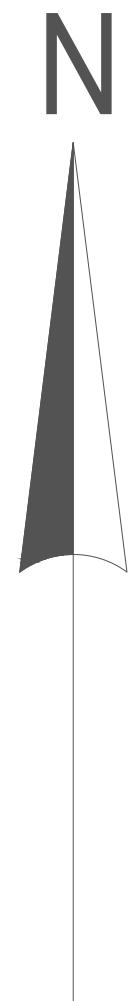
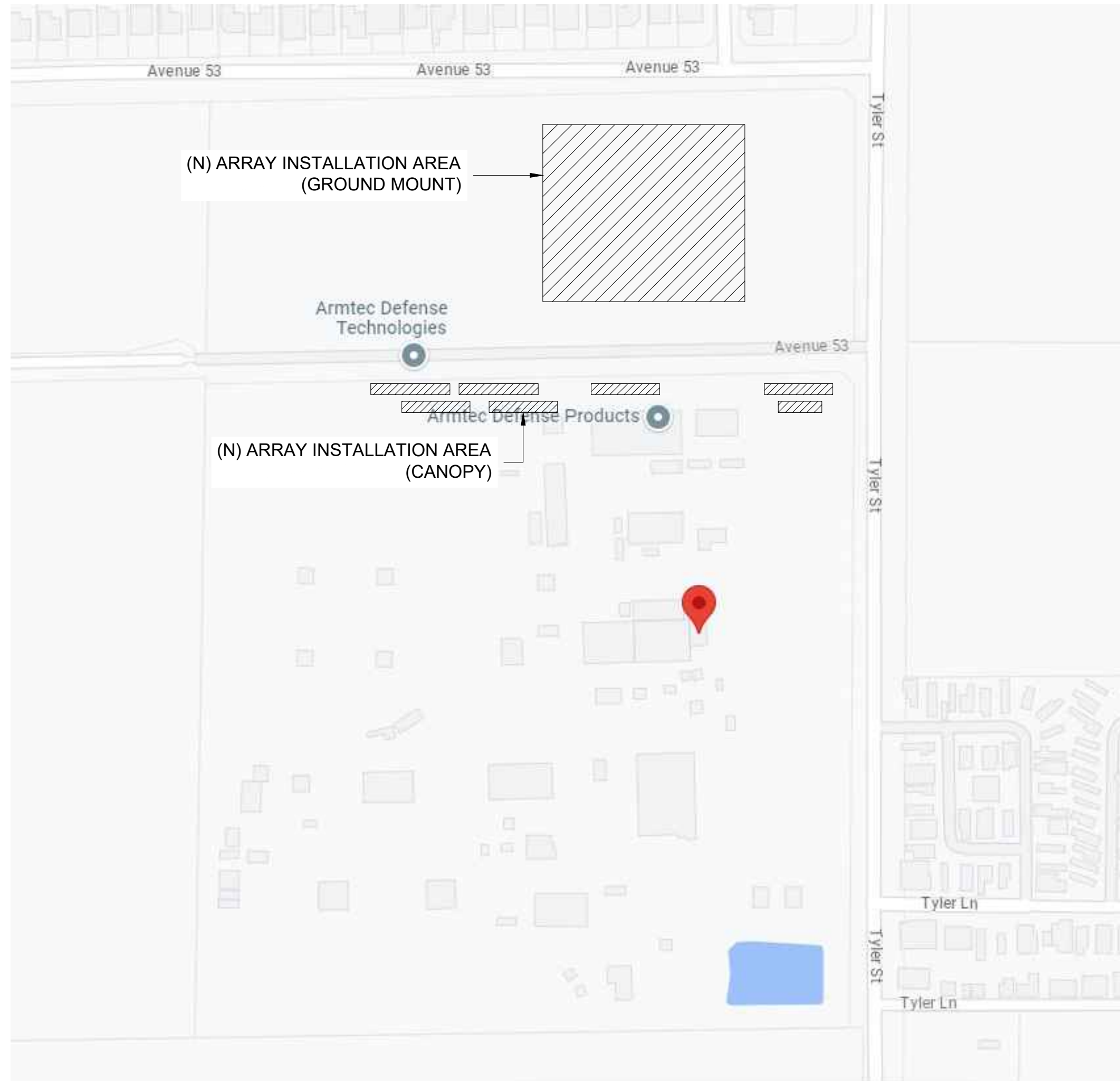


PHOTOVOLTAIC SYSTEM - ARMTEC DEFENSE PRODUCTS CO. 85901 AVENUE 53, COACHELLA, CA 92236

Vicinity Map:



Contact Info:

GENERAL CONTRACTOR:
BAYWA R.E POWER SOLUTIONS, INC.
1101 NATIONAL DRIVE, SUITE B
SACRAMENTO, CA 95834

ELECTRICAL ENGINEER:
NATRON RESOURCES INC.
1480 MORAGA ROAD, SUITE C #229
MORAGA, CA 94556

OWNER:
ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236

CODE REFERENCES:
1. 2022 CALIFORNIA BUILDING CODE (CBC).
2. 2022 CALIFORNIA FIRE CODE (CFC).
3. 2022 CALIFORNIA ELECTRICAL CODE (CEC).

Table of Contents:

- 001 - TITLE PAGE
- A101 - SITE PLAN-1
- A102 - SITE PLAN-2
- A201 - ARRAY PLAN
- A202 - ARRAY PLAN (GROUND MOUNT)
- A203 - ARRAY PLAN (CANOPY)
- E001 - ELECTRICAL NOTES
- E101 - ELECTRICAL SITE PLAN
- E102 - ELECTRICAL CONDUIT PLAN-1
- E103 - ELECTRICAL CONDUIT PLAN-2
- E104 - STRINGING PLAN-1
- E105 - STRINGING PLAN-2
- E106 - STRINGING PLAN-3
- E107 - LIGHTING PLAN-1
- E108 - LIGHTING PLAN-2
- E109 - LIGHTING PLAN-3
- E110 - LIGHTING CONDUIT PLAN
- E201 - SINGLE LINE DIAGRAM-1
- E202 - SINGLE LINE DIAGRAM-2
- E203 - SINGLE LINE DIAGRAM-3
- E204 - LIGHTING SINGLE LINE DIAGRAM
- E300 - GROUNDING SINGLE LINE DIAGRAM
- E401 - WIRING SCHEDULE & AMP. CALC.-1
- E402 - WIRING SCHEDULE & AMP. CALC.-2
- E501 - EQUIPMENT LAYOUT PLAN-1
- E502 - EQUIPMENT LAYOUT PLAN-2
- E503 - EQUIPMENT LAYOUT PLAN-3
- E504 - EQUIPMENT LAYOUT PLAN-4
- E505 - EQUIPMENT PAD GROUNDING GRID
- E506 - BARRICADE DETAIL
- E601 - ELECTRICAL DETAILS-1
- E602 - ELECTRICAL DETAILS-2
- E603 - ELECTRICAL DETAILS-3
- E604 - ELECTRICAL DETAILS-4
- E605 - ELECTRICAL DETAILS-5
- E606 - TRENCH DETAILS-1
- E607 - TRENCH DETAILS-2
- E608 - SNAKE TRAY DETAILS
- E609 - FENCE AND GATE ELEVATION
- E610 - CANOPY POST DETAIL
- E700 - LABELS & MARKINGS
- E801 - SPEC SHEETS-1
- E802 - SPEC SHEETS-2
- E900 - LIGHTING COMPLIANCE CERTIFICATE

SCOPE OF WORK:

ALL ELECTRICITY GENERATED IS FOR CONSUMPTION ON SITE.

SYSTEM ELECTRICAL CONNECTION TO MAIN ELECTRICAL SERVICE IS AT 480Y/277V SWITCHGEAR.

THIS PROJECT COMPRISES THE INSTALLATION OF A NEW GROUND-MOUNTED SOLAR ARRAY, AS WELL AS SEVEN PHOTOVOLTAIC CANOPY SYSTEMS.
THE PERMIT PERMIT SHALL INCLUDE LABOR OF MOUNTING THE SOLAR PANELS, LAYING ELECTRICAL CONDUITS (INCLUDING TRENCHING, RACEWAY INSTALLATION, SNAKE TRAY, ETC.), INCLUDING SITE PREPARATION AND FOUNDATION WORK FOR THE GROUND-MOUNTED SOLAR ARRAY.
AND CONNECTING NEW ELECTRICAL EQUIPMENT TO THE EXISTING BUILDING SERVICE.

NO BATTERIES REQUIRED AS PART OF THIS PROJECT SCOPE.

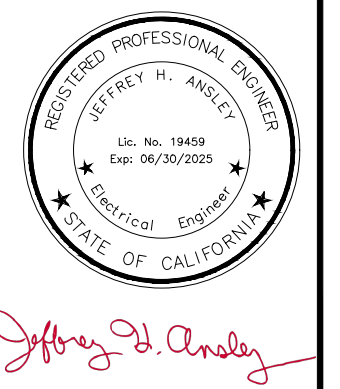
System Specifications:

SYSTEM SUMMARY	
SYSTEM SIZE:	1090.8 KWDC, 856 KWAC;
MODULES DETAILS:	(2020) ZNSHINE ZXM7-SHLDD144-540/M (540 W)
INVERTER DETAILS:	(2) CHINT POWER CPS SCA60KTL-DO/US-480 [480V] (6) CHINT POWER CPS SCA50KTL-DO/US-480 [480V] (1) CHINT POWER CPS SCA36KTL-DO/US-480 [480V] (4) CHINT POWER CPS SCH100KTL-DO/US-480 [480V]
ARRAY SQUARE FOOTAGE	56,333
ARRAY WEIGHT (LBS)	151,399
APPLICABLE CODE	CEC 2022, CBC 2022, CFC 2022
CONSTRUCTION TYPE	COMMERCIAL
ASHRAE STATION	PALM SPRINGS THERMAL AP
ASHRAE 2% HIGH DESIGN TEMP. DB	44
ASHRAE MIN MEAN EXTREME ANNUAL DB	-5

PROJECT TITLE:

ARMTEC DEFENSE
PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236

ENGINEER'S STAMP



BayWa r.e.
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 210956

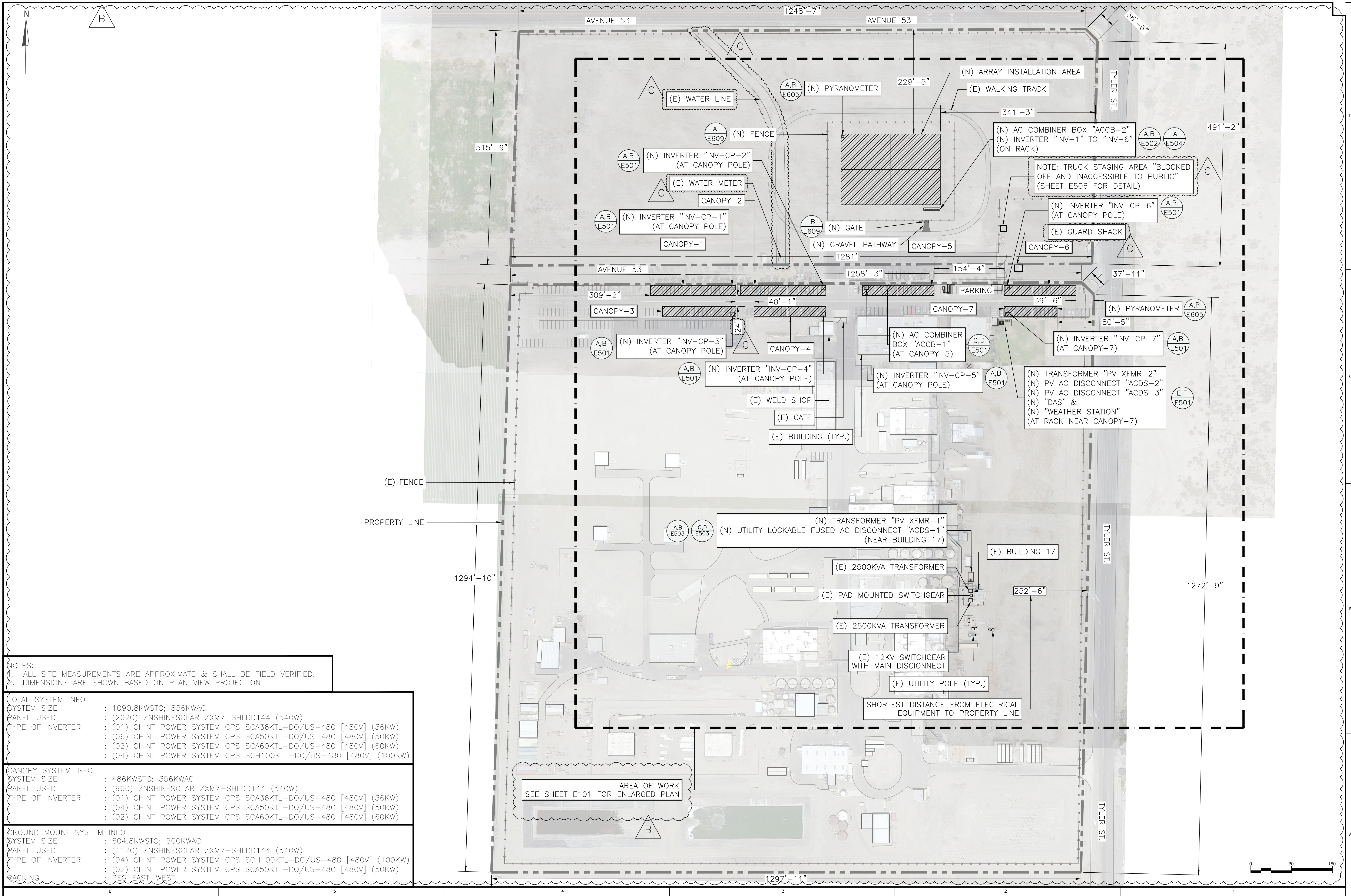
REVISIONS	
#	DATE
A	29-AUG-23
B	20-OCT-23
C	04-JAN-24

PAPER SIZE:	ARCH D
DRAWN BY:	AK
CHECKED BY:	JHA
APPROVED BY:	JHA

SCALE:
NTS

SHEET TITLE:
TITLE PAGE

SHEET #:
001



NOTES:
 1. ALL SITE MEASUREMENTS ARE APPROXIMATE & SHALL BE FIELD VERIFIED.
 2. DIMENSIONS ARE SHOWN BASED ON PLAN VIEW PROJECTION.

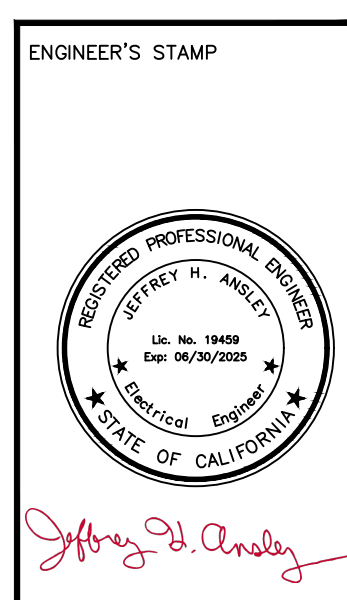
TOTAL SYSTEM INFO	
SYSTEM SIZE	: 1090.8KWSTC; 856KWAC
PANEL USED	: (2020) ZNSHINESOLAR ZXM7-SHLDD144 (540W)
TYPE OF INVERTER	: (01) CHINT POWER SYSTEM CPS SCA36KTL-DO/US-480 [480V] (36KW) : (06) CHINT POWER SYSTEM CPS SCA50KTL-DO/US-480 [480V] (50KW) : (02) CHINT POWER SYSTEM CPS SCA60KTL-DO/US-480 [480V] (60KW) : (04) CHINT POWER SYSTEM CPS SCH100KTL-DO/US-480 [480V] (100KW)

CANOPY SYSTEM INFO	
SYSTEM SIZE	: 486KWSTC; 356KWAC
PANEL USED	: (900) ZNSHINESOLAR ZXM7-SHLDD144 (540W)
TYPE OF INVERTER	: (01) CHINT POWER SYSTEM CPS SCA36KTL-DO/US-480 [480V] (36KW) : (04) CHINT POWER SYSTEM CPS SCA50KTL-DO/US-480 [480V] (50KW) : (02) CHINT POWER SYSTEM CPS SCA60KTL-DO/US-480 [480V] (60KW)

GROUND MOUNT SYSTEM INFO	
SYSTEM SIZE	: 604.8KWSTC; 500KWAC
PANEL USED	: (1120) ZNSHINESOLAR ZXM7-SHLDD144 (540W)
TYPE OF INVERTER	: (04) CHINT POWER SYSTEM CPS SCH100KTL-DO/US-480 [480V] (100KW) : (02) CHINT POWER SYSTEM CPS SCA50KTL-DO/US-480 [480V] (50KW)
RACKING	: PEG EAST-WEST

AREA OF WORK
 SEE SHEET E101 FOR ENLARGED PLAN

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
 85901 AVENUE 53
 COACHELLA, CA 92236



BayWa r.e.
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

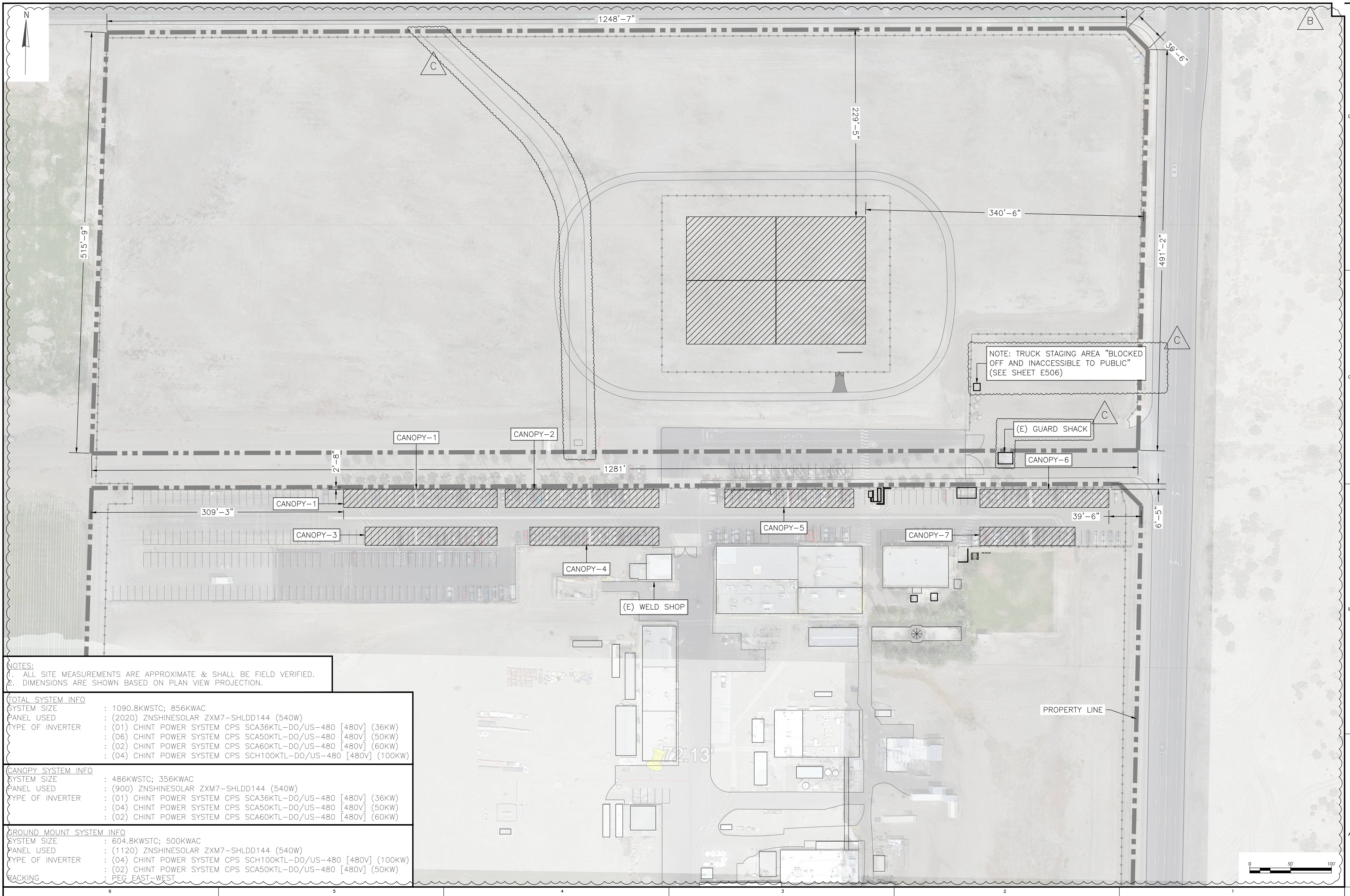
REVISIONS	
DATE	ISSUE
A	29-AUG-23 FOR SUBMITTAL
B	20-OCT-23 UPDATED CITY COMMENTS
C	04-JAN-24 FOR RE-SUBMITTAL

PAPER SIZE: ARCH D
 DRAWN BY: AK
 CHECKED BY: JHA
 APPROVED BY: JHA

SCALE:
 1" = 90'-0"

SHEET TITLE:
SITE PLAN-1

SHEET #:
 A101



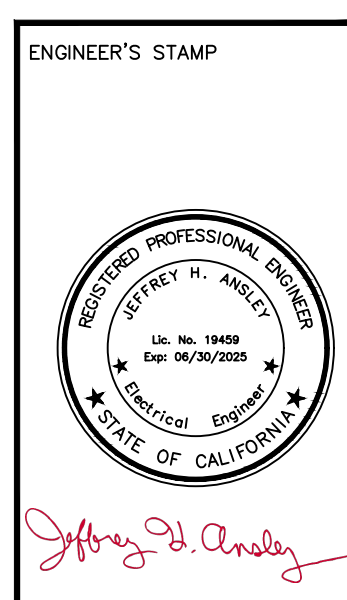
NOTES:
 1. ALL SITE MEASUREMENTS ARE APPROXIMATE & SHALL BE FIELD VERIFIED.
 2. DIMENSIONS ARE SHOWN BASED ON PLAN VIEW PROJECTION.

TOTAL SYSTEM INFO
 SYSTEM SIZE : 1090.8KWSTC; 856KWAC
 PANEL USED : (2020) ZNSHINESOLAR ZXM7-SHLDD144 (540W)
 TYPE OF INVERTER : (01) CHINT POWER SYSTEM CPS SCA36KTL-DO/US-480 [480V] (36KW)
 : (06) CHINT POWER SYSTEM CPS SCA50KTL-DO/US-480 [480V] (50KW)
 : (02) CHINT POWER SYSTEM CPS SCA60KTL-DO/US-480 [480V] (60KW)
 : (04) CHINT POWER SYSTEM CPS SCH100KTL-DO/US-480 [480V] (100KW)

CANOPY SYSTEM INFO
 SYSTEM SIZE : 486KWSTC; 356KWAC
 PANEL USED : (900) ZNSHINESOLAR ZXM7-SHLDD144 (540W)
 TYPE OF INVERTER : (01) CHINT POWER SYSTEM CPS SCA36KTL-DO/US-480 [480V] (36KW)
 : (04) CHINT POWER SYSTEM CPS SCA50KTL-DO/US-480 [480V] (50KW)
 : (02) CHINT POWER SYSTEM CPS SCA60KTL-DO/US-480 [480V] (60KW)

GROUND MOUNT SYSTEM INFO
 SYSTEM SIZE : 604.8KWSTC; 500KWAC
 PANEL USED : (1120) ZNSHINESOLAR ZXM7-SHLDD144 (540W)
 TYPE OF INVERTER : (04) CHINT POWER SYSTEM CPS SCH100KTL-DO/US-480 [480V] (100KW)
 : (02) CHINT POWER SYSTEM CPS SCA50KTL-DO/US-480 [480V] (50KW)
 RACKING : PEG EAST-WEST

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
 85901 AVENUE 53
 COACHELLA, CA 92236



BayWare
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

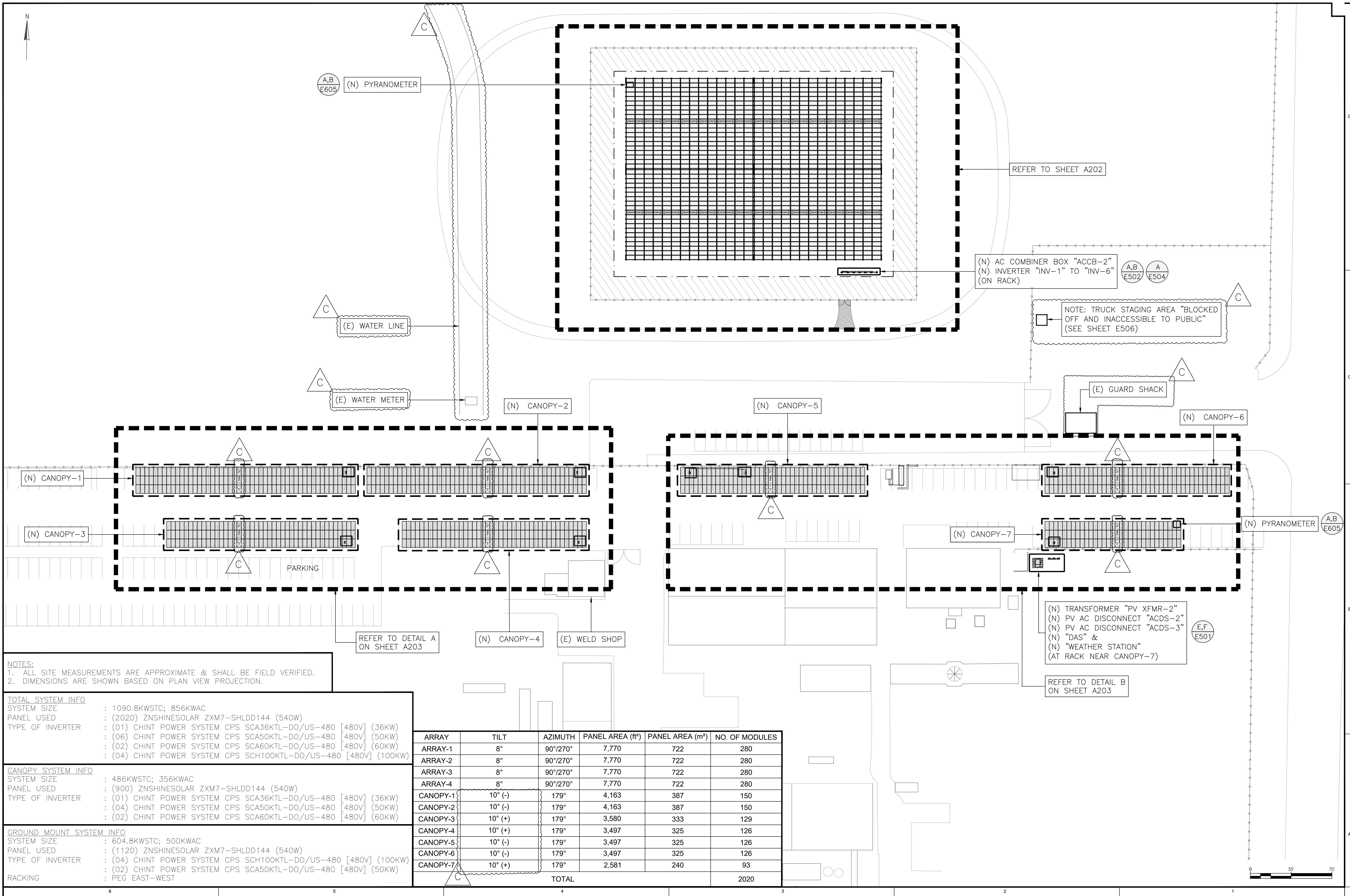
REVISIONS	
DATE	ISSUE
A	29-AUG-23 FOR SUBMITTAL
B	20-OCT-23 UPDATED CITY COMMENTS
C	04-JAN-24 FOR RE-SUBMITTAL

PAPER SIZE: ARCH D
 DRAWN BY: AK
 CHECKED BY: JHA
 APPROVED BY: JHA

SCALE:
 1" = 50'-0"

SHEET TITLE:
 SITE PLAN-2

SHEET #:
 A102



NOTES:
 1. ALL SITE MEASUREMENTS ARE APPROXIMATE & SHALL BE FIELD VERIFIED.
 2. DIMENSIONS ARE SHOWN BASED ON PLAN VIEW PROJECTION.

