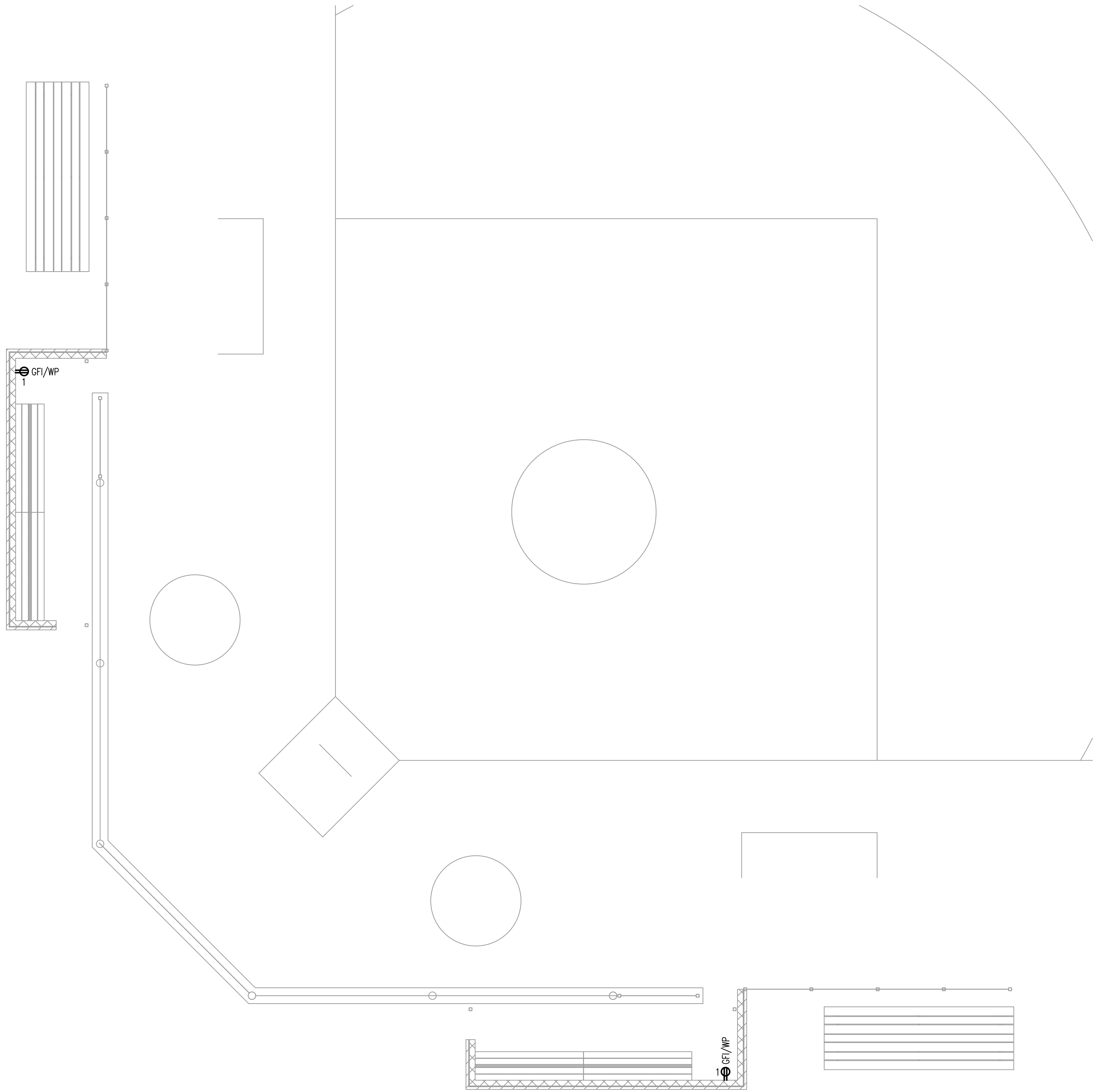
[illegible]

SHEET TITLE

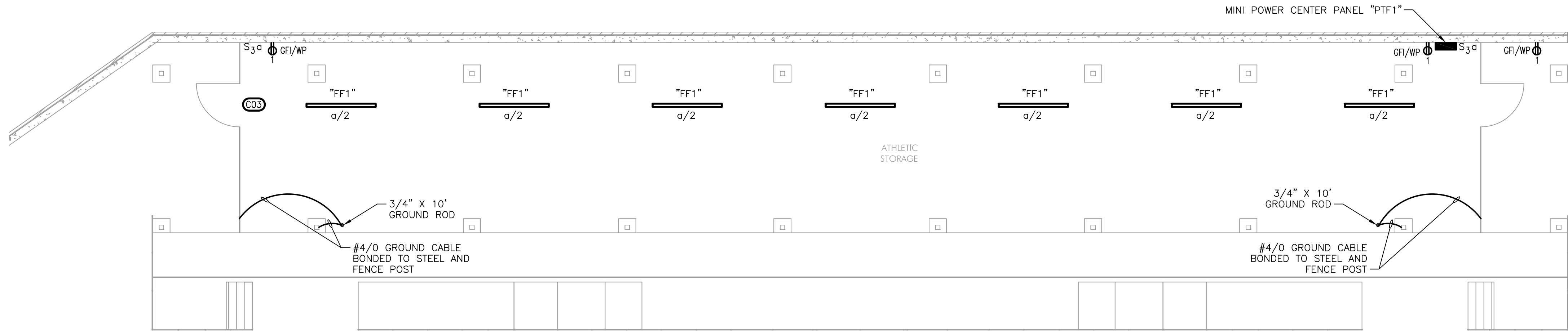
**ELECTRICAL FIRST FLOOR
PLANS - GROUNDS &
FIELDS BUILDING**

E102

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3 SOFTBALL DUGOUTS - POWER
E103 1/8" = 1'-0"



2 ATHLETIC STORAGE - LIGHTING, POWER & GROUNDING
E103 1/8" = 1'-0"

- NOTES:
1. ALL WORK SHOWN IS NEW UNLESS OTHERWISE NOTED.
 2. REFER TO DRAWING E001 FOR LEGEND, ABBREVIATION, GENERAL NOTES.
 3. WIRE ALL DEVICES IN ATHLETIC STORAGE TO PANEL "PTF1".
 4. WIRE ALL DEVICES IN DUGOUTS TO PANEL "PS".

TESD CONESTOGA ATHLETIC FIELDS

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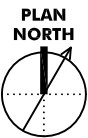
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**ELECTRICAL PLANS -
ATHLETIC STANDS &
DUGOUTS**

DRAWING NUMBER

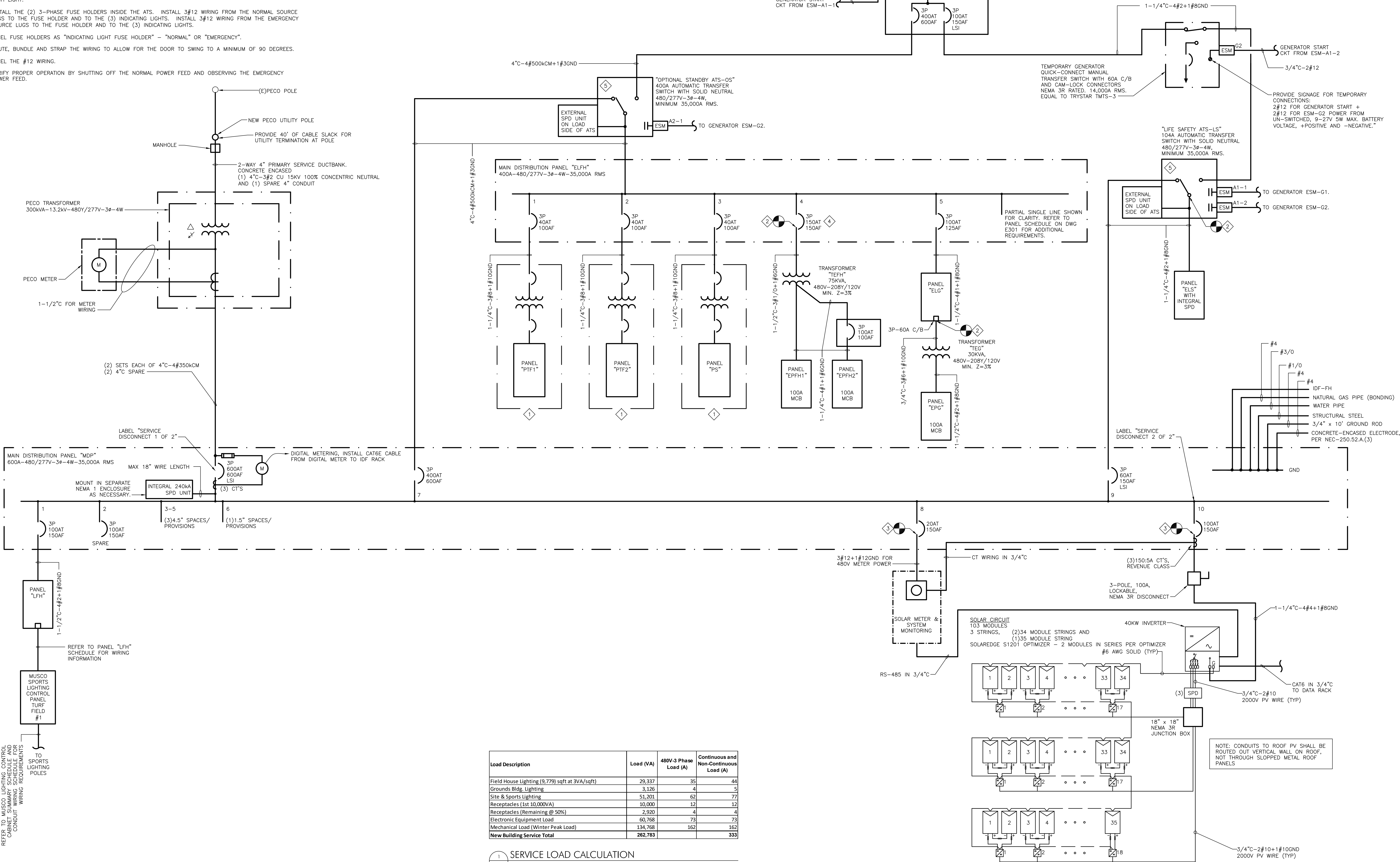
E103

ATS PHASE INDICATING LIGHT NOTES:

- ALL ATS'S SHALL HAVE INDICATING LIGHTS AS NOTED BELOW.
- ALL PRODUCTS SHALL BE UL LISTED AND LABELED.
- PROVIDE AND INSTALL 30MM WHITE, 277V LED INDICATING LIGHT WITH TRANSFORMER AND WHITE LENS, (1) PER PHASE FOR MONITORING THE NORMAL PHASES (3 TOTAL INDICATING LIGHTS). INDICATING LIGHTS SHALL BE EATON 10250T198L WITH A EATON 10250TC6N WHITE 30 MM PILOT LIGHT LENS OR ENGINEER APPROVED EQUAL.
- PROVIDE AND INSTALL 30MM WHITE, 277V LED INDICATING LIGHT WITH TRANSFORMER AND WHITE LENS, (1) PER PHASE FOR MONITORING THE EMERGENCY PHASES (3 TOTAL INDICATING LIGHTS). INDICATING LIGHTS SHALL BE EATON 10250T198L WITH A EATON 10250TC1N RED 30 MM PILOT LIGHT LENS OR ENGINEER APPROVED EQUAL.
- PROVIDE AND INSTALL (2) 3-PHASE FUSE HOLDERS WITH BLOWN FUSE INDICATION, ONE FOR THE NORMAL FEED AND ONE FOR THE EMERGENCY FEED. FUSES SHALL BE LITTELFUSE CLASS CC FUSES, KLKR SERIES RATED AT 3A EACH. PROVIDE ALLEN BRADLEY BULLETIN 140F FUSE HOLDERS OR ENGINEER APPROVED EQUAL.
- CUT IN 22.5MM (OR AS REQUIRED BY THE MANUFACTURER) MOUNTING HOLES IN THE EXISTING ATS FOR THE (6) INDICATING LIGHTS. LOGICALLY GROUP THE (3) NORMAL LED INDICATING LIGHTS AND LABEL AS "PECO SERVICE" OVERALL AND PHASES A, B AND C FOR EACH LIGHT. LOGICALLY, GROUP THE EMERGENCY RED LED INDICATING LIGHTS AND LABEL AS "EMERGENCY GENERATOR SOURCE" OVERALL AND PHASES A, B AND C FOR EACH LIGHT.
- INSTALL THE (2) 3-PHASE FUSE HOLDERS INSIDE THE ATS. INSTALL 3#12 WIRING FROM THE NORMAL SOURCE LUGS TO THE FUSE HOLDER AND TO THE (3) INDICATING LIGHTS. INSTALL 3#12 WIRING FROM THE EMERGENCY SOURCE LUGS TO THE FUSE HOLDER AND TO THE (3) INDICATING LIGHTS.
- LABEL FUSE HOLDERS AS "INDICATING LIGHT FUSE HOLDER" - "NORMAL" OR "EMERGENCY".
- ROUTE, BUNDLE AND STRAP THE WIRING TO ALLOW FOR THE DOOR TO SWING TO A MINIMUM OF 90 DEGREES.
- LABEL THE #12 WIRING.
- VERIFY PROPER OPERATION BY SHUTTING OFF THE NORMAL POWER FEED AND OBSERVING THE EMERGENCY POWER FEED.

DRAWING SPECIFIC KEYED NOTES:

- INTEGRAL 3-PHASE, 15KVA TRANSFORMER 480V-208Y/120V, PRIMARY 3P-40A C/B, AND SECONDARY 3P-50A C/B. 208/120V-3ø-4W, 10,000A RMS DISTRIBUTION LOAD CENTER, EQUAL TO EATON MINI-POWER CENTER. PROVIDE WITH CU BUSSING AND BOLT-ON BREAKERS, NEMA 3R ENCLOSURE. TAP TRANSFORMERS AT -5%.
- WORK DOWNSTREAM TO BE COMPLETED BY BUILDING ELECTRICAL CONTRACTOR.
- WORK DOWNSTREAM TO BE COMPLETED BY PHOTOVOLTAIC ELECTRICAL CONTRACTOR.
- PROVIDE AS PANEL SUBFEED C/B.
- ATS TO HAVE NEW PHASE INDICATING LIGHTS INSTALLED. REFER TO NOTES ON THIS DRAWING.



1 SERVICE LOAD CALCULATION

E201 NO SCALE

NOTES:

- REFER TO DRAWING E001 FOR GENERAL NOTES.
- ALL WORK SHOWN IS TO BE NEW, UNLESS OTHERWISE NOTED.
- ALL PANELS SHALL BE PROVIDED WITH NEW ENGRAVED NAME PLATES AS DOCUMENTED ON DRAWING E001.
- CIRCUIT SHALL BE RUN IN SHARED 2" C.
- ALL TRANSFORMERS SHALL BE ULTRA HIGH EFFICIENCY DRY TYPE AND MOUNTED ON 4" CONCRETE PAD.
- ALL WORK ON DRAWING SHALL BE BY SITE ELECTRICAL CONTRACTOR, EXCEPT WHERE NOTED.
- REFER TO DETAIL 1/E403 FOR TYPICAL GENERATOR MONITORED ENGINE START WIRING DIAGRAM.
- EC SHALL SELECTIVELY COORDINATE THE BREAKERS IN PANELS "ELS" WITH THE NORMAL "LIFE SAFETY ATS" FEEDER BREAKER IN SWITCHBOARD "MDP" AND 600AF MAIN CIRCUIT BREAKER, AS WELL AS THE "LIFE SAFETY ATS" FEEDER CIRCUIT BREAKER IN THE GENERATOR. LIFE SAFETY SYSTEM CIRCUIT BREAKERS SHALL BE FULLY SELECTIVELY COORDINATED.

TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

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SHEET TITLE

ELECTRICAL SINGLE LINE DIAGRAM

DRAWING NUMBER

E201

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LOCATION: SOFTBALL FIELD			PANEL SCHEDULE FOR MINI POWER CENTER PANEL "PS" 200/120 V, 3PH, 4W, 100A BUS, 50A M-C.B., 10,000A RMS WITH INTEGRAL 15kVA TRANSFORMER										SURFACE MOUNTED		
CKT NO	CIRCUIT POLE	AMP	REMARKS	A	B	C	A	B	C	REMARKS	AMP	CIRCUIT POLE	CKT NO		
1	1	20	DUSOUT RECEPTACLES	360			102			SCOREBOARD	20	1	2		
3	1	20	CAMERA BOX #4		1090			0		SPARE	20	1	4		
5	1	20	CAMERA BOX #6			1090			0	SPARE	20	1	6		
7	1	20	CAMERA BOX #7	1090				0		SPARE	20	1	8		
9	1	20	CAMERA BOX #8		1090				0	SPARE	20	1	10		
11	1	20	SPARE			0			0	SPARE	20	1	12		
13	1	20	SPARE	0				0		SPARE	20	1	14		
15	1	20	SPARE		0				0	SPARE	20	1	16		
17	1	20	SPARE			0			0	SPARE	20	1	18		
				1450	2180	1090	102	0	0						
										PHASE A: 1.55 KVA					
										PHASE B: 2.18 KVA					
										PHASE C: 1.09 KVA					
										TOTAL: 4.82 KVA					

LOCATION: TURF FIELD 1			PANEL SCHEDULE FOR MINI POWER CENTER PANEL "PT1" 208/120 V. 3PH. 4W. 100A BUS. 50A M.C.B. 10,000A RMS WITH INTEGRAL 150KA TRANSFORMER										SURFACE MOUNTED		
CKT NO	CIRCUIT POLE	AMP	REMARKS	A	B	C	A	B	C	REMARKS	AMP	CIRCUIT POLE	CKT NO		
1	1	20	RECEPTACLES ATHLETIC STORAGE	540			588			LIGHTING ATHLETIC STORAGE	20	1	2		
3	1	20	EMERGENCY CALL TOWER #3		360			240		SCOREBOARD TURF FIELD #1	20	1	4		
5	1	20	GATE OPERATOR #1A OLD STATE RD			1200			900	RECEPTACLES TURF FIELD # 1 CASSATT RD SIDE	20	1	6		
7	1	20	GATE OPERATOR #1B OLD STATE RD	1200			900			RECEPTACLES TURF FIELD # 1 BLEACHER SIDE	20	1	8		
9	1	20	CAMERA BOX #1		1090			0		SPARE	20	1	10		
11	1	20	CAMERA BOX #2			1090			0	SPARE	20	1	12		
13	1	20	CAMERA BOX #3	1090			0			SPARE	20	1	14		
15	1	20	CAMERA BOX #10			1090			0	SPARE	20	1	16		
17	1	20	CAMERA BOX #11			1090			0	SPARE	20	1	18		
				2830	2540	3380	1488	240	900						
											PHASE A: 4.32 KVA				
											PHASE B: 2.78 KVA				
											PHASE C: 4.28 KVA				
											TOTAL: 11.38 KVA				

LOCATION: TURF FIELD 2			PANEL SCHEDULE FOR MINI POWER CENTER PANEL "PTF2" 208/120 V. 3PH. 4W. 100A BUS. 50A M.C.B. 10,000A RMS WITH INTEGRAL 15KVA TRANSFORMER										SURFACE MOUNTED		
CKT NO	CIRCUIT POLE	AMP	REMARKS	A	B	C	A	B	C	REMARKS	AMP	CIRCUIT POLE	CKT NO		
1	1	20	RECEPTACLES BATTING CAGE	180			240			SCOREBOARD TURF FIELD #2	20	1	2		
3	1	20	CAMERA BOX #9		1090			540		RECEPTACLES TURF FIELD # 2 SOCCER FIELD SIDE	20	1	4		
5	1	20	CAMERA BOX #8			1090			540	RECEPTACLES TURF FIELD # 2 HOUSE SIDE	20	1	6		
7	1	20	SPARE	0			0			SPARE	20	1	8		
9	1	20	SPARE		0			0		SPARE	20	1	10		
11	1	20	SPARE			0			0	SPARE	20	1	12		
13	1	20	SPARE	0			0			SPARE	20	1	14		
15	1	20	SPARE		0			0		SPARE	20	1	16		
17	1	20	SPARE			0			0	SPARE	20	1	18		
				180	1090	1090	240	540	540						
											PHASE A:	0.42	KVA		
											PHASE B:	1.63	KVA		
											PHASE C:	1.63	KVA		
											TOTAL:	3.68	KVA		

SPORT LIGHTING POLE SCHEDULE																	REMARKS
POLE #	POLE HT	CC1		CC2		CC3		DD1		CAMERA		WAP		SPEAKER			
		QTY	MH	QTY	MH	QTY	MH	QTY	MH	QTY	MH	QTY	MH	QTY	MH		
F1	7'0"	5	7'0"	1	7'0"	1	7'0"	2	16'	-	-	1	20'				
F2	7'0"	5	7'0"	1	7'0"	1	7'0"	2	16'	-	-	-	-				
F3	7'0"	5	7'0"	2	7'0"	0	7'0"	2	16'	3	30'	1	40'				
F4	7'0"	5	7'0"	2	7'0"	0	7'0"	2	16'	3	30'	1	40'				
REFER TO DETAIL 8/E401 FOR ADDITIONAL INFORMATION.																	