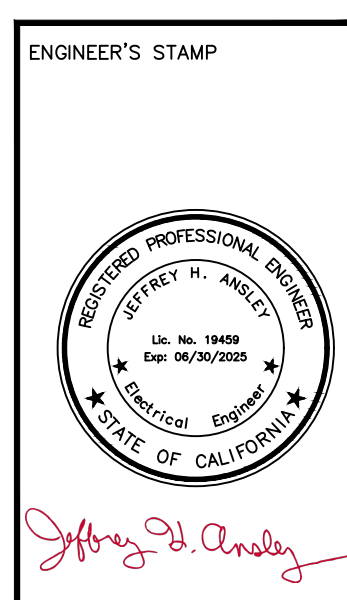
TOTAL SYSTEM INFO
 SYSTEM SIZE : 1090.8KWSTC; 856KWAC
 PANEL USED : (2020) ZNSHINESOLAR ZXM7-SHLDD144 (540W)
 TYPE OF INVERTER : (01) CHINT POWER SYSTEM CPS SCA36KTL-DO/US-480 [480V] (36KW)
 : (06) CHINT POWER SYSTEM CPS SCA50KTL-DO/US-480 [480V] (50KW)
 : (02) CHINT POWER SYSTEM CPS SCA60KTL-DO/US-480 [480V] (60KW)
 : (04) CHINT POWER SYSTEM CPS SCH100KTL-DO/US-480 [480V] (100KW)

CANOPY SYSTEM INFO
 SYSTEM SIZE : 486KWSTC; 356KWAC
 PANEL USED : (900) ZNSHINESOLAR ZXM7-SHLDD144 (540W)
 TYPE OF INVERTER : (01) CHINT POWER SYSTEM CPS SCA36KTL-DO/US-480 [480V] (36KW)
 : (04) CHINT POWER SYSTEM CPS SCA50KTL-DO/US-480 [480V] (50KW)
 : (02) CHINT POWER SYSTEM CPS SCA60KTL-DO/US-480 [480V] (60KW)

GROUND MOUNT SYSTEM INFO
 SYSTEM SIZE : 604.8KWSTC; 500KWAC
 PANEL USED : (1120) ZNSHINESOLAR ZXM7-SHLDD144 (540W)
 TYPE OF INVERTER : (04) CHINT POWER SYSTEM CPS SCH100KTL-DO/US-480 [480V] (100KW)
 : (02) CHINT POWER SYSTEM CPS SCA50KTL-DO/US-480 [480V] (50KW)
 RACKING : PEG EAST-WEST

ARRAY	TILT	AZIMUTH	PANEL AREA (ft²)	PANEL AREA (m²)	NO. OF MODULES
ARRAY-1	8°	90°/270°	7,770	722	280
ARRAY-2	8°	90°/270°	7,770	722	280
ARRAY-3	8°	90°/270°	7,770	722	280
ARRAY-4	8°	90°/270°	7,770	722	280
CANOPY-1	10° (-)	179°	4,163	387	150
CANOPY-2	10° (-)	179°	4,163	387	150
CANOPY-3	10° (+)	179°	3,580	333	129
CANOPY-4	10° (+)	179°	3,497	325	126
CANOPY-5	10° (-)	179°	3,497	325	126
CANOPY-6	10° (-)	179°	3,497	325	126
CANOPY-7	10° (+)	179°	2,581	240	93
TOTAL					2020

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
 85901 AVENUE 53
 COACHELLA, CA 92236



BayWa r.e.
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

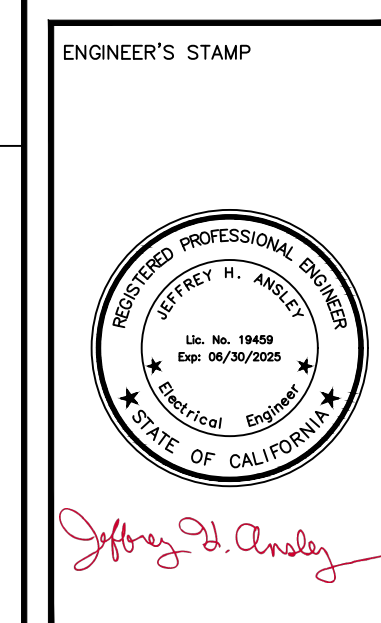
NO.	DATE	ISSUE	REVISIONS
A	29-AUG-23	FOR SUBMITTAL	
B	20-OCT-23	UPDATED CITY COMMENTS	
C	04-JAN-24	FOR RE-SUBMITTAL	

PAPER SIZE: ARCH D
 DRAWN BY: AK
 CHECKED BY: JHA
 APPROVED BY: JHA

SCALE:
 1" = 35'-0"

SHEET TITLE:
ARRAY PLAN

SHEET #:
A201



BayWare
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

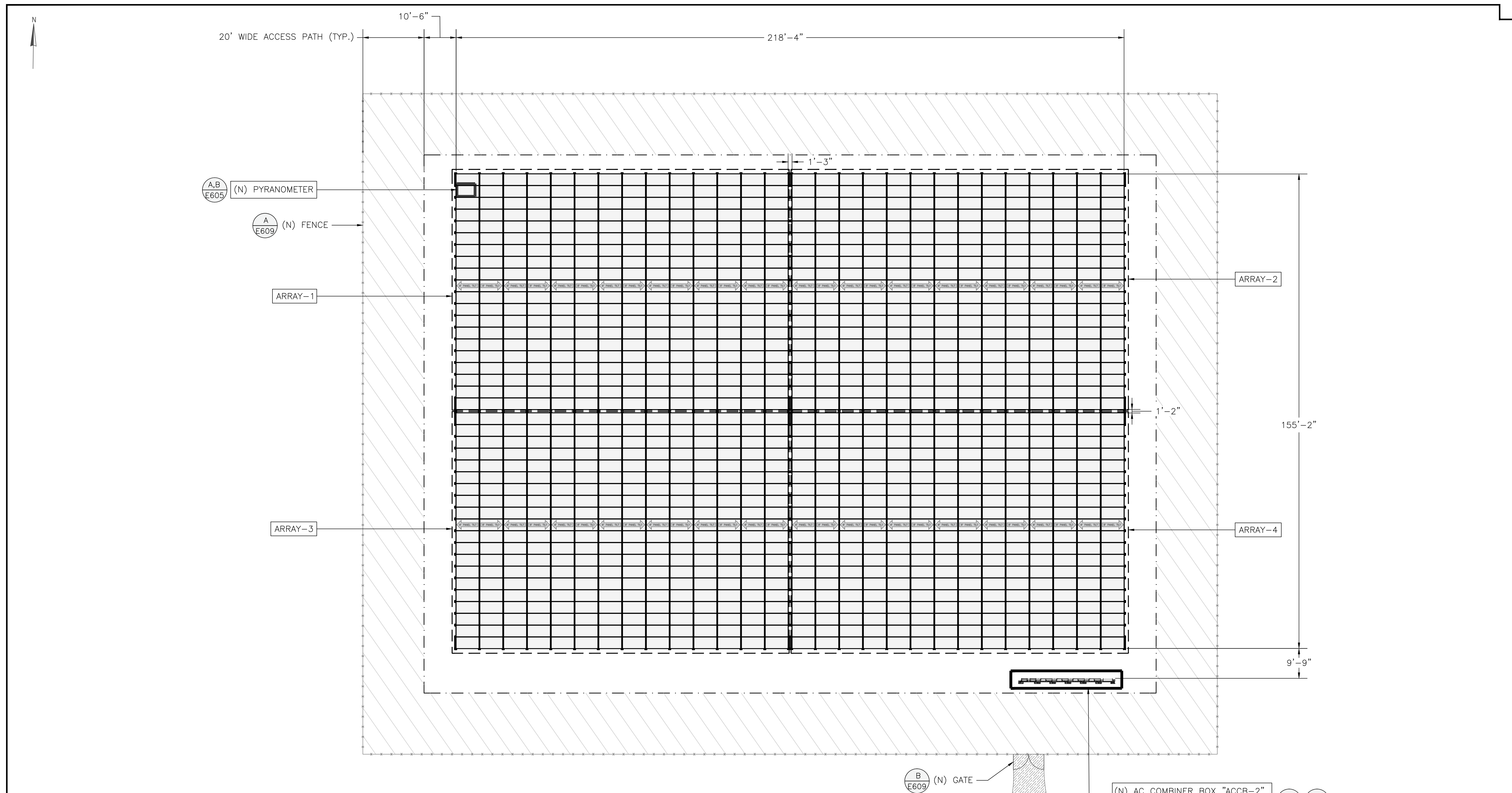
#	DATE	ISSUE
A	29-AUG-23	FOR SUBMITTAL
B	20-OCT-23	UPDATED CITY COMMENTS
C	04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE:	ARCH D
DRAWN BY:	AK
CHECKED BY:	JHA
APPROVED BY:	JHA

SCALE:
 1"=15'-0"

SHEET TITLE:
ARRAY PLAN (GROUND MOUNT)

SHEET #:
 A202



NOTES:
 1. ALL SITE MEASUREMENTS ARE APPROXIMATE & SHALL BE FIELD VERIFIED.
 2. DIMENSIONS ARE SHOWN BASED ON PLAN VIEW PROJECTION.

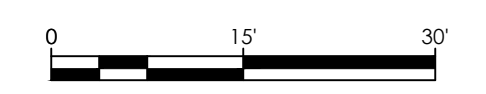
TOTAL SYSTEM INFO

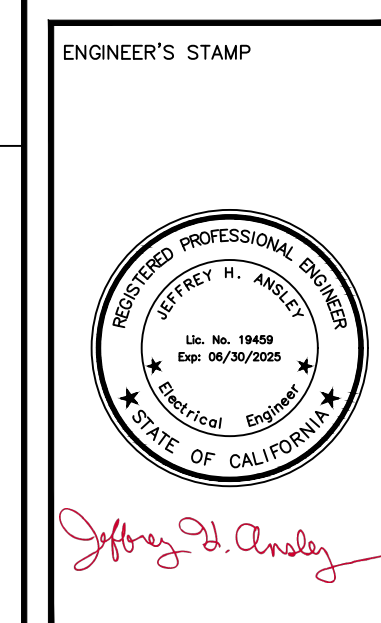
SYSTEM SIZE	: 1090.8KWSTC; 856KWAC
PANEL USED	: (2020) ZNSHINESOLAR ZXM7-SHLDD144 (540W)
TYPE OF INVERTER	: (01) CHINT POWER SYSTEM CPS SCA36KTL-DO/US-480 [480V] (36KW)
	: (06) CHINT POWER SYSTEM CPS SCA50KTL-DO/US-480 [480V] (50KW)
	: (02) CHINT POWER SYSTEM CPS SCA60KTL-DO/US-480 [480V] (60KW)
	: (04) CHINT POWER SYSTEM CPS SCH100KTL-DO/US-480 [480V] (100KW)

GROUND MOUNT SYSTEM INFO

SYSTEM SIZE	: 604.8KWSTC; 500KWAC
PANEL USED	: (1120) ZNSHINESOLAR ZXM7-SHLDD144 (540W)
TYPE OF INVERTER	: (04) CHINT POWER SYSTEM CPS SCH100KTL-DO/US-480 [480V] (100KW)
	: (02) CHINT POWER SYSTEM CPS SCA50KTL-DO/US-480 [480V] (50KW)
RACKING	: PEG EAST-WEST

ARRAY	TILT	AZIMUTH	PANEL AREA (ft²)	PANEL AREA (m²)	NO. OF MODULES
ARRAY-1	8°	90°/270°	7,770	722	280
ARRAY-2	8°	90°/270°	7,770	722	280
ARRAY-3	8°	90°/270°	7,770	722	280
ARRAY-4	8°	90°/270°	7,770	722	280
TOTAL					1120





BayWare
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

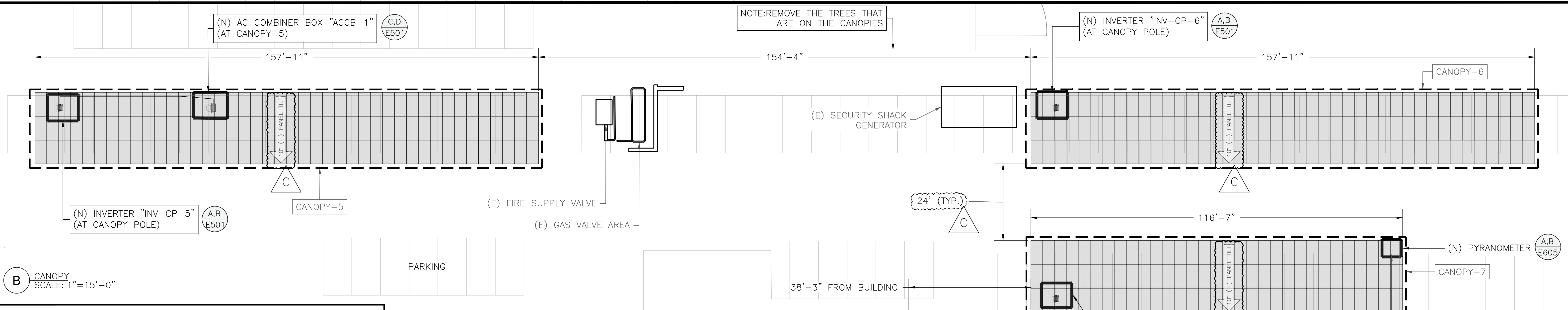
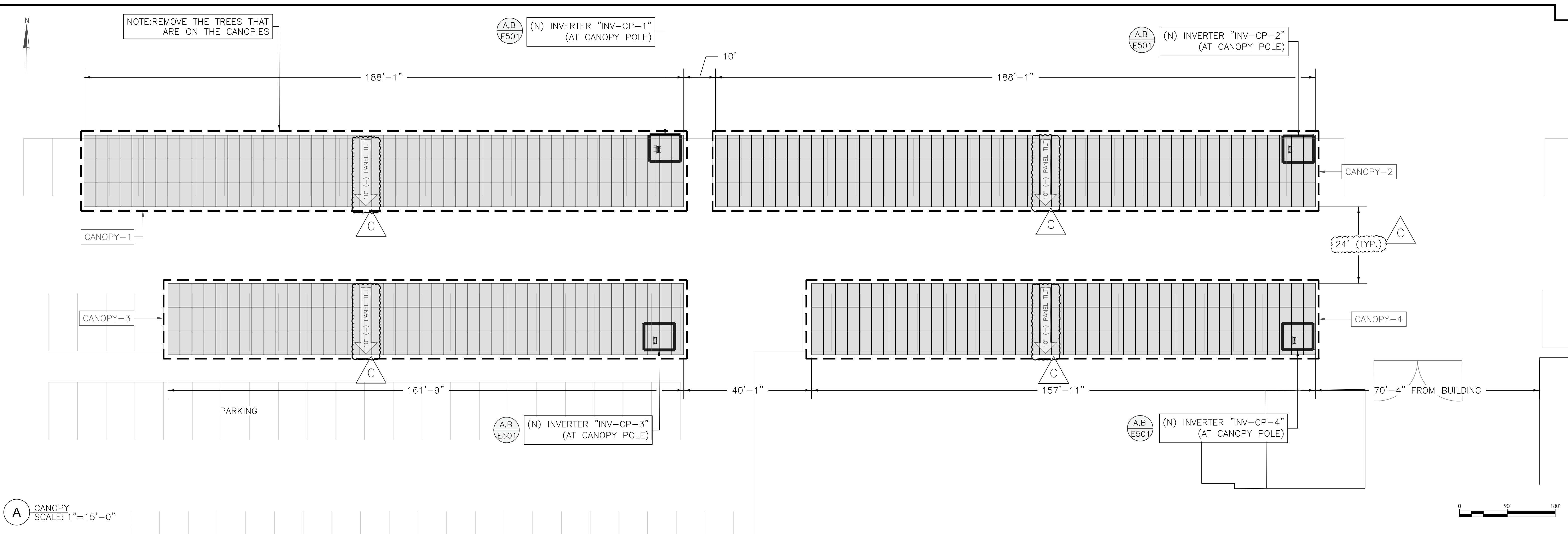
DATE	ISSUE
29-AUG-23	FOR SUBMITTAL
20-OCT-23	UPDATED CITY COMMENTS
04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE:	ARCH D
DRAWN BY:	AK
CHECKED BY:	JHA
APPROVED BY:	JHA

SCALE:
 1"=15'-0"

SHEET TITLE:
ARRAY PLAN (CANOPY)

SHEET #:
 A203

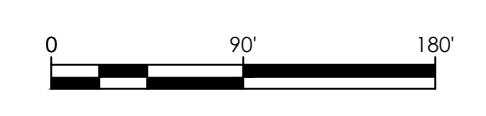


NOTES:
 1. ALL SITE MEASUREMENTS ARE APPROXIMATE & SHALL BE FIELD VERIFIED.
 2. DIMENSIONS ARE SHOWN BASED ON PLAN VIEW PROJECTION.

TOTAL SYSTEM INFO	
SYSTEM SIZE	: 1090.8KWSTC; 856KWAC
PANEL USED	: (2020) ZNSHINESOLAR ZXM7-SHLDD144 (540W)
TYPE OF INVERTER	: (01) CHINT POWER SYSTEM CPS SCA36KTL-D0/US-480 [480V] (36KW) : (06) CHINT POWER SYSTEM CPS SCA50KTL-D0/US-480 [480V] (50KW) : (02) CHINT POWER SYSTEM CPS SCA60KTL-D0/US-480 [480V] (60KW) : (04) CHINT POWER SYSTEM CPS SCH100KTL-D0/US-480 [480V] (100KW)
CANOPY SYSTEM INFO	
SYSTEM SIZE	: 486KWSTC; 356KWAC
PANEL USED	: (900) ZNSHINESOLAR ZXM7-SHLDD144 (540W)
TYPE OF INVERTER	: (01) CHINT POWER SYSTEM CPS SCA36KTL-D0/US-480 [480V] (36KW) : (04) CHINT POWER SYSTEM CPS SCA50KTL-D0/US-480 [480V] (50KW) : (02) CHINT POWER SYSTEM CPS SCA60KTL-D0/US-480 [480V] (60KW)

ARRAY	TILT	AZIMUTH	PANEL AREA (ft²)	PANEL AREA (m²)	NO. OF MODULES
CANOPY-1	10° (-)	179°	4,163	387	150
CANOPY-2	10° (-)	179°	4,163	387	150
CANOPY-3	10° (+)	179°	3,580	333	129
CANOPY-4	10° (+)	179°	3,497	325	126
CANOPY-5	10° (-)	179°	3,497	325	126
CANOPY-6	10° (-)	179°	3,497	325	126
CANOPY-7	10° (+)	179°	2,581	240	93
TOTAL					900

(N) TRANSFORMER "PV XFMR-2"
 (N) PV AC DISCONNECT "ACDS-2"
 (N) PV AC DISCONNECT "ACDS-3"
 (N) "DAS" &
 (N) "WEATHER STATION"
 (AT NEAR CANOPY-7)



GENERAL ELECTRICAL NOTES FOR PHOTOVOLTAIC SYSTEM

THIS PHOTOVOLTAIC INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2022 EDITION OF THE CALIFORNIA ELECTRICAL CODE (CEC) CURRENTLY BEING ENFORCED BY THE AUTHORITY HAVING JURISDICTION (AHJ), PARTICULARLY ARTICLE 690, SOLAR PHOTOVOLTAIC (DC) SYSTEMS.

1. SOLAR CONTRACTOR
 - 1.1. THE SOLAR PV INSTALLATION SHALL NOT OBSTRUCT ANY PLUMBING, MECHANICAL, OR BUILDING ROOF VENTS.
 - 1.2. PV MODULE MUST BE UL1703 CERTIFIED.
 - 1.3. INVERTERS, MOTOR GENERATORS, PV MODULES, PV PANELS, AC MODULES, DC COMBINERS, DC-TO-DC CONVERTERS, AND CHARGE CONTROLLERS INTENDED FOR USE IN PV SYSTEMS SHALL BE LISTED OR FIELD LABELED FOR THE PV APPLICATION. (CEC 690.4 (B))
 - 1.4. CONDUIT AND WIRE SPECIFICATIONS ARE BASED ON MINIMUM CODE REQUIREMENTS AND ARE NOT MEANT TO LIMIT UP-SIZING AS REQUIRED BY FIELD CONDITIONS.
 - 1.5. MAX DC VOLTAGE IS CALCULATED USING MANUFACTURER PROVIDED TEMP COEFFICIENT FOR VOC, UNLESS NOT AVAILABLE.
 - 1.6. ALL SIGNAGE TO BE PLACED IN ACCORDANCE WITH LOCAL BUILDING CODE.
 - 1.7. CONDUIT POINT OF PENETRATION FROM EXTERIOR TO INTERIOR TO BE INSTALLED AND SEALED WITH A SUITABLE SEALING COMPOUND.
2. EQUIPMENT LOCATIONS
 - 2.1. CONDUCTORS INSTALLED IN DIRECT SUNLIGHT MUST BE RATED FOR EXPECTED OPERATING TEMPERATURE AS SPECIFIED BY CEC 690.31 (A) AND CEC 310.15 (B)(2).
 - 2.2. ADDITIONAL AC DISCONNECTS SHALL BE PROVIDED WHERE THE INVERTER IS NOT ADJACENT TO THE UTILITY AC DISCONNECT, OR NOT WITHIN SIGHT OF THE UTILITY AC DISCONNECT.
 - 2.3. ALL INSTALLED EQUIPMENT SHALL BE ACCESSIBLE TO QUALIFIED PERSONNEL ACCORDING TO CEC APPLICABLE CODES.
 - 2.4. PROPER ACCESS AND WORKING CLEARANCE AROUND EXISTING AND PROPOSED ELECTRICAL EQUIPMENT SHALL BE PROVIDED AS PER SECTION CEC 110.26, CEC 110.31 AND CEC 110.34.
 - 2.5. ALL COMPONENTS SHALL BE LISTED FOR THEIR PURPOSE AND SHALL BE RATED FOR OUTDOOR USAGE WHERE REQUIRED.
3. DC SYSTEM VOLTAGE PER 690.7
 - 3.1. PV SYSTEM DC CIRCUITS ON OR IN ONE- AND TWO-FAMILY DWELLINGS SHALL BE PERMITTED TO HAVE A MAXIMUM VOLTAGE OF 600 VOLTS OR LESS.
 - 3.2. PV SYSTEM DC CIRCUITS ON OR IN OTHER TYPES OF BUILDINGS SHALL BE PERMITTED TO HAVE A MAXIMUM VOLTAGE OF 1000 VOLTS OR LESS.
 - 3.3. WHERE NOT LOCATED ON OR IN BUILDINGS, MAXIMUM VOLTAGE OF 1500 VOLTS IS PERMITTED.
4. WIRING METHODS
 - 4.1. NONMETALLIC-SHEATHED CABLE SHALL BE SECURED BY STAPLES, CABLE TIES, STRAPS, HANGERS OR SIMILAR FITTINGS AT INTERVALS THAT DO NOT EXCEED 4.5 FEET. (CEC334.30)
 - 4.2. CABLES SHALL BE SECURED WITHIN 12 INCHES OF EVERY CABLE ENTRY INTO ENCLOSURES SUCH AS OUTLET BOXES, JUNCTION BOXES, CABINETS, OR FITTINGS. (CEC334.30)
 - 4.3. EXPOSED SINGLE CONDUCTORS, WHERE SUBJECT TO PHYSICAL DAMAGE, MUST BE PROTECTED. (CEC300.4 & CEC690.31(A))
 - 4.4. CONDUCTORS INSTALLED NEAR MODULES SHALL BE RATED FOR 90° C. (CEC310.15(A))
 - 4.5. PV CIRCUIT AND PREMISES WIRING SHALL BE SEPARATED.
 - 4.6. PV SYSTEM CONDUCTORS SHALL BE SEPARATED, IDENTIFIED AND GROUPED PER CEC690.31(B).
 - 4.7. DC CONDUCTORS INSIDE A BUILDING SHALL BE IN A METAL RACEWAY OR MC METAL-CLAD CABLE THAT COMPLIES WITH 250.118(10), OR METAL ENCLOSURES. (CEC690.31(D))
 - 4.8. WHERE RACEWAYS OR CABLES ARE EXPOSED TO DIRECT SUNLIGHT ON OR ABOVE ROOFTOPS, RACEWAYS OR CABLES SHALL BE AT MINIMUM HEIGHT OF 7/8 IN. (CEC310.15(B)(2)).
 - 4.9. ALL CONDUIT SIZES AND TYPES, SHALL BE LISTED FOR ITS PURPOSE AND APPROVED FOR THE SITE APPLICATIONS.
 - 4.10. RIGID CONDUIT (AND/OR NIPPLES) MUST HAVE A PULL BUSHING TO PROTECT WIRES.
 - 4.11. FOR DC SINGLE-CONDUCTOR CABLE TYPE USE-2 AND SINGLE CONDUCTOR CABLE LISTED AND IDENTIFIED AS PHOTOVOLTAIC (PV) WIRE SHALL BE PERMITTED IN EXPOSED OUTDOOR LOCATIONS IN PV SOURCE CIRCUITS WITHIN THE PV ARRAY. PV WIRE SHALL BE INSTALLED IN ACCORDANCE WITH CEC 338.10(B)(4)(b) AND CEC 334.30. (CEC 690.31(C)(1))
 - 4.12. USE-2 IS NOT INDOOR RATED PER CEC 338.12(B)(1).
 - 4.13. ALL CONDUCTORS ARE SIZED PER CEC 690.8 AND OCPDs ARE SIZED PER CEC 690.9.
 - 4.14. PV SYSTEM DC CIRCUIT AND INVERTER OUTPUT CONDUCTORS AND EQUIPMENT SHALL BE PROTECTED AGAINST OVERCURRENT. EXCEPT WHEN THE SHORT-CIRCUIT CURRENTS FROM ALL SOURCES DO NOT EXCEED THE AMPACITY OF THE CONDUCTORS AND THE MAXIMUM OCPD SIZE RATING SPECIFIED FOR THE PV MODULE OR DC-TO-DC CONVERTER. (CEC690.9(A))
 - 4.15. FOR UNDERGROUND CONDUCTOR INSTALLATIONS, THE BURIAL DEPTH SHALL BE SELECTED PER CECTABLE 300.5. WARNING TAPE SHALL BE PLACED ABOVE UNDERGROUND CONDUIT AND CONDUCTORS IN TRENCH.
 - 4.16. UNGROUNDED PV SYSTEM SHOULD NOT HAVE WHITE OR GRAY COLORED DC PV CONDUCTORS. ONLY SOLIDLY GROUNDED PV SYSTEM CIRCUIT CONDUCTORS, IN ACCORDANCE WITH 690.41(A)(5), SHALL BE MARKED IN ACCORDANCE WITH CEC200.6 & CEC690.31(B)(1).
 - 4.17. ALUMINUM AND COPPER-CLAD ALUMINUM CONDUCTORS SHOULD NOT BE PLACED IN DIRECT CONTACT WITH CONCRETE OR EARTH. (CEC250.120(B))
 - 4.18. TOP CONDUIT ENTRY FOR OUTDOOR ENCLOSURES MUST BE AVOIDED. IF NECESSARY, CONNECTION ABOVE LIVE PARTS MUST BE MADE WATERTIGHT AND BE LISTED FOR THE PURPOSE.
5. BONDING AND GROUNDING
 - 5.1. SYSTEMS WITH A GROUND-FAULT PROTECTIVE DEVICE IN ACCORDANCE WITH CEC690.41(B) SHALL HAVE ANY CURRENT-CARRYING CONDUCTOR-TO-GROUND CONNECTION MADE BY THE GROUND-FAULT PROTECTIVE DEVICE. FOR SOLIDLY GROUNDED PV SYSTEMS, THE DC CIRCUIT GROUNDING CONNECTION SHALL BE MADE AT ANY SINGLE POINT ON THE PV OUTPUT CIRCUIT. (CEC690.42)
 - 5.2. RACKING SYSTEMS SHALL BE LISTED FOR THE PURPOSE. BONDING AND GROUNDING MUST BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, THAT ARE LISTED AND APPROVED, USING THE SUPPLIED HARDWARE OR LISTED EQUIPMENT SPECIFIED IN THE INSTRUCTIONS AND IDENTIFIED FOR THE ENVIRONMENT. (CEC690.43 & CEC110.3(B))
 - 5.3. EQUIPMENT GROUNDING CONDUCTORS FOR PV SOURCE CIRCUITS SHALL BE SIZED ACCORDING TO TABLE 250.122 AND SHALL NOT BE SMALLER THAN #14 AWG WHEN NOT EXPOSED TO PHYSICAL DAMAGE. IF EXPOSED TO PHYSICAL DAMAGE THEN EGG SHALL NOT BE SMALLER THAN #6 AWG. (CEC690.45 & CEC250.120(C))
 - 5.4. AC AND DC GROUNDING ELECTRODE CONDUCTORS SHALL BE PROPERLY CONNECTED AS REQUIRED BY CODE. SEPARATE ELECTRODES, IF USED, SHALL BE BONDED TOGETHER. (CEC690.47, CEC250.50 & CEC250.58)
 - 5.5. A GROUNDING ELECTRODE SYSTEM IN ACCORDANCE WITH CEC690.47, CEC250.52 AND CEC250.166 SHALL BE PROVIDED.
 - 5.6. PROPERLY SIZED EQUIPMENT GROUNDING CONDUCTOR SHALL BE ROUTED WITH THE CIRCUIT CONDUCTORS. (CEC690.45, CEC250.134(2) & CEC300.3(B))
 - 5.7. THE GROUNDING ELECTRODE CONDUCTOR SHALL BE PROTECTED FROM PHYSICAL DAMAGE BETWEEN THE GROUNDING ELECTRODE AND THE PANEL (OR INVERTER) IF SMALLER THAN #6 AWG COPPER WIRE PER CEC250.64(B).
 - 5.8. THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS PER CEC250.64(C).
 - 5.9. BONDING FITTINGS SHALL BE USED ON CONCENTRIC/ECCENTRIC KNOCKOUTS WITH METAL CONDUITS FOR CIRCUITS OVER 250 VOLTS. (CEC250.97) (SEE ALSO EXCEPTIONS 1 THROUGH 4)
 - 5.10. BONDING FITTINGS SHALL BE USED FOR FERROUS METAL CONDUITS ENCLOSING GROUNDING ELECTRODE CONDUCTORS. (CEC250.64(E))
 - 5.11. ENCLOSURES SHALL BE PROPERLY PREPARED WITH REMOVAL OF PAINT/FINISH AS APPROPRIATE WHEN GROUNDING EQUIPMENT WITH TERMINATION GROUNDING LUGS.
 - 5.12. GROUNDING SYSTEM COMPONENTS SHALL BE LISTED FOR THE PURPOSE, AND GROUNDING DEVICES EXPOSED TO THE ELEMENTS SHALL BE RATED FOR DIRECT BURIAL.
 - 5.13. ALL CONDUIT BETWEEN THE UTILITY AC DISCONNECT AND THE POINT OF CONNECTION SHALL HAVE GROUNDED BUSHINGS AT BOTH ENDS.
 - 5.14. EXPOSED NON-CURRENT CARRYING METAL PARTS OF MODULE FRAMES, EQUIPMENTS, AND CONDUCTOR ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH 250.134 OR 250.136(A) REGARDLESS OF VOLTAGE. (CEC690.43)
 - 5.15. MODULES SHALL BE LISTED FOR THE PURPOSE. BONDING AND GROUNDING MUST BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, USING THE SUPPLIED HARDWARE OR LISTED EQUIPMENT SPECIFIED IN THE INSTRUCTIONS AND IDENTIFIED FOR THE ENVIRONMENT. (CEC690.43 & 110.3(B))
 - 5.16. THE GROUNDING CONNECTION TO A MODULE SHALL BE ARRANGED SUCH THAT THE REMOVAL OF A MODULE DOES NOT INTERRUPT A GROUNDED CONDUCTOR TO ANOTHER MODULE.