MUSCO LIGHTING CONTROL CABINET SUMMARY SCHEDULE									
CABINET #	CONTROL MODULE LOCATION	CONTACTOR ID	ZONE	CIRCUIT DESCRIPTION	FIXTURE TYPES	VOLTAGE	FULL LOAD AMPS	CIRCUIT NUMBER	WIRE SIZE TO POLE LIGHTS*
1	1	C1	1	POLE F1	(5) CC1, (1) CC2, (2) DD1	480-3ø	14.54	LFH;1,3,5	3#6+1#6GND
1	1	C2	1	POLE F2	(5) CC1, (1) CC2, (2) DD1	480-3ø	15.09	LFH;7,9,11	3#6+1#6GND
1	1	C3	1	POLE F3	(5) CC1, (1) CC2, (2) DD1	480-3ø	14.54	LFH;13,15,17	3#6+1#6GND
1	1	C4	1	POLE F4	(5) CC1, (1) CC2, (2) DD1	480-3ø	15.09	LFH;19,21,23	3#6+1#6GND
2	1	A1	1	POLE F1	(1) CC1, (2) DD1	480-3ø	1.96	ELS;1,3,5	3#10+1#10GND
2	1	A1	1	POLE F2	(1) CC3	480-3ø	1.96	ELS;1,3,5	3#10+1#10GND
2	1	A1	1	POLE F3	(1) CC2	480-3ø	2.6	ELS;1,3,5	3#10+1#10GND
2	1	A1	1	POLE F4	(1) CC2	480-3ø	2.6	ELS;1,3,5	3#10+1#10GND

* REDUCE WIRING SIZE AS REQUIRED, TO TERMINATE AT CONTACTORS.

1. REFER TO DRAWING E0.1 FOR GENERAL NOTES.

2. ANY CIRCUIT BREAKERS THAT ARE DETERMINED TO BE SPARE SHALL BE PLACED IN THE OFF POSITION.
3. ALL PANELS ARE TO BE PROVIDED WITH AN ENGRAVED NAMEPLATE. REFER TO DETAIL 2/E001 FOR REQUIREMENTS.
4. LIGHTING MODEL NUMBERS ARE SHOWN FOR INFORMATION ONLY. THE WRITTEN DESCRIPTION FOR EACH FIXTURE SHALL SUPERSEDE THE MODEL NUMBER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL MODEL NUMBERS. ALL FINAL FIXTURE FINISHES SHALL BE SELECTED BY THE ARCHITECT PRIOR TO FIXTURE APPROVAL. CONTRACTOR SHALL BID ON THE MOST EXPENSIVE FINISH AVAILABLE FOR EACH FIXTURE, UNLESS OTHERWISE NOTED.

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ELECTRICAL SCHEDULES - SEC

E301

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LOCATION: MECHANICAL 1			PANEL SCHEDULE FOR PANEL: "ELS" 480/277 V, 3PH, 4W, 100A BUS, 100A M.C.B., 35,000A RMS										SURFACE MOUNTED		
CKT NO	CIRCUIT POLE	AMP	REMARKS	A	B	C	A	B	C	REMARKS	AMP	CIRCUIT POLE	CKT NO		
1	3	20	LIGHTING, EGRESS FIXTURES AT POLE F1-F4	1806		795				FIELD HOUSE EMERGENCY LIGHTING	20	1	2		
3				1983		216				FIELD HOUSE EXTERIOR BUILDING MOUNTED LIGHTING	20	1	4		
5				1263		0		0		MUSCO CONTROL	20	1	6		
7	1	20	SPARE	0		0		0		SPARE	20	1	8		
9	1	20	SPARE	0		0		0		SPARE	20	1	10		
11	1	20	SPARE	0		0		0		SPARE	20	1	12		
13	1	-	PREPARED SPACE	0		0		0		PREPARED SPACE	-	1	14		
15	1	-	PREPARED SPACE	0		0		0		PREPARED SPACE	-	1	16		
17	1	-	PREPARED SPACE	0		0		0		PREPARED SPACE	-	1	18		
19	1	-	PREPARED SPACE	0		0		0		PREPARED SPACE	-	1	20		
21	1	-	PREPARED SPACE	0		0		0		PREPARED SPACE	-	1	22		
23	1	-	PREPARED SPACE	0		0		0		PREPARED SPACE	-	1	24		
25	1	-	PREPARED SPACE	0		0		0		PREPARED SPACE	-	1	26		
27	1	-	PREPARED SPACE	0		0		0		PREPARED SPACE	-	1	28		
29	1	-	PREPARED SPACE	0		0		0		PREPARED SPACE	-	1	30		
				1806	1983	1263	795	216	0						
											PHASE A:	2.60	KVA		
											PHASE B:	2.20	KVA		
											PHASE C:	1.26	KVA		
											TOTAL:	6.06	KVA		

LOCATION: GROUNDS MAINTENANCE 21			PANEL SCHEDULE FOR PANEL "EPG" 208/120 V, 3PH, 4W, 100A BUS, 100A M.C.B., 22,000A RMS												SURFACE MOUNTED		
CKT NO	CIRCUIT POLE	AMP	REMARKS	A	B	C	A	B	C	REMARKS	AMP	CIRCUIT POLE	CKT NO				
1	1	15	IH-1		576			360		QUAD RECEPTACLE, GROUNDS MAINTENANCE 21	20	1	2				
3	1	15	IH-2		576			360		QUAD RECEPTACLE, GROUNDS MAINTENANCE 21	20	1	4				
5	1	20	EWHS-5			1500			180	RECEPTACLE, RESTROOM 23	20	1	6				
7	1	15	EF-7		342			720		RECEPTABLES, GNDS. MAINT. 21, FIELD STORAGE 22	20	1	8				
9	1	15	EF-8			138			180	RECEPTACLE, FIELD STORAGE 22	20	1	10				
11	1	20	HWH-2			1500			180	RECEPTACLE, GROUNDS MAINTENANCE 21	20	1	12				
13	1	20	SPARE	0				360		RECEPTABLES, GNDS. MAINT. 21, FIELD STORAGE 22	20	1	14				
15	2	20	OVERHEAD DOOR MOTOR			1056			360	RECEPTABLES, GNDS. MAINT. 21, FIELD STORAGE 22	20	1	16				
17							1056		1200	GATE OPERATOR #3A NORTH LOT	20	1	18				
19	2	20	OVERHEAD DOOR MOTOR		1056				250	GATE OPERATOR #3B NORTH LOT	20	1	20				
21					1056				250	FIRE ALARM PANEL	20	1	22				
23	2	20	OVERHEAD DOOR MOTOR			1056			250	SECURITY PANEL	20	1	24				
25				1056			250			ATC PANEL	20	1	26				
27	2	20	OVERHEAD DOOR MOTOR			1056			500	DOOR ACCESS PANELS	20	1	28				
29						1056			720	EXTERIOR RECEPTABLES	20	1	30				
31	3	20	E-6		792		0			SPARE	20	1	32				
33					792		0			SPARE	20	1	34				
35					792		0			SPARE	20	1	36				
37	3	20	E-5		792		0			SPARE	20	1	38				
39					792		0			SPARE	20	1	40				
41					792		0			SPARE	20	1	42				
43	1	-	PREPARED SPACE		792		0			PREPARED SPACE	-	1	44				
45	1	-	PREPARED SPACE			792		0		PREPARED SPACE	-	1	46				
47	1	-	PREPARED SPACE				792		0	PREPARED SPACE	-	1	48				
49	1	-	PREPARED SPACE			792		0		PREPARED SPACE	-	1	50				
51	1	-	PREPARED SPACE				792		0	PREPARED SPACE	-	1	52				
53	1	-	PREPARED SPACE					792		0	PREPARED SPACE	-	1	54			
				6198	7050	9336	2890	1650	2530					PHASE A: 9.09 KVA			
														PHASE B: 8.70 KVA			
														PHASE C: 11.87 KVA			
														TOTAL: 29.66 KVA			

* INDICATES CIRCUIT BREAKER TO BE PROVIDED WITH A HANDLE CLAMP FOR BREAKER AND BREAKER TO BE MARKED RED

PHASE A: 9.09 KVA

PHASE B: 8.70 KVA

PHASE C: 11.87 KVA

TOTAL: 29.66 KVA

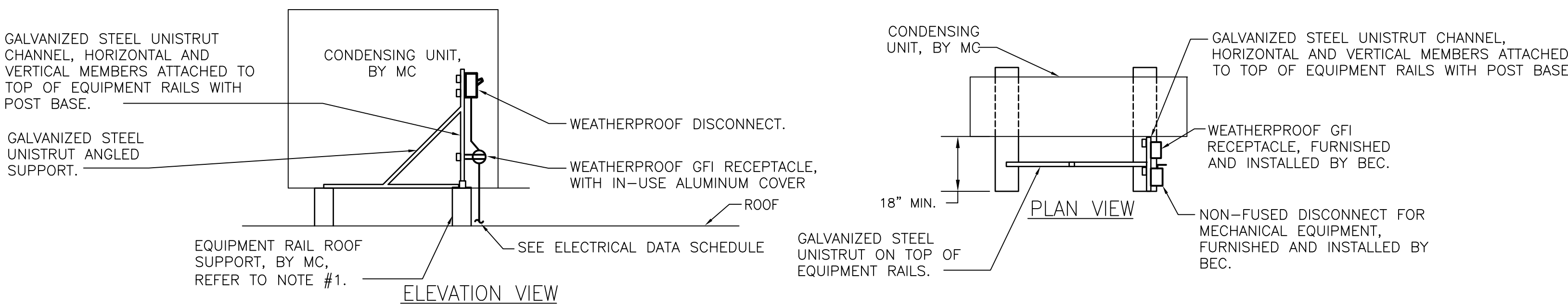
LOCATION: MECHANICAL 1			PANEL SCHEDULE FOR PANEL "EPFH1" SECT.1 208/120 V, 3PH, 4W, 100A BUS, 100A M.C.B., 22,000A RMS WITH FEED THROUGH LUGS										SURFACE MOUNTED					
CKT NO	CIRCUIT POLE	AMP	REMARKS			A	B	C	A	B	C	REMARKS			AMP	CIRCUIT POLE	CKT NO	
1	1	15	GUH-1			240			720			EXTERIOR RECEPTABLES			20	1	2	
3	1	20 GFI	TEAM ROOM 4 ELECTRIC WATER COOLER				720			360		ATHLETIC STORAGE 2 RECEPTABLES			20	1	4	
5	1	20 GFI	TEAM ROOM 3 ELECTRIC WATER COOLER					720			720	TEAM ROOM 4 RECEPTABLES			20	1	6	
7	1	20	IDF-FH RECEPTACLE MECHANICAL 1			360			720			TEAM ROOM 3 RECEPTABLES			20	1	8	
9	1	20	IDF-FH RECEPTACLE MECHANICAL 1				360				480	HWH-1			20	1	10	
11	1	20	TEAM ROOM 4 & 5 TOILET ROOM RECEPTABLES						360	360		480	RPT-1			15	1	12
13	1	20	TEAM ROOM 4 & 7 TOILET ROOM RECEPTABLES			360				720		ATHLETIC TRAINER 5 RECEPTABLES			20	1	14	
15	1	20*	FIRE ALARM PANEL				250				720	ATHLETIC TRAINER 5 RECEPTABLES			20	1	16	
17	1	20	MECHANICAL 1 RECEPTABLES					360			2220				30	2	18	
19	1	20	ATHLETIC STORAGE 2 OVERHEAD DOOR			1178			2220			ATHLETIC TRAINER 5 ICE MACHINE			20	1	20	
21	1	20	ATHLETIC STORAGE 2 OVERHEAD DOOR				1178			264		EF-1			20	1	22	
23	1	20	CONCESSIONS 6 ROLLING COUNTER DOOR					1178			1066	EF-3			20	1	24	
25	1	20	CONCESSIONS 6 ROLLING COUNTER DOOR			1178			342			EF-4			20	1	26	
27	1	20	CONCESSIONS 6 ROLLING COUNTER DOOR				1178			360		EMERGENCY CALL TOWER #1			20	1	28	
29	1	20	ATC PANEL					250			750	DOOR ACCESS PANELS, RMS. 1 & 2			20	1	30	
31	1	20	SPARE			0			750			DOOR ACCESS PANELS, RMS. 3, 4 & 5			20	1	32	
33	1	20	SPARE				0			250		SECURITY PANEL			20	1	34	
35	2	20	HP-1/CC-8					1980			0	MUSCO CONTROLS			20	1	36	
37							1980		0						20	1	38	
39	2	15	IHRLU-1, IHRLU-2				96			252		CC-1 THRU CC-3			15	2	40	
41								96			252						42	
						5292	3778	4942	5472	2686	5454							
* INDICATES CIRCUIT BREAKER TO BE PROVIDED WITH A HANDLE CLAMP FOR BREAKER AND BREAKER TO BE MARKED RED													PHASE A: 10.76 KVA PHASE B: 6.46 KVA PHASE C: 10.40 KVA TOTAL: 27.62 KVA					

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BUILDING LIGHTING FIXTURE SCHEDULE													
FIXTURE TYPE	MANUFACTURER	ALTERNATE MANUFACTURER	CATALOG NUMBER	VOLTS	LIGHT ENGINE				TYPE	DRIVER	MOUNTING TYPE	WARRANTY	REMARKS
					LUMENS	WATTS	COLOR	HOURS @L70					
A1	CLOUMBIA	APPROVED EQUAL BY ENGINEER	SRP24-40-ML-G-EDU	120/277	4934	45	4000K	60,000	LED	0-10V DIMMING	RECESSED	5 YEARS	2' X 4' RECESSED EDGE-LIT FLAT PANEL LED FIXTURE WITH EDGE TO EDGE ILLUMINATION AND MATTE WHITE FINISH EXTRUDED ALUMINUM FRAME WITH SELECTABLE LUMEN OUTPUT SET TO MIDDLE LUMEN OUTPUT. FIXTURE SHALL BE LISTED DAMP LOCATIONS.
A2	CLOUMBIA	APPROVED EQUAL BY ENGINEER	SRP22-40-ML-G-EDU	120/277	3317	30	4000K	60,000	LED	0-10V DIMMING	RECESSED	5 YEARS	FIXTURE SHALL BE THE SAME AS FIXTURE TYPE "A1" EXCEPT FIXTURE SHALL BE 2' X 2'.
B1	COLUMBIA	APPROVED EQUAL BY ENGINEER	MP54-40XW-CW-EU-CSHC	120/277	2,573	20	4000K	60,000 @L80	LED	NON-DIMMING	PENDANT	5 YEARS	4' x 3.11" LED LENSED STRIP LIGHT FIXTURE WITH FROSTED PRISMATIC ACRYLIC LENS AND STEEL HOUSING PAINTED WHITE AFTER FABRICATION. FIXTURE SHALL BE CHAIN MOUNTED AND FINAL HEIGHT AND LOCATIONS TO BE COORDINATED WITH MECHANICAL EQUIPMENT, DUCTS AND PIPING.
B2	COLUMBIA	APPROVED EQUAL BY ENGINEER	MP58-40LW-CW-EU-CSHC	120/277	7,841	54.6	4000K	60,000 @L80	LED	NON-DIMMING	PENDANT	5 YEARS	FIXTURE SHALL BE THE SAME BE THE SAME AS FIXTURE TYPE "B1" EXCEPT FIXTURE SHALL BE 8' LONG.
C1	COLUMBIA	APPROVED EQUAL BY ENGINEER	LXEM8-40ML-RFA-EU-XEDPM	120/277	10,336	84	4000K	60,000 @L80	LED	NON-DIMMING	PENDANT	5 YEARS	8' x 7" ENCLOSED LED LIGHT FIXTURE WITH FROSTED ACRYLIC LENS AND FIBERGLASS HOUSING AND GASKET. FIXTURE SHALL BE WET LOCATION LISTED AND IP65 RATED.
C2	COLUMBIA	APPROVED EQUAL BY ENGINEER	LXEM4-40ML-RFA-EU-XEDPM	120/277	5,168	41.9	4000K	60,000 @L80	LED	NON-DIMMING	PENDANT	5 YEARS	FIXTURE SHALL BE THE SAME AS FIXTURE TYPE "C1" EXCEPT BE 4'.
E1	DUAL LITE	APPROVED EQUAL BY ENGINEER	HXCJURW-03L-RC12	120/277	-	4.5	RED	-	LED	-	CEILING/ SIDEMOUNT/ BACKMOUNT	5 YEARS	COMBINATION LED EXIT SIGN AND EMERGENCY LIGHTING UNIT WITH SIDE MOUNTED LED HEADS, RED LETTERS. FIXTURE SHALL HAVE UV STABILIZED THERMOPLASTIC HOUSING, UNIVERSAL HOUSING FOR MOUNTING AND NICKEL CADMIUM BATTERY FOR UL 90 MINUTE OPERATION WITH REMOTE CAPACITY. FIXTURE SHALL BE UL 924 LISTED. PROVIDE SINGLE OR DOUBLE FACE SIGNS BASED ON THE CONTRACT DRAWINGS. CONTRACTOR SHALL REFER TO THE CONTRACT DRAWINGS FOR THE MOUNTING REQUIREMENTS, NUMBER OF FACES AND ARROW REQUIREMENTS FOR EACH EXIT SIGN.
E2	DUAL LITE	APPROVED EQUAL BY ENGINEER	LZ-2-4-03L	120/277	-	4	-	-	LED	-	WALL	2 YEARS	EMERGENCY BATTERY BACKUP LIGHTING UNIT WITH LED LAMPS. FIXTURE SHALL HAVE DUAL-VOLTAGE INPUT, LED LIFE-CYCLE OF MORE THAN 10 YEARS, NICKEL CADMIUM BATTERY FOR UL 90 MINUTE OPERATION BASED ON THE NUMBER OF INTERNAL AND EXTERNAL HEADS, DAMP LOCATION LISTED, FULLY ADJUSTABLE LAMP-HEADS, TEST SWITCH & AC-ON INDICATOR AND SHALL BE UL924 LISTED. FIXTURE SHALL HAVE SELF DIAGNOSTICS.
E3	DUAL LITE	APPROVED EQUAL BY ENGINEER	LZ-30-4-03L	120/277	-	14	-	-	LED	-	WALL	2 YEARS	FIXTURE SHALL BE THE SAME AS FIXTURE TYPE "E2" EXCEPT FIXTURE SHALL HAVE REMOVE CAPACITY.
AA1	DUAL-LITE	APPROVED EQUAL BY ENGINEER	PGF1XPc1	120/277	1,067	18	4000K	50,000	LED	NON-DIMMING	WALL	3 YEARS	11" L X 7" H ARCHITECTURAL LED SCONCE. FIXTURE SHALL HAVE FULL CUTOFF DISTRIBUTION, FULLY GASKETED DIE-CAST ALUMINUM HOUSING AND POLISHED ALUMINUM REFLECTOR WITH ACRYLIC LENS. FIXTURE SHALL BE LISTED FOR WET LOCATIONS. FIXTURE TO HAVE PHOTOCELL CONTROL.
AA2	DUAL-LITE	APPROVED EQUAL BY ENGINEER	PGNX	120/277	445	17	4000K	48,000	LED	NON-DIMMING	WALL	3 YEARS	FIXTURE SHALL BE THE SAME AS FIXTURE TYPE "AA1" EXCEPT FIXTURE SHALL HAVE REMOTE BATTERY EMERGENCY ILLUMINATION.
BB1	RAB	NO SUBSTITUTION	WPLEDFC52/PCS2	277	7,325	57	5000K	100,000	LED	NON-DIMMING	WALL	5 YEARS	WALL MOUNTED LED SITE LIGHTING FIXTURE. FIXTURE SHALL HAVE PHOTOCELL, FULL CUTOFF DISTRIBUTION, DIE-CAST ALUMINUM HOUSING WITH CAST ALUMINUM THERMAL MANAGEMENT SYSTEM, HIGH TEMPERATURE SILICONE GASKET FOR SEALING THE HOUSING AGAINST THE LENS SURFACE, UL LISTED WET LOCATION, RATED FOR -40 DEGREES STARTING, CHIP AND FADE RESISTANT POLYESTER POWDER COAT PAINT.