6. OVERCURRENT PROTECTION
 - 6.1. OVERCURRENT PROTECTION DEVICES (OCPD) IN THE DC CIRCUITS SHALL BE LISTED FOR DC OPERATION. (CEC110.3(A), (B) & 690.9(C))
 - 6.2. UNGROUNDED PV SYSTEM REQUIRES OCPD ON ONLY ONE POLARITY. OCPD TO BE USED ON EITHER POSITIVE TERMINALS OR NEGATIVE TERMINALS PER CEC690.9(C).
 - 6.3. WHEN INSTALLING A NEW BREAKER AND MATCH EXISTING PANEL CIRCUIT BREAKER, MAKE, MODEL, STYLE AND AIC RATING.
7. ELECTRICAL CONNECTIONS
 - 7.1. CRIMP TERMINALS SHALL BE LISTED AND INSTALLED USING A LISTED TOOL SPECIFIED FOR USE IN CRIMPING THOSE SPECIFIC CRIMPS. (CEC110.3(B) & 110.14)
 - 7.2. PRESSURE TERMINALS SHALL BE LISTED FOR THE ENVIRONMENT AND TIGHTENED TO MANUFACTURER RECOMMENDED TORQUE SPECIFICATIONS. (CEC110.11, 110.3(B) & 110.14)
 - 7.3. CONNECTORS MUST BE LISTED FOR THE VOLTAGE OF THE SYSTEM AND HAVE APPROPRIATE TEMPERATURE AND AMPACITY. (CEC110.3(B) & 110.14)
 - 7.4. POWER DISTRIBUTION BLOCKS SHALL BE LISTED. (CEC690.4(B) & CEC314.28(E))
 - 7.5. TERMINALS CONTAINING MORE THAN ONE CONDUCTOR SHALL BE LISTED FOR MULTIPLE CONDUCTORS. (CEC110.14(A) & 110.3(B))
 - 7.6. CONNECTORS AND TERMINALS USED OTHER THAN CLASS B AND C STRANDED CONDUCTORS (FINE STRANDED CONDUCTORS) SHALL BE LISTED AND IDENTIFIED FOR USE WITH SPECIFIC CONDUCTOR CLASS OR CLASSES. (CEC110.14(A) & 110.3(B))
 - 7.7. CONNECTORS THAT ARE READILY ACCESSIBLE AND OPERATING AT OVER 30 VOLTS REQUIRE A TOOL FOR OPENING. (CEC690.33(C))
8. INVERTERS
 - 8.1. INVERTERS SHALL BE LISTED TO UL 1741. (CEC690.4(B)) NOTE: GRID-TIED SYSTEM INVERTERS NEED TO BE IDENTIFIED FOR USE IN INTERACTIVE POWER SYSTEMS.
 - 8.2. PHOTOVOLTAIC INVERTERS SHALL BE EQUIPPED WITH DC GROUND FAULT PROTECTION AND ARC FAULT CIRCUIT PROTECTION TO REDUCE FIRE HAZARDS. (CEC690.41, CEC690.11)
 - 8.3. GRID INTERACTIVE INVERTERS SHALL BE EQUIPPED WITH ANTI-ISLANDING CIRCUITRY.(CEC705.40)
9. SIGNS AND LABELS
 - 9.1. ALL INTERIOR AND EXTERIOR DC CONDUIT, ENCLOSURES, RACEWAYS, CABLE ASSEMBLIES, JUNCTION BOXES, COMBINER BOXES AND DISCONNECTS SHALL BE MARKED ACCORDING TO CEC690.31(G)(3), & 690.53.
 - 9.2. THE MARKINGS ON THE CONDUITS, RACEWAYS AND CABLE ASSEMBLIES SHALL BE AT EVERY 10 FEET, WITHIN ONE FOOT OF ALL TURNS OR BENDS AND WITHIN ONE FOOT ABOVE AND BELOW ALL PENETRATIONS OF ROOF/CEILING ASSEMBLIES, WALLS AND BARRIERS. (CEC690.31(G)(4))
 - 9.3. THE MARKINGS SAY "WARNING: PHOTOVOLTAIC POWER SOURCE" AND HAVE 3/8-INCH (9.5 MM) MINIMUM-SIZED WHITE LETTERS ON A RED BACKGROUND. THE SIGNS SHALL BE MADE OF REFLECTIVE WEATHER RESISTANT MATERIAL. (CEC690.31 (G)(3) & CEC690.31(G)(4))
 - 9.4. WHERE PV CIRCUITS ARE EMBEDDED IN BUILT-UP, LAMINATE OR MEMBRANE ROOFING MATERIALS IN ROOF AREAS NOT COVERED BY PV MODULES AND ASSOCIATED EQUIPMENT, THE LOCATION OF CIRCUITS SHALL BE CLEARLY MARKED. (CEC690.31(G)(1))
 - 9.5. ALTERNATE POWER SOURCE PLACARD SHALL BE PLASTIC, ENGRAVED IN A CONTRASTING COLOR TO THE PLAQUE. THIS PLAQUE WILL BE ATTACHED USING AN APPROVED METHOD. IF EXPOSED TO SUNLIGHT, IT SHALL BE UV RESISTANT. ALL PLAQUES AND SIGNAGE WILL BE INSTALLED AS REQUIRED BY THE NEC.
10. DISCONNECT NOTES
 - 10.1. AC DISCONNECT MUST BE ACCESSIBLE TO QUALIFIED UTILITY PERSONNEL, BE LOCKABLE, AND BE A VISIBLE-BREAK SWITCH.
 - 10.2. DISCONNECTING SWITCHES SHALL BE WIRED SUCH THAT WHEN THE SWITCH IS OPENED THE CONDUCTORS REMAINING LIVE ARE CONNECTED TO THE TERMINALS MARKED "LINE SIDE" (TYPICALLY THE UPPER TERMINALS).
 - 10.3. THE PV SYSTEM DISCONNECTING MEANS SHALL BE INSTALLED AT A READILY ACCESSIBLE LOCATION PER (CEC690.13(A)).
 - 10.4. FOR DC SIDE OF UNGROUNDED PV SYSTEM, DISCONNECTING MEANS ARE REQUIRED ON BOTH LEGS OF PV CIRCUIT FOR UNGROUNDED SYSTEM PER CEC690.15.
 - 10.5. DISCONNECTS USED IN DC CIRCUITS SHALL BE LISTED FOR DC OPERATION AND LOCATED AS ALLOWED BY THE AHJ. (CEC110.3)
11. TERMINAL NOTES
 - 11.1. ALL TERMINALS SHALL BE RATED FOR AT LEAST 75C.
 - 11.2. ALL TERMINALS SHALL BE DUAL RATED FOR USE WITH COPPER AND ALUMINUM.
12. MODULE CONNECTORS NOTES:
 - 12.1. IDENTICAL CONNECTORS FROM THE SAME MANUFACTURER AND OF THE SAME TYPE MUST BE USED ON MODULE AND ON THE OTHER SIDE OF THE CONNECTION. CROSS-MATING ANY CONNECTOR MUST BE A UL APPROVED CONNECTION.
13. PROTECTION NOTES
 - 13.1. GROUND FAULT PROTECTION IN ACCORDANCE WITH CEC230.95 AND CEC705.32
 - 13.2. ALL EQUIPMENT TO BE RATED FOR BACKFEEDING. CIRCUIT BREAKERS WHICH ARE CLEARLY MARKED "LINE" AND "LOAD" ARE NOT SUITABLE FOR BACKFEED.
 - 13.3. INSTALLER SHALL BE RESPONSIBLE FOR VERIFYING THAT ALL BREAKERS ARE SUITABLE FOR BACKFEED AND THAT IF GFP IS PRESENT ON MAIN SERVICE DISCONNECT THAN ALL SOLAR FEEDERS, CONNECTED TO MAIN BUS, SHALL HAVE GFP PER CEC215.10 & CEC705.32 EXCEPTION.
 - 13.4. ARC-FAULT CIRCUIT PROTECTION:PHOTOVOLTAIC SYSTEMS OPERATING AT 80 VOLTS DC OR GREATER BETWEEN ANY TWO CONDUCTORS SHALL BE PROTECTED BY A LISTED PV ARC-FAULT CIRCUIT INTERRUPTER OR OTHER SYSTEM COMPONENTS LISTED TO PROVIDE EQUIVALENT PROTECTION. FOR PV SYSTEMS NOT INSTALLED ON OR IN BUILDINGS, PV OUTPUT CIRCUITS AND DC-TO-DC CONVERTER OUTPUT CIRCUITS THAT ARE DIRECT BURIED OR INSTALLED IN METALLIC RACEWAYS ARE PERMITTED WITHOUT ARC-FAULT CIRCUIT PROTECTION. (CEC690.11)
 - 13.5. RAPID SHUTDOWN: PV SYSTEM CIRCUITS INSTALLED ON OR IN BUILDINGS SHALL INCLUDE A RAPID SHUTDOWN FUNCTION TO REDUCE SHOCK HAZARD FOR EMERGENCY RESPONDERS IN ACCORDANCE WITH 690.12(A) THROUGH (D).
 - 13.6. WHERE THE SOLAR SERVICE SWITCH OVERCURRENT PROTECTION IS LOCATED MORE THAN 10 FT FROM THE POINT OF UTILITY SERVICE CONNECTION, CABLE LIMITERS FOR EACH UNGROUNDED CONDUCTOR SHALL BE INSTALLED AT THE POINT OF SERVICE INTERCONNECTION.
 - 13.7. FOR ARC ENERGY REDUCTION FOR BREAKERS WITH TRIPS OF 1200A OR HIGHER, ONE OF THE METHODS MENTIONED IN NEC 240.87(B) SHALL BE USED.
14. DATA MONITORING NOTES
 - 14.1. INVERTERS MAY HAVE DATA ACQUISITION SYSTEM BUILT INTO THEM OR IT CAN BE ADDED VIA OPTIONAL COMPONENTS. PLEASE CHECK WHILE ORDERING IF OPTIONAL DAS COMPONENTS NEEDS TO BE ORDERED SEPARATELY.

FIRE SAFETY REQUIREMENTS

IFC 1205.5 GROUND-MOUNTED PHOTOVOLTAIC PANEL SYSTEMS.

GROUND-MOUNTED PHOTOVOLTAIC PANEL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THIS SECTION. SETBACK REQUIREMENTS SHALL NOT APPLY TO GROUND-MOUNTED, FREE-STANDING PHOTOVOLTAIC ARRAYS.

IFC 1205.5.1 VEGETATION CONTROL.

A CLEAR, BRUSH-FREE AREA OF 10 FEET (3048 MM) SHALL BE REQUIRED AROUND THE PERIMETER OF THE GROUND-MOUNTED PHOTOVOLTAIC ARRAYS. A NONCOMBUSTIBLE BASE OF GRAVEL OR A MAINTAINED VEGETATIVE SURFACE OR A NONCOMBUSTIBLE BASE, APPROVED BY THE FIRE CODE OFFICIAL, SHALL BE INSTALLED AND MAINTAINED UNDER THE PHOTOVOLTAIC ARRAYS AND ASSOCIATED ELECTRICAL EQUIPMENT INSTALLATIONS.

PROVIDING FIREPROOFING OF INTERIOR PENETRATIONS TO MAINTAIN EXISTING FIRE RATING OF SPACES AND ROOMS.

**705.12 POINT OF INTERCONNECTION
(B) LOAD SIDE**

- (1) DEDICATED OVERCURRENT AND DISCONNECT. EACH SOURCE INTERCONNECTION OF ONE OR MORE POWER SOURCES INSTALLED IN ONE SYSTEM SHALL HAVE ONLY ONE DEDICATED CIRCUIT BREAKER OR FUSIBLE DISCONNECTING MEANS WHICH CAN DISCONNECT ENTIRE SYSTEM.
- (2) BUS OR CONDUCTOR AMPERE RATING.
 - (3) BUSBARS
 - a. 125% RULE
BUSBAR MUST HAVE AN AMPACITY OF NO LESS THAN 125% OF THE PV CIRCUIT OUTPUT CIRCUIT RATING, PLUS THE RATING OF THE OVERCURRENT DEVICE PROTECTING THE BUSBAR. WHEN USING THIS OPTION, THERE IS NO RESTRICTION ON WHERE THE BACKFEED PV BREAKER MUST BE LOCATED IN THE PANELBOARD.
PV OCPD + MAIN BREAKER ≤ BUSBAR RATING

NOTE TO CONTRACTOR:

CONTRACTOR HAS THE FULL RESPONSIBILITY TO CHECK AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. ANY WORK STARTED BEFORE CONSULTATION AND ACCEPTANCE BY THE ENGINEER SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBJECT TO CORRECTION BY THEM WITHOUT ADDITIONAL COMPENSATION.

STANDARD SYMBOL LEGEND

- (N) NEW
(E) EXISTING

PROJECT TITLE:

ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236

ENGINEER'S STAMP



Jeffrey W. Anselmy

BayWare
1101 National Drive, Suite B
Sacramento, CA 95834
CSL# 990593
JOB NUMBER: 210956

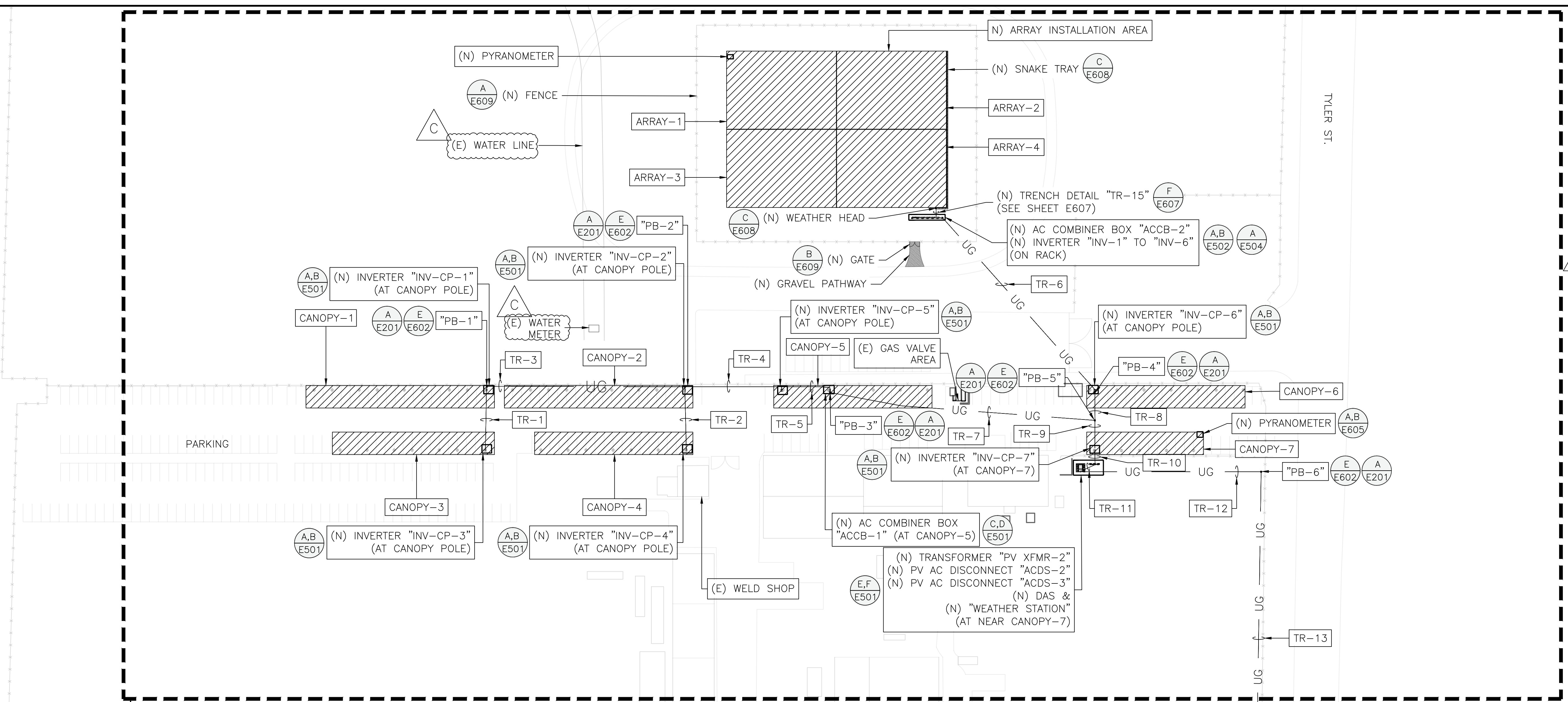
NO.	DATE	ISSUE
A	29-AUG-23	FOR SUBMITTAL
B	20-OCT-23	UPDATED CITY COMMENTS
C	04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE:	ARCH D
DRAWN BY:	AK
CHECKED BY:	JHA
APPROVED BY:	JHA

SCALE:
NTS

SHEET TITLE:
ELECTRICAL NOTES

SHEET #:
E001



TRENCH TABLE	
TRENCH NAME	TRENCH DETAIL REFERENCE
"TR-1"	A/E606
"TR-2"	B/E606
"TR-3"	C/E606
"TR-4"	D/E606
"TR-5"	E/E606
"TR-6"	F/E606
"TR-7"	G/E606
"TR-8"	H/E606
"TR-9"	I/E606
"TR-10"	A/E607
"TR-11"	B/E607
"TR-12"	C/E607
"TR-13"	D/E607
"TR-14"	E/E607
"TR-15"	F/E607
"TR-16"	G/E607

LEGEND:
 UG ——— CONDUIT IN TRENCH

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
 85901 AVENUE 53
 COACHELLA, CA 92236



BayWare
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

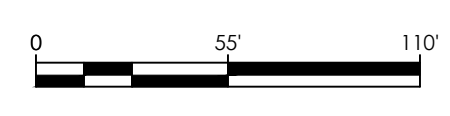
REVISIONS	
#	DATE
A	29-AUG-23
B	20-OCT-23
C	04-JAN-24

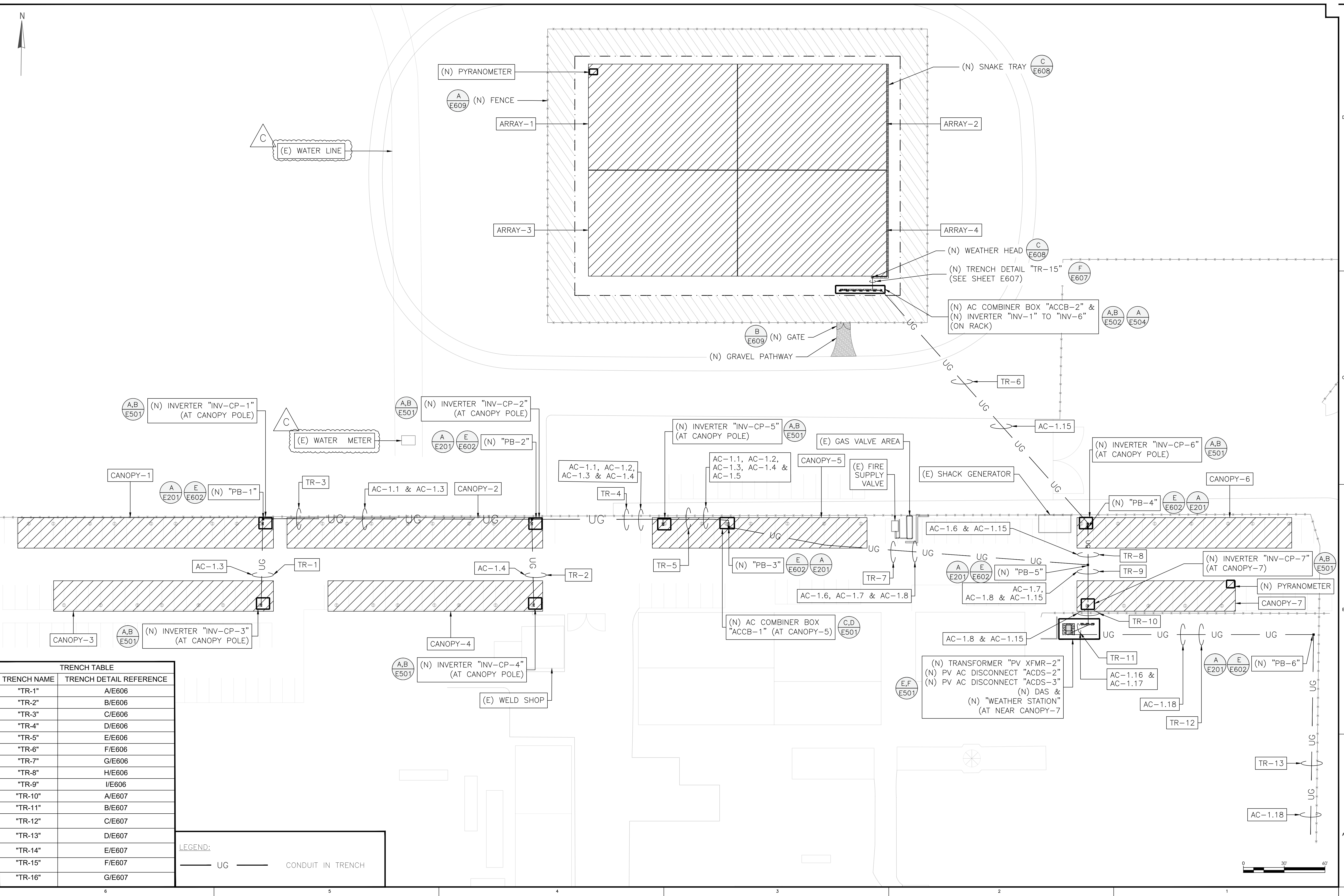
PAPER SIZE: ARCH D
 DRAWN BY: AK
 CHECKED BY: JHA
 APPROVED BY: JHA

SCALE:
 1" = 55'-0"

SHEET TITLE:
ELECTRICAL SITE PLAN

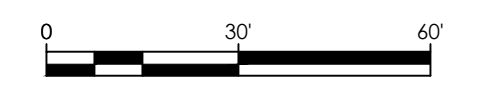
SHEET #:
 E101





TRENCH TABLE	
TRENCH NAME	TRENCH DETAIL REFERENCE
"TR-1"	A/E606
"TR-2"	B/E606
"TR-3"	C/E606
"TR-4"	D/E606
"TR-5"	E/E606
"TR-6"	F/E606
"TR-7"	G/E606
"TR-8"	H/E606
"TR-9"	I/E606
"TR-10"	A/E607
"TR-11"	B/E607
"TR-12"	C/E607
"TR-13"	D/E607
"TR-14"	E/E607
"TR-15"	F/E607
"TR-16"	G/E607

LEGEND:
 UG ——— CONDUIT IN TRENCH



PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
 85901 AVENUE 53
 COACHELLA, CA 92236



BayWare
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

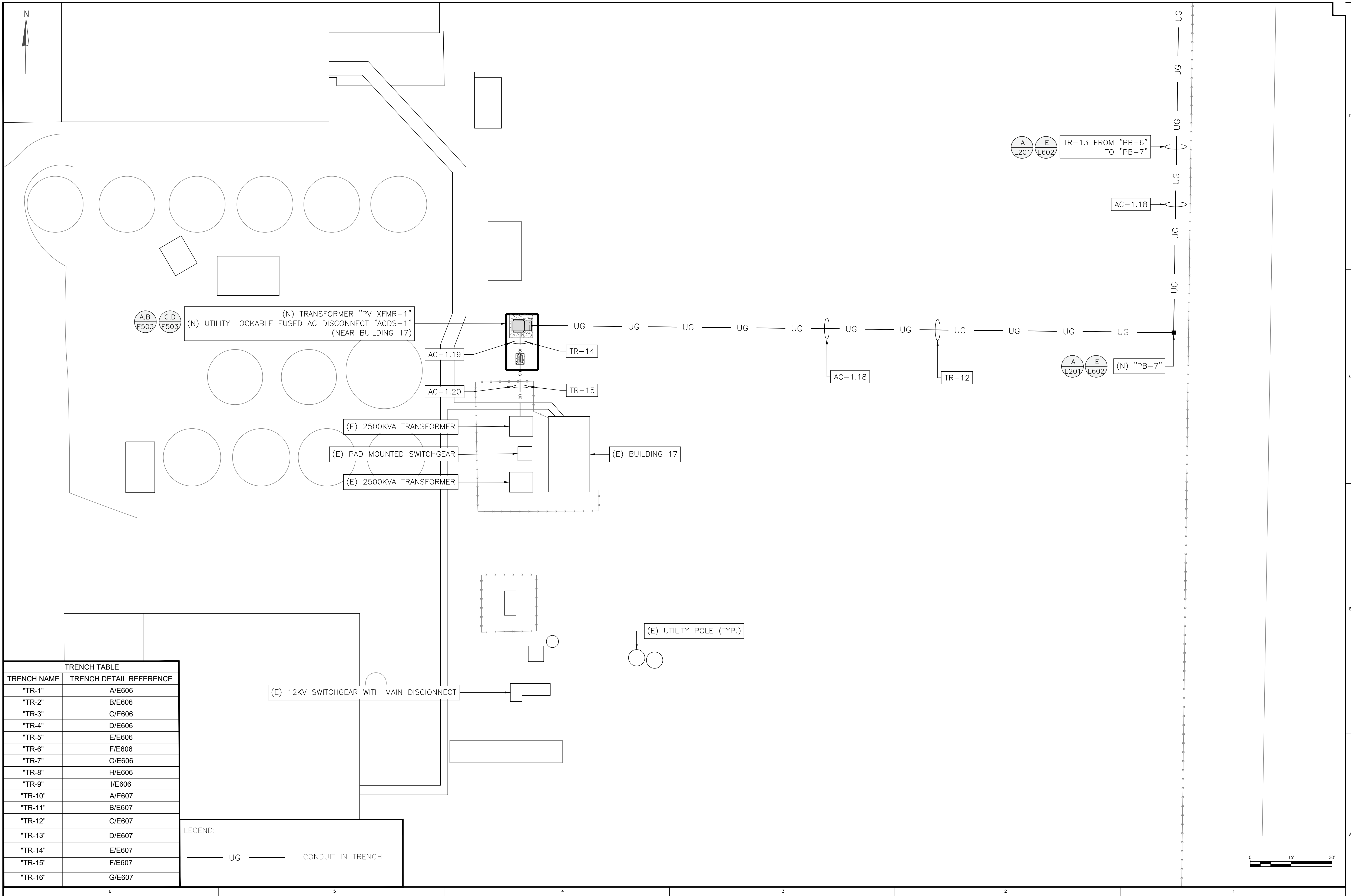
REVISIONS	
DATE	ISSUE
A 29-AUG-23	FOR SUBMITTAL
B 20-OCT-23	FOR UPDATED CITY COMMENTS
C 04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE: ARCH D
 DRAWN BY: AK
 CHECKED BY: JHA
 APPROVED BY: JHA

SCALE:
 1" = 30'-0"

SHEET TITLE:
ELECTRICAL CONDUIT PLAN-1

SHEET #:
 E102



TRENCH TABLE	
TRENCH NAME	TRENCH DETAIL REFERENCE
"TR-1"	A/E606
"TR-2"	B/E606
"TR-3"	C/E606
"TR-4"	D/E606
"TR-5"	E/E606
"TR-6"	F/E606
"TR-7"	G/E606
"TR-8"	H/E606
"TR-9"	I/E606
"TR-10"	A/E607
"TR-11"	B/E607
"TR-12"	C/E607
"TR-13"	D/E607
"TR-14"	E/E607
"TR-15"	F/E607
"TR-16"	G/E607

LEGEND:

UG ——— CONDUIT IN TRENCH

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
 85901 AVENUE 53
 COACHELLA, CA 92236

ENGINEER'S STAMP

Jeffrey W. Anstey

BayWare
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

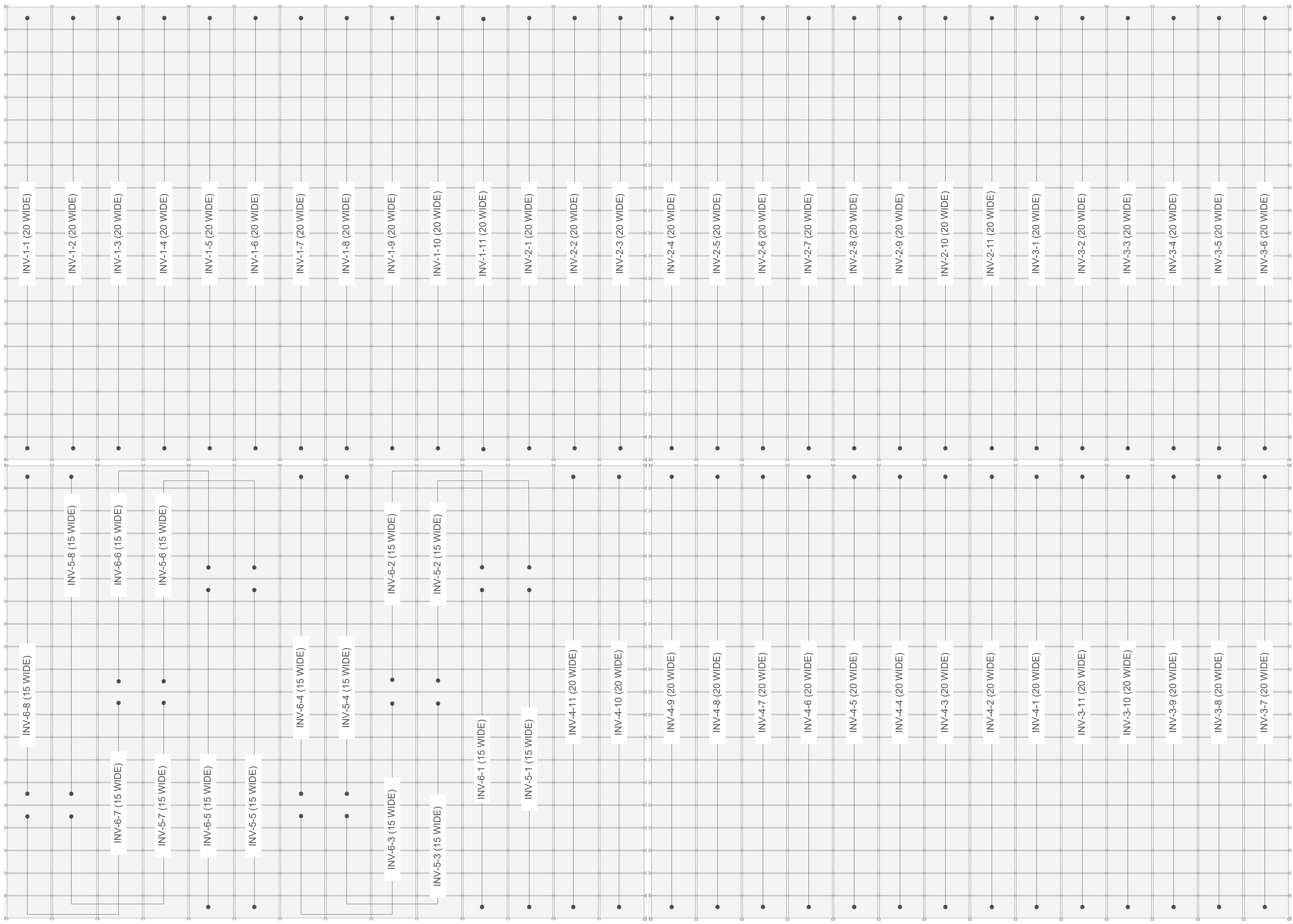
REVISIONS		
#	DATE	ISSUE
A	29-AUG-23	FOR SUBMITTAL
B	20-OCT-23	UPDATED CITY COMMENTS
C	04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE:	ARCH D
DRAWN BY:	AK
CHECKED BY:	JHA
APPROVED BY:	JHA

SCALE:
 1"=15'-0"

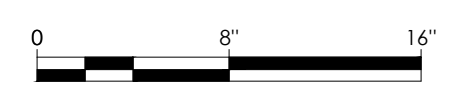
SHEET TITLE:
ELECTRICAL CONDUIT PLAN-2

SHEET #:
 E103



STRING NAME: INV - # - #
 STRING NUMBER ASSOCIATED INVERTER

A STRINGING PLAN—"ARRAY-1", "ARRAY-2", "ARRAY-3" & "ARRAY-4"
 SCALE: 1"=8'-0"



PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
 85901 AVENUE 53
 COACHELLA, CA 92236



BayWare
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

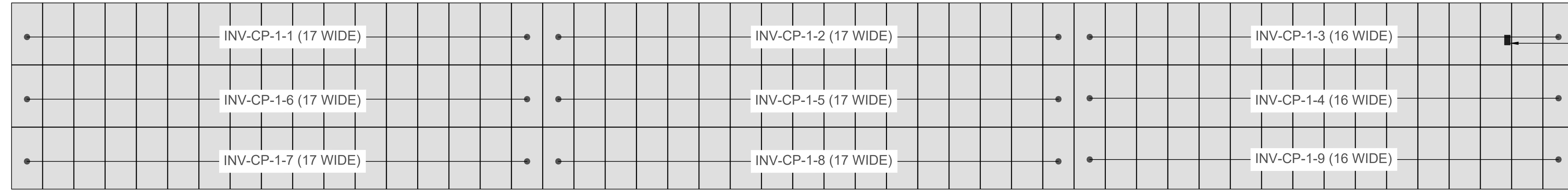
REVISIONS	
#	DATE
A	29-AUG-23 FOR SUBMITTAL
B	20-OCT-23 UPDATED CITY COMMENTS
C	04-JAN-24 FOR RE-SUBMITTAL

PAPER SIZE:	ARCH D
DRAWN BY:	AK
CHECKED BY:	JHA
APPROVED BY:	JHA

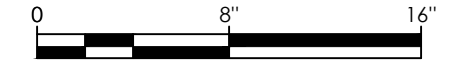
SCALE:
 1"=8'-0"

SHEET TITLE:
 STRINGING PLAN-1

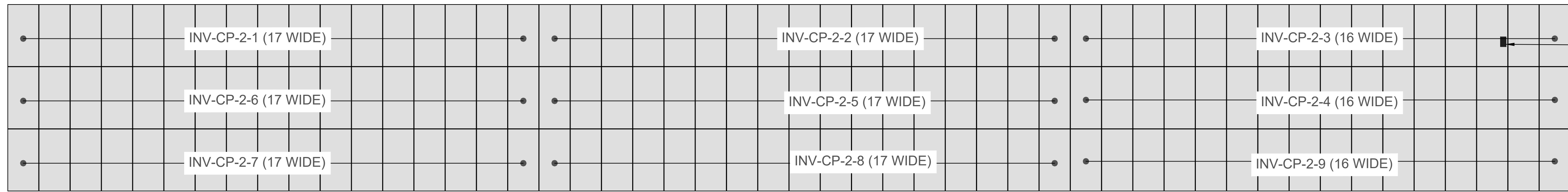
SHEET #:
 E104



JUNCTION BOX
"CP-JB-1"



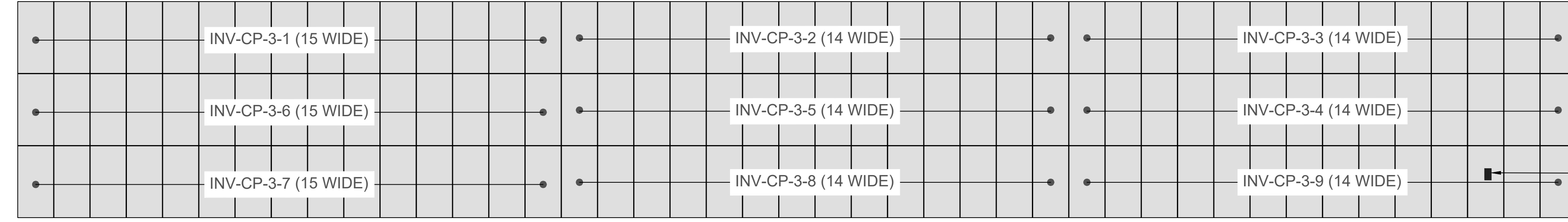
A STRINGING PLAN—"CANOPY-1"
SCALE: 1/8"=1'-0"



JUNCTION BOX
"CP-JB-2"



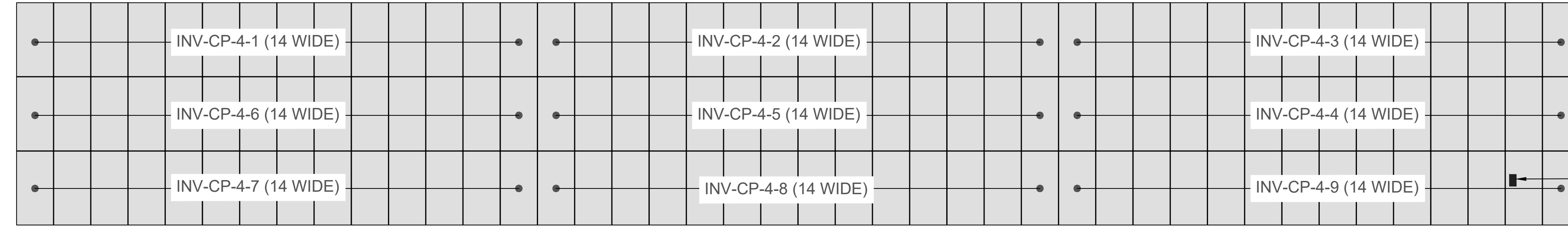
B STRINGING PLAN—"CANOPY-2"
SCALE: 1/8"=1'-0"



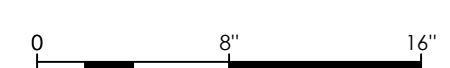
JUNCTION BOX
"CP-JB-3"



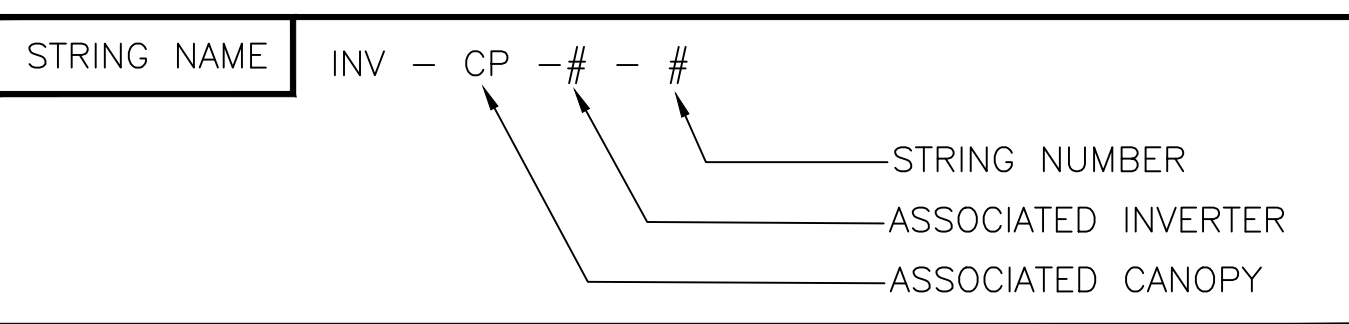
C STRINGING PLAN—"CANOPY-3"
SCALE: 1/8"=1'-0"



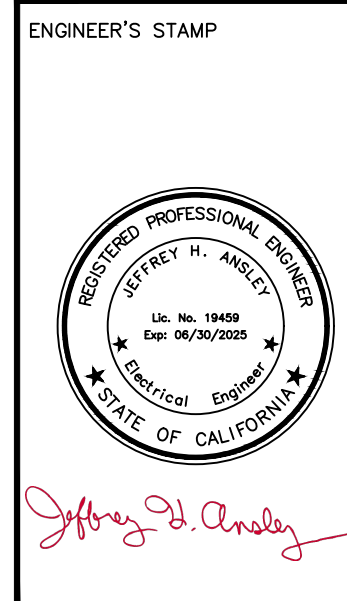
JUNCTION BOX
"CP-JB-4"



D STRINGING PLAN—"CANOPY-4"
SCALE: 1/8"=1'-0"



PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236



BayWa r.e.
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 210956

REVISIONS	
#	DATE
A	29-AUG-23
B	20-OCT-23
C	04-JAN-24

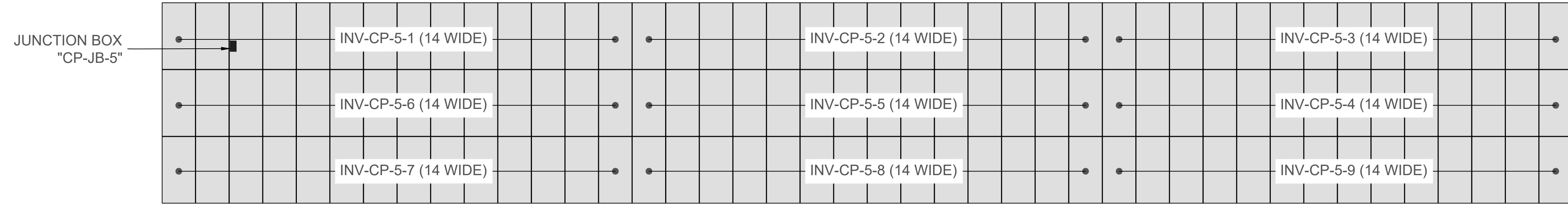
ISSUE FOR SUBMITTAL
FOR UPDATED CITY COMMENTS
FOR RE-SUBMITTAL

PAPER SIZE:	ARCH D
DRAWN BY:	AK
CHECKED BY:	JHA
APPROVED BY:	JHA

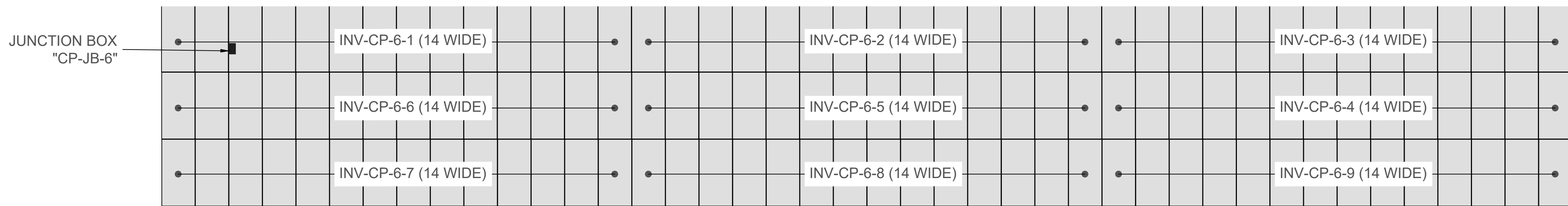
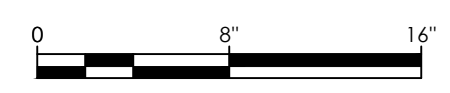
SCALE:
1/8"=1'-0"

SHEET TITLE:
STRINGING PLAN-2

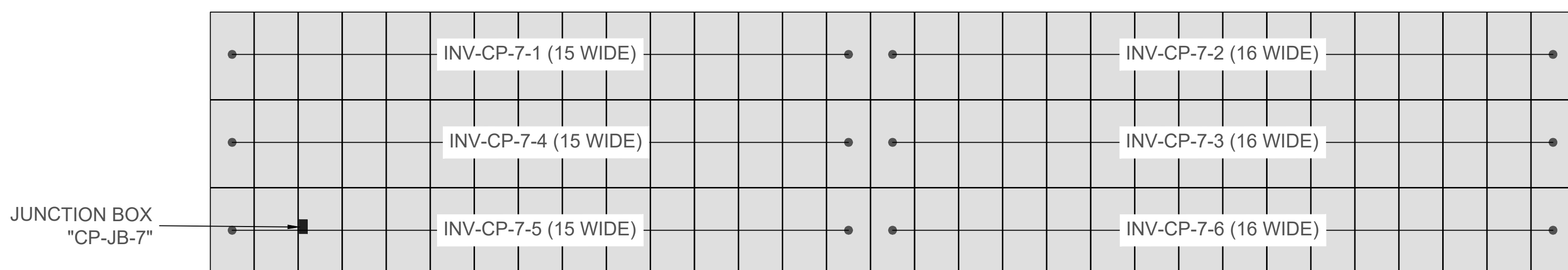
SHEET #:
E105



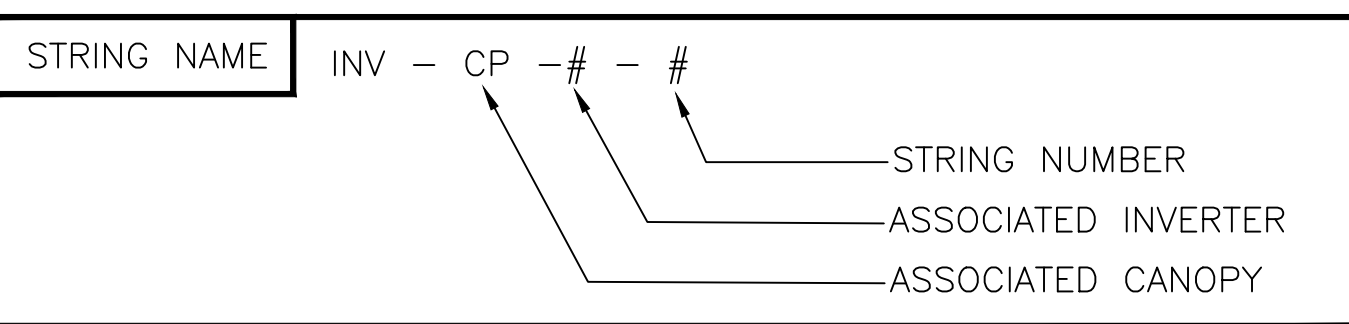
A STRINGING PLAN—CANOPY—5”
SCALE: 1/8”=1’-0”



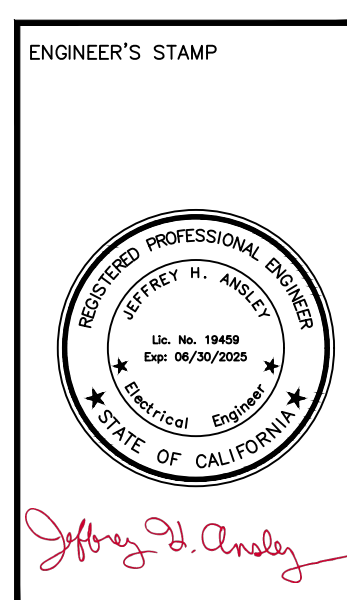
B STRINGING PLAN—CANOPY—6”
SCALE: 1/8”=1’-0”



C STRINGING PLAN—CANOPY—7”
SCALE: 1/8”=1’-0”



PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
 85901 AVENUE 53
 COACHELLA, CA 92236



BayWare
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

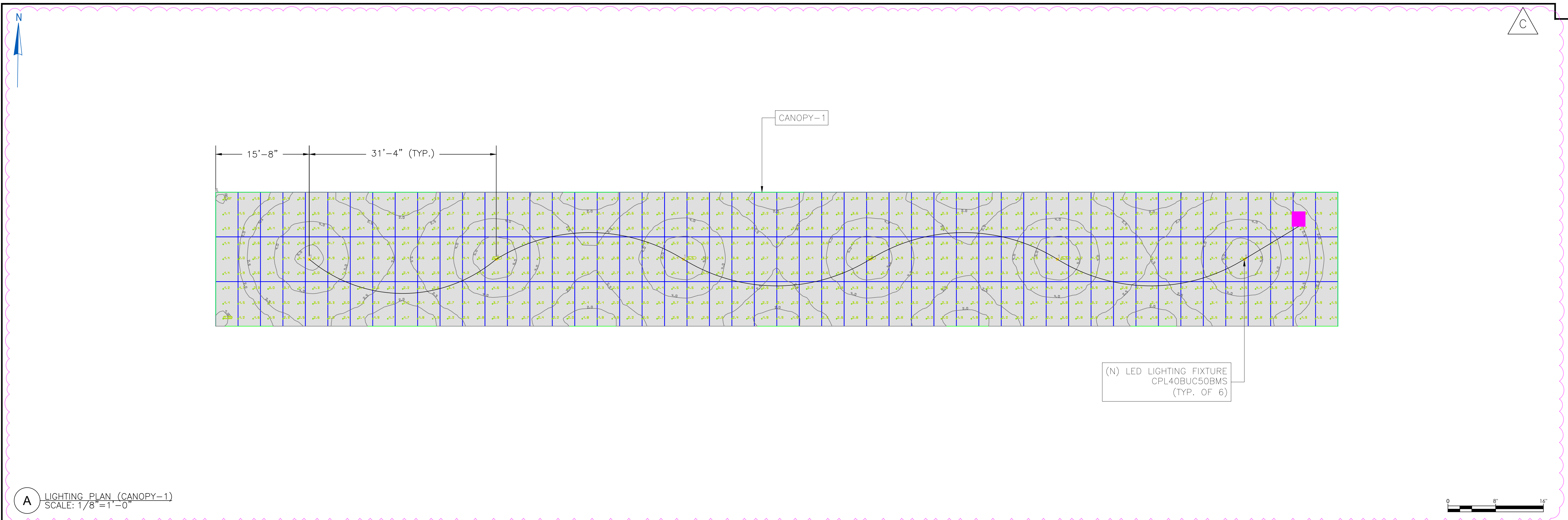
#	DATE	ISSUE
A	29-AUG-23	FOR SUBMITTAL
B	20-OCT-23	UPDATED CITY COMMENTS
C	04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE: ARCH D
 DRAWN BY: AK
 CHECKED BY: JHA
 APPROVED BY: JHA

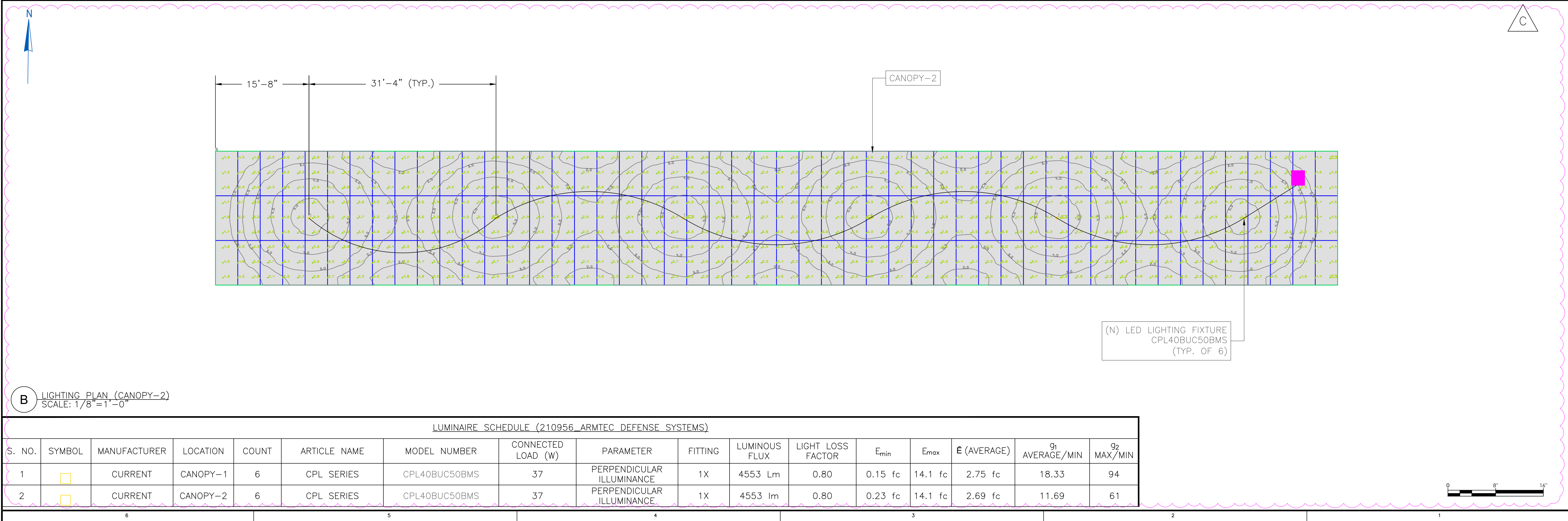
SCALE:
 1/8”=1’-0”

SHEET TITLE:
 STRINGING PLAN—3

SHEET #:
 E106



A LIGHTING PLAN (CANOPY-1)
SCALE: 1/8"=1'-0"

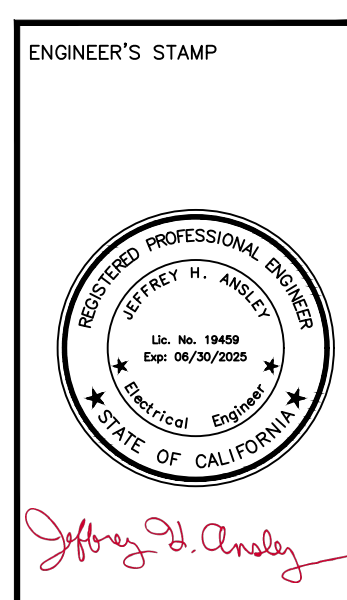


B LIGHTING PLAN (CANOPY-2)
SCALE: 1/8"=1'-0"

LUMINAIRE SCHEDULE (210956_ARMTEC DEFENSE SYSTEMS)

S. NO.	SYMBOL	MANUFACTURER	LOCATION	COUNT	ARTICLE NAME	MODEL NUMBER	CONNECTED LOAD (W)	PARAMETER	FITTING	LUMINOUS FLUX	LIGHT LOSS FACTOR	E _{min}	E _{max}	E (AVERAGE)	g ₁ AVERAGE/MIN	g ₂ MAX/MIN
1	□	CURRENT	CANOPY-1	6	CPL SERIES	CPL40BUC50BMS	37	PERPENDICULAR ILLUMINANCE	1X	4553 Lm	0.80	0.15 fc	14.1 fc	2.75 fc	18.33	94
2	□	CURRENT	CANOPY-2	6	CPL SERIES	CPL40BUC50BMS	37	PERPENDICULAR ILLUMINANCE	1X	4553 lm	0.80	0.23 fc	14.1 fc	2.69 fc	11.69	61

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236



BayWare
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 210956

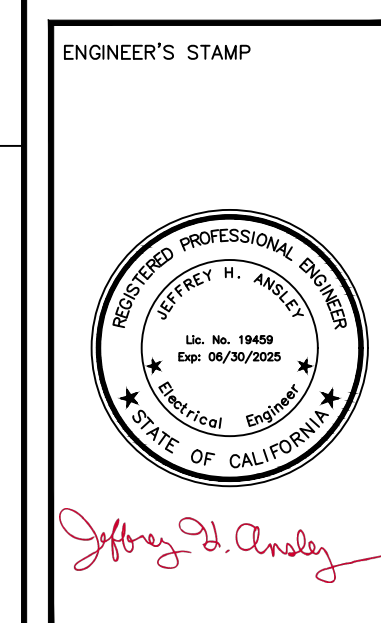
#	DATE	ISSUE
A	29-AUG-23	FOR SUBMITTAL
B	20-OCT-23	UPDATED CITY COMMENTS
C	04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE: ARCH D
DRAWN BY: AK
CHECKED BY: JHA
APPROVED BY: JHA

SCALE:
1/8"=1'-0"

SHEET TITLE:
LIGHTING PLAN-1

SHEET #:
E107



BayWare
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

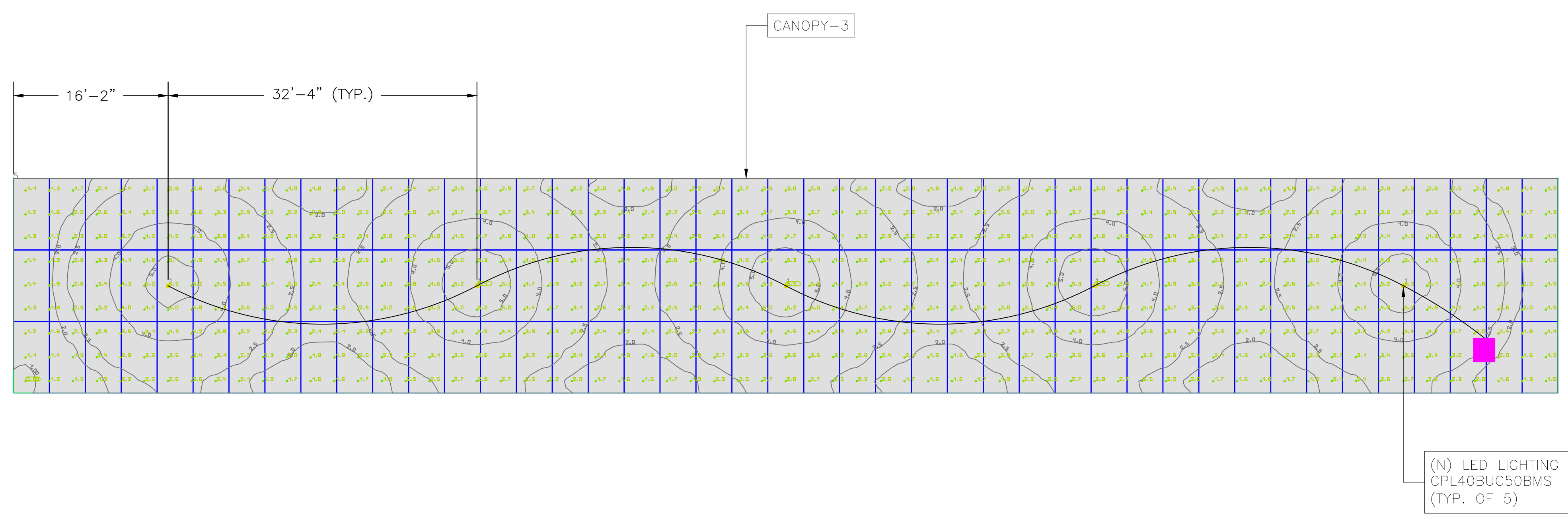
#	DATE	ISSUE
A	29-AUG-23	FOR SUBMITTAL
B	20-OCT-23	UPDATED CITY COMMENTS
C	04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE:	ARCH D
DRAWN BY:	AK
CHECKED BY:	JHA
APPROVED BY:	JHA

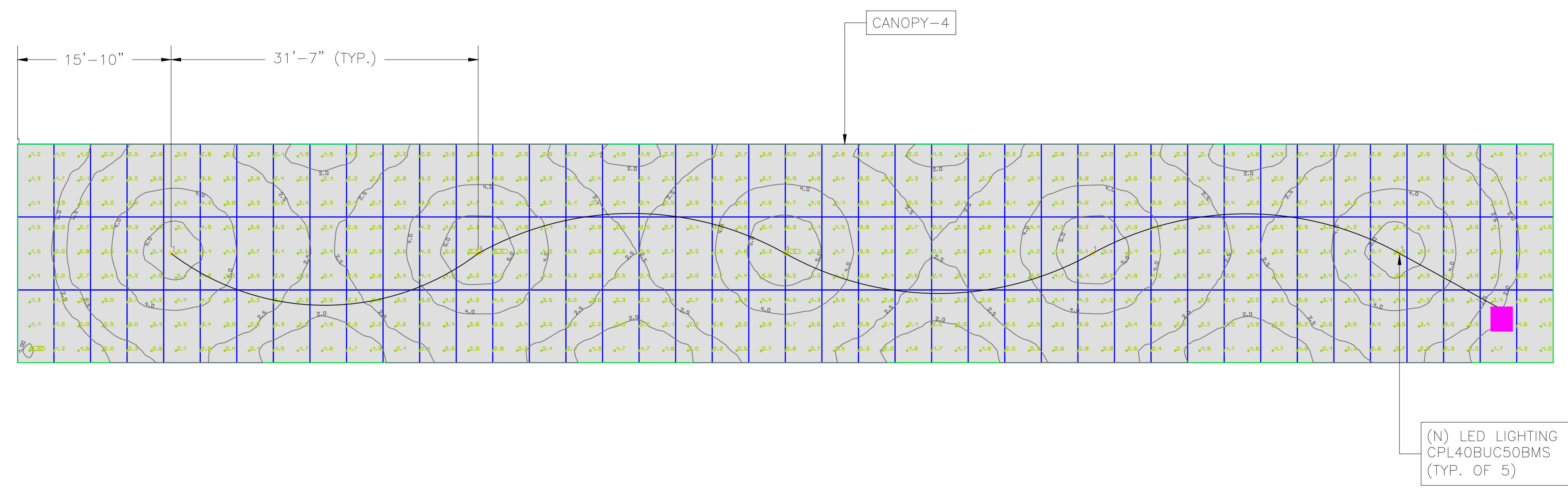
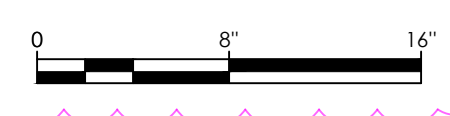
SCALE:
 1/8" = 1'-0"

SHEET TITLE:
 LIGHTING PLAN-2

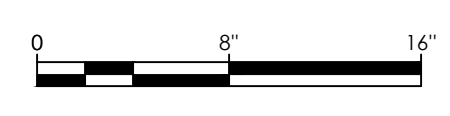
SHEET #:
 E108



A LIGHTING PLAN (CANOPY-3)
 SCALE: 1/8" = 1'-0"

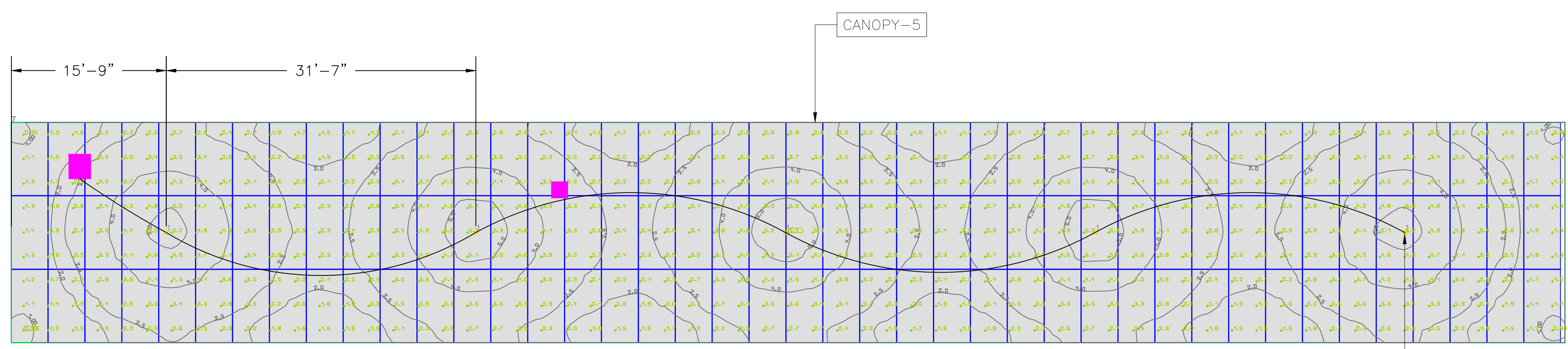


B LIGHTING PLAN (CANOPY-4)
 SCALE: 1/8" = 1'-0"

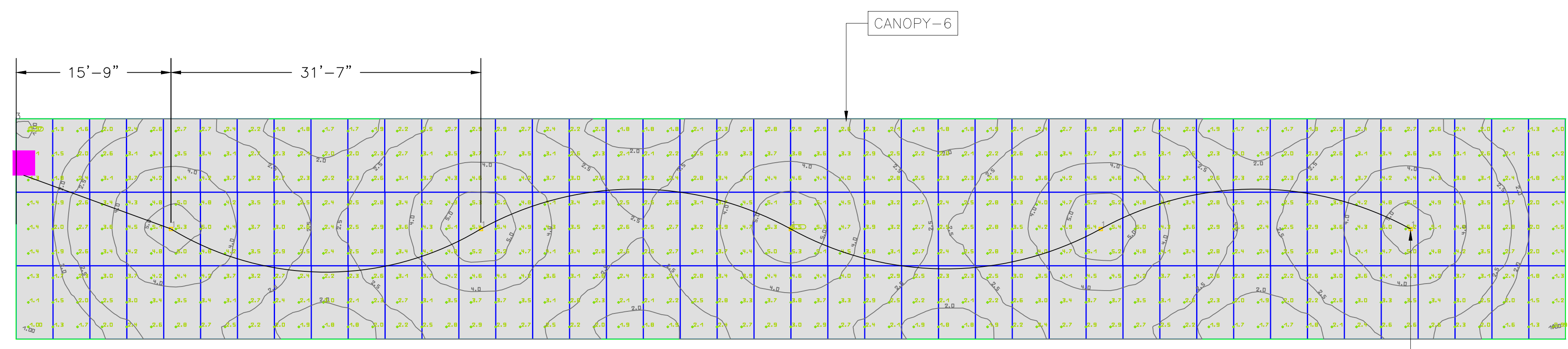


LUMINAIRE SCHEDULE (210956_ARMTEC DEFENSE SYSTEMS)