LIGHTING CONTROL SCHEDULE								LOCATION/ REMARKS
	OCCUPANCY SENSOR	VACANCY SENSOR	DAYLIGHT SENSOR	OTHER	AUTOMATIC SHUT OFF BY	WALL CONTROLS	LIFE SAFETY EMERGENCY LIGHTING	
C01	-	YES	-	-	VACANCY SENSOR	4-BUTTON DIGITAL SWITCH(ES) (ON/OFF/RAISE/LOWER)	-	ATHLETIC TRAINER
C02	YES	-	-	-	OCCUPANCY SENSOR	KEYED SWITCH (ON/OFF)	NOT CONTROLLED. ON 24/7 FOR SECURITY.	GANG TOILET ROOMS
C03	-	-	-	-	-	TOGGLE SWITCH	-	MECHANICAL ROOMS, ELECTRICAL ROOMS
C04	YES	-	-	-	OCCUPANCY SENSOR	2-BUTTON DIGITAL SWITCH (ON/OFF) WITH INTEGRAL SENSOR AT SWITCH.	-	INDIVIDUAL TOILET ROOMS
C05	-	YES	-	-	VACANCY SENSOR	2-BUTTON DIGITAL SWITCH (ON/OFF) WITH INTEGRAL SENSOR AT SWITCH.	-	JANITOR'S CLOSETS
C06	-	YES	-	-	VACANCY SENSOR	2-BUTTON DIGITAL SWITCH (ON/OFF)	-	STORAGE ROOM/CONCESSIONS
C07	YES	-	-	-	OCCUPANCY SENSOR	2-BUTTON DIGITAL SWITCH (ON/OFF)	NOT CONTROLLED. ON 24/7 FOR SECURITY.	TEAM ROOMS
C08	-	YES	-	-	VACANCY SENSOR	3-BUTTON DIGITAL SWITCH PRESET 1 ON/OFF FOR ZONE a PRESET 3 ON/OFF FOR ZONE b	-	GROUND'S BUILDING

MECHANICAL EQUIPMENT - ELECTRICAL DATA SCHEDULE												
EQUIPMENT NAME	LOCATION	V-Φ-Hz	HP/VVA	WIRE AND CONDUIT	CIRCUIT BREAKER	PANEL (KLT #S)	STARTER/ DISCONNECT FURNISHED BY MC/PC INSTALLED BY BEC	STARTER/ DISCONNECT FURNISHED BY BEC INSTALLED BY BEC	SUPPLY SMOKE DETECTOR QUANTITY	RETURN SMOKE DETECTOR QUANTITY	REMARKS	
BP-1	MECHANICAL 1	480-3-60	48 MCA	3/4"C-3#6+1#10GND	60/3	ELFH1,19,21,23	-	-	-	-		
CC-1	TEAM ROOM 3	208-1-60	0.7 MCA	3/4"C-2#12+1#12GND	15/2	EPFH1,40,42	-	-	-	-		
CC-2	TEAM ROOM 4	208-1-60	0.7 MCA	3/4"C-2#12+1#12GND	15/2	EPFH1,40,42	-	-	-	-		
CC-3	ATHLETIC TRAINER 5	208-1-60	0.4 MCA	3/4"C-2#12+1#12GND	15/2	EPFH1,40,42	-	-	-	-		
CC-4	TEAM ROOM 7	208-1-60	0.7 MCA	3/4"C-2#12+1#12GND	15/2	EPFH2,40,42	-	-	-	-		
CC-5	TEAM ROOM 8	208-1-60	0.7 MCA	3/4"C-2#12+1#12GND	15/2	EPFH2,40,42	-	-	-	-		
CC-6	MENS RESTROOM 9	208-1-60	0.3 MCA	3/4"C-2#12+1#12GND	15/2	EPFH2,40,42	-	-	-	-		
CC-7	WOMEN'S RESTROOM 10	208-1-60	0.4 MCA	3/4"C-2#12+1#12GND	15/2	EPFH2,40,42	-	-	-	-		
CC-8	MECHANICAL 1	208-1-60	0.7 MCA	3/4"C-3#12+1#12GND	15/2	EPFH2,40,42	-	-	-	-		
CUH-1	CONCESSION 6	277-1-60	16 FLA	3/4"C-2#12+1#12GND	20/1	ELFH,1	UNIT MOUNTED	-	-	-		
CUH-2	CONCESSION 6	277-1-60	16 FLA	3/4"C-2#12+1#12GND	20/1	ELFH,3	UNIT MOUNTED	-	-	-		
CUH-3	CONCESSION 6	277-1-60	16 FLA	3/4"C-2#12+1#12GND	20/1	ELFH,5	UNIT MOUNTED	-	-	-		
DOAS-1	FIELD HOUSE ROOF	480-3-60	42 FLA	3/4"C-3#6+1#10GND	50/3	ELFH,31,33,35	UNIT MOUNTED	-	2	-	UNIT PROVIDED WITH MANUFACTURER'S WIRED RECEPTACLE.	
EF-1	CONCESSION 6	120-1-60	2.3 FLA	3/4"C-2#12+1#12GND	20/1	EPFH1,22	UNIT MOUNTED	-	-	-	PROVIDE WITH MANUAL ON/OFF TOGGLE SWITCH IN CONCESSIONS.	
EF-2	TRAINING ROOM BATHROOMS	120-1-60	8.8 FLA	3/4"C-2#12+1#12GND	20/1	EPFH1,24	UNIT MOUNTED	-	-	-		
EF-3	RESTROOMS	120-1-60	6.2 FLA	3/4"C-2#12+1#12GND	20/1	EPFH2,25	UNIT MOUNTED	-	-	-		
EF-4	ATHLETIC STORAGE 2	120-1-60	2.85 FLA	3/4"C-2#12+1#12GND	20/1	EPFH1,26	UNIT MOUNTED	-	-	-		
EF-5	FIELD STORAGE 22	208-3-60	1 1/2 HP	3/4"C-3#12+1#12GND	20/3	EPG,37,39,41	UNIT MOUNTED	-	-	-		
EF-6	FIELD STORAGE 22	208-3-60	1 1/2 HP	3/4"C-3#12+1#12GND	20/3	EPG,31,33,35	UNIT MOUNTED	-	-	-		
EF-7	FIELD STORAGE 22	120-1-60	2.85 FLA	3/4"C-2#12+1#12GND	15/1	EPG,7	UNIT MOUNTED	-	-	-		
EF-8	RESTROOM 23	120-1-60	1.15 FLA	3/4"C-2#12+1#12GND	15/1	EPG,9	UNIT MOUNTED	-	-	-		
EW-H-1	JAN 13	120-1-60	12.5 FLA	3/4"C-2#12+1#12GND	20/1	EPFH2,1	UNIT MOUNTED	-	-	-		
EW-H-2	SINGLE USER RESTROOM 11	120-1-60	12.5 FLA	3/4"C-2#12+1#12GND	20/1	EPFH2,3	UNIT MOUNTED	-	-	-		
EW-H-3	SINGLE USER RESTROOM 12	120-1-60	12.5 FLA	3/4"C-2#12+1#12GND	20/1	EPFH2,5	UNIT MOUNTED	-	-	-		
EW-H-4	ELECSERV 14	120-1-60	12.5 FLA	3/4"C-2#12+1#12GND	20/1	EPFH2,7	UNIT MOUNTED	-	-	-		
EW-H-5	RESTROOM 23	120-1-60	12.5 FLA	3/4"C-2#12+1#12GND	20/1	EPG,5	UNIT MOUNTED	-	-	-		
GLH-1	ATHLETIC STORAGE 2	120-1-60	240 W	3/4"C-2#12+1#12GND	15/1	EPFH1,1	-	WALL MOUNT	-	-		
HP-8	FIELD HOUSE ROOF	208-1-60	16.5 MCA	3/4"C-2#12+1#12GND	20/2	EPFH1,35,37	-	UNISTRUT	-	-	REFER TO DETAILS 1 AND 2 THIS DRAWING. PROVIDE GFVWP RECEPTACLE WIRED TO EPFH1,44	
HW-H-1	MECHANICAL 1	120-1-60	4 FLA	3/4"C-2#12+1#12GND	20/1	EPFH1,10	-	WALL MOUNT	-	-		
HW-H-2	FIELD STORAGE 22	120-1-60	1500 W	3/4"C-2#12+1#12GND	20/1	EPG,11	-	WALL MOUNT	-	-		
II-1	GROUND'S MAINTENANCE 21	120-1-60	4.8 FLA	3/4"C-2#12+1#12GND	15/1	EPG,1	-	WALL MOUNT	-	-		
II-2	FIELD STORAGE 22	120-1-60	4.8 FLA	3/4"C-2#12+1#12GND	15/1	EPG,3	-	WALL MOUNT	-	-		
IHRU-1	TEAM ROOM 3	208-1-60	0.4 FLA	3/4"C-2#12+1#12GND	15/2	EPFH1,39,41	-	UNIT MOUNTED	-	-		
IHRU-2	TEAM ROOM 7	208-1-60	0.4 FLA	3/4"C-2#12+1#12GND	15/2	EPFH1,39,41	-	UNIT MOUNTED	-	-		
OHRU-1	FIELD HOUSE ROOF	480-3-60	27.9 MCA	3/4"C-3#6+1#10GND	40/3	ELFH,25,27,29	-	UNISTRUT	-	-	REFER TO DETAIL 2 THIS DRAWING.	
RP-1	MECHANICAL 1	120-1-60	3.8 FLA	3/4"C-2#12+1#12GND	15/1	EPFH1,12	-	WALL MOUNT	-	-		



- NOTES:
- MC PROVIDED EQUIPMENT RAIL ROOF SUPPORTS SHALL EXTEND MINIMUM 12" BEYOND END OF UNIT ON ONE SIDE FOR MOUNTING AND INSTALLATION OF UNISTRUT STRUCTURE FOR ELECTRICAL EQUIPMENT. COORDINATE FINAL MOUNTING OF UNISTRUT AND ELECTRICAL EQUIPMENT TO ENSURE IT DOES NOT INHIBIT ACCESS AND REQUIRED CLEARANCES TO THE MECHANICAL EQUIPMENT.
 - PROVIDE CONDUIT SUPPORTS, AS NEEDED, BETWEEN PIPE CURB CONDUITS PENETRATE ROOF AND EQUIPMENT. ELECTRICAL CONDUITS SHALL NOT BE SUPPORTED FROM MECHANICAL PIPING, THOUGH USE OF MECHANICAL ROOF MOUNTED PIPE SUPPORTS IS ALLOWED WHEN COORDINATED WITH MC IN FIELD.
 - ALL GALVANIZED STEEL SUPPORTS FOR DISCONNECT AND RECEPTACLE ARE FURNISHED AND INSTALLED BY THE BEC.

2 ROOF MOUNTED HEAT PUMP RECEPTACLE & DISCONNECT DETAIL
E303 NOT TO SCALE

1 HP-CC WIRING DIAGRAM
E303 NOT TO SCALE

- NOTES:
- REFER TO DRAWING E0.1 FOR GENERAL NOTES.
 - LIGHTING MODEL NUMBERS ARE SHOWN FOR INFORMATION ONLY. THE WRITTEN DESCRIPTION FOR EACH FIXTURE SHALL SUPERSEDE THE MODEL NUMBER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL MODEL NUMBERS. ALL FINAL FIXTURE FINISHES SHALL BE SELECTED BY THE ARCHITECT PRIOR TO FIXTURE APPROVAL. CONTRACTOR SHALL BID ON THE MOST EXPENSIVE FINISH AVAILABLE FOR EACH FIXTURE, UNLESS OTHERWISE NOTED.
 - THE LIGHTING CONTROL WIRING DIAGRAM AND MODEL NUMBERS ARE BASED ON CURRENT LIGHTING, HLI SOLUTIONS NX SERIES NETWORKED LIGHTING CONTROLS AND SHOW TYPICAL WIRING. NOT ALL SCENARIOS ARE SHOWN. FINAL WIRING DIAGRAMS TO BE PROVIDED BY THE MANUFACTURER.
 - REFER TO FLOOR PLANS FOR QUANTITY OF SWITCHES, SENSORS, AND SWITCH LEGS. PROVIDE ALL REQUIRED LIGHTING CONTROLLERS, ACCESSORIES, AND LOW-VOLTAGE WIRING FOR A COMPLETE DISTRIBUTED LIGHTING CONTROL SYSTEM.
 - LIGHTING CONTROL MANUFACTURER SHALL PROVIDE ALL NECESSARY PROGRAMMING SO THE LIGHTING CONTROL SYSTEM WILL OPERATE AS DESCRIBED IN THE LIGHTING CONTROL SCHEDULE.
 - ROOM CONTROLLERS SHALL BE LOCATED ABOVE ACCESSIBLE CEILINGS. CONTRACTOR SHALL MARK FINAL LOCATIONS ON ASBUILTS.
 - FOR LOCATIONS OF ALL MECHANICAL AND PLUMBING EQUIPMENT REFER TO THE RESPECTIVE MECHANICAL AND PLUMBING DRAWINGS.
 - PROVIDE AND INSTALL DUCT MOUNTED SMOKE DETECTORS IN THE SUPPLY DUCT AND RETURN DUCT OF EACH UNIT AS PER NFPA 72 FOR EQUIPMENT WITH GREATER THAN 2000 CFM. ADDITIONAL DUCT DETECTORS MAY BE REQUIRED OR BE REQUIRED IN LESS THAN 2000 CFM EQUIPMENT BASED IN THE LOCATIONS OF SMOKE DAMPERS. PROVIDE AND INSTALL REMOTE TEST LED & SWITCH HAS SHOWN ON THE DRAWINGS.
 - COORDINATE WITH THE MC BEFORE WIRING ANY EQUIPMENT. WIRING AND CIRCUIT BREAKER SIZES ARE SUBJECT TO CHANGE BASED ON ACTUAL EQUIPMENT PROVIDED. ANY CHANGES TO WIRE SIZE OR CIRCUIT BREAKER SIZES BASED ON ACTUAL EQUIPMENT BEING PROVIDED SHALL BE AT NO COST TO THE OWNER. THE MC SHALL COMPENSATE THE EC FOR ANY REQUIRED CHANGES.

TESD CONESTOGA ATHLETIC FIELDS

TREDFYFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

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ISSUE HISTORY

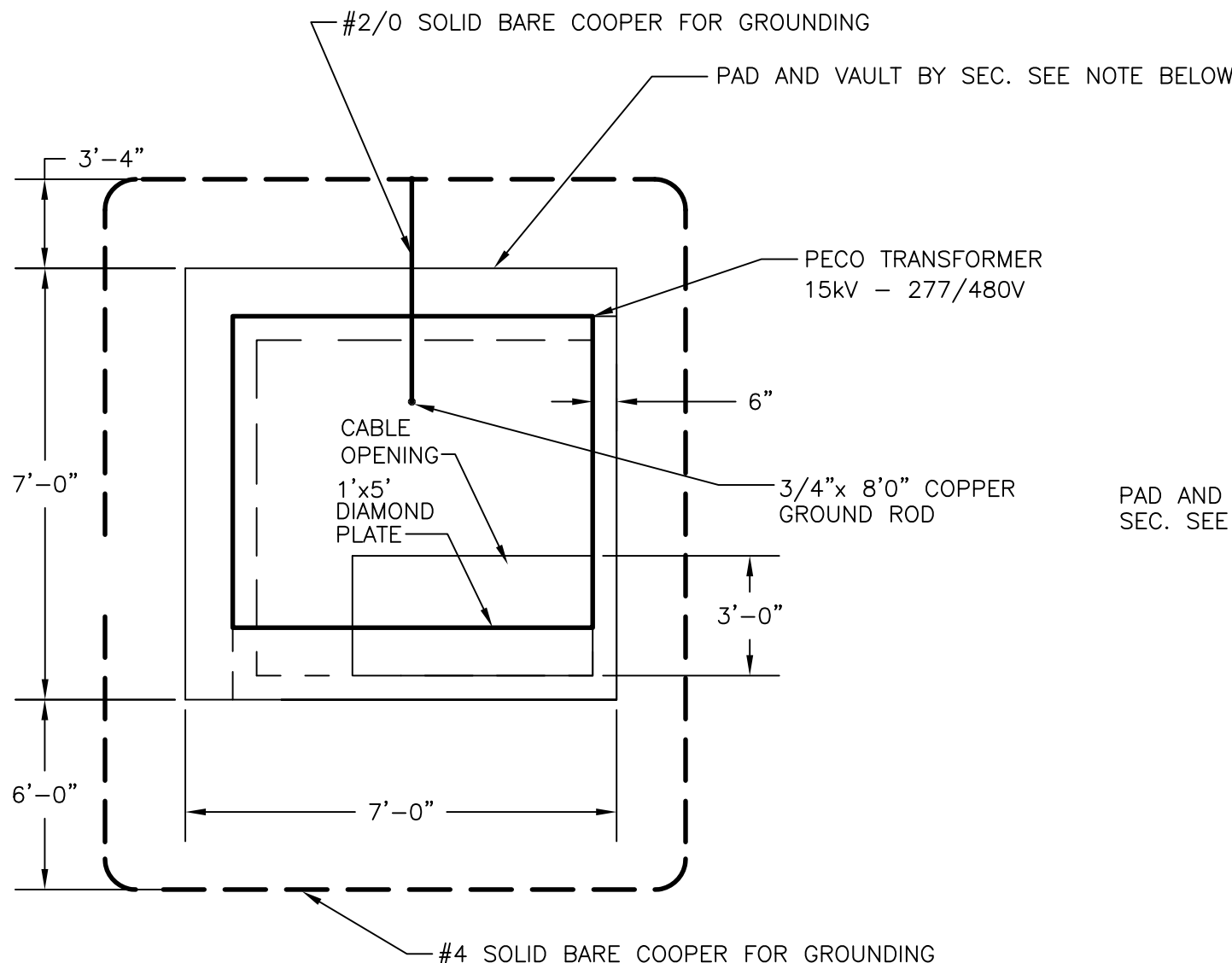
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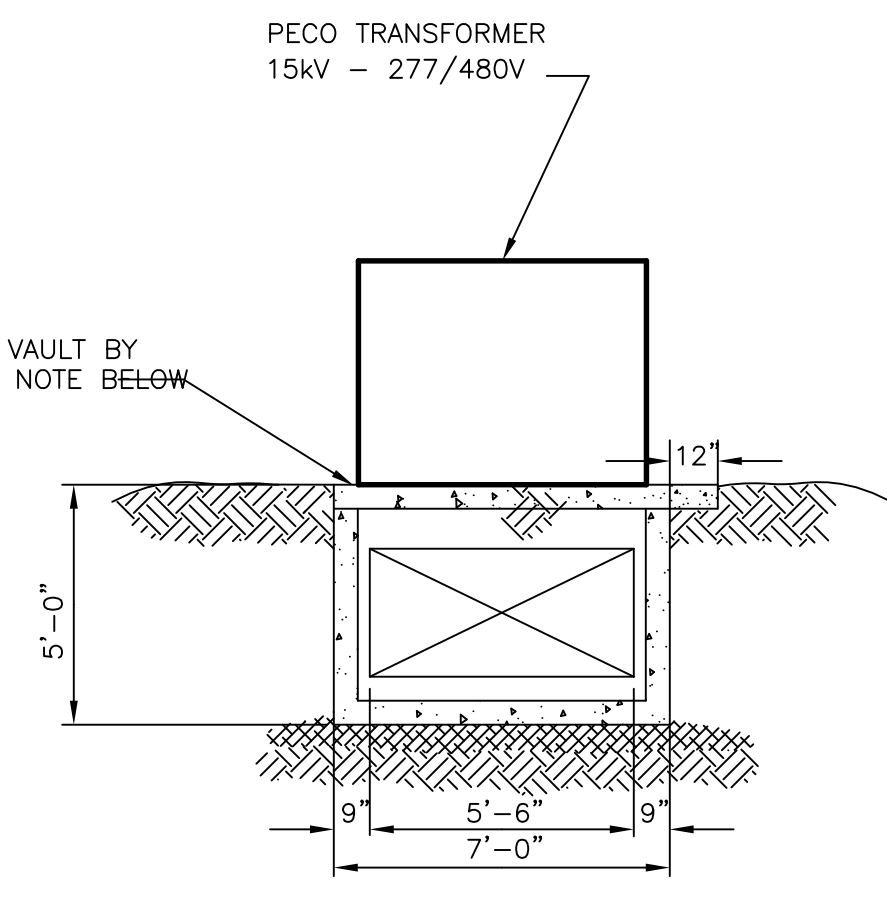
ELECTRICAL
SCHEDULES - BEC