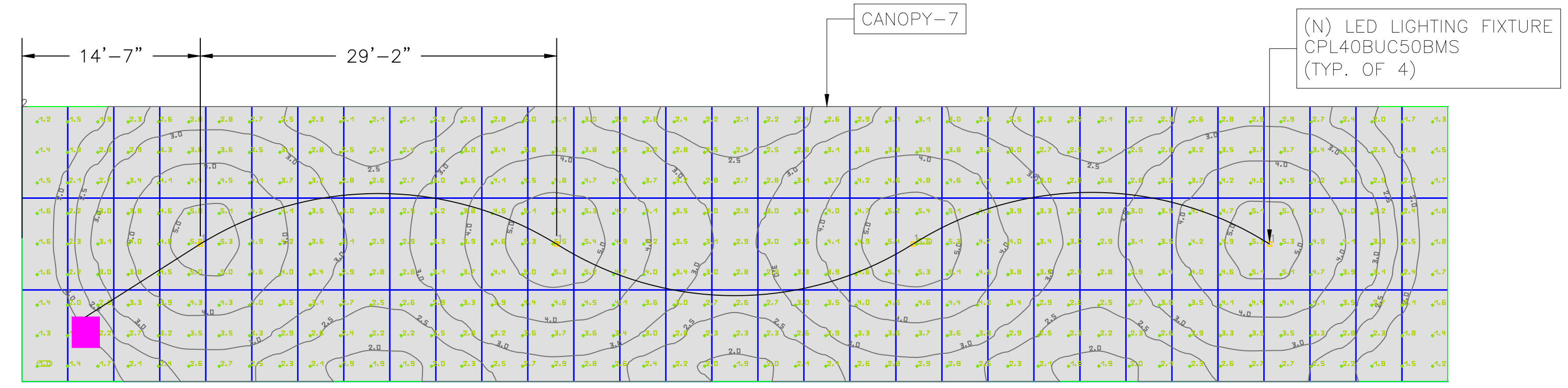
S. NO.	SYMBOL	MANUFACTURER	LOCATION	COUNT	ARTICLE NAME	MODEL NUMBER	CONNECTED LOAD (W)	PARAMETER	FITTING	LUMINOUS FLUX	LIGHT LOSS FACTOR	E _{min}	E _{max}	Ē (AVERAGE)	g ₁ AVERAGE/MIN	g ₂ MAX/MIN
1	□	CURRENT	CANOPY-3	5	CPL SERIES	CPL40BUC50BMS	37	PERPENDICULAR ILLUMINANCE	1X	4553 Lm	0.80	0.17 fc	13.6 fc	2.49 fc	14.64	80
2	□	CURRENT	CANOPY-4	5	CPL SERIES	CPL40BUC50BMS	37	PERPENDICULAR ILLUMINANCE	1X	4553 lm	0.80	0.21 fc	14.2 fc	2.55 fc	12.14	68



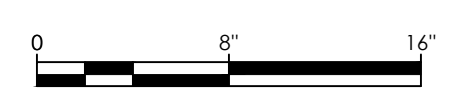
A LIGHTING PLAN (CANOPY-5)
SCALE: 1/8" = 1'-0"



B LIGHTING PLAN (CANOPY-6)
SCALE: 1/8" = 1'-0"



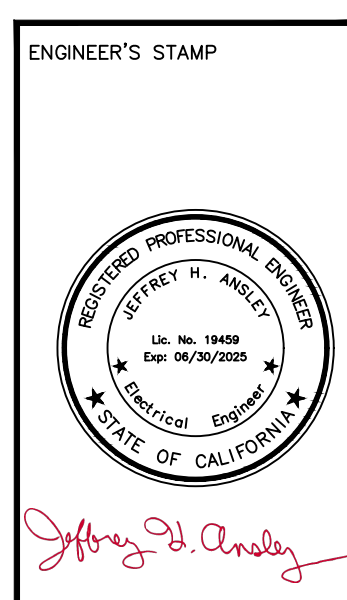
C LIGHTING PLAN (CANOPY-7)
SCALE: 1/8" = 1'-0"



LUMINAIRE SCHEDULE (210956 ARMTEC DEFENSE SYSTEMS)

S. NO.	SYMBOL	MANUFACTURER	LOCATION	COUNT	ARTICLE NAME	MODEL NUMBER	CONNECTED LOAD (W)	PARAMETER	FITTING	LUMINOUS FLUX	LIGHT LOSS FACTOR	E _{min}	E _{max}	E (AVERAGE)	g ₁ AVERAGE/MIN	g ₂ MAX/MIN
1	□	CURRENT	CANOPY-5	5	CPL SERIES	CPL40BUC50BMS	37	PERPENDICULAR ILLUMINANCE	1X	4553 Lm	0.80	0.30 fc	13.6 fc	3.21 fc	10.7	45
2	□	CURRENT	CANOPY-6	5	CPL SERIES	CPL40BUC50BMS	37	PERPENDICULAR ILLUMINANCE	1X	4553 lm	0.80	0.28 fc	13.7 fc	3.28 fc	11.7	49
3	□	CURRENT	CANOPY-7	4	CPL SERIES	CPL40BUC50BMS	37	PERPENDICULAR ILLUMINANCE	1X	4553 lm	0.80	0.17 fc	13.8 fc	2.64 fc	15.5	81

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236



BayWare
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 210956

#	DATE	ISSUE
A	29-AUG-23	FOR SUBMITTAL
B	20-OCT-23	UPDATED CITY COMMENTS
C	04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE: ARCH D
DRAWN BY: AK
CHECKED BY: JHA
APPROVED BY: JHA

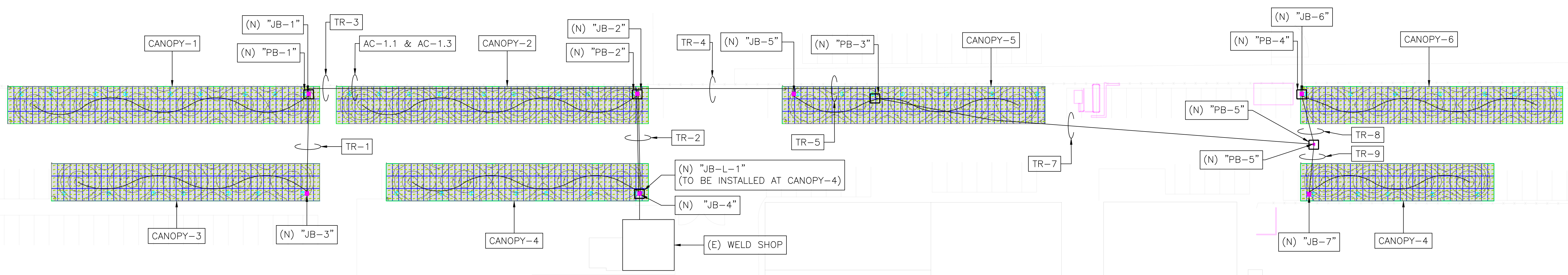
SCALE: 1/8" = 1'-0"

SHEET TITLE:
LIGHTING PLAN-3

SHEET #:
E109

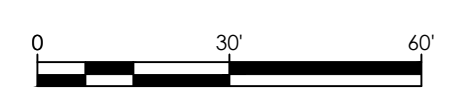


C



NOTE: USE PVC SCH 40 INSIDE TRENCH AND EMT ABOVE GRADE

TRENCH TABLE	
TRENCH NAME	TRENCH DETAIL REFERENCE
"TR-1"	A/E606
"TR-2"	B/E606
"TR-3"	C/E606
"TR-4"	D/E606
"TR-5"	E/E606
"TR-7"	G/E606
"TR-8"	H/E606
"TR-9"	I/E606



PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
 85901 AVENUE 53
 COACHELLA, CA 92236



BayWare
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210356

REVISIONS	
#	DATE
A	29-AUG-23 FOR SUBMITTAL
B	20-OCT-23 UPDATED CITY COMMENTS
C	04-JAN-24 FOR RE-SUBMITTAL

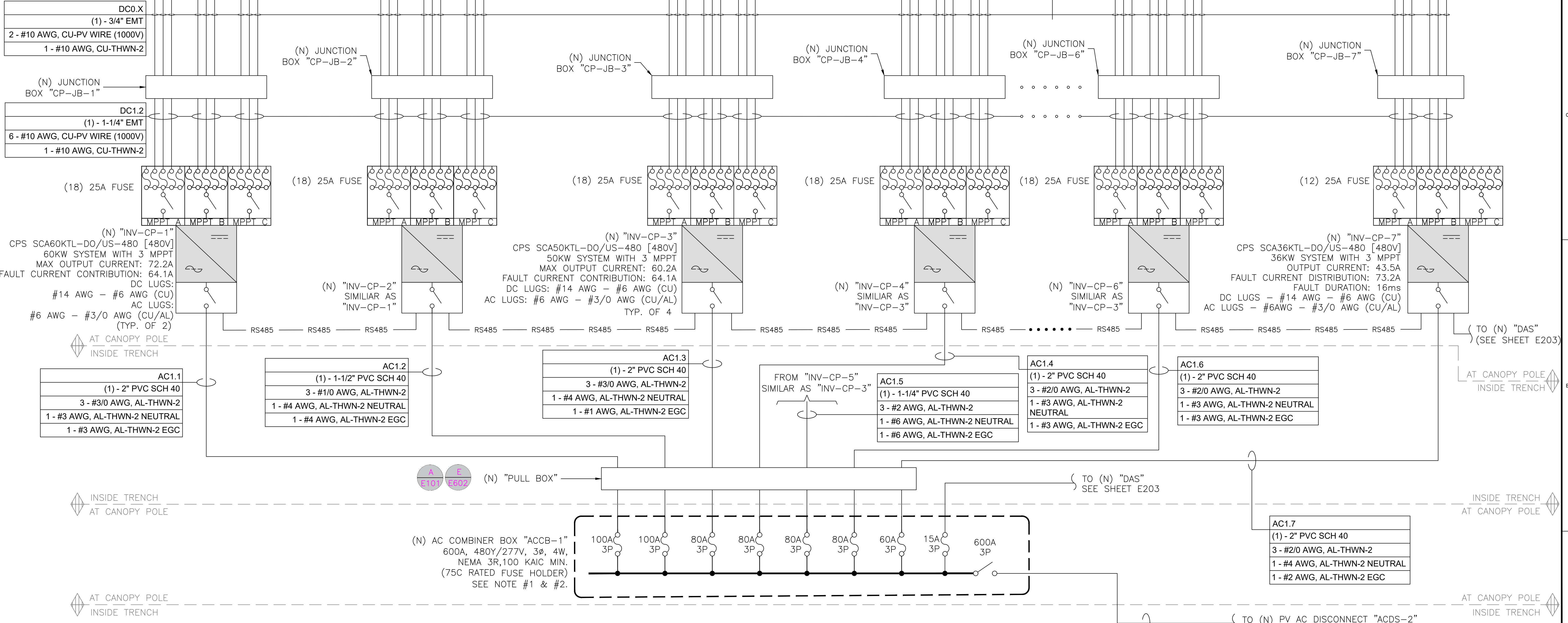
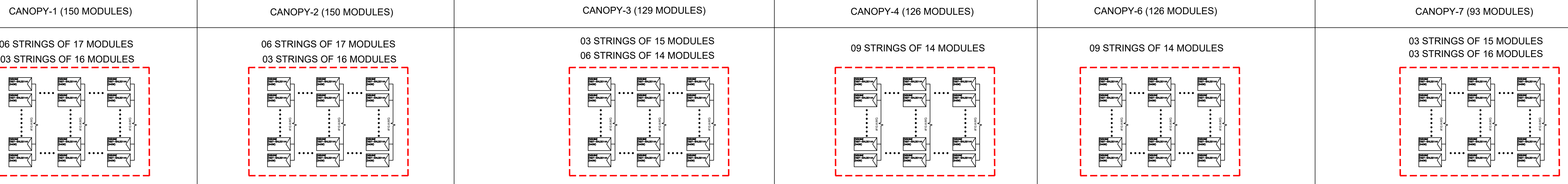
PAPER SIZE: ARCH D
 DRAWN BY: AK
 CHECKED BY: JHA
 APPROVED BY: JHA

SCALE:
 1" = 30'-0"

SHEET TITLE:
LIGHTING CONDUIT PLAN

SHEET #:
 E110

(02) CHINT POWER SYSTEM, CPS SCA60KTL-DO/US-480 [480V] (60KW) INVERTER,
 (04) CHINT POWER SYSTEM, CPS SCA50KTL-DO/US-480 [480V] (50KW) INVERTER,
 (01) CHINT POWER SYSTEM, CPS SCA36KTL-DO/US-480 [480V] (36KW) INVERTER,
 486KWSTC; 356KWAC
 900 MODULES, ZNSHINESOLAR ZXM7-SHLLD144 (540W)
 12 STRINGS OF 17 MODULES
 STRING VOLTAGE: 624.5V VMP HIGH TEMP, 920.3 VOC MAX
 09 STRINGS OF 16 MODULES
 STRING VOLTAGE: 587.8V VMP HIGH TEMP, 866.1 VOC MAX
 06 STRINGS OF 15 MODULES
 STRING VOLTAGE: 551V VMP HIGH TEMP, 812 VOC MAX
 33 STRINGS OF 14 MODULES
 STRING VOLTAGE: 514.3V VMP HIGH TEMP, 757.9 VOC MAX
 STRING AMPERAGE: 13.07A IMP, 13.77A ISC



NOTES:
 1. THIS EQUIPMENT FED BY MULTIPLE SOURCES. BUSBAR SIZED PER NEC 705.12(B)(3)(5)
 2. THE FUSE HOLDER TERMINALS SHALL BE 75C RATED

MODEL NO.	FAULT CURRENT		
	# OF INVERTER	VOLTAGE (V)	FAULT CURRENT PER INVERTER (A)
CHINT POWER SYSTEMS, CPS SCA36KTL-DO/US-480 [480V] (36KW)	1	480	73.2
CHINT POWER SYSTEMS, CPS SCA50KTL-DO/US-480 [480V] (50KW)	4	480	64.1
CHINT POWER SYSTEMS, CPS SCA60KTL-DO/US-480 [480V] (60KW)	2	480	64.1
			TOTAL FAULT CURRENT
			457.8
			OVERALL FAULT CURRENT
			457.8

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
 85901 AVENUE 53
 COACHELLA, CA 92236



BayWare
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

NO.	DATE	ISSUE
A	29-AUG-23	FOR SUBMITTAL
B	20-OCT-23	UPDATED CITY COMMENTS
C	04-JAN-24	FOR RE-SUBMITTAL

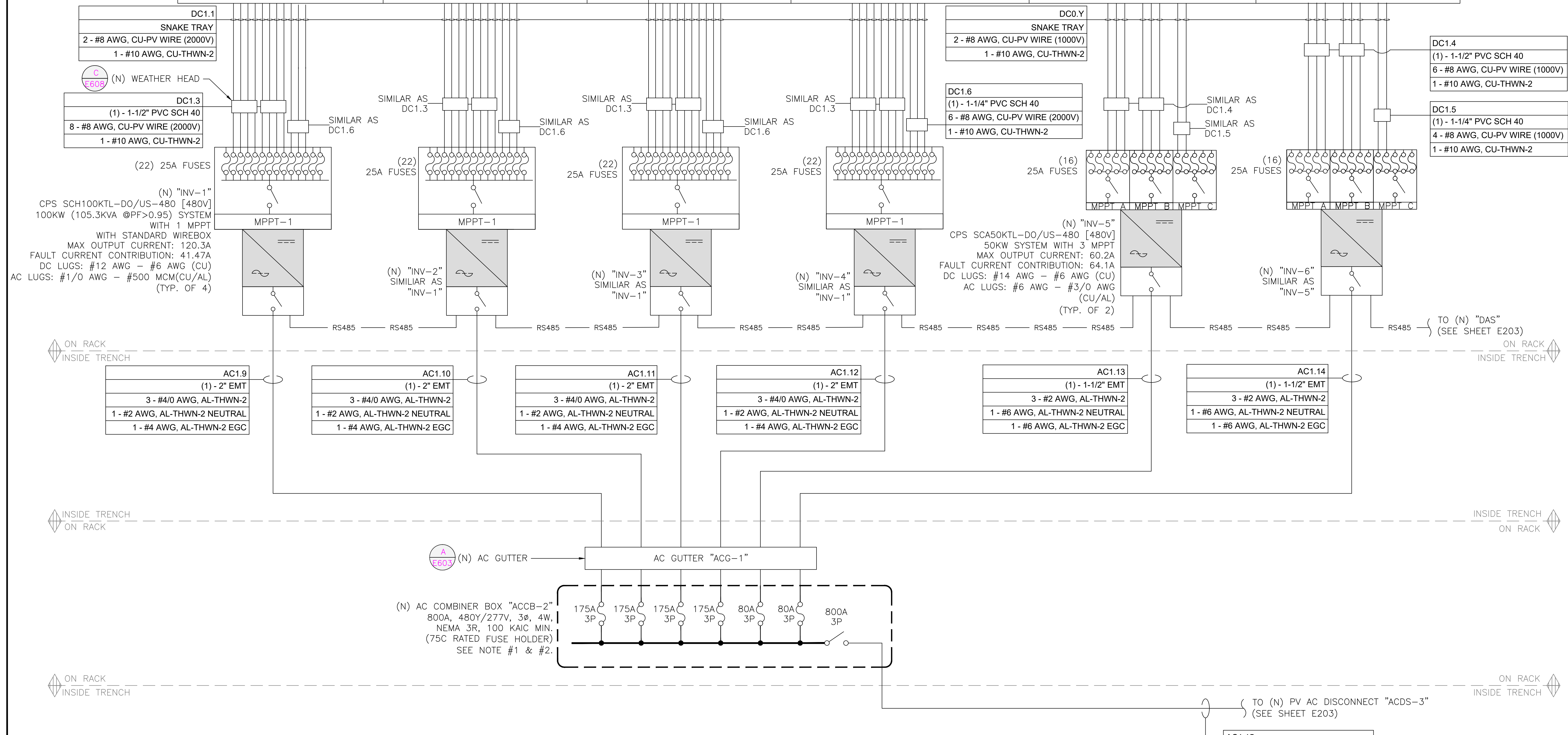
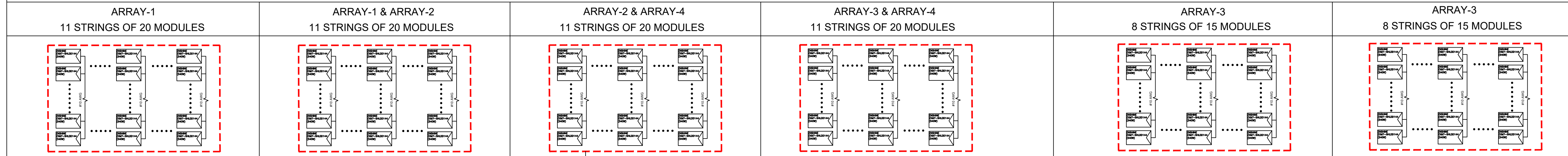
PAPER SIZE: ARCH D
 DRAWN BY: AK
 CHECKED BY: JHA
 APPROVED BY: JHA

SCALE: NTS

SHEET TITLE: SINGLE LINE DIAGRAM-1

SHEET #: E201

(04) CHINT POWER SYSTEM, CPS SCH100KTL-DO/US-480 [480V] (100KW) INVERTER,
 (02) CHINT POWER SYSTEM, CPS SCA50KTL-DO/US-480 [480V] (50KW) INVERTER,
 605KWSTC; 500KWAC
 1120 MODULES, ZNSHINESOLAR ZXM7-SHLD144 (540W)
 44 STRINGS OF 20 MODULES
 STRING VOLTAGE: 734.7 VMP HIGH TEMP, 1082.7 VOC MAX
 16 STRINGS OF 15 MODULES
 STRING VOLTAGE: 551 VMP HIGH TEMP, 812 VOC MAX
 STRING AMPERAGE: 13.07A IMP, 13.77A ISC

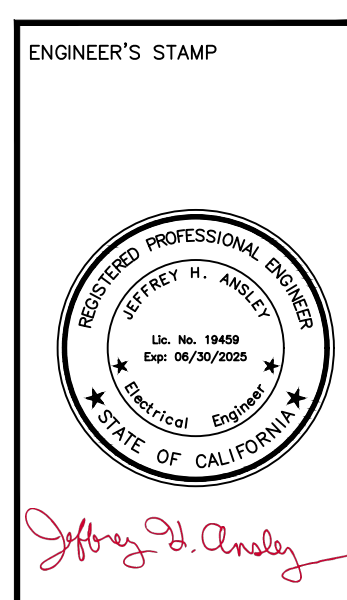


NOTES:
 1. THIS EQUIPMENT FED BY MULTIPLE SOURCES. BUSBAR SIZED PER NEC 705.12(B)(3)(5)
 2. THE FUSE HOLDER TERMINALS SHALL BE 75C RATED

MODEL NO.	FAULT CURRENT			
	# OF INVERTER	VOLTAGE (V)	FAULT CURRENT PER INVERTER (A)	TOTAL FAULT CURRENT
CHINT POWER SYSTEM, CPS SCH100KTL-DO/US-480 [480V] (100KW)	4	480	41.47	165.88
CHINT POWER SYSTEM, CPS SCA50KTL-DO/US-480 [480V] (50KW)	2	480	64.1	128.2
			OVERALL FAULT CURRENT	294.08

AC1.15
 (3) - 3-1/2" PVC SCH 40
 3 - #500 MCM, AL-THWN-2
 1 - #4/0 AWG, AL-THWN-2 NEUTRAL
 1 - #4/0 AWG, AL-THWN-2 EGC

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
 85901 AVENUE 53
 COACHELLA, CA 92236



BayWare
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

#	DATE	ISSUE	REVISIONS
A	29-AUG-23	FOR SUBMITTAL	
B	20-OCT-23	UPDATED CITY COMMENTS	
C	04-JAN-24	FOR RE-SUBMITTAL	

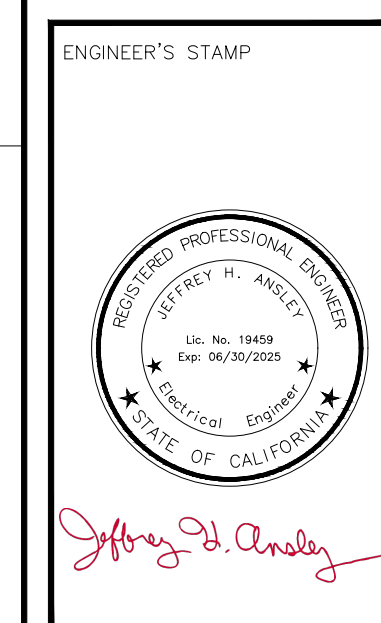
PAPER SIZE: ARCH D
 DRAWN BY: AK
 CHECKED BY: JHA
 APPROVED BY: JHA

SCALE:
 NTS

SHEET TITLE:
 SINGLE LINE DIAGRAM-2

SHEET #:
 E202

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
 85901 AVENUE 53
 COACHELLA, CA 92236



BayWare
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

NO.	DATE	ISSUE	REVISIONS
A	29-AUG-23	FOR SUBMITTAL	
B	20-OCT-23	UPDATED CITY COMMENTS	
C	04-JAN-24	FOR RE-SUBMITTAL	

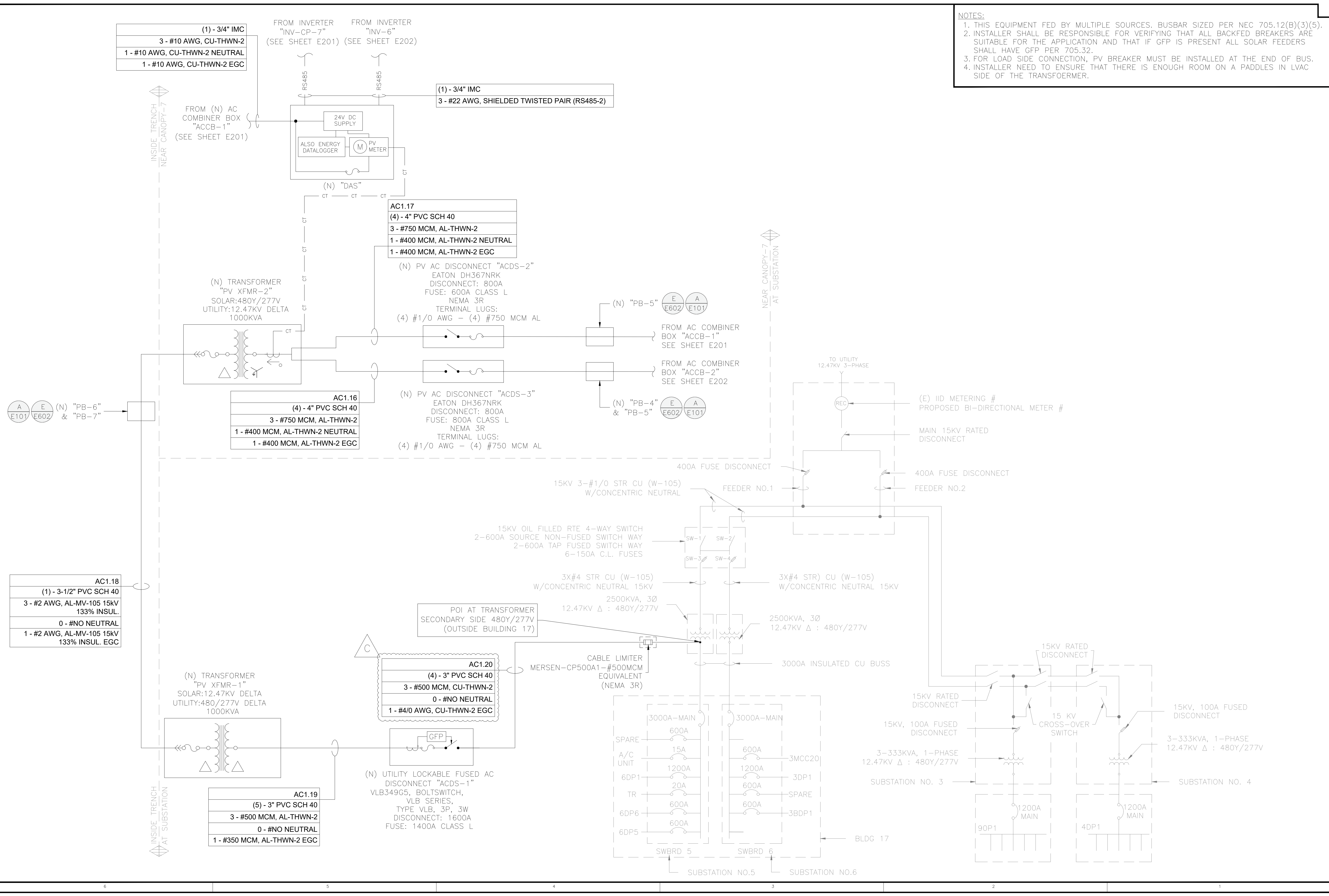
PAPER SIZE: ARCH D
 DRAWN BY: AK
 CHECKED BY: JHA
 APPROVED BY: JHA

SCALE: NTS

SHEET TITLE: SINGLE LINE DIAGRAM-3

SHEET #: E203

NOTES:
 1. THIS EQUIPMENT FED BY MULTIPLE SOURCES. BUSBAR SIZED PER NEC 705.12(B)(3)(5).
 2. INSTALLER SHALL BE RESPONSIBLE FOR VERIFYING THAT ALL BACKFED BREAKERS ARE SUITABLE FOR THE APPLICATION AND THAT IF GFP IS PRESENT ALL SOLAR FEEDERS SHALL HAVE GFP PER 705.32.
 3. FOR LOAD SIDE CONNECTION, PV BREAKER MUST BE INSTALLED AT THE END OF BUS.
 4. INSTALLER NEED TO ENSURE THAT THERE IS ENOUGH ROOM ON A PADDLES IN LVAC SIDE OF THE TRANSFORMER.