DRAWING NUMBER

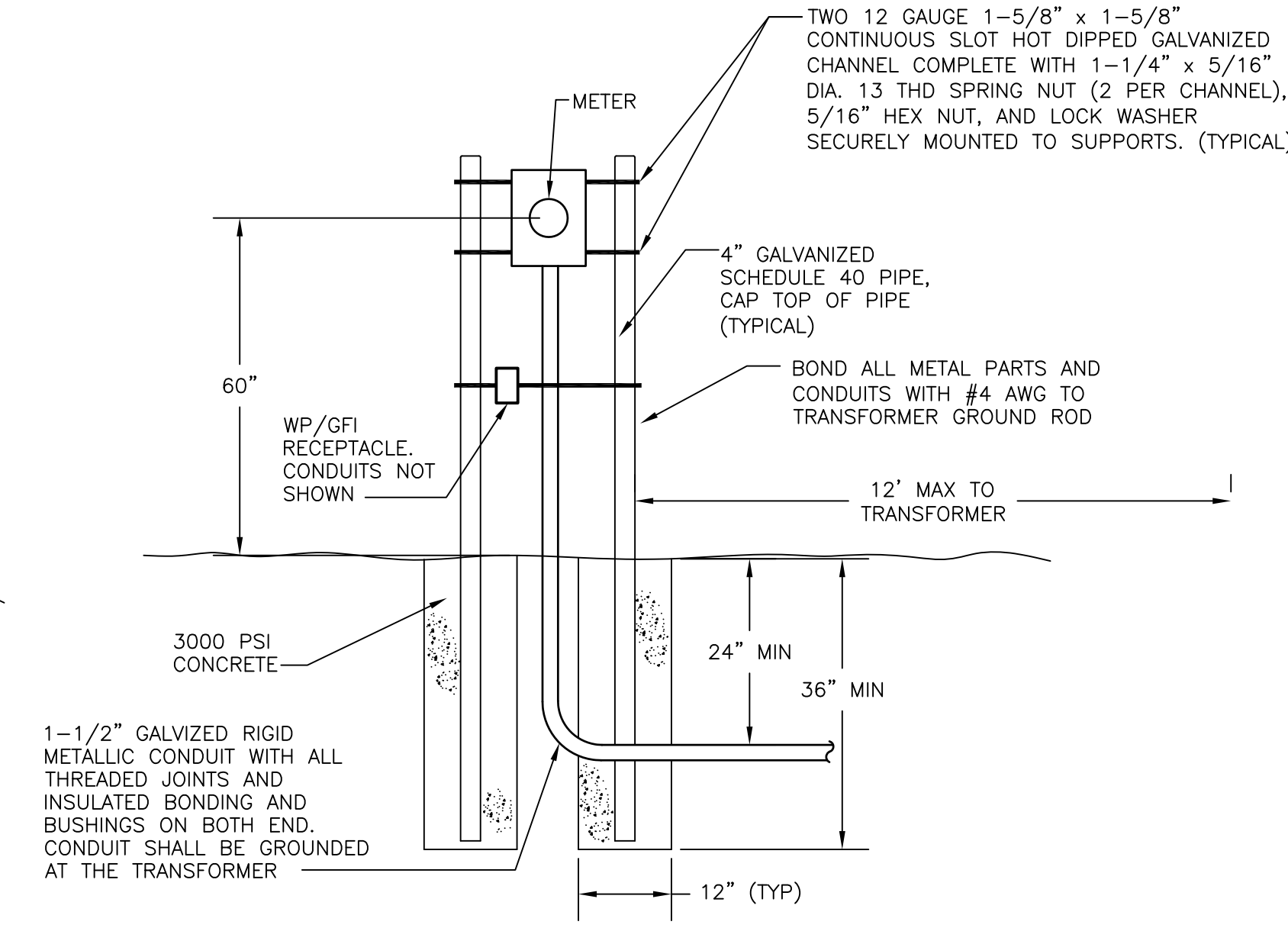
E303



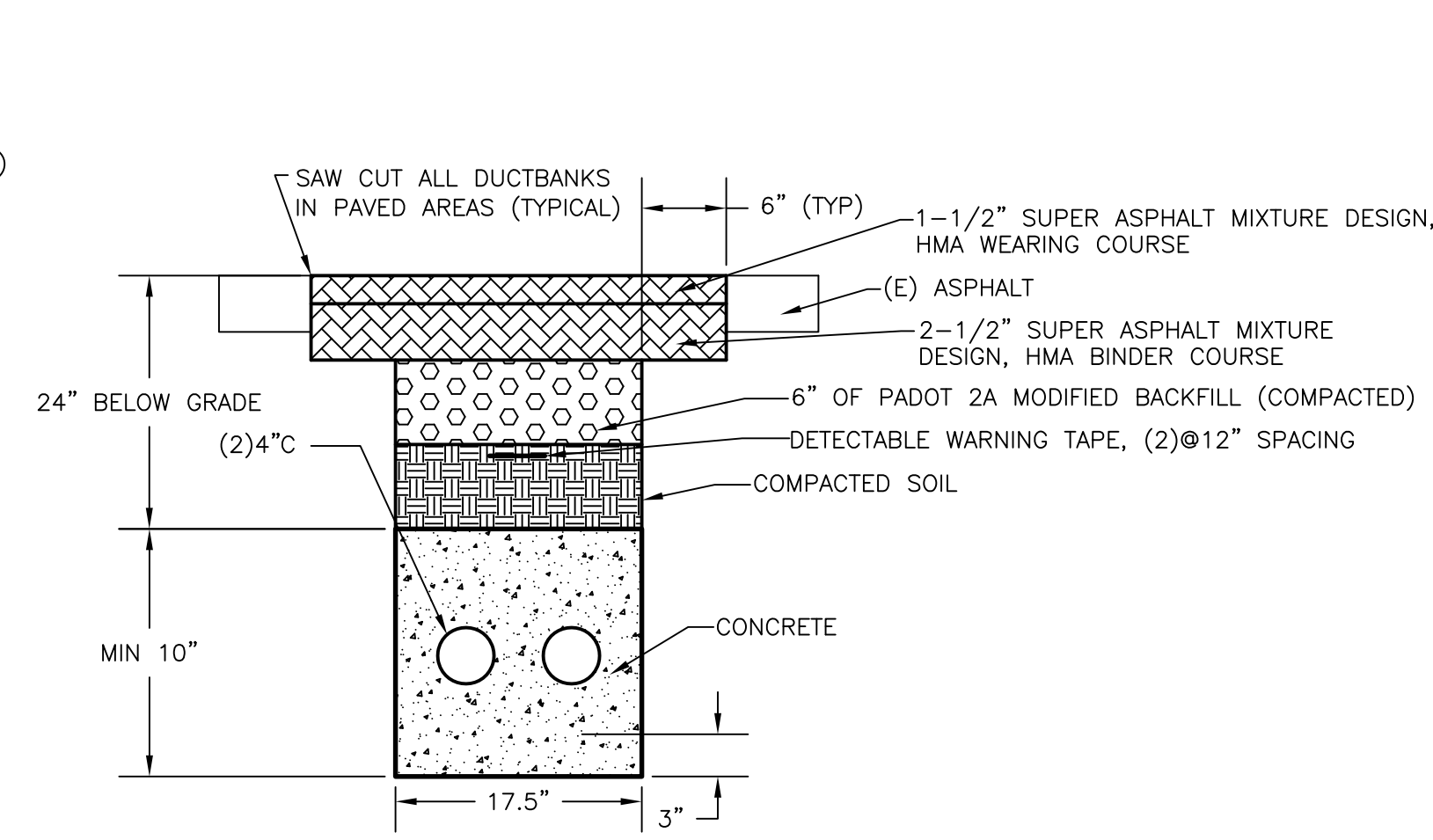
1 15kV TRANSFORMER VAULT DETAILS
E401 NOT TO SCALE



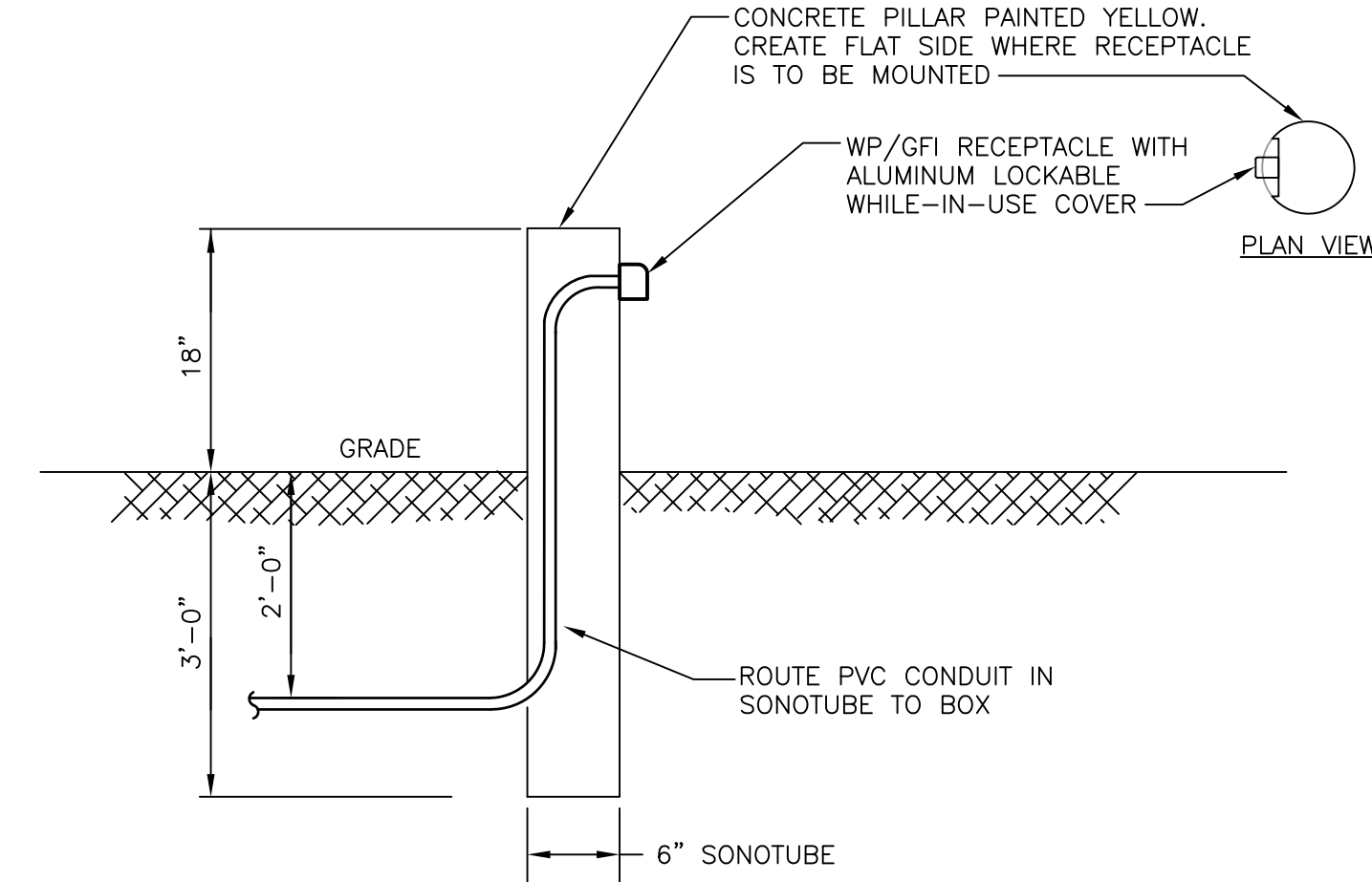
NOTE: FOLLOW INSTALLATION ACCORDING TO PECO BLUE BOOK FIGURE 12.11.



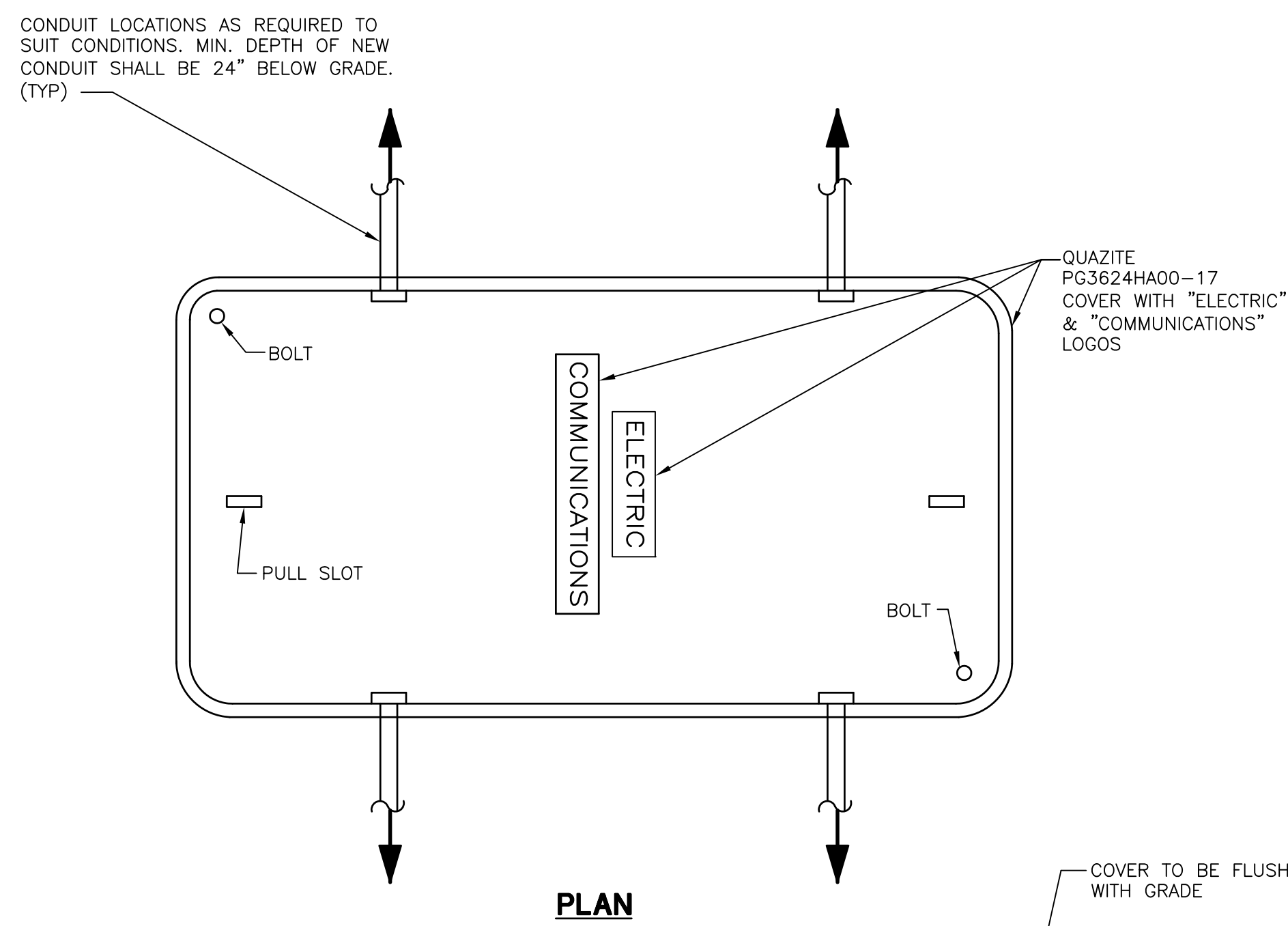
2 METER MOUNTING DETAIL
E401 NOT TO SCALE



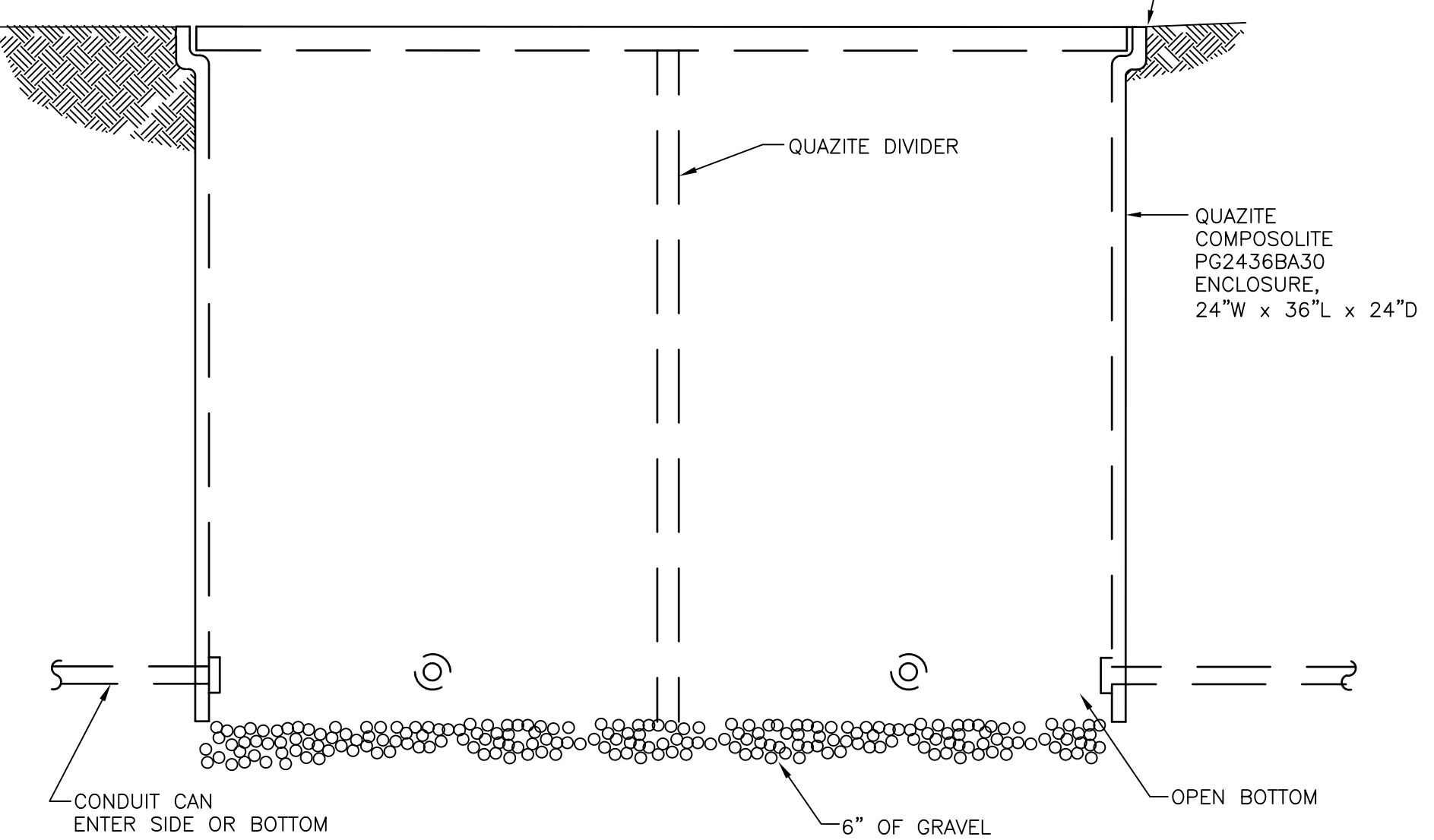
3 TYPICAL CONCRETE ENCASED DUCT BANK
E401 NOT TO SCALE



4 TYPICAL SONOTUBE/RECEPTACLE MOUNTING DETAIL
E401 NOT TO SCALE

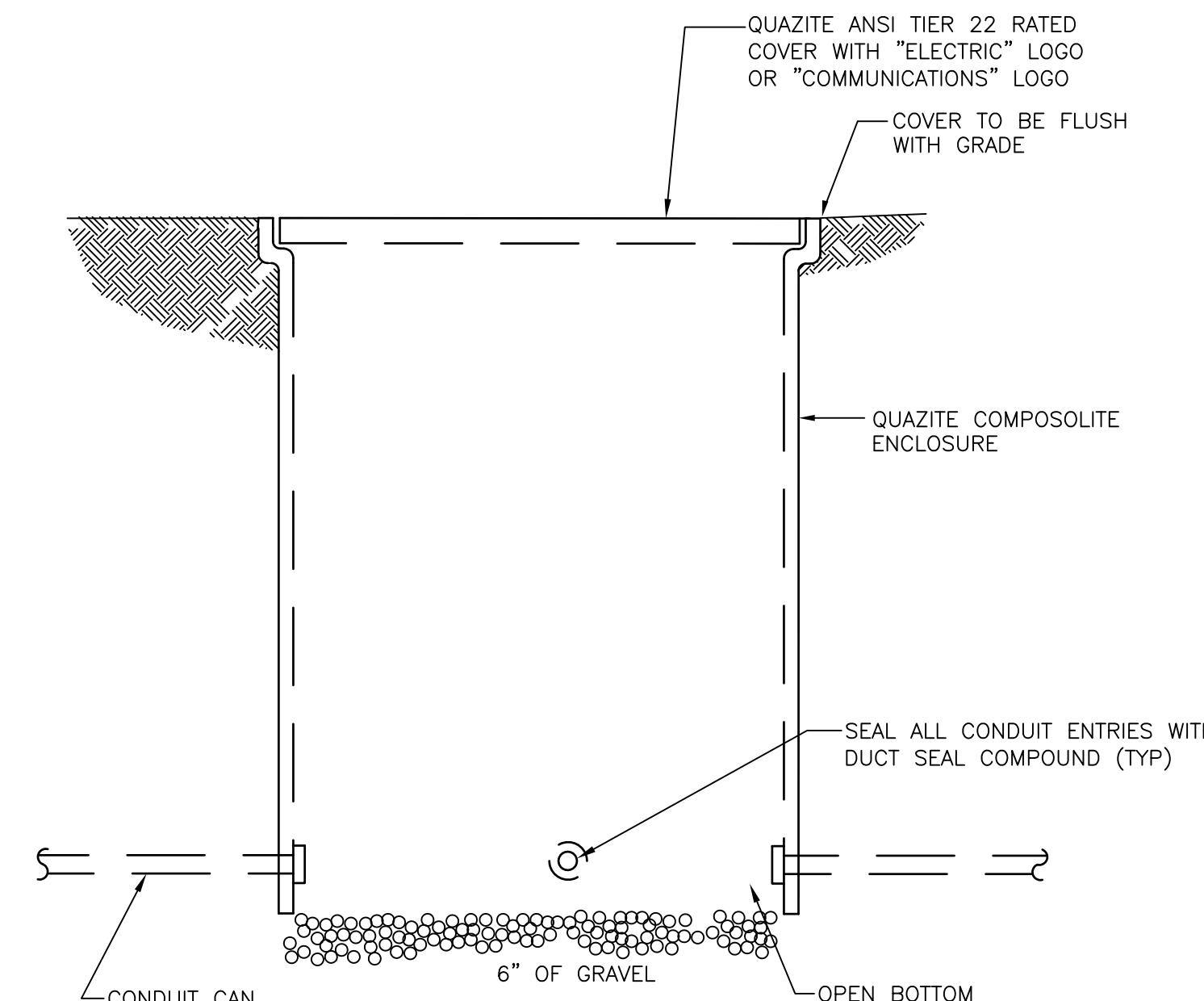


PLAN

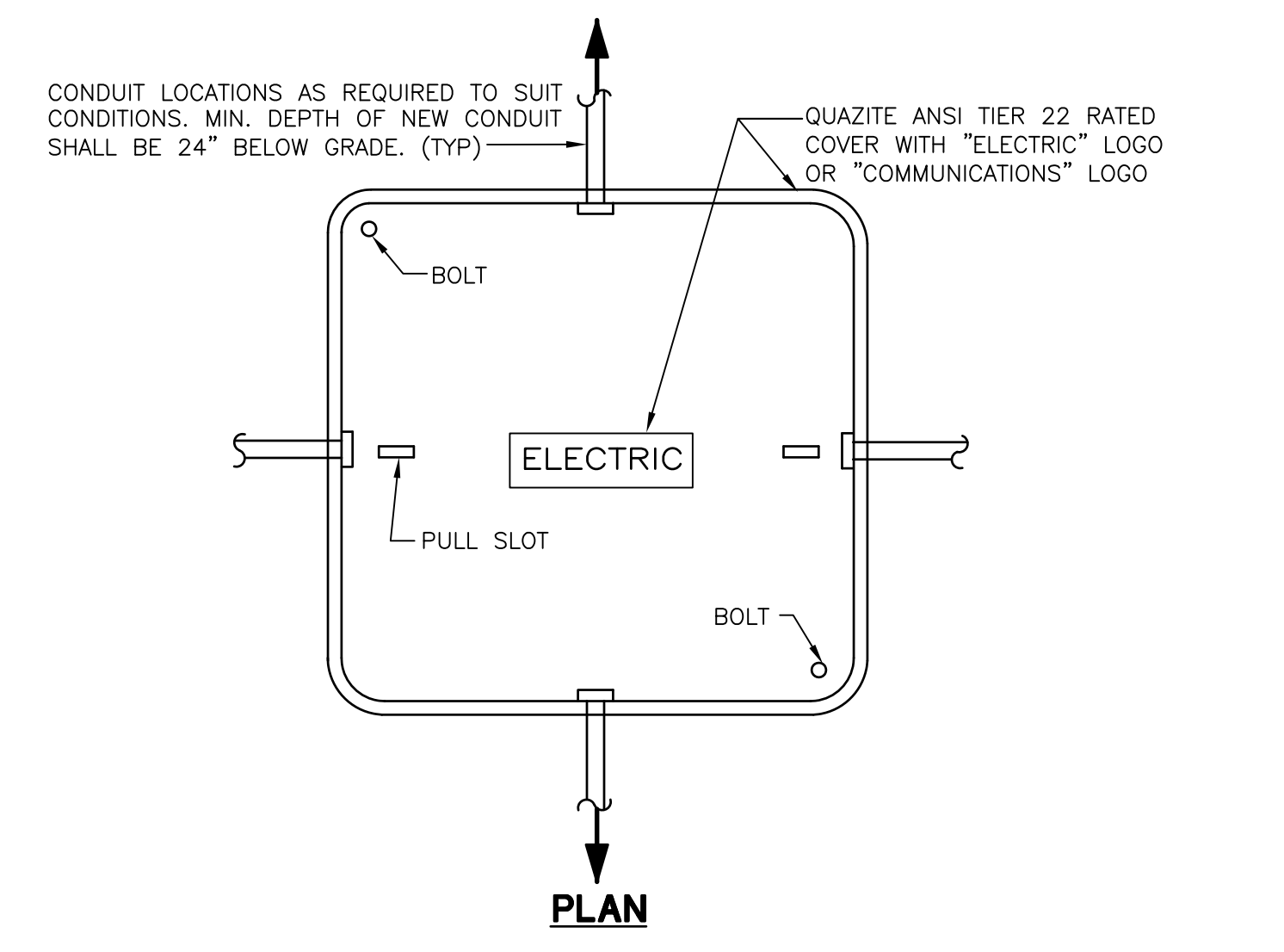


ELEVATION

5 TYPICAL DIVIDED HANDHOLE DETAIL
E401 NOT TO SCALE

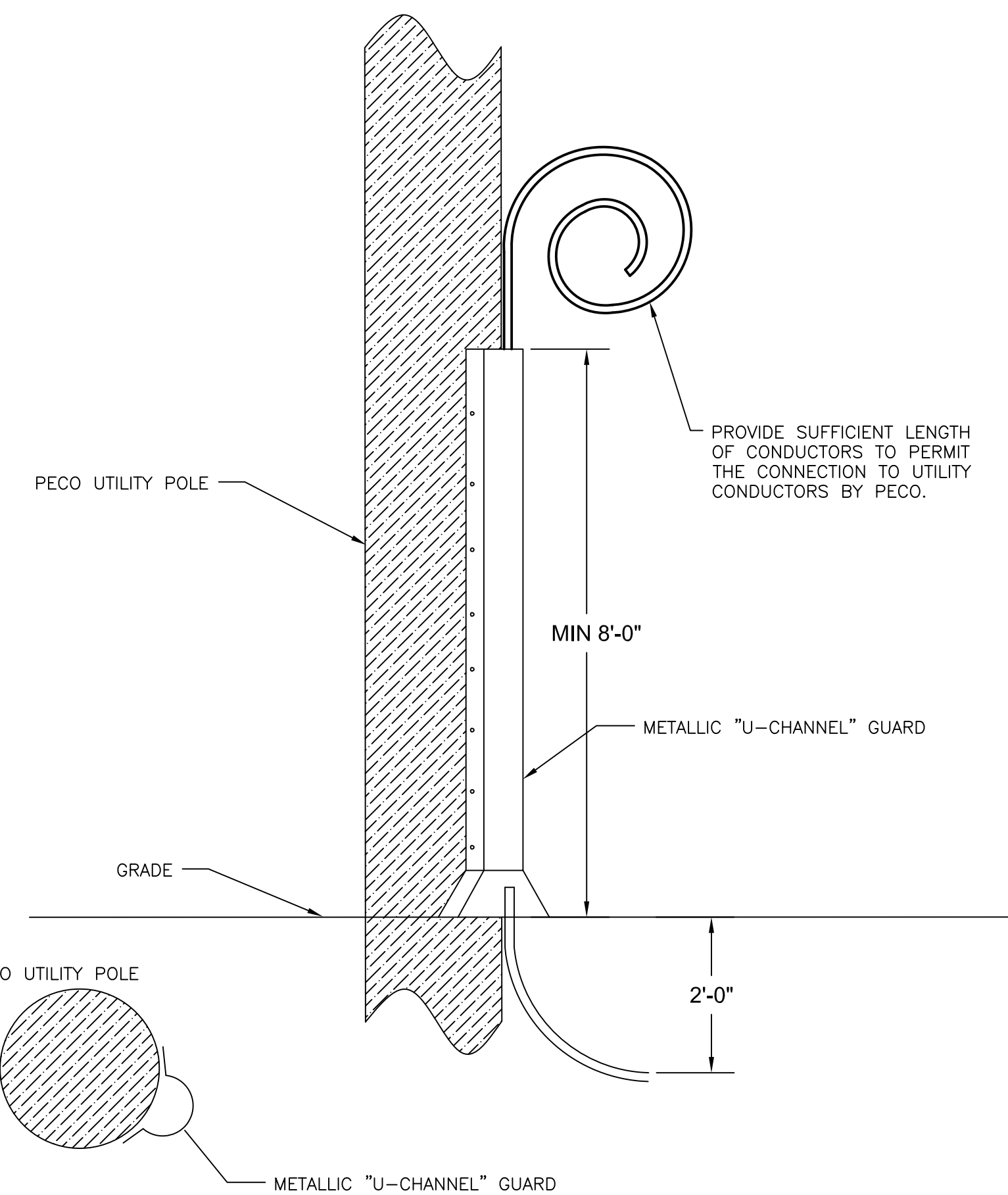


ELEVATION

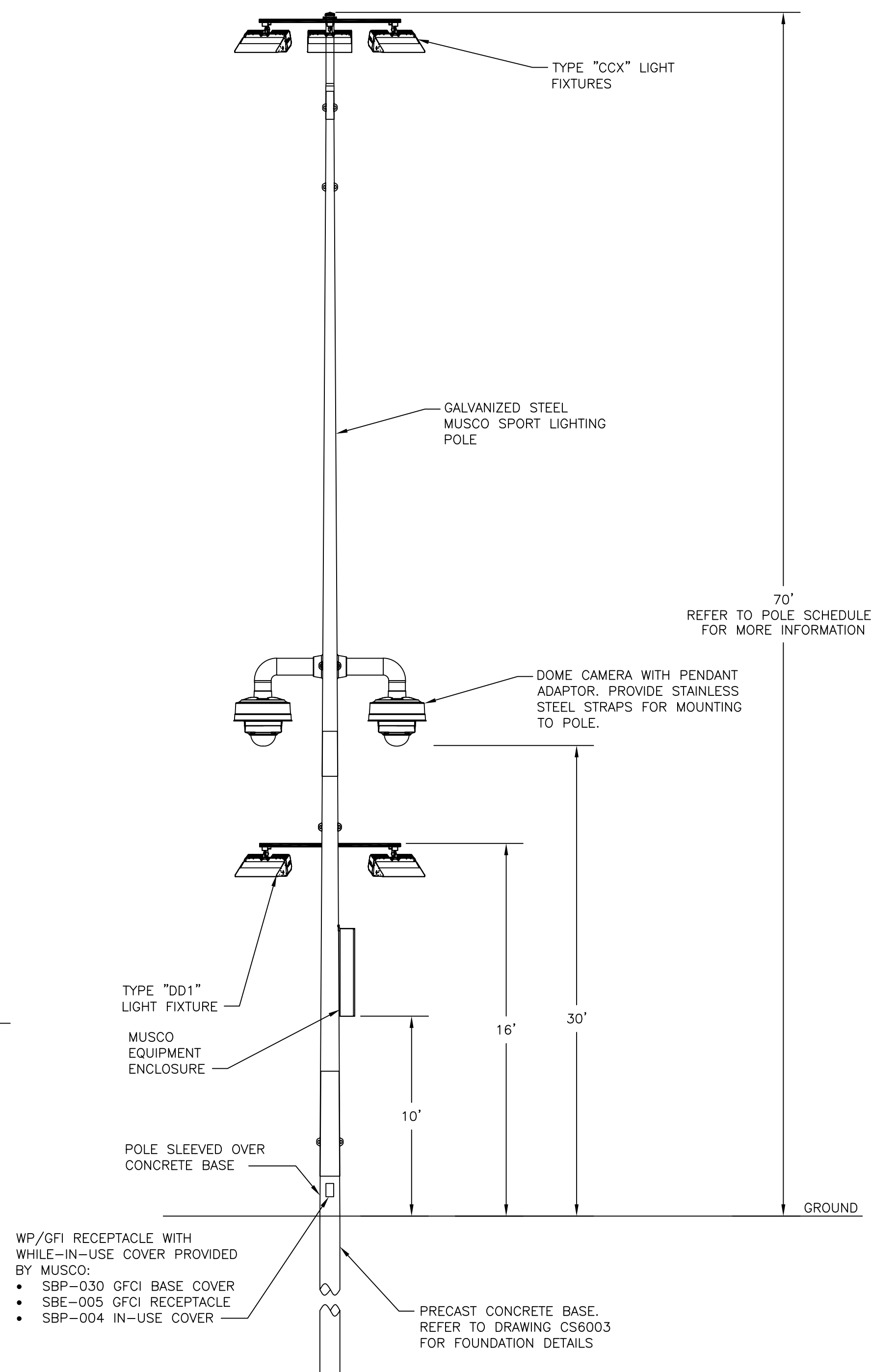


PLAN

6 TYPICAL HANDHOLE DETAIL
E401 NOT TO SCALE

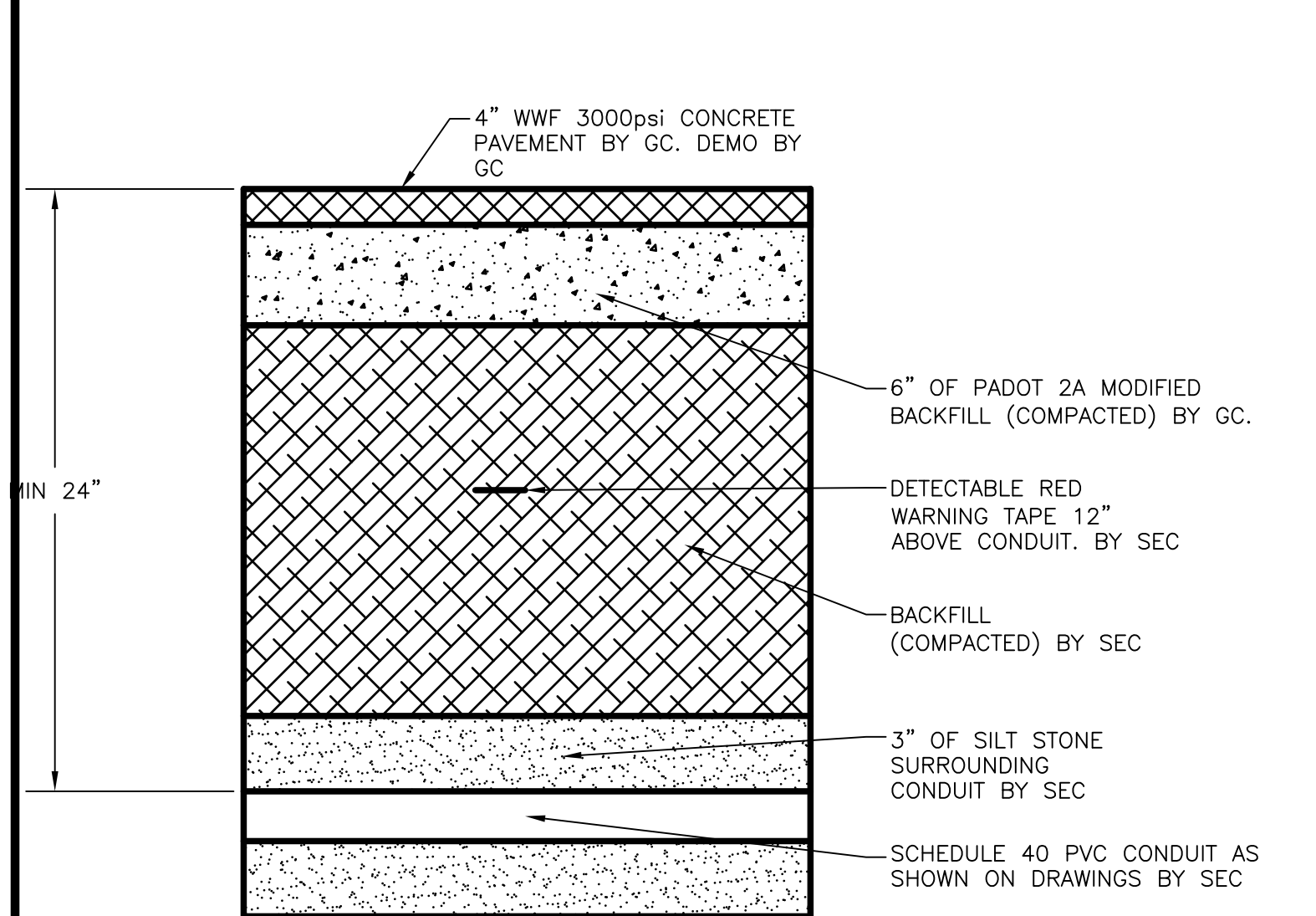


7 PECO POLE EXTRA CABLE DETAIL
E401 NOT TO SCALE

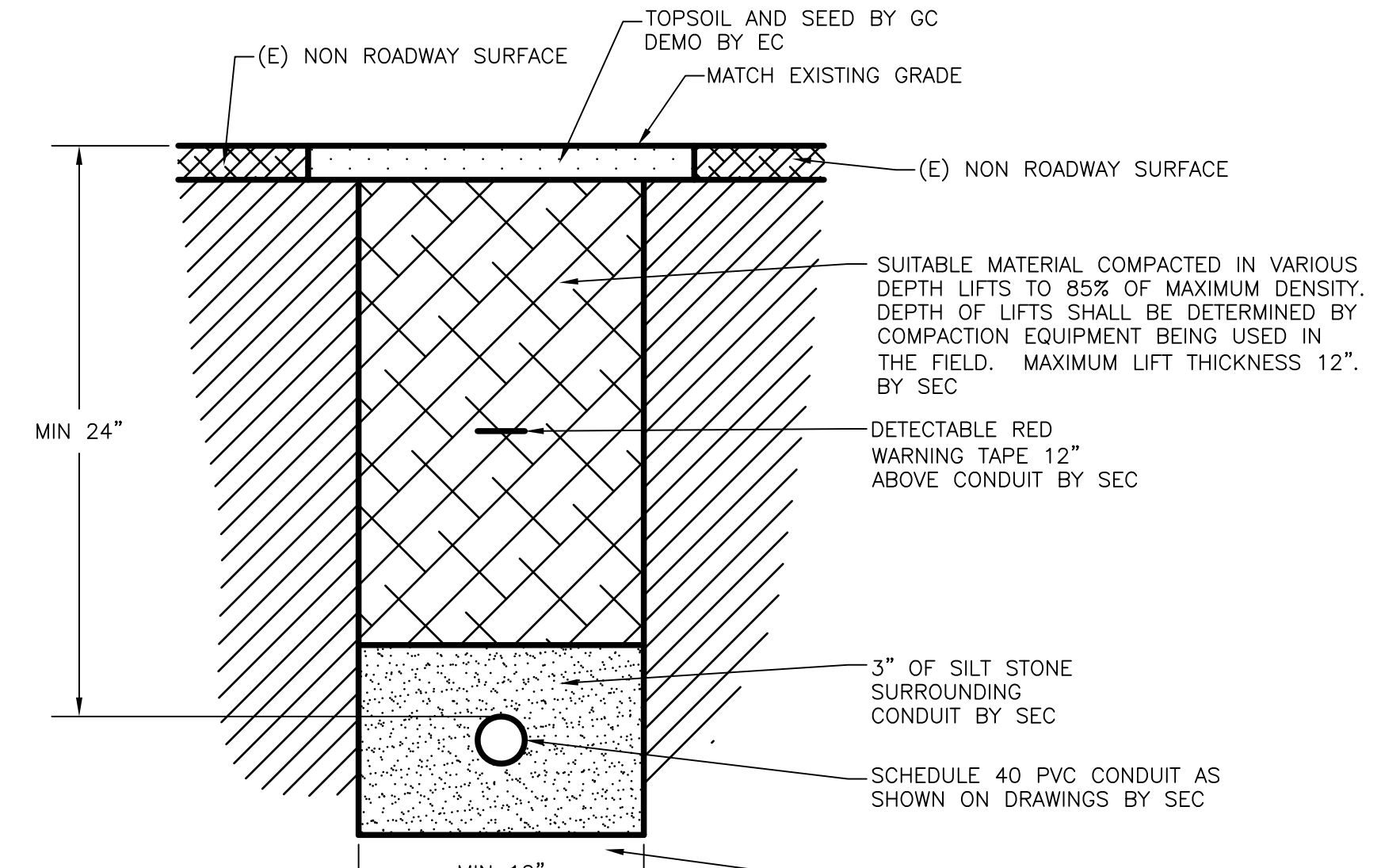


8 TYPICAL SPORTS LIGHTING POLE DETAIL
E401 NOT TO SCALE

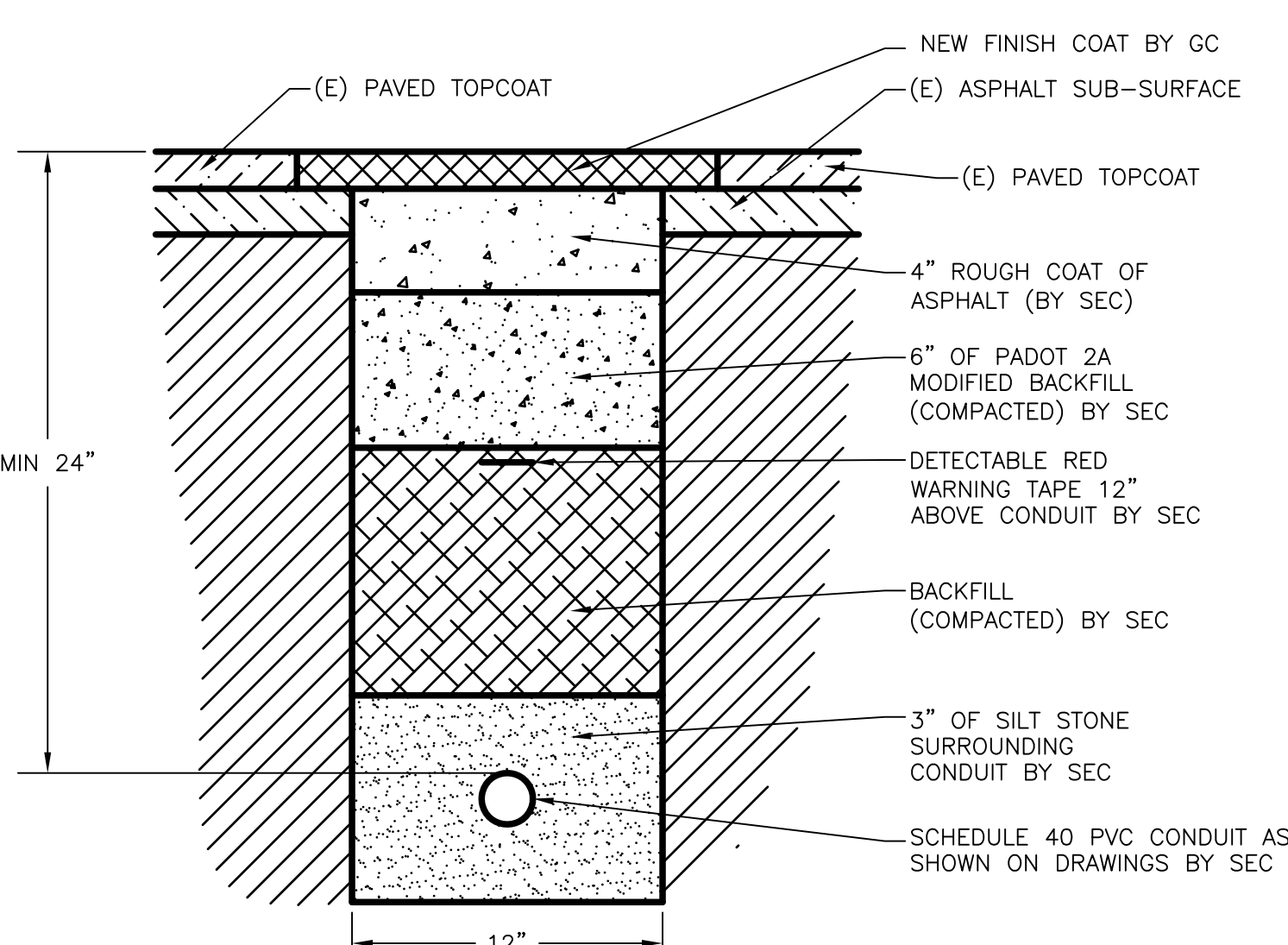
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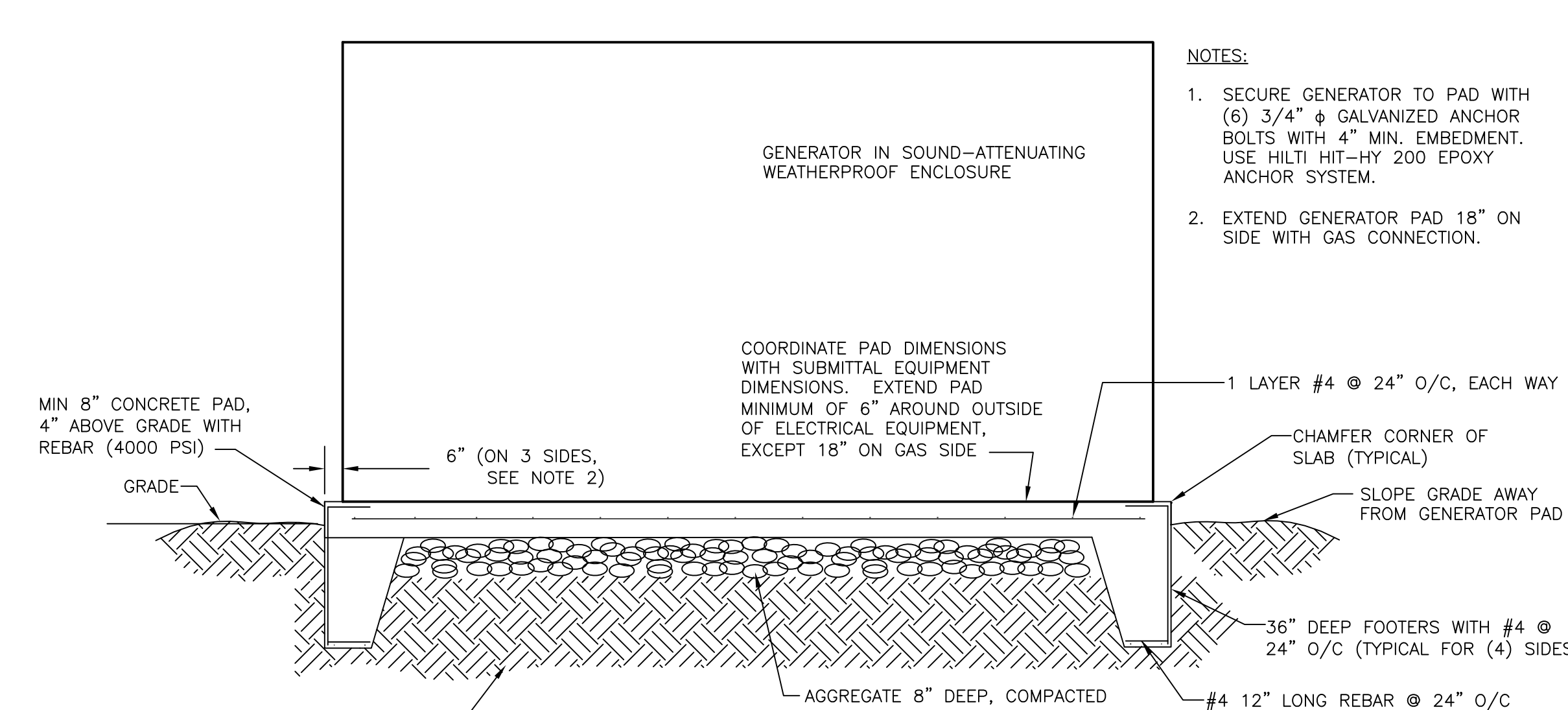
9 TYPICAL CONDUIT TRENCHING BENEATH CONCRETE PAVEMENT
E401 NOT TO SCALE