(N) "PB-6" & "PB-7"

AC1.18
 (1) - 3-1/2" PVC SCH 40
 3 - #2 AWG, AL-MV-105 15KV 133% INSUL.
 0 - #NO NEUTRAL
 1 - #2 AWG, AL-MV-105 15KV 133% INSUL. EGC

AC1.19
 (5) - 3" PVC SCH 40
 3 - #500 MCM, AL-THWN-2
 0 - #NO NEUTRAL
 1 - #350 MCM, AL-THWN-2 EGC

AC1.16
 (4) - 4" PVC SCH 40
 3 - #750 MCM, AL-THWN-2
 1 - #400 MCM, AL-THWN-2 NEUTRAL
 1 - #400 MCM, AL-THWN-2 EGC

AC1.20
 (4) - 3" PVC SCH 40
 3 - #500 MCM, CU-THWN-2
 0 - #NO NEUTRAL
 1 - #4/0 AWG, CU-THWN-2 EGC

AC1.17
 (4) - 4" PVC SCH 40
 3 - #750 MCM, AL-THWN-2
 1 - #400 MCM, AL-THWN-2 NEUTRAL
 1 - #400 MCM, AL-THWN-2 EGC

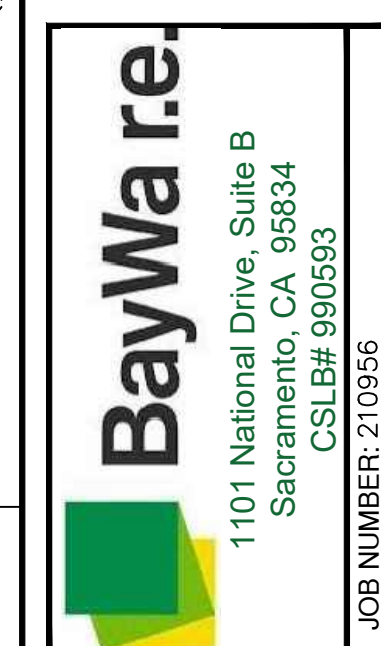
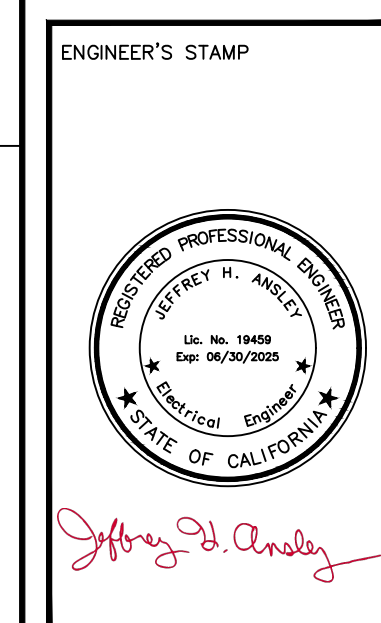
(1) - 3/4" IMC
 3 - #22 AWG, SHIELDED TWISTED PAIR (RS485-2)

(1) - 3/4" IMC
 3 - #10 AWG, CU-THWN-2
 1 - #10 AWG, CU-THWN-2 NEUTRAL
 1 - #10 AWG, CU-THWN-2 EGC

INSIDE TRENCH NEAR CANOPY-7

NEAR CANOPY-7 AT SUBSTATION

INSIDE TRENCH AT SUBSTATION



REVISIONS

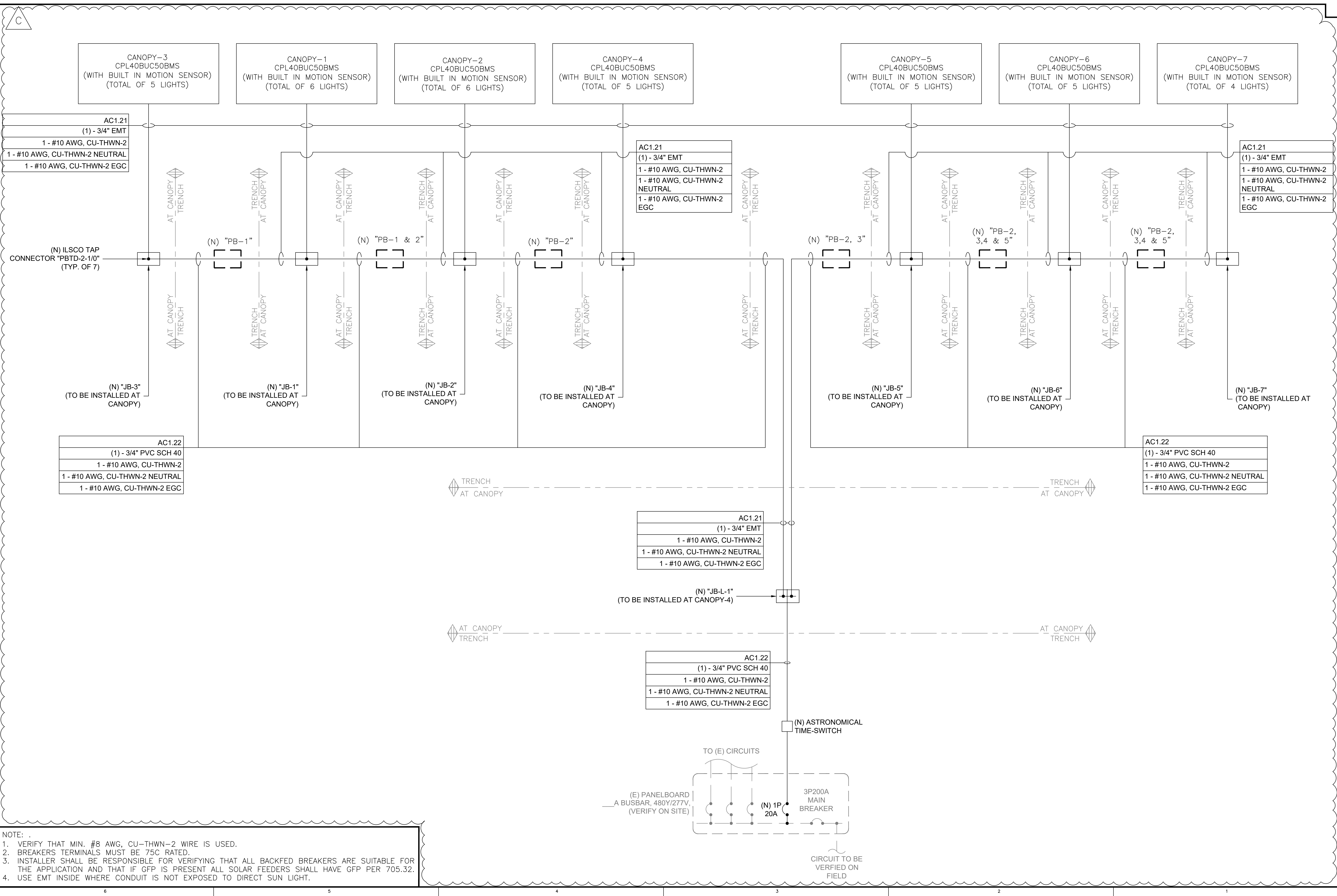
#	DATE	ISSUE
A	29-AUG-23	FOR SUBMITTAL
B	20-OCT-23	UPDATED CITY COMMENTS
C	04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE: ARCH D
 DRAWN BY: AK
 CHECKED BY: JHA
 APPROVED BY: JHA

SCALE: NTS

SHEET TITLE:
LIGHTING SINGLE LINE DIAGRAM

SHEET #:
 E204





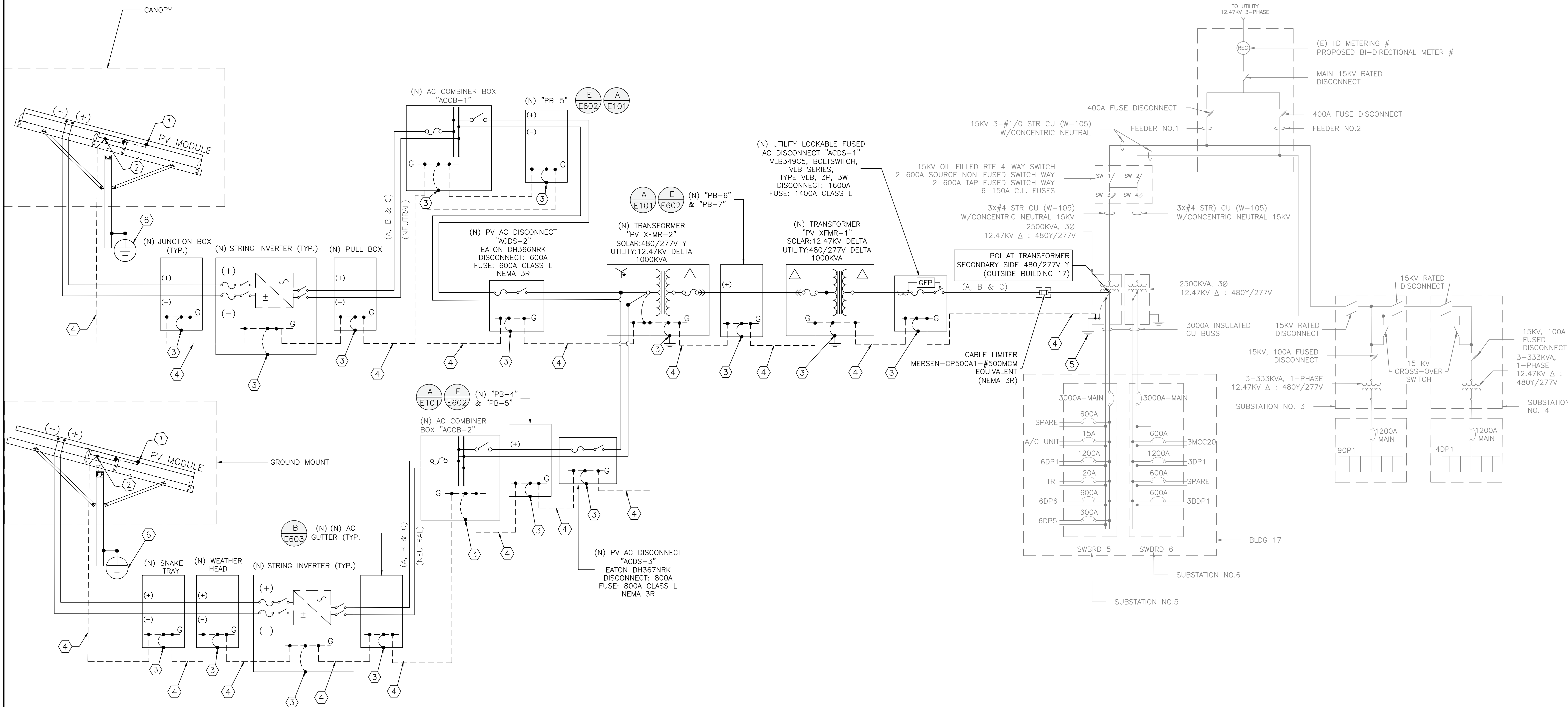
DATE	ISSUE	REVISIONS
A 29-AUG-23	FOR SUBMITTAL	
B 20-OCT-23	UPDATED CITY COMMENTS	
C 04-JAN-24	FOR RE-SUBMITTAL	

PAPER SIZE:	ARCH D
DRAWN BY:	AK
CHECKED BY:	JHA
APPROVED BY:	JHA

SCALE: NTS

SHEET TITLE:
GROUNDING SINGLE LINE DIAGRAM

SHEET #:
E300



KEYED NOTES	CONNECTION	COMPONENT
1	PV MODULE TO RACKING	ALL COMPONENTS WITHIN AN ARRAY ARE ELECTRICALLY BONDED THROUGH MODULE CLIPS AND RACKING STRUCTURE. ASSEMBLY IS UL 2703 LISTED.
2	RACKING TO GROUNDING LUG	ILSCO SGB-4 GROUND LUG CONNECTION OR EQUIVALENT
3	EQUIPMENT TO GROUNDING BUS	VERIFY CONNECTION MADE BY MANUFACTURER. PROVIDE AS NEEDED.
4	EGC RUNNING WITH CURRENT CARRYING CONDUCTOR	EGC IN SAME CONDUIT/RACEWAY AS THE CURRENT CARRYING CONDUCTORS, TERMINATING AT GROUND BUS AT EACH END. FOR SIZE SEE E400 SHEET.
5	EXISTING GROUNDING SYSTEM	EXISTING GROUNDING ELECTRODE PER NEC 250.50(A).
6	NEW GROUNDING SYSTEM	5/8"X 8' LONG COPPER CLAD GROUND ROD, CONNECTED WITH #6 AWG CU-BARE GEC

NOTES:
1. INSTALLER SHALL BE RESPONSIBLE FOR VERIFYING THAT ALL BACKFED BREAKERS ARE SUITABLE FOR THE APPLICATION AND THAT IF A LOAD SIDE CONNECTION IS PERFORMED, THE EXISTING GROUND FAULT PROTECTION IS NOT COMPROMISED.



BayWare Inc. 1101 National Drive, Suite B Sacramento, CA 95834 CSLB# 990593 JOB NUMBER: 210256

REVISIONS table with columns for DATE, ISSUE, and description of changes.

PAPER SIZE: ARCH D DRAWN BY: AK CHECKED BY: JHA APPROVED BY: JHA

SCALE: NTS

SHEET TITLE: WIRING SCHEDULE & AMP. CALC. -1

SHEET #: E401

TABLE B1: DC OUTPUT CIRCUIT CONDUCTOR AND CONDUIT IDENTIFICATION

Table with columns for Initial Conductor Location, Final Conductor Location, Raceway Name, Circuit ID, Raceway Size, etc. Includes rows for ST-X, ST-Y, CP-JB-X, WEATHER HEAD, etc.

TABLE C1: AC OUTPUT CIRCUIT CONDUCTOR AND CONDUIT IDENTIFICATION

Table with columns for Initial Conductor Location, Final Conductor Location, Raceway Name, Circuit ID, Raceway Size, etc. Includes rows for INV-CP-1, INV-CP-2, INV-CP-3, etc.

DC CONDUITS table with columns for DC Conduits, DC Voltage Drop, Design Line Current, Minimum Corrected Ampacity, Conduit Fill, and Conductor Corrected Ampacity.

AC CONDUITS (For 3-Phase system) table with columns for Conduit Name, 3 Phase AC Voltage Drop, Design Line Current, Minimum Corrected Ampacity, Conduit Fill, and Conductor Corrected Ampacity.

AMPACITY CALCULATION INV-CP-1 OUTPUT CURRENT CALCULATION (AC1.1) OUTPUT OF INV-CP-1 125% X 72.2A (OUTPUT CURRENT) = 1.25 X 72.2A = 90.25A (DESIGN CURRENT) 125% X 72.2A = 1.25 X 72.2A = 90.25A ≤ 100A (OVERCURRENT DEVICE) AMBIENT SITE TEMPERATURE = 44°C CONDUCTORS ON THE ROOF THAT ARE INSTALLED IN RACEWAYS EXPOSED TO DIRECT SUNLIGHT ARE DERATED IN ACCORDANCE WITH CEC 310.15(B)(2) AND TABLE 310.15(B)(2) BASED ON THE HEIGHT OF THE CONDUIT ABOVE THE ROOF = N/A DESIGN CONDUIT TEMPERATURE = 44°C ADJUSTMENT FACTOR FOR CONDUIT FILL (NEC TABLE 310.15(C)(1)) = 1.0 AMBIENT TEMPERATURE CORRECTION FACTOR BASED ON 30° (TABLE 310.15(B)(1)) = 41°C-45°C @ 90°C TEMPERATURE RATING OF CONDUCTOR IS 0.87 WITH 100A MINIMUM FUSE, SELECT #3/0 AWG, AL-THWN-2 (90°C COLUMN) FROM TABLE 310.16, AMPACITY OF CONDUCTOR AT 90° IS 175A X 0.87TEMP. DERATE FACTOR = 152.25A THIS IS GREATER THAN DESIGN CURRENT OF 90.25A - OK CAN BE PROTECTED BY A 100A FUSE - OK

VOLTAGE DROP TABLE													
WIRES / EQUIPMENT	INV-CP-1	INV-CP-2	INV-CP-3	INV-CP-4	INV-CP-5	INV-CP-6	INV-CP-7	INV-1	INV-2	INV-3	INV-4	INV-5	INV-6
INV-X to ACCB-1	1.15%	1.05%	1.18%	0.98%	0.48%	1.21%	0.87%						
INV-X to ACCB-2								0.04%	0.04%	0.04%	0.04%	0.07%	0.07%
ACCB-1 to ACDS-2				0.51%									
ACCB-2 to ACDS-3										1.32%			
ACDS-2 to PV XFMR-2				0.02%									
ACDS-3 to PV XFMR-2										0.03%			
PV XFMR-2 to PV XFMR-1							0.18%						
PV XFMR-1 to ACDS-1							0.03%						
ACDS-1 to POI							0.05%						
TOTAL AC VOLTAGE DROP	1.94%	1.84%	1.97%	1.77%	1.28%	1.74%	1.66%	1.65%	1.65%	1.65%	1.65%	1.68%	1.68%
TOTAL DC VOLTAGE DROP				0.59%						0.52%			
TOTAL VOLTAGE DROP	2.52%	2.42%	2.55%	2.36%	1.86%	2.32%	2.25%	2.18%	2.18%	2.18%	2.18%	2.20%	2.20%

C

STRING VOC CALCULATION - ZXM7-SHLDD144-540/M	
PANEL VOC, 25C	49.8
NUMBER IN SERIES	17
STRING VOC STC	846.6
DESIGN LOW, (ASHRAE) C	-5
TEMP COEFFICIENT, %/C	-0.29%
PANEL VOC * NUMBER IN SERIES * (1 - (25 - DESIGN LOW TEMP)* VOC TEMP COEFFICIENT) = MAX VOC AT DESIGN LOW (49.8 * 17 * (1 - (25 - (-5)) * (-0.0029))) = 920.25	

STRING VOC CALCULATION - ZXM7-SHLDD144-540/M	
PANEL VOC, 25C	49.8
NUMBER IN SERIES	15
STRING VOC STC	747
DESIGN LOW, (ASHRAE) C	-5
TEMP COEFFICIENT, %/C	-0.29%
PANEL VOC * NUMBER IN SERIES * (1 - (25 - DESIGN LOW TEMP)* VOC TEMP COEFFICIENT) = MAX VOC AT DESIGN LOW (49.8 * 15 * (1 - (25 - (-5)) * (-0.0029))) = 811.99	

STRING VOC CALCULATION - ZXM7-SHLDD144-540/M	
PANEL VOC, 25C	49.8
NUMBER IN SERIES	14
STRING VOC STC	697.2
DESIGN LOW, (ASHRAE) C	-5
TEMP COEFFICIENT, %/C	-0.29%
PANEL VOC * NUMBER IN SERIES * (1 - (25 - DESIGN LOW TEMP)* VOC TEMP COEFFICIENT) = MAX VOC AT DESIGN LOW (49.8 * 14 * (1 - (25 - (-5)) * (-0.0029))) = 757.86	

STRING VOC CALCULATION - ZXM7-SHLDD144-540/M	
PANEL VOC, 25C	49.8
NUMBER IN SERIES	16
STRING VOC STC	796.8
DESIGN LOW, (ASHRAE) C	-5
TEMP COEFFICIENT, %/C	-0.29%
PANEL VOC * NUMBER IN SERIES * (1 - (25 - DESIGN LOW TEMP)* VOC TEMP COEFFICIENT) = MAX VOC AT DESIGN LOW (49.8 * 16 * (1 - (25 - (-5)) * (-0.0029))) = 866.12	

STRING VOC CALCULATION - ZXM7-SHLDD144-540/M	
PANEL VOC, 25C	49.8
NUMBER IN SERIES	20
STRING VOC STC	996
DESIGN LOW, (ASHRAE) C	-5
TEMP COEFFICIENT, %/C	-0.29%
PANEL VOC * NUMBER IN SERIES * (1 - (25 - DESIGN LOW TEMP)* VOC TEMP COEFFICIENT) = MAX VOC AT DESIGN LOW (49.8 * 15 * (1 - (25 - (-5)) * (-0.0029))) = 811.99	

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
 85901 AVENUE 53
 COACHELLA, CA 92236



BayWare
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

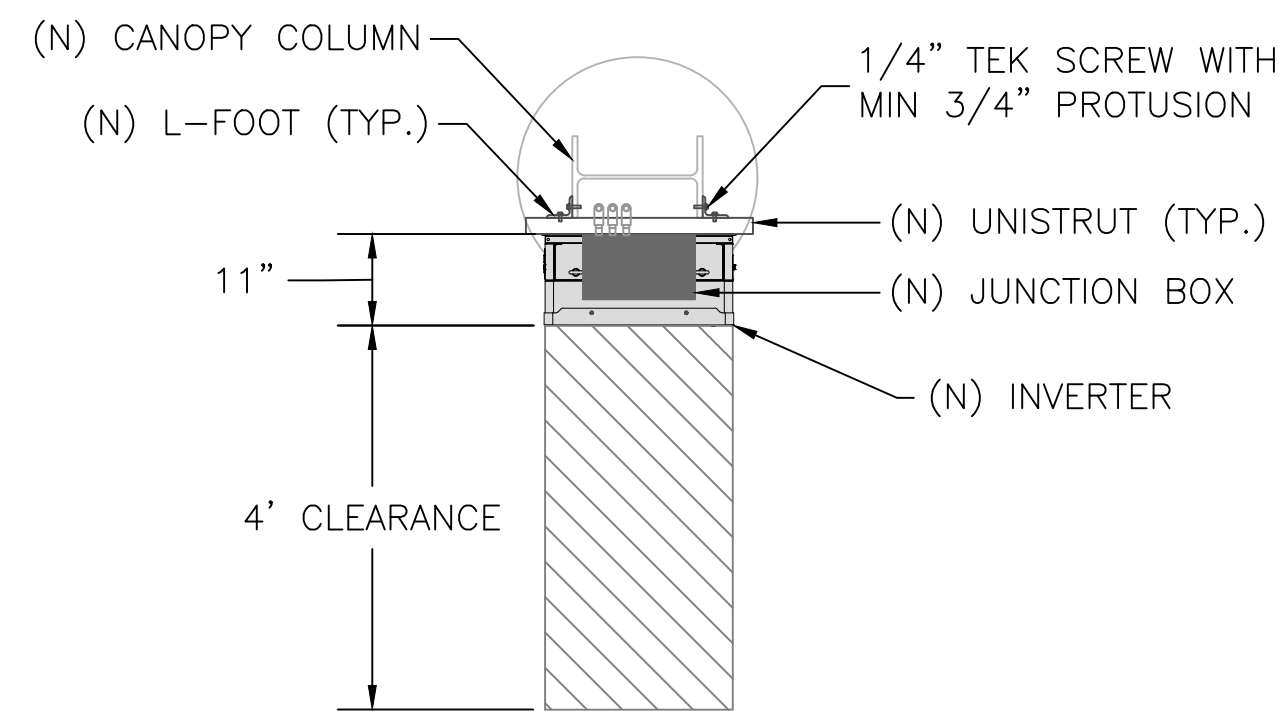
REVISIONS		
#	DATE	ISSUE
A	29-AUG-23	FOR SUBMITTAL
B	20-OCT-23	UPDATED CITY COMMENTS
C	04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE: ARCH D
 DRAWN BY: AK
 CHECKED BY: JHA
 APPROVED BY: JHA

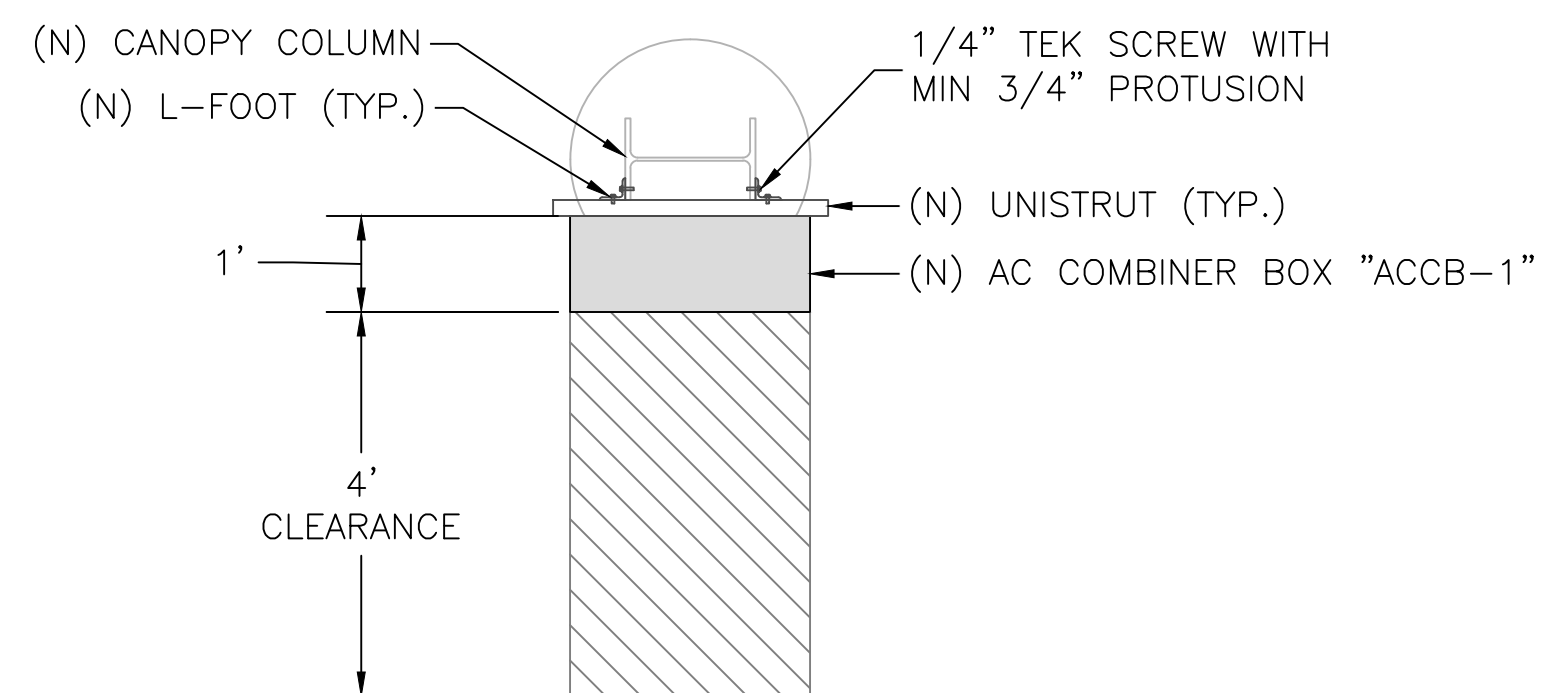
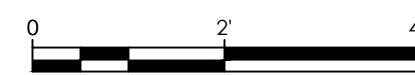
SCALE: NTS

SHEET TITLE:
 WIRING SCHEDULE & AMP. CALC. - 2

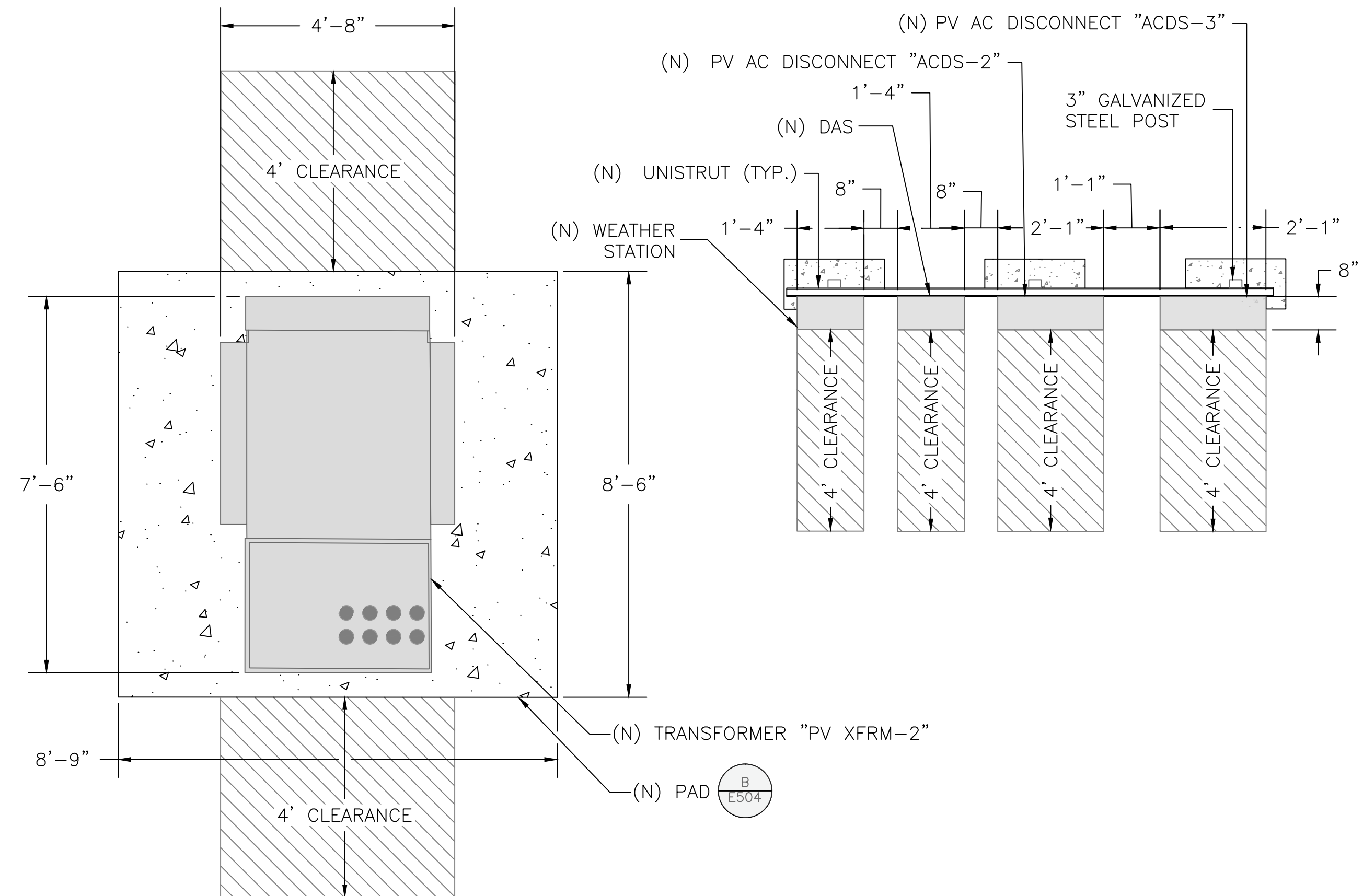
SHEET #:
 E402



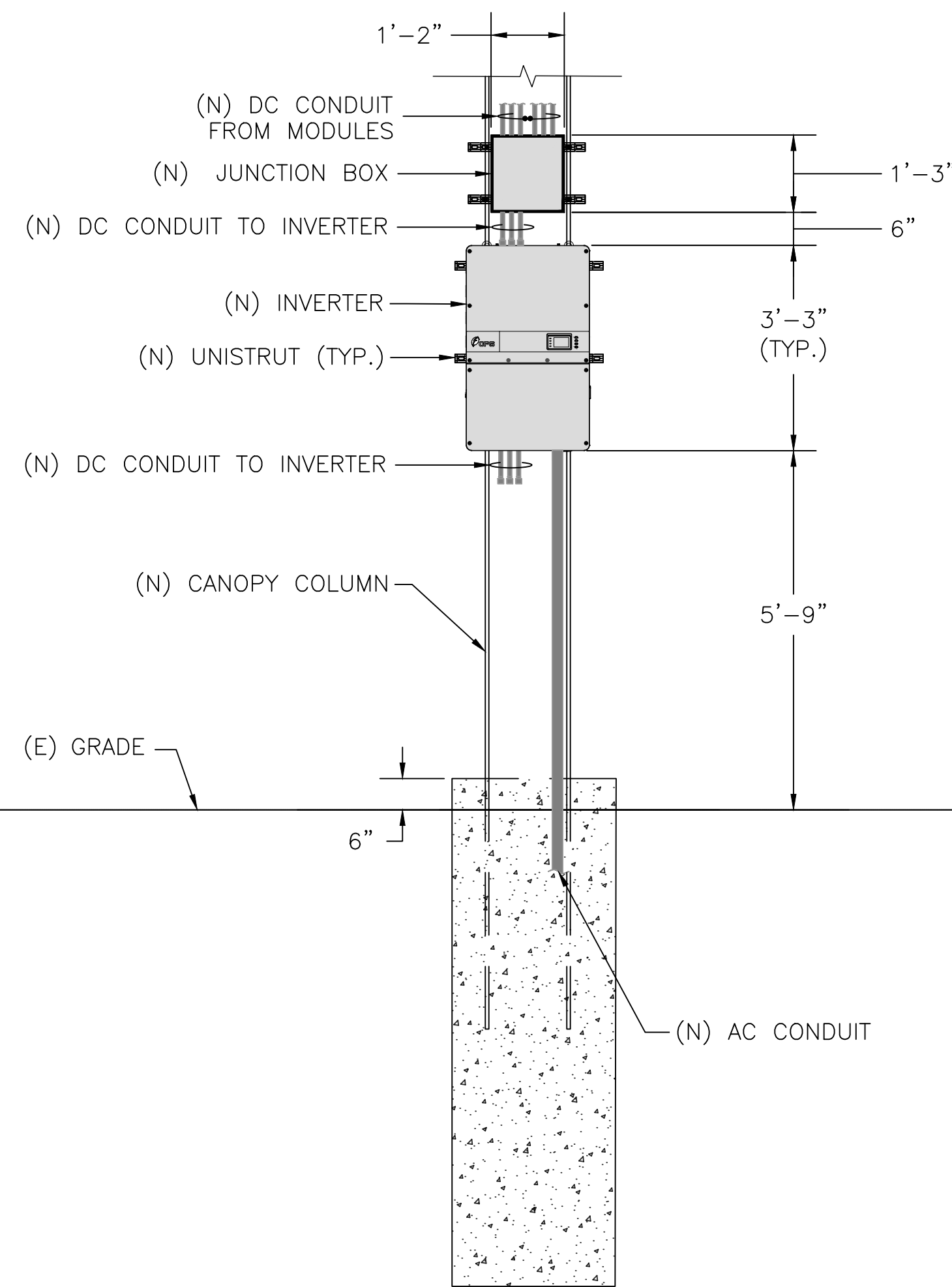
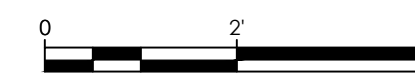
A EQUIPMENT LAYOUT PLAN -- INVERTER (TYP.)
 SCALE: 1"=2'-0"