10 TYPICAL NON-ROADWAY CONDUIT TRENCHING DETAIL
E401 NOT TO SCALE



11 TYPICAL CONDUIT TRENCHING BENEATH PAVED SURFACE
E401 NOT TO SCALE



12 GENERATOR PAD DETAIL
E401 NOT TO SCALE

TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

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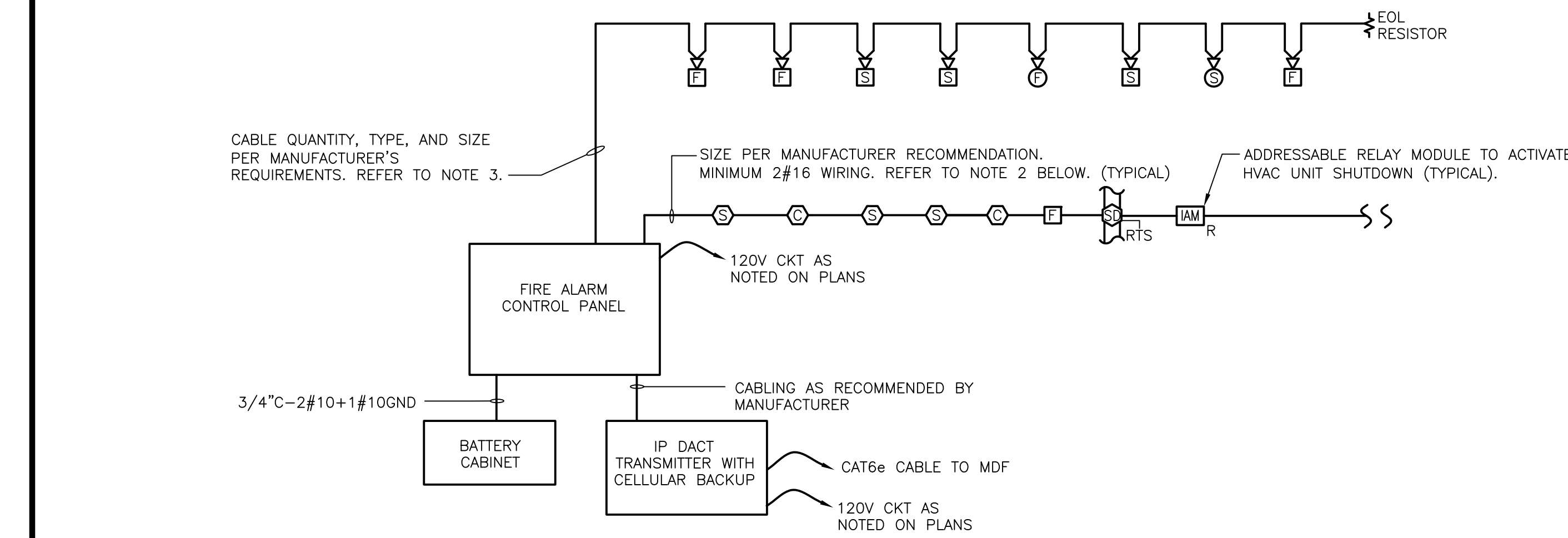
SHEET TITLE

ELECTRICAL
DETAILS - SEC

DRAWING NUMBER

E401

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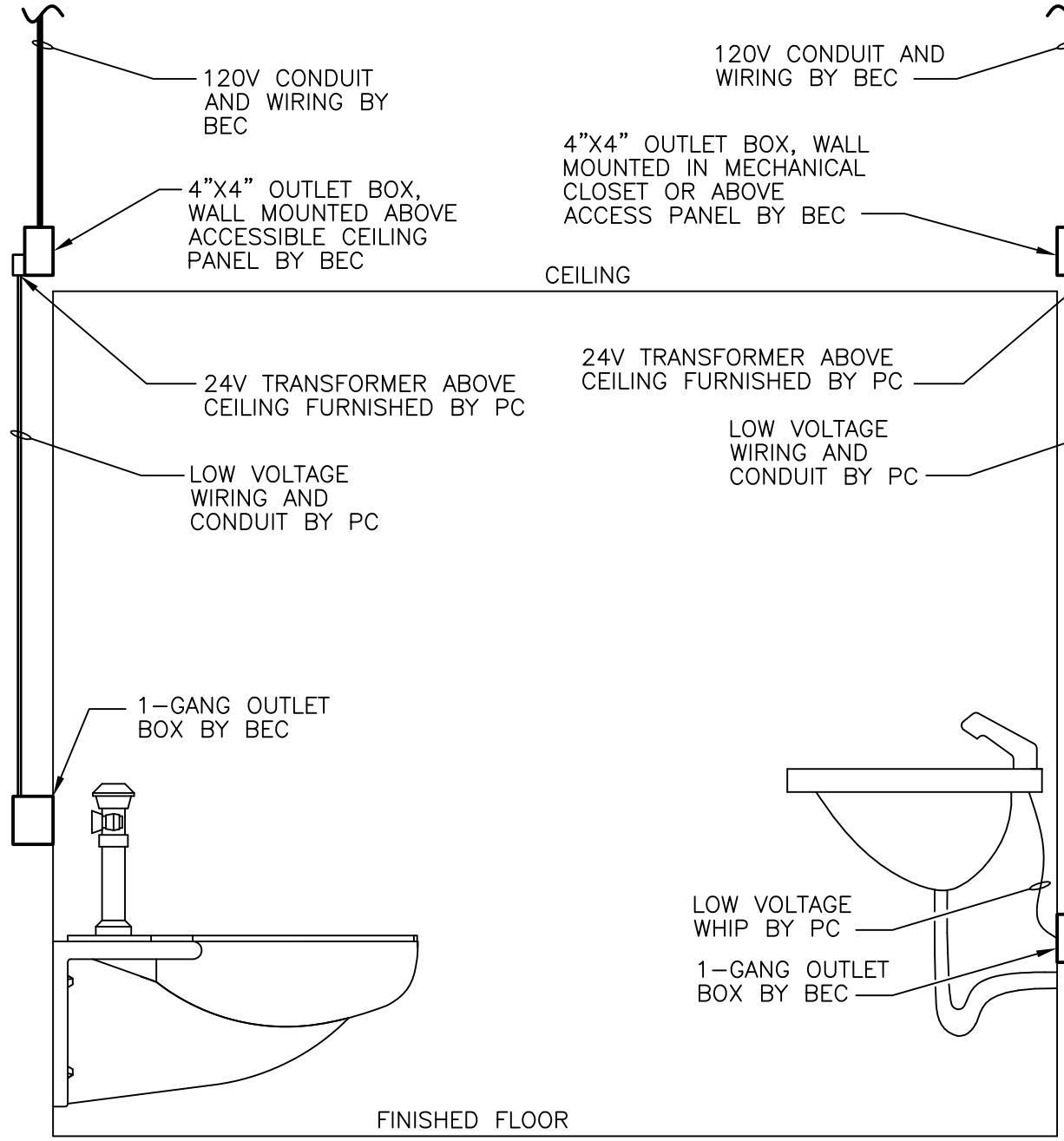


COMBINATION FIRE ALARM SYSTEM NOTES:

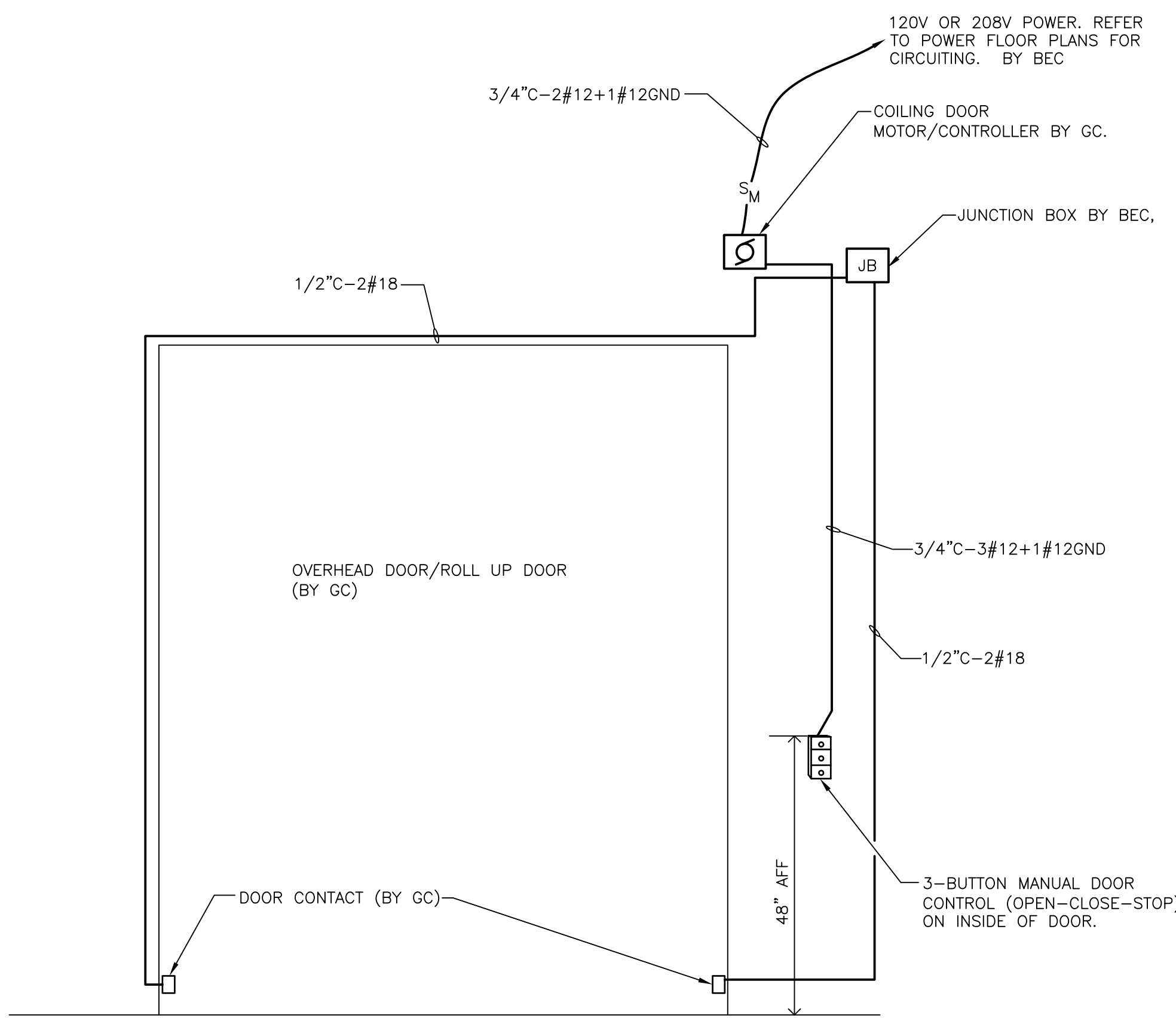
- FIRE ALARM RISER DIAGRAM IS TYPICAL FOR ONE BUILDING AND DOES NOT INDICATE FINAL QUANTITY OF DEVICES. ADDITIONAL FIRE ALARM PANELS AND DEVICES ARE REQUIRED FOR EACH BUILDING REQUIRING A FIRE ALARM SYSTEM. REFER TO FLOOR PLANS AND SPECIFICATIONS FOR DEVICE QUANTITY AND LOCATIONS.
- ALL FIRE ALARM WIRING SHALL BE METAL-CLAD FPLP TYPE OR FPLP RUN IN CONDUIT IN EXPOSED AREAS. ALL FIRE ALARM WIRING SHALL BE SIZED AS REQUIRED BY THE FIRE ALARM MANUFACTURER.
- IN GENERAL, ALL REQUIRED FIRE ALARM SYSTEM WIRING IS NOT SHOWN ON THE PLAN DRAWINGS. INSTALLATION AND ROUTING OF THESE CIRCUITS AND WIRING SHALL BE DETERMINED BY THE ELECTRICAL CONTRACTOR IN ACCORDANCE WITH FIELD CONDITIONS, FIRE ALARM DIAGRAMS, SPECIFICATIONS AND CODES.
- LOCATIONS OF FIRE ALARM DEVICES AND EQUIPMENT SHOWN ON THE PLAN DRAWINGS IS DIAGRAMMATIC. EXACT LOCATIONS SHALL BE DETERMINED BY THE ELECTRICAL CONTRACTOR IN ACCORDANCE WITH FIELD CONDITIONS AND THE FOLLOWING:
 - CEILING MOUNTED DEVICES SHALL BE COORDINATED WITH SUSPENDED CEILING, LIGHT FIXTURES, SPEAKERS, DIFFUSERS, DUCTWORK, SPRINKLER HEADS, ETC., AND NFPA REQUIREMENTS.
 - WALL MOUNTED DEVICES SHALL BE COORDINATED WITH ALL OTHER WALL MOUNTED DEVICES INCLUDING BUT NOT LIMITED TO ARCHITECTURAL ITEMS SUCH AS TACK AND WHITE BOARD, WALL CONSTRUCTION, ETC., AND NFPA AND IBC REQUIREMENTS. WHEREVER POSSIBLE LOCATE WALL MOUNTED DEVICES ON WALLS WHICH WILL PERMIT DEVICES TO BE FLUSH OR SEMI-FLUSH MOUNTED. SURFACE MOUNTED DEVICES WILL BE PERMITTED ONLY IN MECHANICAL ROOMS AND WHERE APPROVED BY THE ENGINEER, ARCHITECT, AND OWNER.
- COORDINATE FINAL INSTALLATIONS OF DUCT DETECTORS WITH MC IN FIELD.
- A 100% TOTAL ACCEPTANCE TEST SHALL BE PERFORMED AT THE COMPLETION OF THE NEW FIRE ALARM SYSTEM INSTALLATION ASSOCIATED WITH THE NEW BUILDING ADDITIONS ACCORDING IBC/2018-907.16. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- DUCT SMOKE DETECTORS SHALL BE PROVIDED IN THE SUPPLY AND RETURN DUCTS OF EACH HVAC SYSTEM OVER 2,000 CFM AND AT LOCATIONS REQUIRED BY IMC/2018. DETECTORS INCLUDING HOUSINGS AND SAMPLING TUBES SHALL BE FURNISHED AND WIRED BY THE ELECTRICAL CONTRACTOR AND INSTALLED BY THE MECHANICAL CONTRACTOR.
- PROVIDE A DEDICATED CONTROL RELAY MODULE FOR EACH DUCT SMOKE DETECTOR TO BE PROGRAMMED FOR SHUTDOWN SIGNAL OF HVAC SYSTEM TO INCLUDE FAN MOTOR(S) AND DAMPER(S). LOW VOLTAGE ATC CONTROL CIRCUIT WIRING BETWEEN CONTROL RELAY MODULES AND UNIT SHALL BE FURNISHED AND INSTALLED BY THE MC CONTRACTOR.
- LOCATE REMOTE INDICATING LIGHT/TEST SWITCH ASSOCIATED WITH EACH DUCT SMOKE DETECTOR. LABEL WITH EQUIPMENT NAME AND WHETHER SUPPLY OR RETURN.
 - MOUNTED IN ACCESSIBLE CEILING.
 - WHERE LOCATED IN AREAS WITHOUT ACCESSIBLE CEILING MOUNT ON THE WALL AT 80" UNLESS OTHERWISE NOTED.
- ALL WORK SHALL COMPLY WITH THE APPLICABLE BUILDING CODE LOCAL ORDINANCE AND REGULATION, THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION AND NFPA 70 AND NFPA 72.
- ALL CIRCUIT BREAKERS FEEDING FIRE ALARM PANELS, POWER SUPPLIES, AND AMPS SHALL BE MARKED RED AND BE WITH A HANDLE CLAMP FOR BREAKER.
- FIELD LABELING: EACH INITIATION AND NOTIFICATION DEVICE SHALL HAVE A CLEAR, SELF-ADHESIVE LABEL APPLIED THAT CONTAINS MINIMUM 10 PT BLACK LETTERING INDICATING THE SLC OR NAC PANEL LOOP NUMBER AND ADDRESS OR NUMBER OF THE DEVICE.

1 TYPICAL FIRE ALARM RISER DIAGRAM
E402 NOT TO SCALE

EVENT	ACTION	SEND SIGNAL TO CENTRAL MONITORING STATION				TROUBLE SIGNAL @ PACP & REMOTE ANNUNCIATORS				SUPERVISORY SIGNAL @ PACP & REMOTE ANNUNCIATORS				ALARM SIGNAL @ PACP & REMOTE ANNUNCIATORS				ACTIVATES ALL HORN/STROBES				SHUTDOWN ASSOCIATED UNIT			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
SMOKE/HEAT DETECTOR ACTIVATION		X					X	X	X																
DUCT DETECTOR ACTIVATION							X	X	X																
MANUAL PULL STATION ACTIVATION							X	X	X																
DUCT SMOKE DETECTOR ACTIVATION							X	X	X																
EVENT MATRIX																									



2 IR PLUMBING FIXTURE WIRING DIAGRAM
E402 NOT TO SCALE



3 TYPICAL ROLL UP DOOR DIAGRAM
E402 NOT TO SCALE

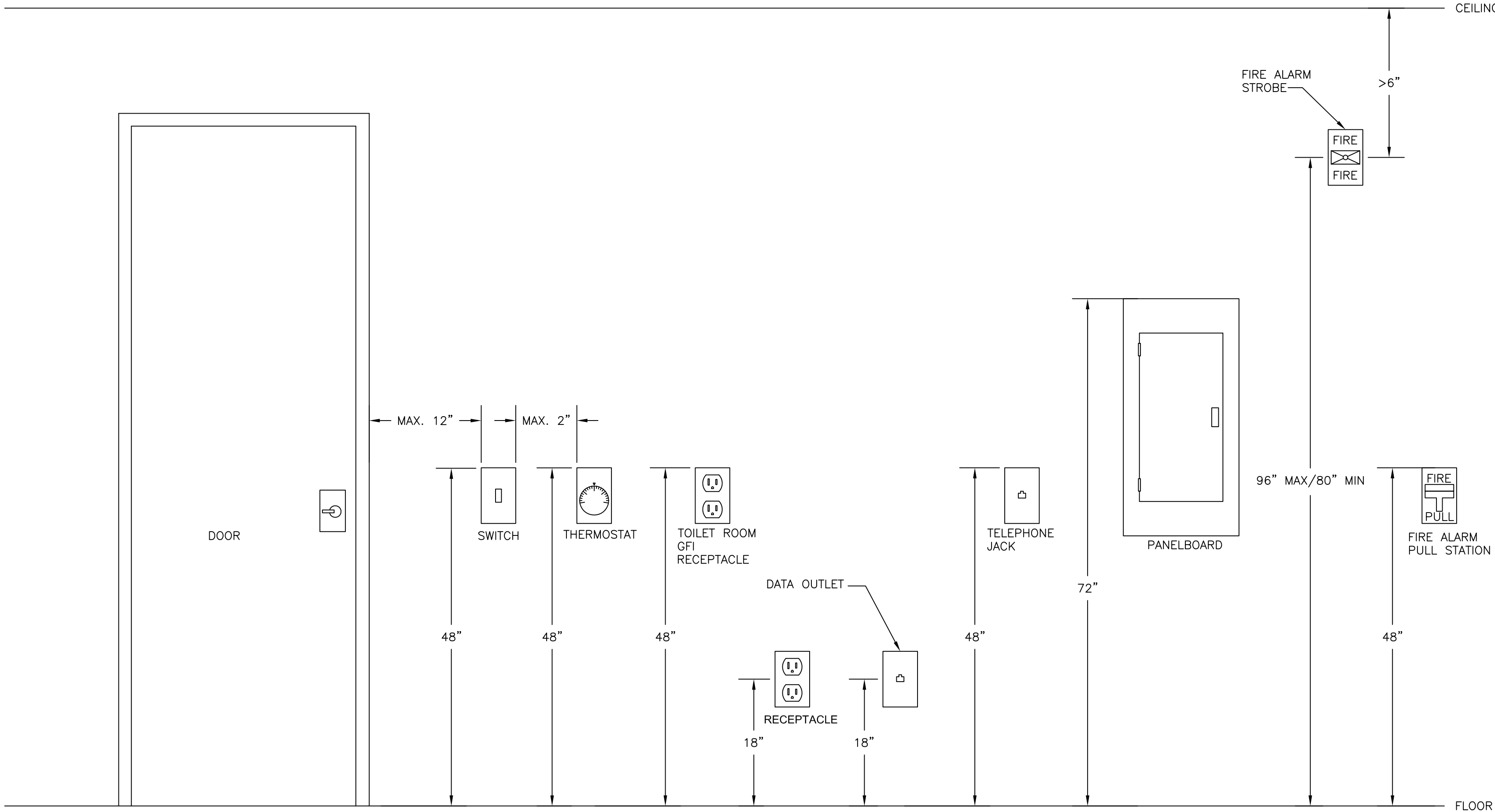
COMMUNICATIONS NOTES:

- REFER TO DRAWINGS FOR EXACT QUANTITIES OF JACKS AND DEVICES.
- SUPPORT ALL WIRES AND CABLES EVERY 6 FEET, FROM STRUCTURE WITH J-HOOKS.
- PROVIDE PATCH CORDS BETWEEN ALL EQUIPMENT, AS NEEDED, FOR A COMPLETE SYSTEM.
- PROVIDE 3/4" FIRE RATED PLYWOOD AS REQUIRED IN IDF ON WALL, FOR A NEAT AND WORKMANLIKE INSTALLATION.
- CATEGORY CABLING SHALL BE AS FOLLOWS:
 - DATA/TELE: WHITE, CAT6
 - CCTV CAMERAS: PURPLE, CAT6
 - INDOOR WIRELESS ACCESS POINTS: BLUE, CAT6A
 - EXTERIOR MOUNT WIRELESS ACCESS POINTS: BLUE, CAT6A STP
 - EXTERIOR EMERGENCY CALL TOWERS: BLACK, CAT6 OUTSIDE PLANT CABLE
- PROVIDE RACKS WITH THE FOLLOWING EQUIPMENT. REFER TO RACK ELEVATION FOR LAYOUTS OF RACKS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

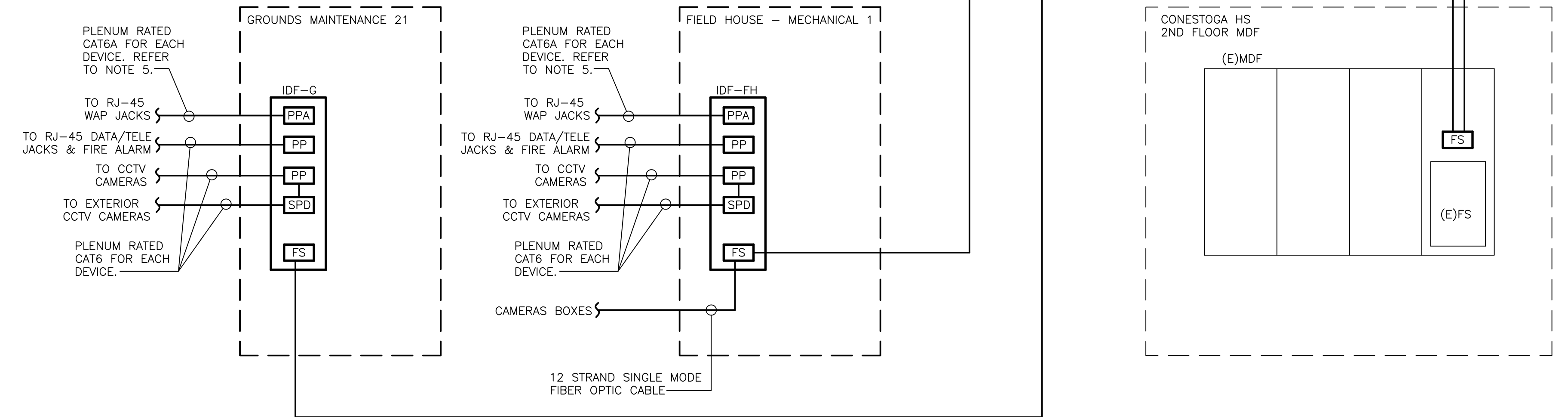
RACK IDF-FH: (1) OPEN FLOOR MOUNTED EIA 19" WIRING RACK WITH MINIMUM (1) 24 PORT CAT6 MODULAR PATCH PANELS, (1) 24 PORT CAT6A MODULAR PATCH PANELS, (1) 16 PORT SURGE PROTECTION PATCH PANEL AND (1) 2U FIBER INTERCONNECT HOUSING WITH (12) 12 STRAND SINGLE MODE CASSETTE WITH LC CONNECTORS.

RACK IDF-G: (1) ENCLOSED WALL MOUNTED EIA 19" WIRING RACK WITH MINIMUM (1) 24 PORT CAT6 MODULAR PATCH PANELS, (1) 24 PORT CAT6A MODULAR PATCH PANELS, (1) 16 PORT SURGE PROTECTION PATCH PANEL AND (1) 2U FIBER INTERCONNECT HOUSING WITH (1) 12 STRAND SINGLE MODE CASSETTE WITH LC CONNECTORS.

- (E)MDF: (1) 2U FIBER INTERCONNECT HOUSING WITH (2) 12 STRAND SINGLE MODE CASSETTE WITH LC CONNECTORS
- PPA CAT 6A PATCH PANELS
 - PP CAT 6 PATCH PANELS
 - FS FIBER SHELF
 - SPD SURGE PROTECTION RJ-45 DEVICE FOR PATCHING OF ALL EXTERIOR CAMERAS



4 TYPICAL MOUNTING HEIGHTS OF ELECTRICAL EQUIPMENT
E402 NOT TO SCALE



5 COMMUNICATIONS BLOCK DIAGRAM
E402 NOT TO SCALE

TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

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SHEET TITLE
ELECTRICAL DETAILS

DRAWING NUMBER

E402

TESD CONESTOGA
ATHLETIC FIELDS

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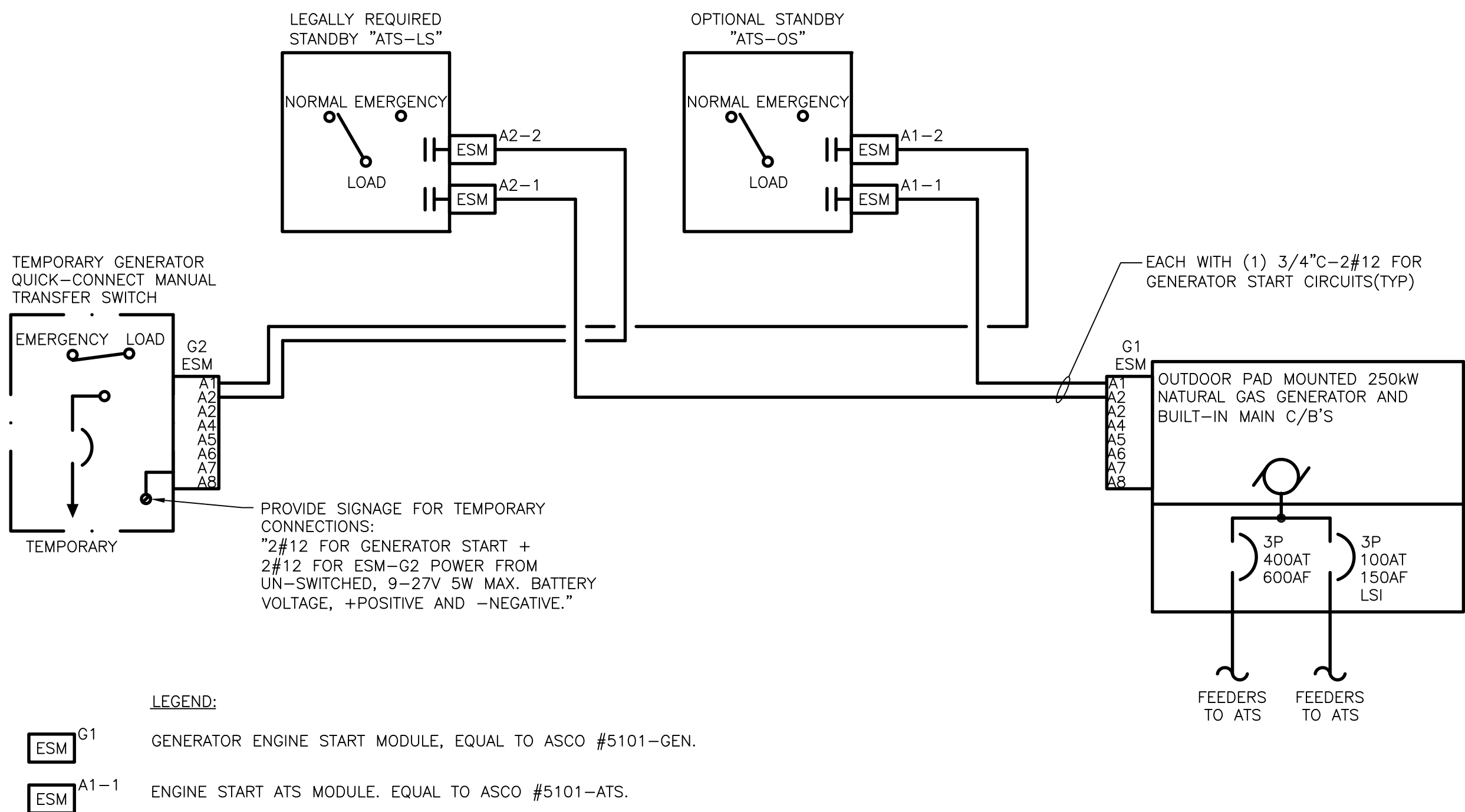
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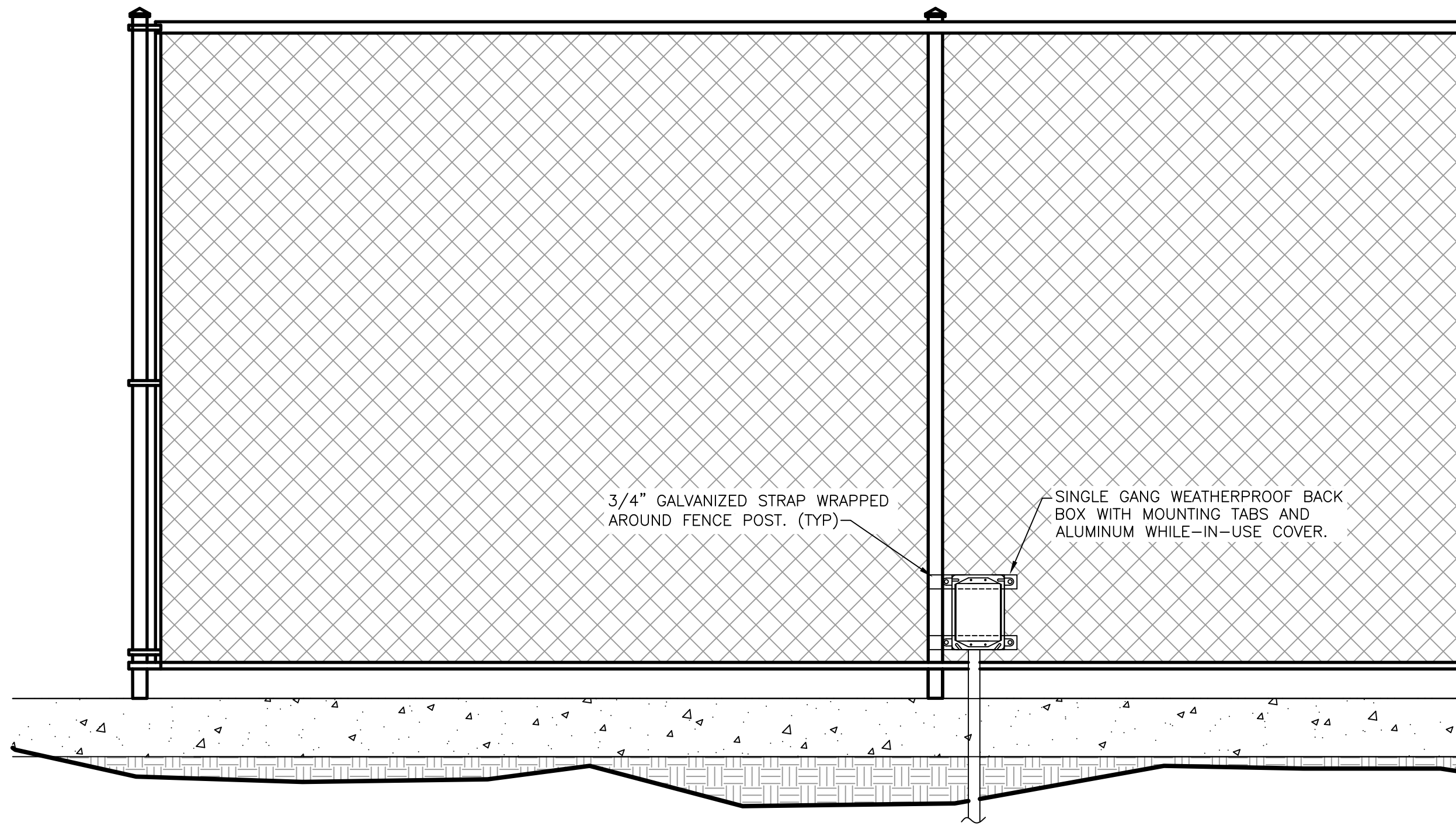
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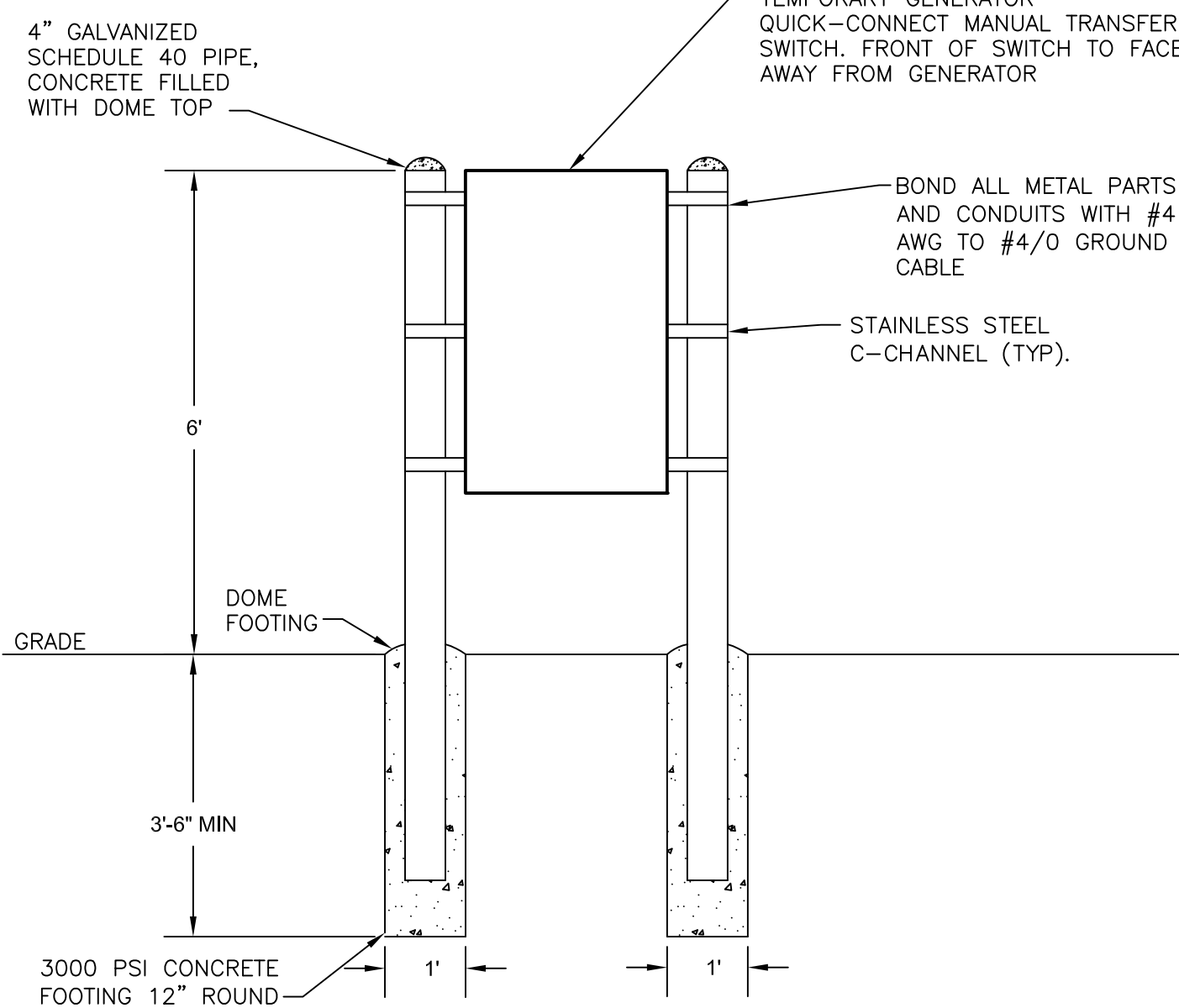
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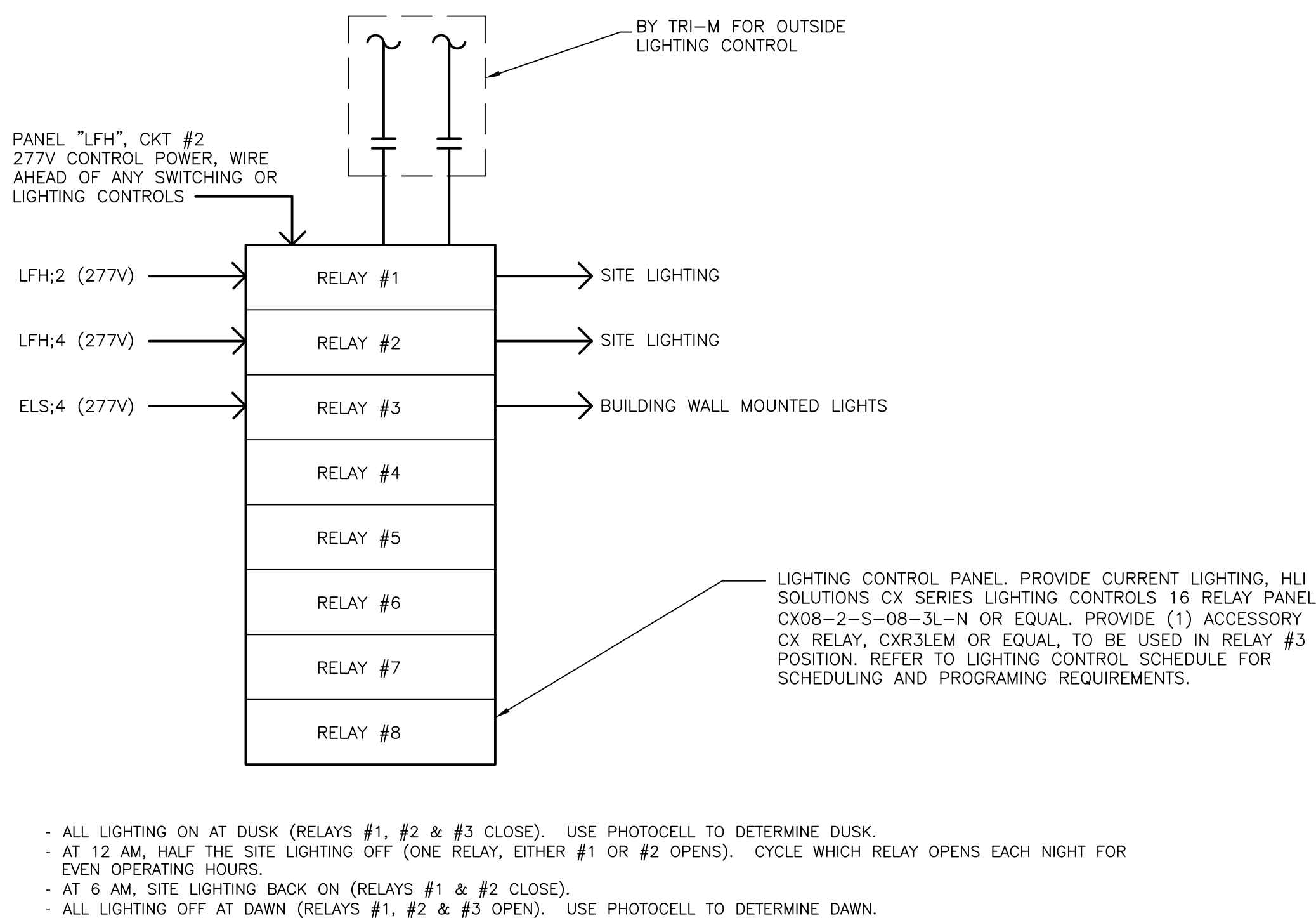
1 TYPICAL GENERATOR ENGINE START MONITORING WIRING DIAGRAM
E403 NO SCALE



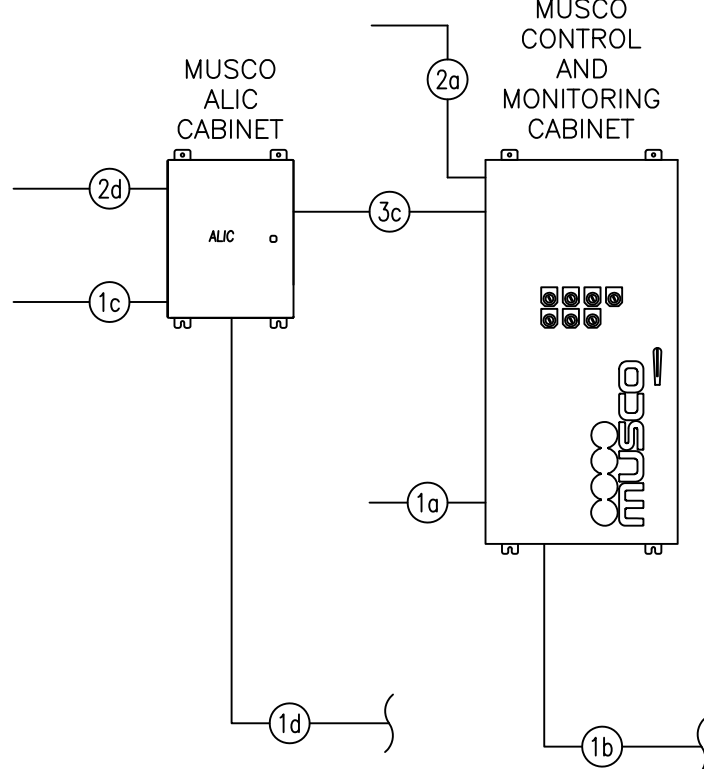
2 TYPICAL MOUNTING OF RECEPTACLE AT TENNIS COURT FENCE
E403 NO SCALE



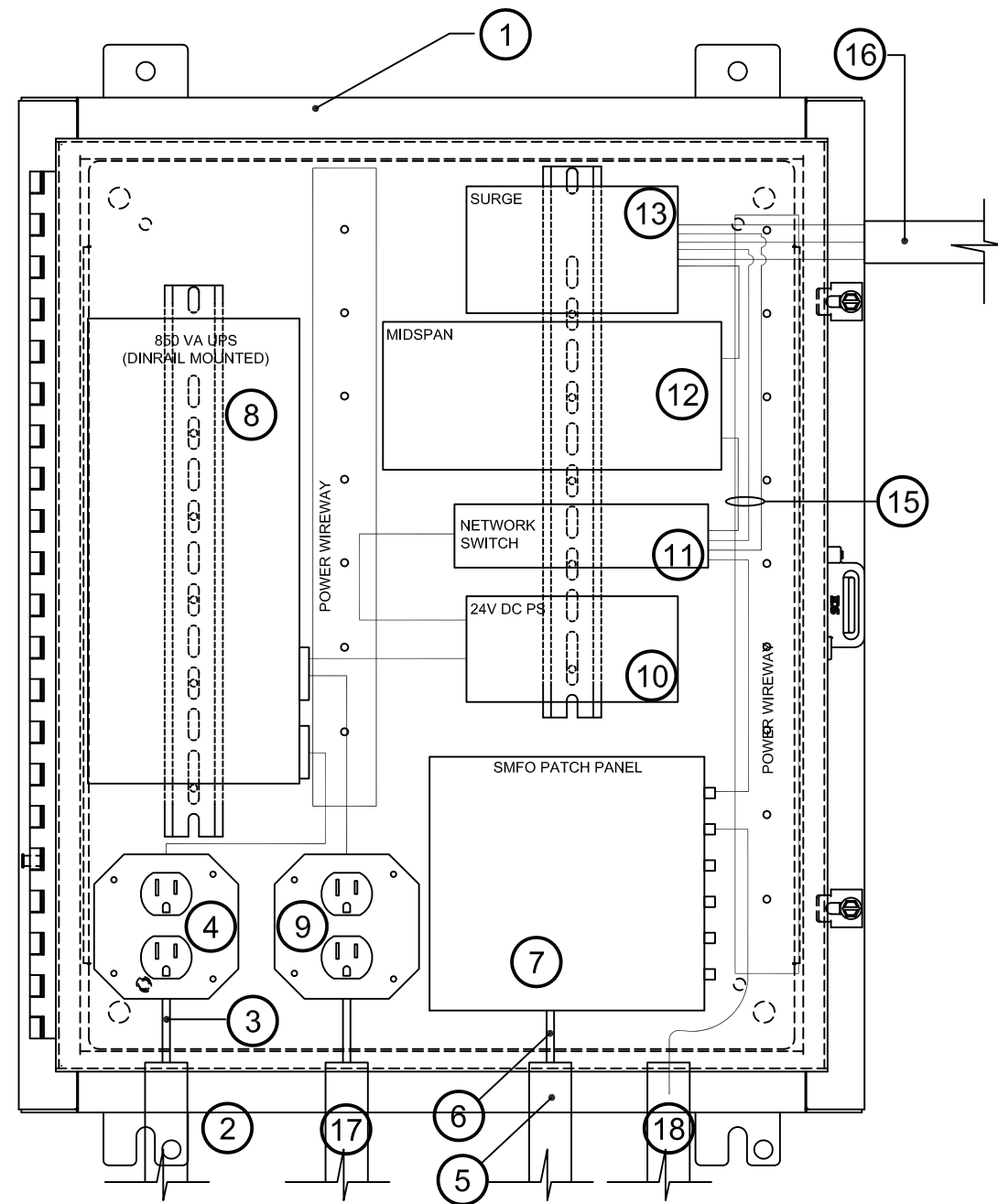
3 TEMPORARY GENERATOR QUICK-CONNECT MOUNTING DETAIL
E403 NO SCALE



4 EXTERIOR SITE LIGHTING CONTROL WIRING DIAGRAM
E403 NO SCALE



- 7 MUSCO CONNECTION DETAILS
E403 NO SCALE
- DESCRIPTION
- 1a LINE POWER TO CONTACTORS, AND EQUIPMENT GROUNDING CONDUCTOR. REQUIRES ONE CIRCUIT PER CONTACTOR, SIZE WIRING PER LOAD AND VOLTAGE DROP.
- 1b LOAD POWER FROM CONTACTORS, AND EQUIPMENT GROUNDING CONDUCTOR. REQUIRES ONE CIRCUIT PER CONTACTOR, SIZE WIRING PER LOAD AND VOLTAGE DROP.
- 1c EMERGENCY CIRCUIT - LINE POWER TO CONTACTORS, AND EQUIPMENT GROUNDING CONDUCTOR. REQUIRES ONE CIRCUIT PER CONTACTOR, SIZE WIRING PER LOAD AND VOLTAGE DROP.
- 1d EMERGENCY CIRCUIT - LOAD POWER FROM CONTACTORS, AND EQUIPMENT GROUNDING CONDUCTOR. REQUIRES ONE CIRCUIT PER CONTACTOR, SIZE WIRING PER LOAD AND VOLTAGE DROP.
- 2a CONTROL POWER WITH EQUIPMENT GROUND TO CONTROL CABINET. REQUIRES DEDICATED 20A CIRCUIT. PROVIDE TRANSFORMER IF CONTROL VOLTAGE NOT PRESENT.
- 2d EMERGENCY CIRCUIT - CONTROL POWER WITH EQUIPMENT GROUND. REQUIRES DEDICATED 20A CIRCUIT. PROVIDED TRANSFORMER IF CONTROL VOLTAGE NOT PRESENT.
- 3c CONTROL HARNESS - EMERGENCY CABINET TO PRIMARY CABINET. USE 14 AWG COPPER CONDUCTOR FOR UP TO 50 FEET BETWEEN CABINETS OF 12 AWG UP TO 300 FEET. REQUIRES 4 CONDUCTORS.



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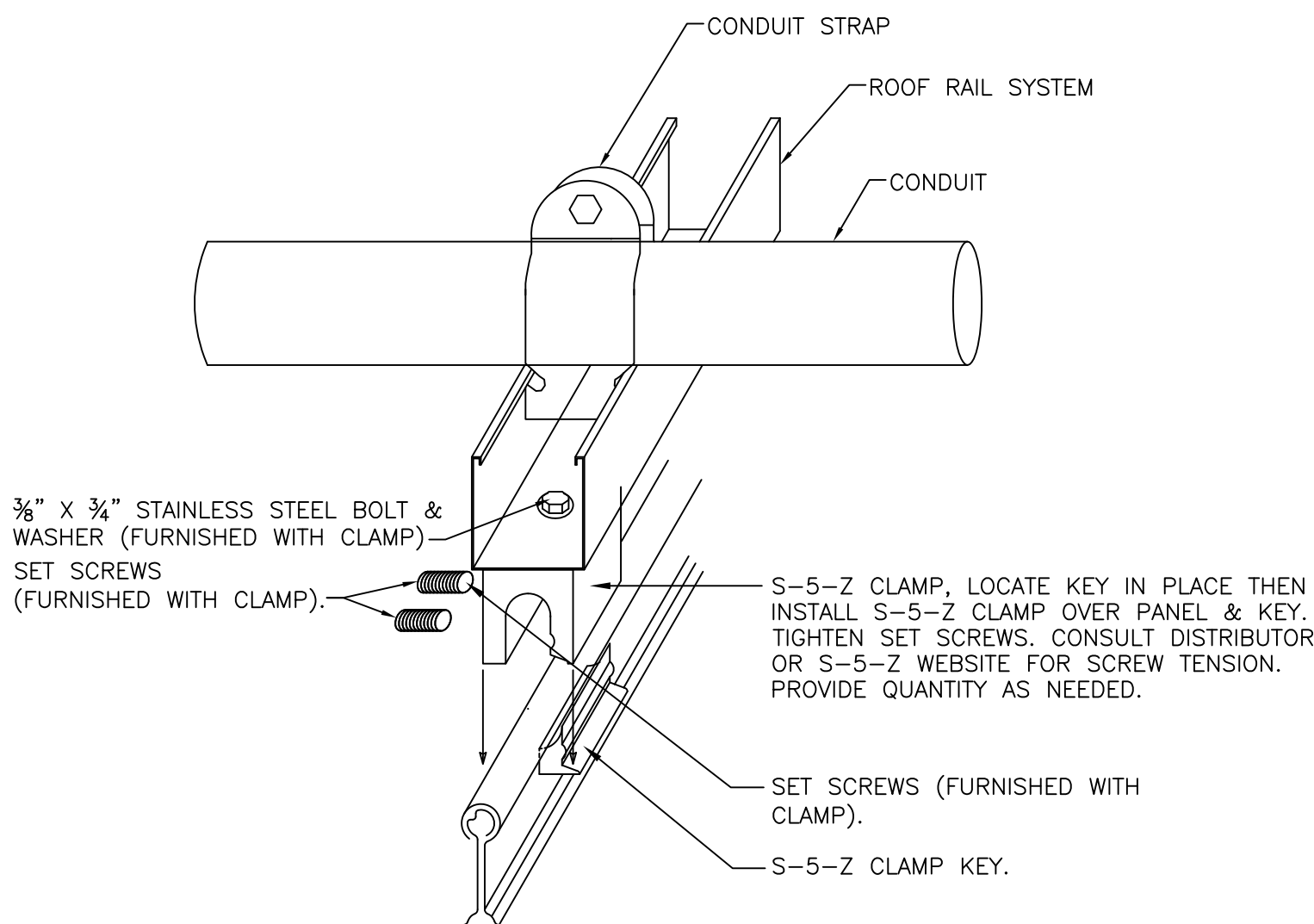
SYSTEM SUMMARY	
DC CAPACITY	58.71 kWDC
AC CAPACITY	40 kWAC
SOLAR MODULE	VSUN670N-144BMH
SOLAR MODULE RATING	570W
MODULE COUNT	103
INVERTER MODEL	SOLAREEDGE SE40KUS
INVERTER COUNT	1
RACKING SYSTEM	IRONRIDGE
SYSTEM AZIMUTH	VARIES
SYSTEM TILT	VARIES
INTERCONNECTION VOLTAGE	480V 3Ø-4W

INVERTER SCHEDULE	
INVERTER LABEL	INVERTER
INVERTER SIZE(KW)	40
INPUT STRING #s	1-1 TO 1-3
LOCATION	MECHANICAL ROOM
FULL LOAD CURRENT	48.25
FULL LOAD CURRENT * 1.25(A)	60.3125
OCPD Rating (A)	70

STRING SUMMARY		
STRING #	# MODULES	INVERTER
1-1	34	1
1-2	34	1
1-3	35	1

SYSTEM SUMMARY DETAILS											
ARRAY NAME	MODULE MANUFACTURER	MODULE MODEL	TOTAL NUMBER OF MODULES	#MODULES/STRING	TOTAL NUMBER OF STRINGS	# INVERTERS	INVERTER SIZE (KW)	OCPD RATING	SIZE KWDC	SIZE KWAC	LOAD RATIO
SOLAR CIRCUIT 1	VSUN	VSUN670N-144BMH	103	34M/2S, 35M/1S	3	1	40	70	58.71	40	147%

2 PV SYSTEM DETAILS
E501 NOT TO SCALE



3 ROOF CONDUIT DETAIL
E501 NOT TO SCALE

WARNING: PHOTOVOLTAIC POWER SOURCE

INSTALL TAG EVERY TEN FEET ON EACH EXPOSED CONDUIT, RACEWAY, JUNCTION BOX, AND ENCLOSURE

PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUT-DOWN

INSTALL TAG AT EACH MAIN SERVICE DISCONNECT

WARNING
ELECTRICAL SHOCK HAZARD.
IF A GROUND FAULT IS INDICATED,
NORMALLY GROUNDED CONDUCTORS
MAY BE UNGROUNDED AND
ENERGIZED.

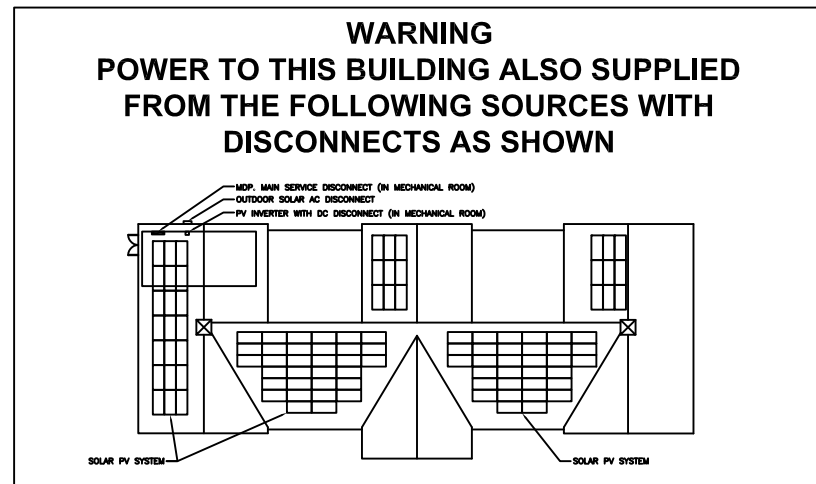
INSTALL TAG ON INVERTER

WARNING
ELECTRICAL SHOCK HAZARD.
TERMINALS ON BOTH THE LINE AND
LOAD SIDES MAY BE ENERGIZED IN
THE OPEN POSITION

INSTALL TAG AT EACH DISCONNECTING MEANS

WARNING
SOLAR AC DISCONNECT
AC OUTPUT CURRENT: 48.25A
AC OPERATING VOLTAGE: 480V
3 PHASE - 4 WIRE

INSTALL TAG AT SOLAR DISCONNECT



INSTALL DIRECTORY TAG AT MAIN DISTRIBUTION PANEL AND SOLAR SERVICE DISCONNECT LOCATION.

WARNING LABEL NOTES

1. RED BACKGROUND
2. WHITE LETTERING
3. ALL CAPITAL LETTERS, ARIAL OR SIMILAR TYPE FONT
4. WEATHER RESISTANT MATERIAL

4 PV SIGNAGE
E501 NOT TO SCALE

INVERTER
PER STRING:
MAXIMUM VOLTAGE: 1000V
MAXIMUM DC CIRCUIT CURRENT: 18A

INSTALL TAG AT INVERTER

INVERTER
AC DISCONNECT
OPERATING CURRENT: 48.25A
OPERATING VOLTAGE: 480V
3 PHASE - 4 WIRE

INSTALL TAG AT CORRESPONDING CIRCUIT BREAKER

SOLAR REC METER

INSTALL LABEL AT SYSTEM OWNER GENERATION METER

INVERTER

INSTALL TAG AT EACH CORRESPONDING CIRCUIT BREAKER

WARNING
TURN OFF PHOTOVOLTAIC
AC DISCONNECT PRIOR TO
WORKING INSIDE PANEL

INSTALL TAG ON PANEL "MDP"

WARNING DUAL POWER SOURCE
SECOND SOURCE IS PHOTOVOLTAIC SYSTEM

INSTALL TAG ON UTILITY METER.

WARNING
DUAL POWER SOURCE
FIRST SOURCE: PECO UTILITY
SECOND SOURCE: SOLAR PV SYSTEM

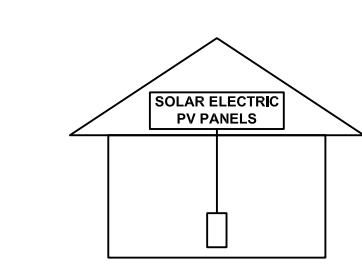
INSTALL TAG AT MAIN DISTRIBUTION PANEL AND SOLAR SERVICE DISCONNECT LOCATION.

WARNING
ARC FLASH AND SHOCK HAZARD.
APPROPRIATE PERSONAL
PROTECTION EQUIPMENT REQUIRED.

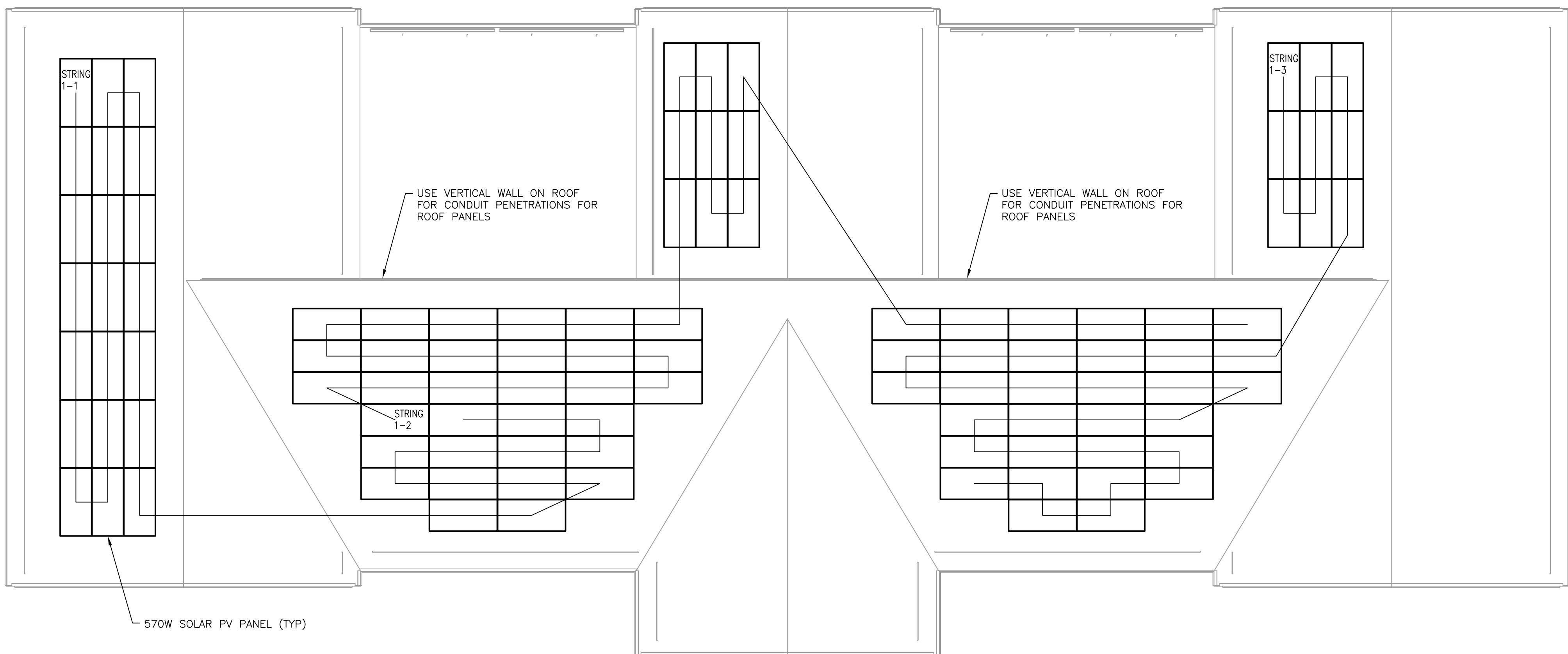
INSTALL TAG ON ALL ELECTRICAL COMPONENTS.

SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN
SWITCH TO THE
"OFF" POSITION TO
SHUT DOWN PV SYSTEM
AND REDUCE
SHOCK HAZARD
IN THE ARRAY



INSTALL TAG AT MAIN SERVICE DISCONNECT.
"SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN" AND
"SOLAR ELECTRIC PV PANELS" SHALL BE BLACK TEXT ON
YELLOW BACKGROUND.
REFER TO NEC 690 FOR ADDITIONAL DETAILS.



1 FIELD HOUSE - ROOF PLAN
E501 1/8" = 1'-0"

TESD CONESTOGA
ATHLETIC FIELDS

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SHEET TITLE
PV ROOF PLAN - FIELD
HOUSE

DRAWING NUMBER

E501