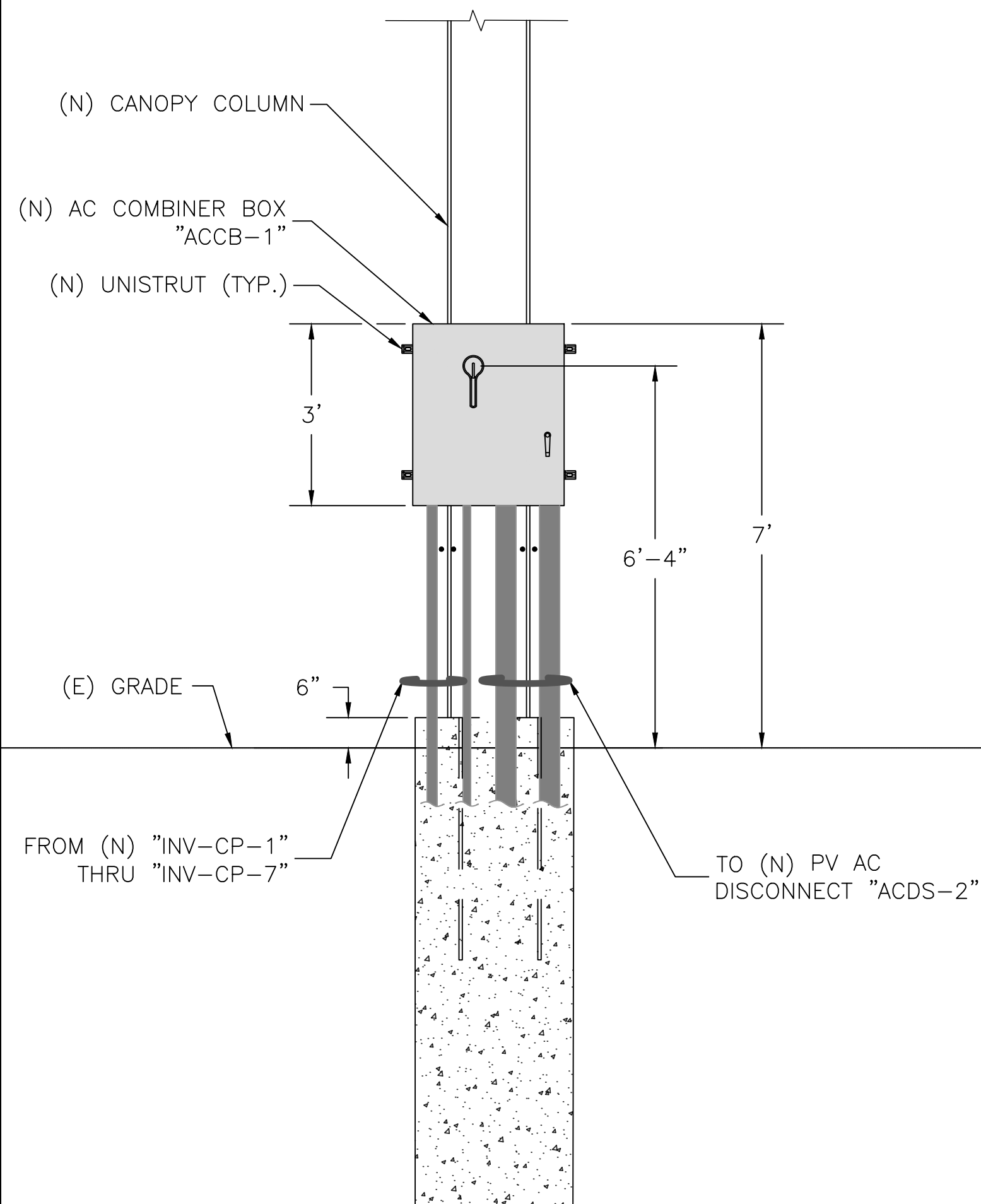
C EQUIPMENT LAYOUT PLAN -- "ACCB-1"
 SCALE: 1"=2'-0"



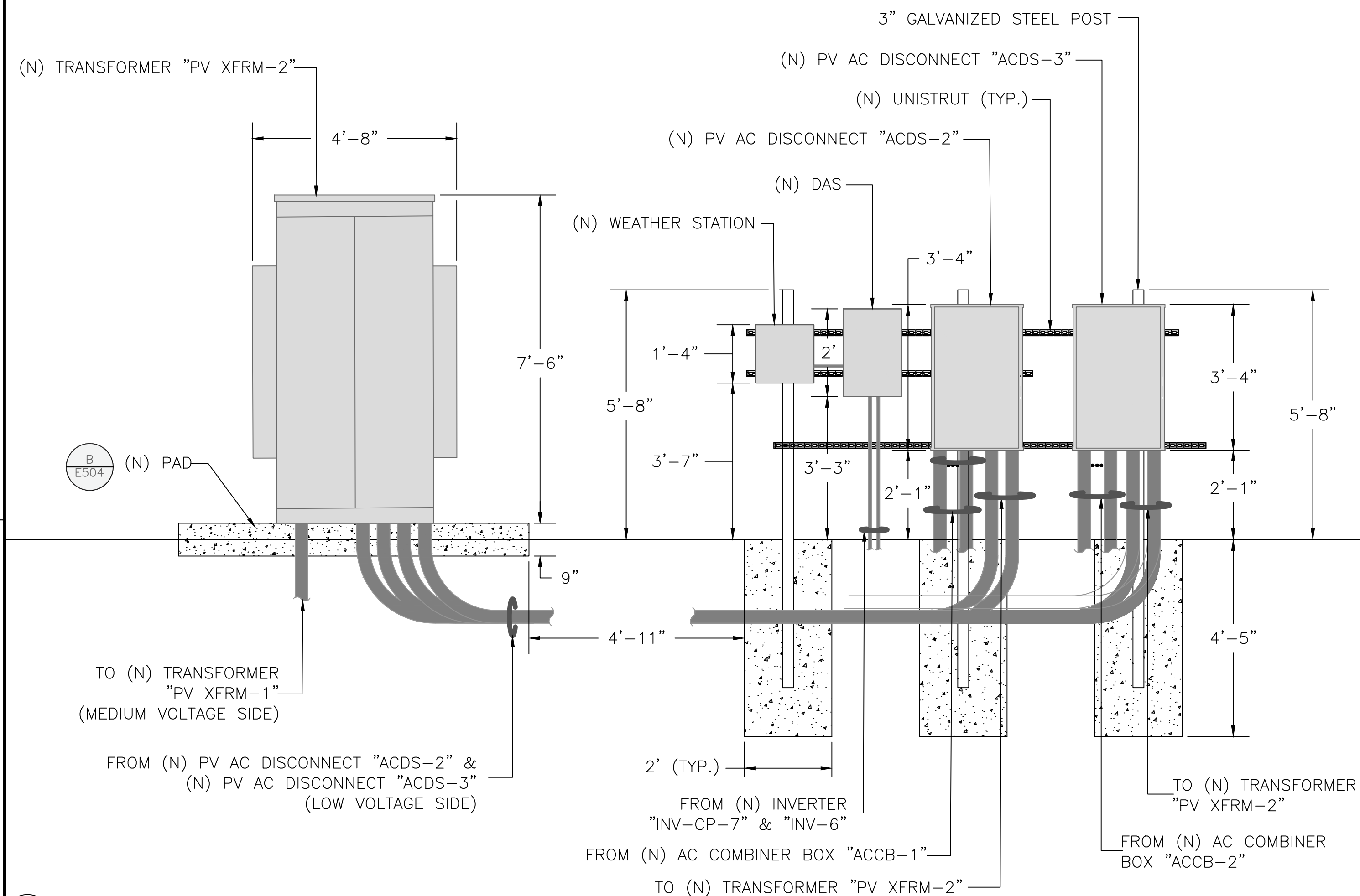
E EQUIPMENT LAYOUT PLAN -- "ACDS-2", "ACDS-3", "XFRM-2" & (N) DAS (TOP VIEW)
 SCALE: 1"=2'-0"



B EQUIPMENT ELEVATION -- INVERTER (TYP.)
 SCALE: 1"=2'-0"



D EQUIPMENT ELEVATION -- "ACCB-1"
 SCALE: 1"=2'-0"



F EQUIPMENT ELEVATION -- "ACDS-2", "ACDS-3", "XFRM-2" & (N) DAS
 SCALE: NTS



PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
 85901 AVENUE 53
 COACHELLA, CA 92236

ENGINEER'S STAMP
 REGISTERED PROFESSIONAL ENGINEER
 ALI FAJIHASHEMI
 C 84486
 Ali Hejazi
 CIVIL
 STATE OF CALIFORNIA
 EXP. 09/30/2025

BayWa r.e.
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

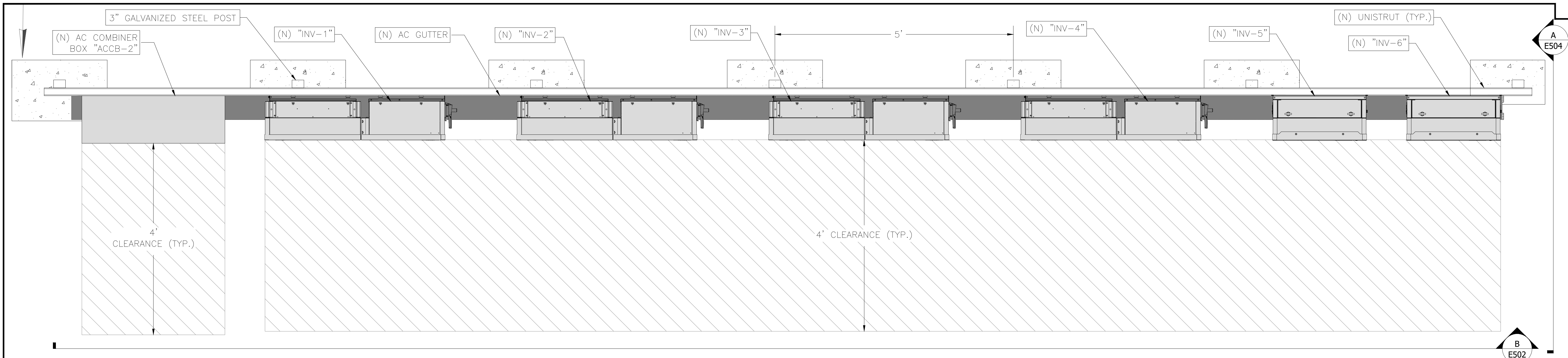
DATE	ISSUE	REVISIONS
29-AUG-23	FOR SUBMITTAL	A
20-OCT-23	UPDATED CITY COMMENTS	B
04-JAN-24	FOR RE-SUBMITTAL	C

PAPER SIZE: ARCH D
 DRAWN BY: AK
 CHECKED BY: JHA
 APPROVED BY: JHA

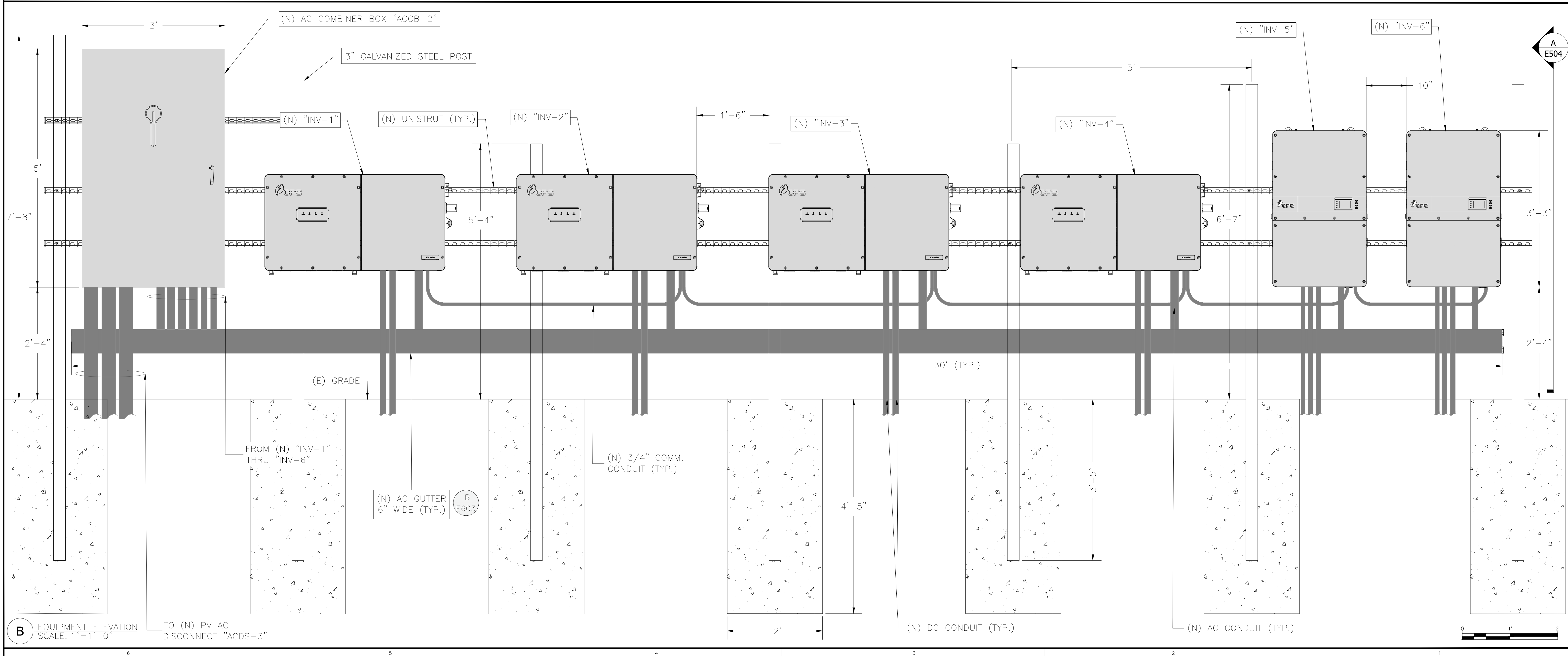
SCALE:
 1"=2'-0"

SHEET TITLE:
EQUIPMENT LAYOUT PLAN-1

SHEET #:
 E501



A EQUIPMENT LAYOUT PLAN
SCALE: 1"=1'-0"



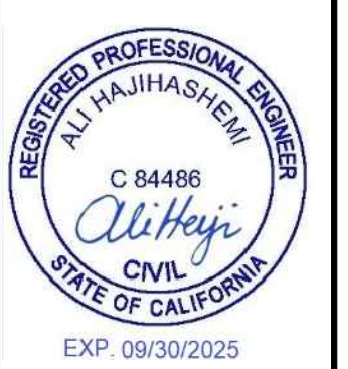
B EQUIPMENT ELEVATION
SCALE: 1"=1'-0"
TO (N) PV AC DISCONNECT 'ACDS-3'



PROJECT TITLE:

ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236

ENGINEER'S STAMP



BayWare
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 210956

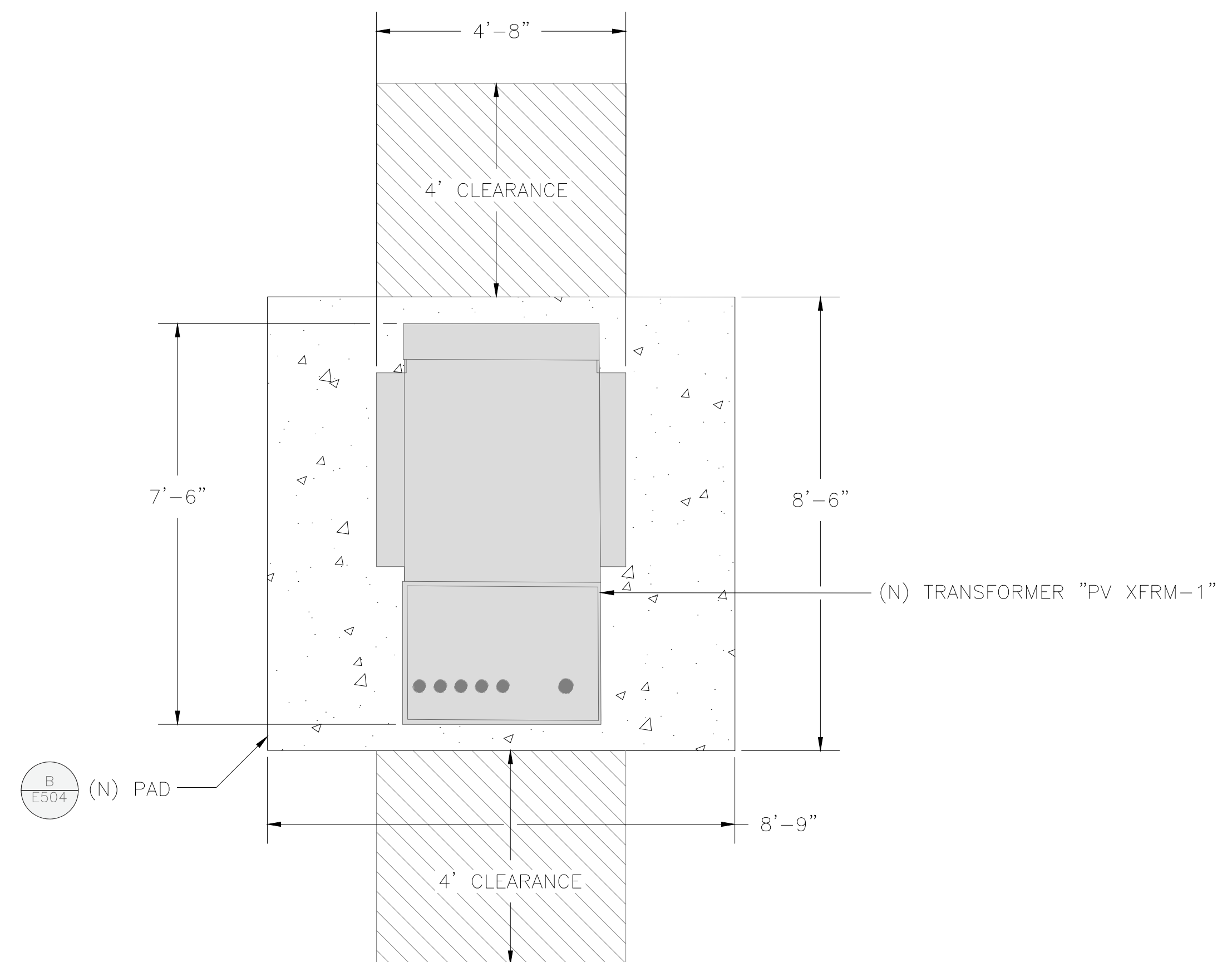
NO.	DATE	ISSUE	REVISIONS
A	29-AUG-23	FOR SUBMITTAL	
B	20-OCT-23	UPDATED CITY COMMENTS	
C	04-JAN-24	FOR RE-SUBMITTAL	

PAPER SIZE: ARCH D
DRAWN BY: AK
CHECKED BY: JHA
APPROVED BY: JHA

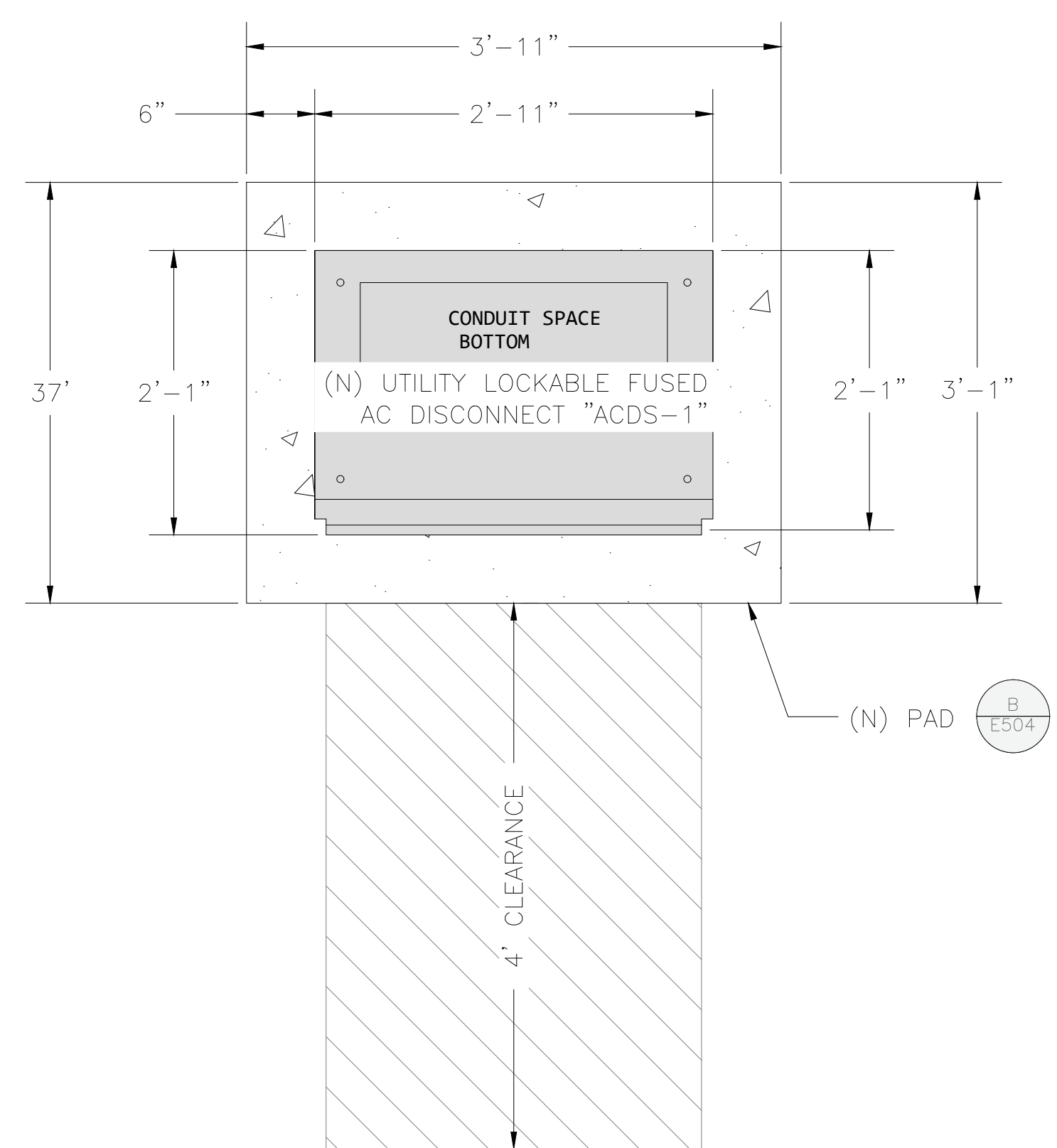
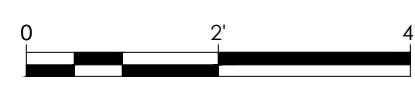
SCALE:
1"=1'-0"

SHEET TITLE:
EQUIPMENT LAYOUT PLAN-2

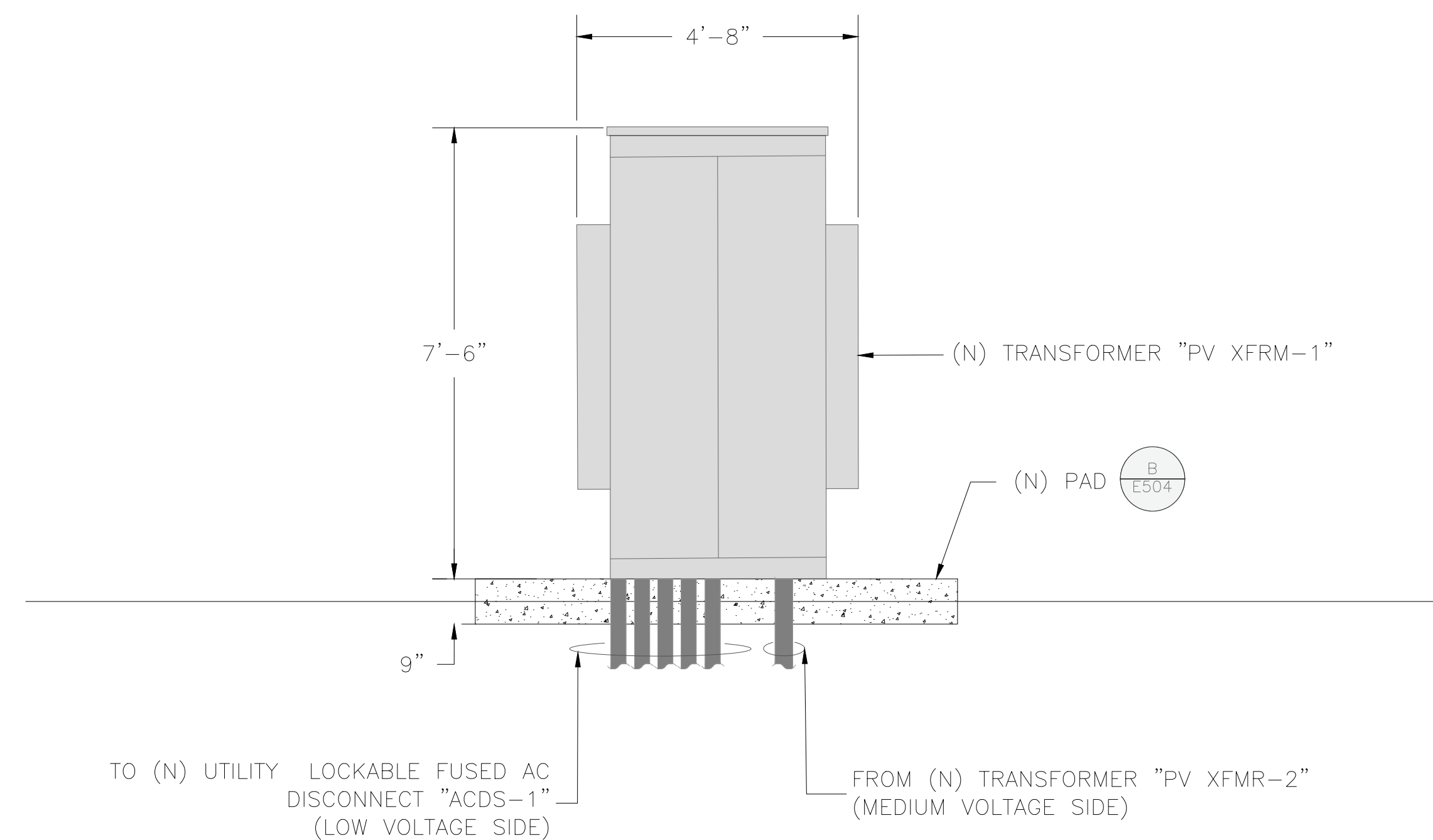
SHEET #:
E502



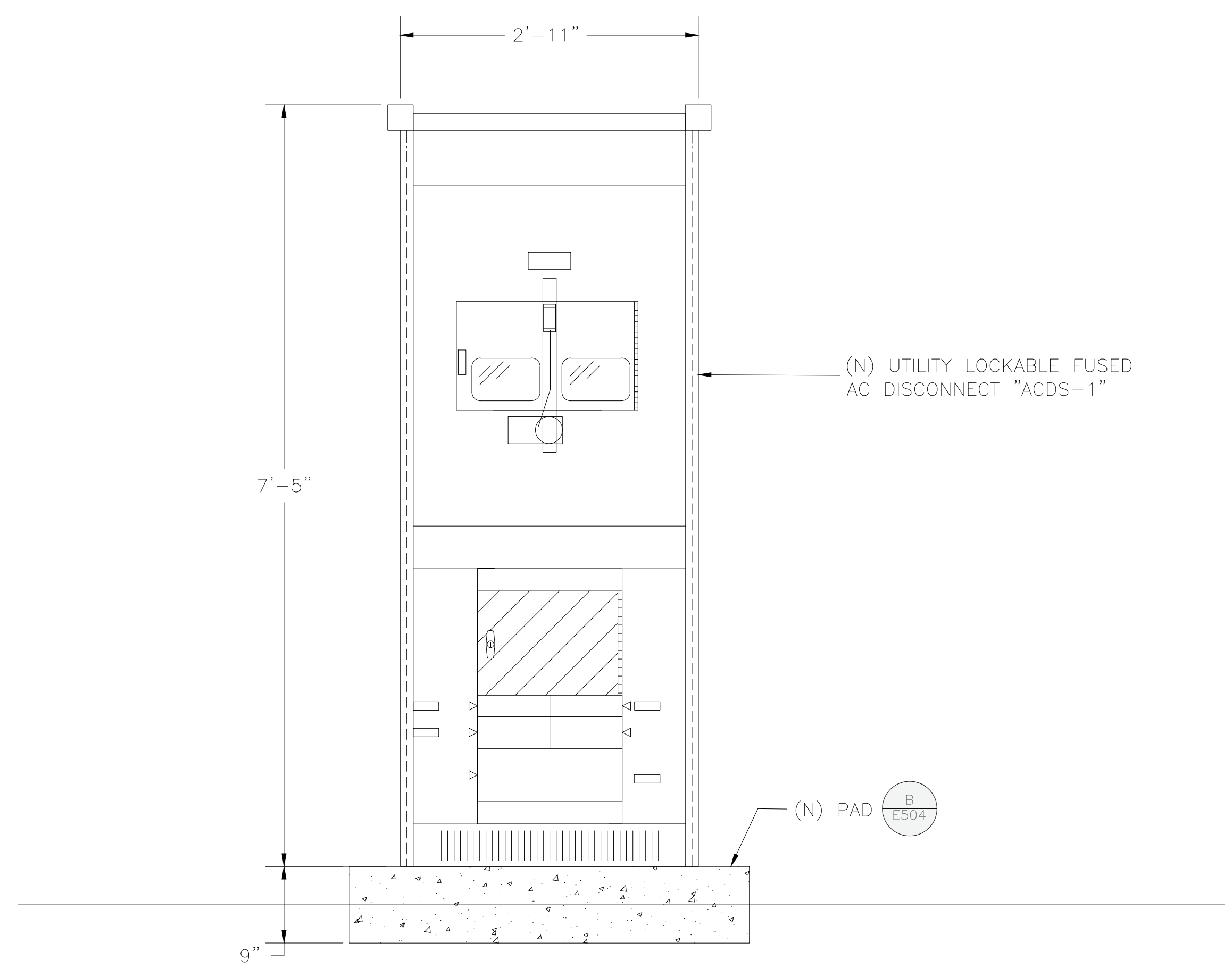
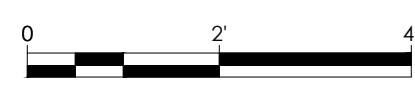
A EQUIPMENT ELEVATION - "XFMR-1" (TOP VIEW)
SCALE: 1"=2'-0"



C BOLTSWITCH AC DISCONNECT "ACDS-1" PLAN VIEW
SCALE: 1"=1'-0"



B EQUIPMENT ELEVATION - "XFMR-1"
SCALE: 1"=2'-0"



D BOLTSWITCH AC DISCONNECT "ACDS-1" ELEVATION
SCALE: 1"=1'-0"



PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236



BayWare
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 210956

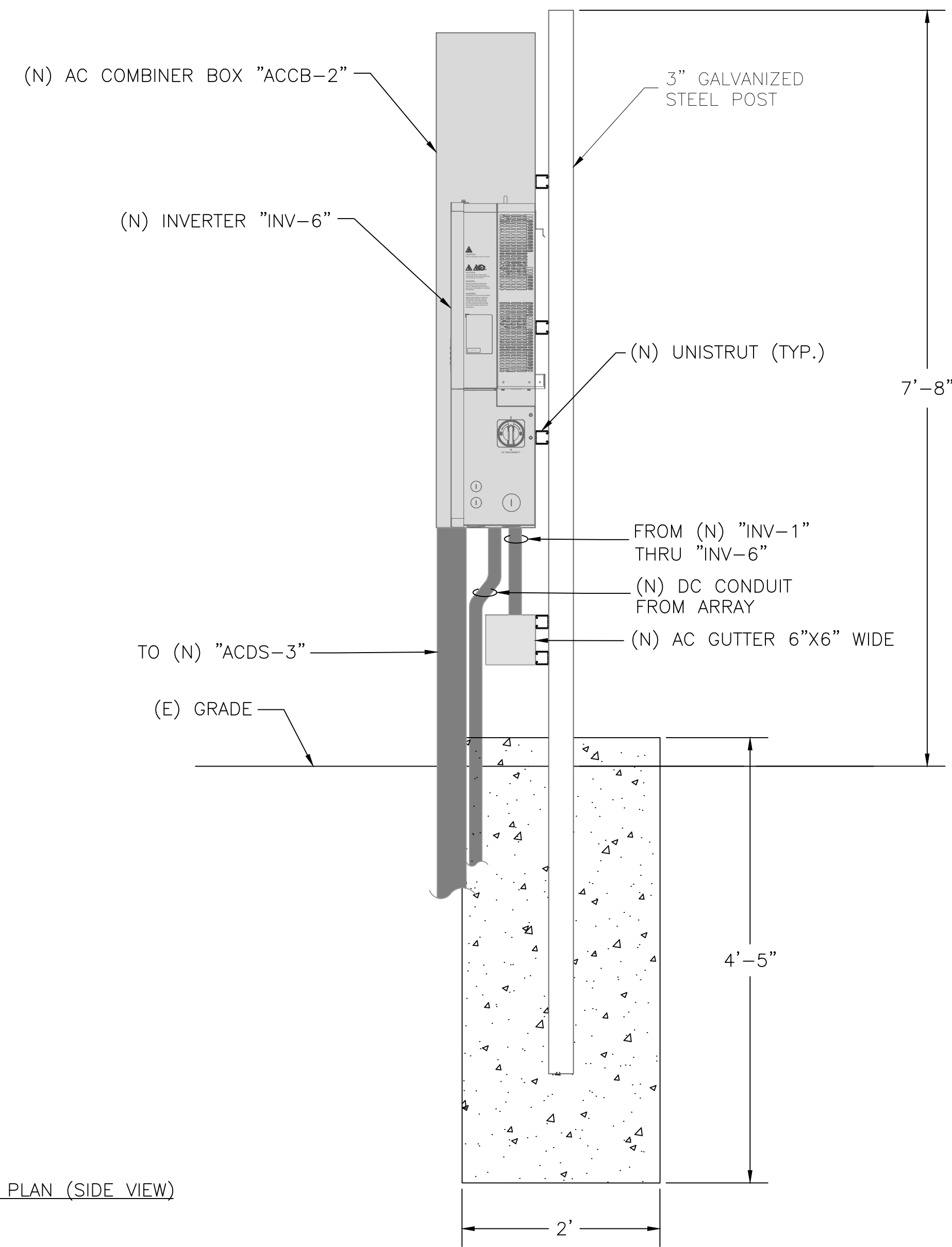
REVISIONS	
#	DATE
A	29-AUG-23
B	20-OCT-23
C	04-JAN-24

PAPER SIZE:	ARCH D
DRAWN BY:	AK
CHECKED BY:	JHA
APPROVED BY:	JHA

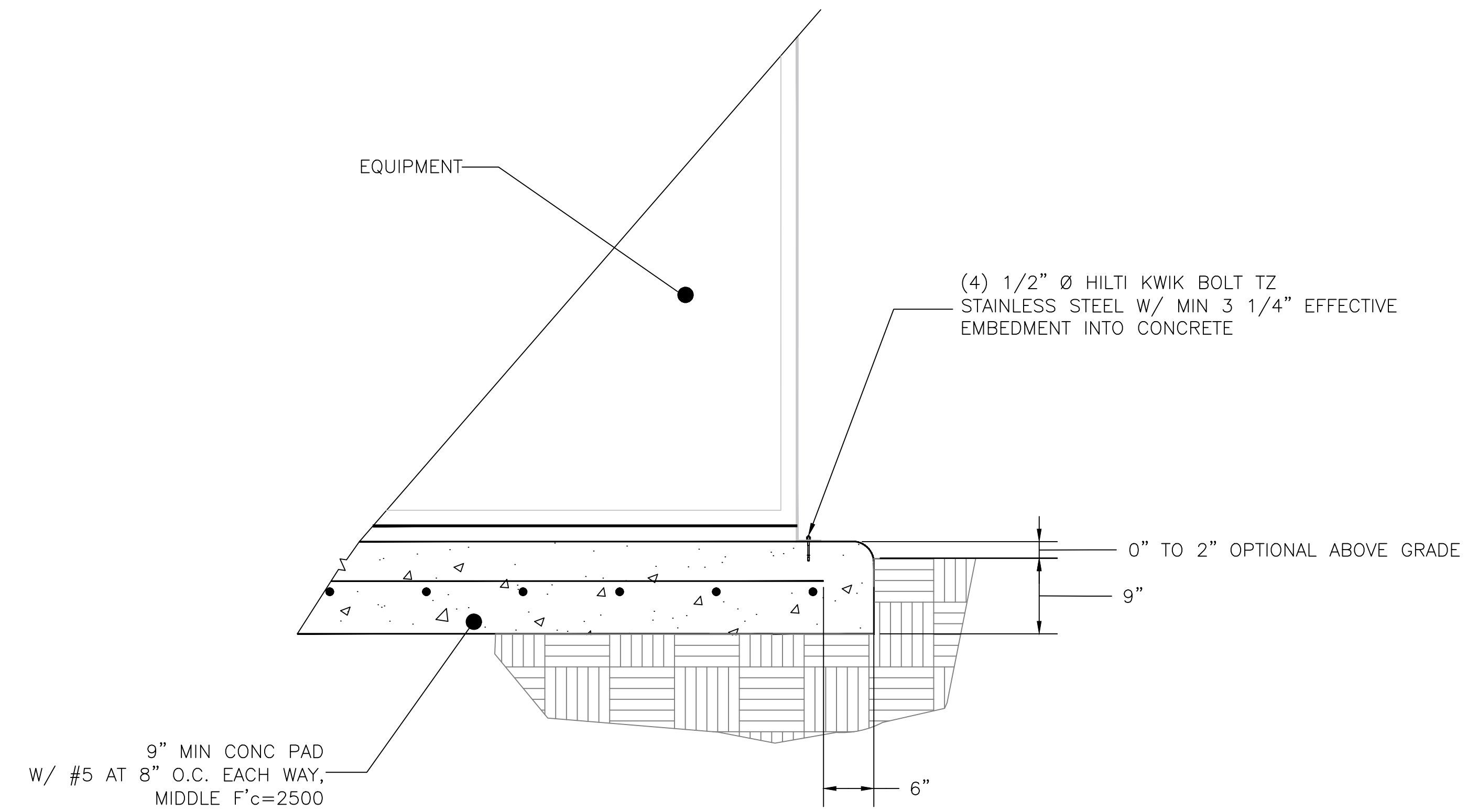
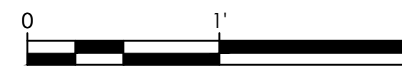
SCALE:
VARIES

SHEET TITLE:
EQUIPMENT LAYOUT PLAN-3

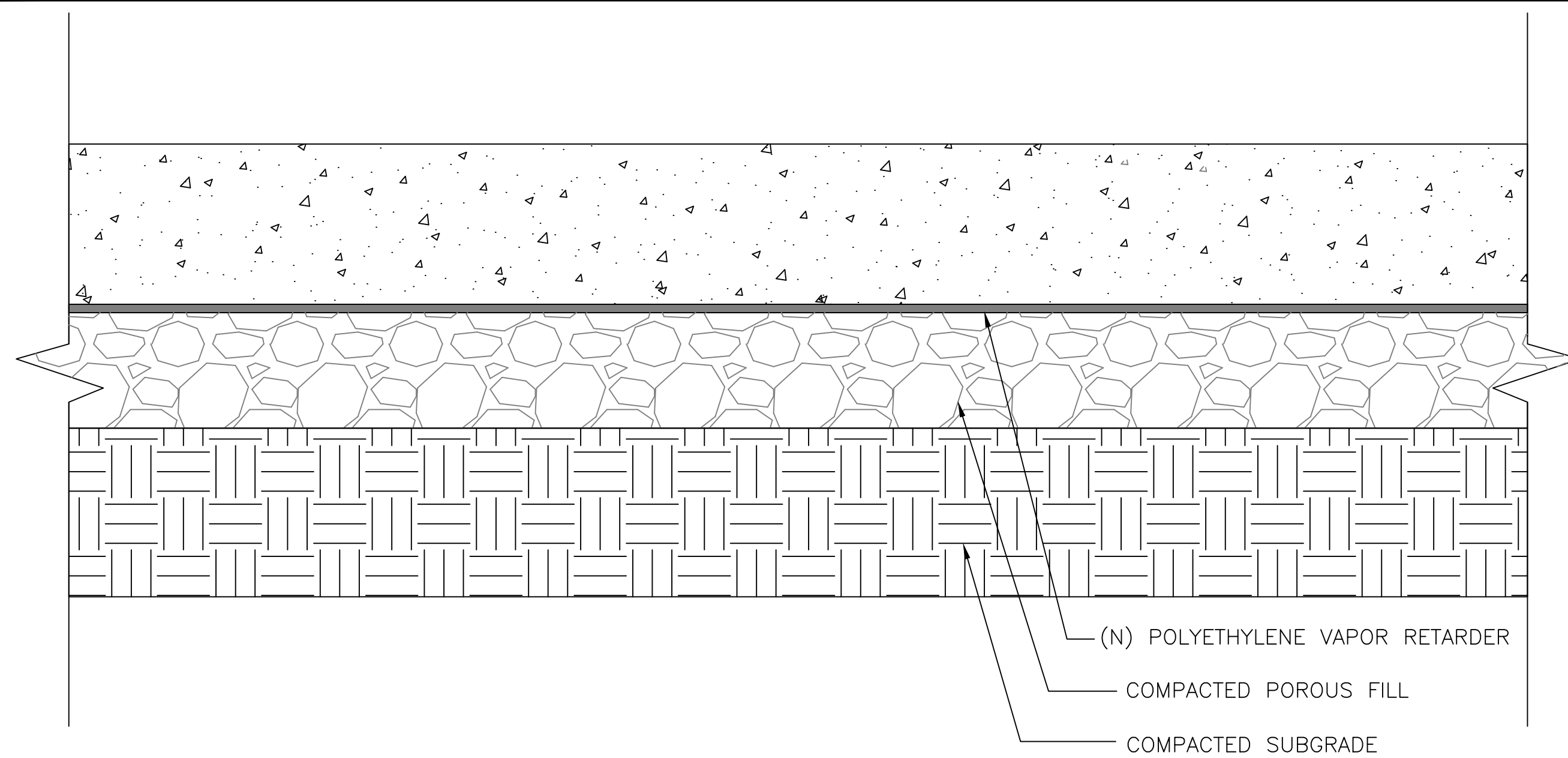
SHEET #:
E503



A EQUIPMENT LAYOUT PLAN (SIDE VIEW)
SCALE: 1"=1'-0"

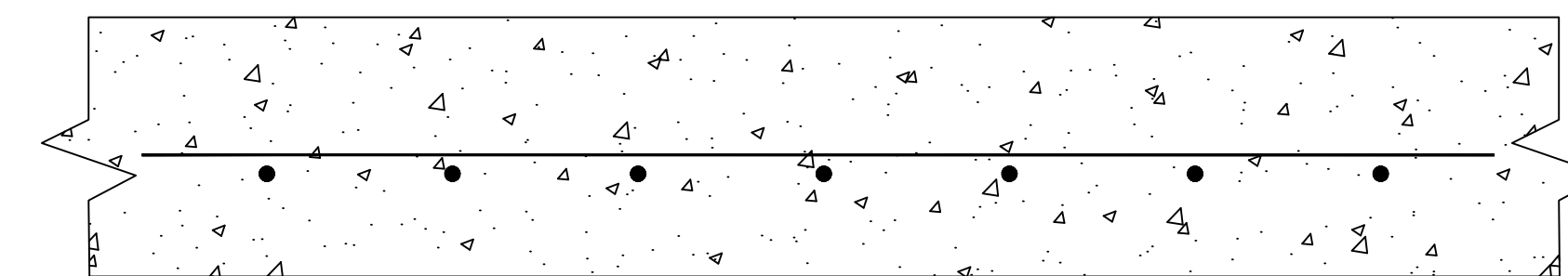


B EQUIPMENT PAD & ANCHORAGE
1"=1'-0"



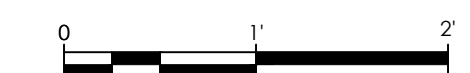
NOTE:
CONCRETE PADS SHALL BE A MINIMUM 6" THICK CONCRETE SLAB ON 15MIL VAPOR BARRIER AND GRANULAR LAYER CONSIST OF 1/2" CLEAN AGGREGATE REINFORCED WITH ONE LAYER OF 6X6 - W1.4X1.4 WELDED WIRE FABRIC AT 1/3-DEPTH UNLESS OTHERWISE NOTED. WIRE FABRIC SHALL BE PROVIDED IN SHEETS AND PLACE ON SAND CHAIRS. REFERENCE ARCHITECTURAL DRAWINGS FOR SLOPES AND DRAIN.

C POLYETHYLENE VAPOR BARRIER DETAIL
SCALE: NTS



- NOTES:
1. JOINT FORMED WITH TOOL OR INSERT STRIP MAY BE SUBSTITUTED FOR SAWED TYPE ONLY WITH PRIOR ACCEPTANCE BY SEOR.
 2. SAWING SHALL BE PERFORMED AFTER 7 DAYS.
 3. IF SINGLE LAYER OF REINFORCEMENT, EVERY OTHER BAR IS DISCONTINUOUS AT JOINT. IF 2 LAYER REINFORCEMENT, TOP LAYER IS COMPLETELY DISCONTINUOUS AT JOINT.
 4. CONTROL JOINT SPACING SHALL BE 24 TO 36 TIMES THICKNESS OF THE SLAB, 18" MAXIMUM
 5. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE=4,000 PSI

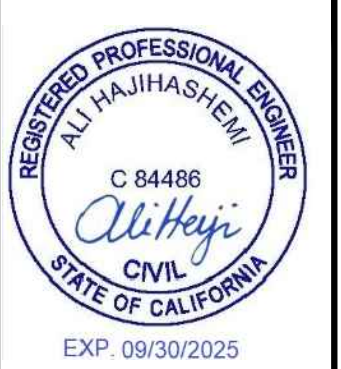
D EQUIPMENT PAD CONTROL UNIT
SCALE: 1"=1'-0"



PROJECT TITLE:

ARMTEC DEFENSE
PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236

ENGINEER'S STAMP



BayWare
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 210956

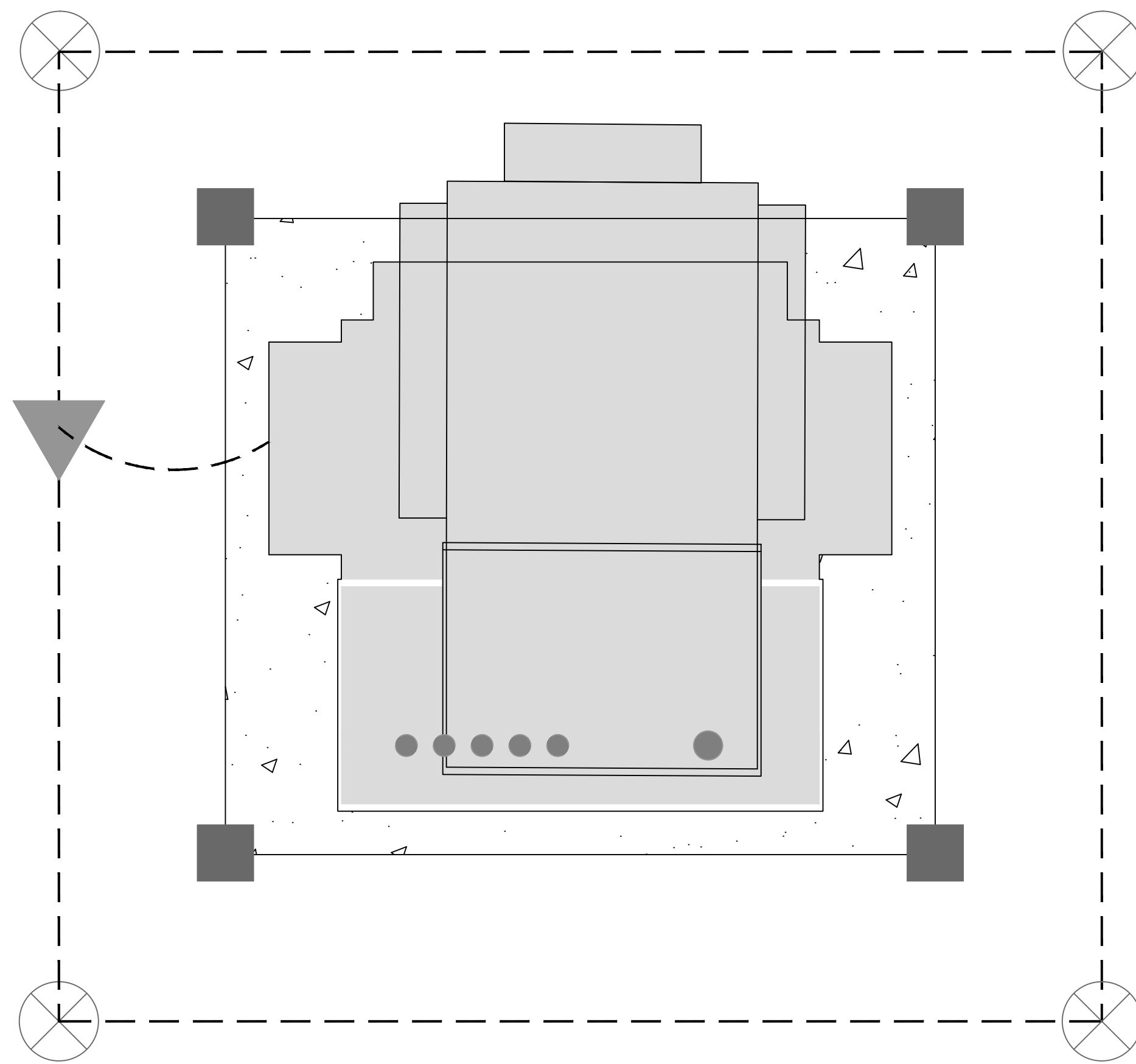
REVISIONS	
DATE	ISSUE
29-AUG-23	FOR SUBMITTAL
20-OCT-23	UPDATED CITY COMMENTS
04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE:	ARCH D
DRAWN BY:	AK
CHECKED BY:	JHA
APPROVED BY:	JHA

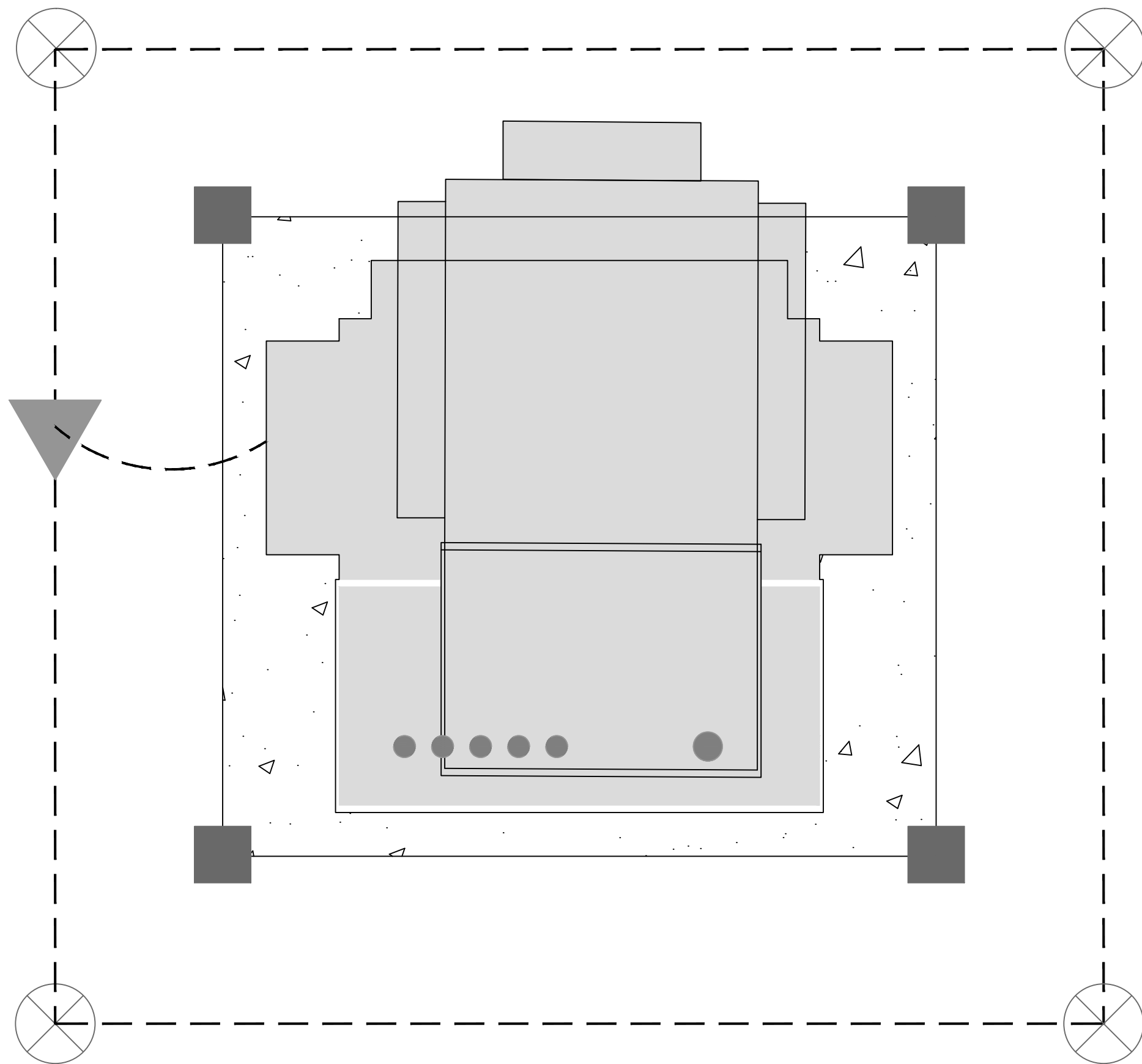
SCALE:
VARIES

SHEET TITLE:
EQUIPMENT
LAYOUT
PLAN-4

SHEET #:
E504



A EQUIPMENT PAD GROUNDING GRID "XFMR-1" (NEAR BUILDING 17)
SCALE: NTS



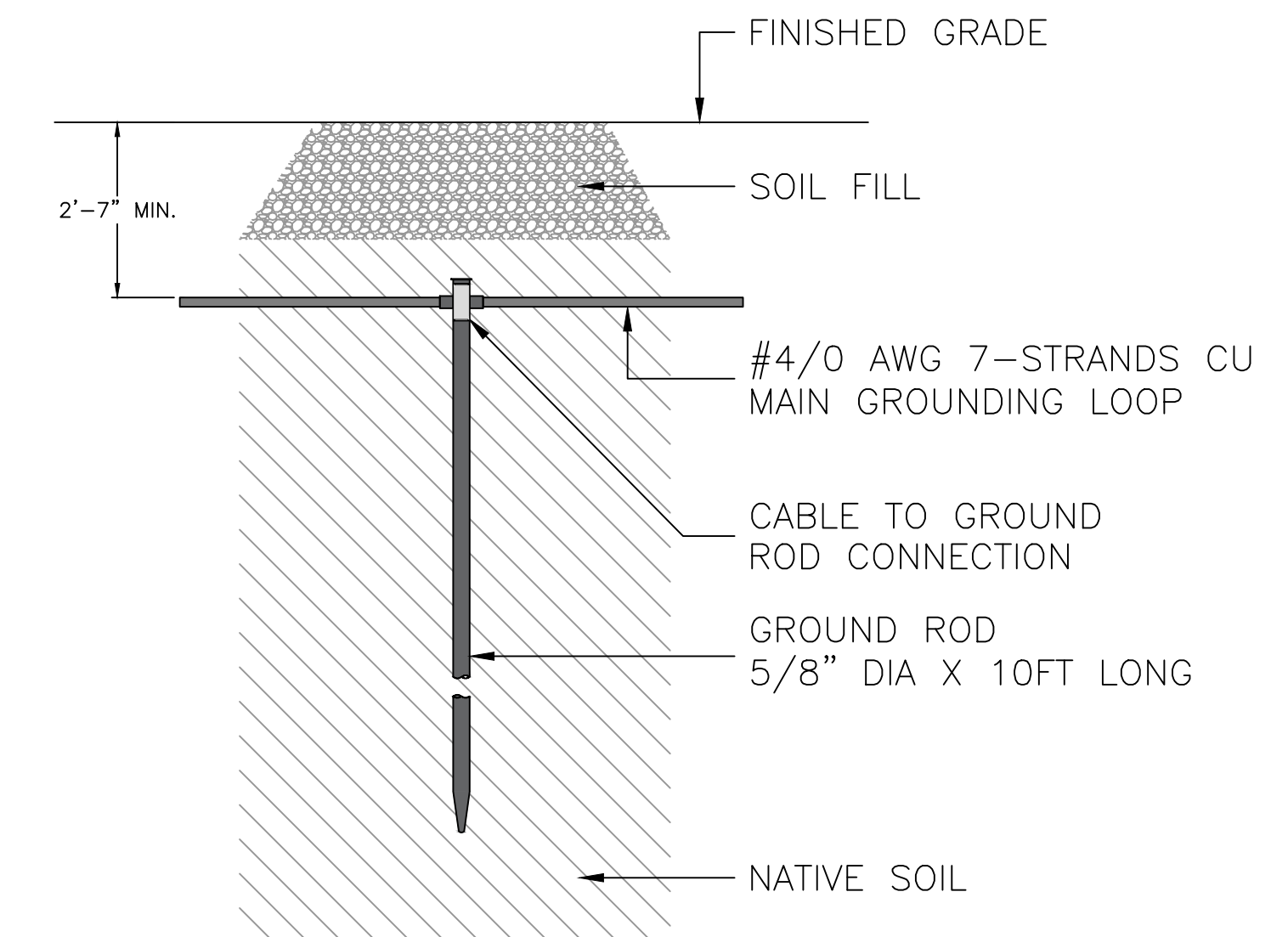
B EQUIPMENT PAD GROUNDING GRID "XFMR-2" (NEAR CANOPY-7)
SCALE: NTS

NOTES:

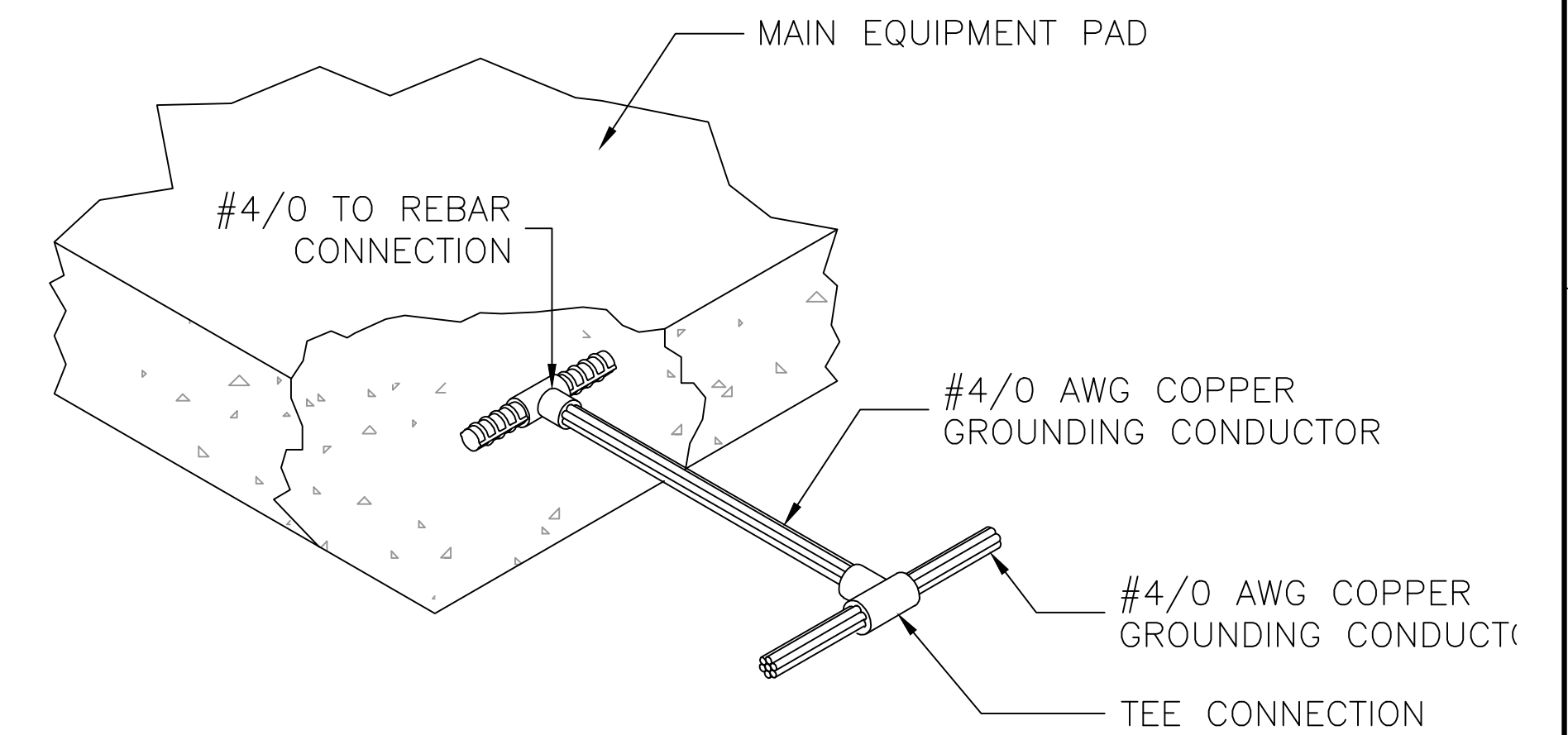
- GROUND GRID CONDUCTOR AND LEADS SHALL BE BURIED 18 INCHES BELOW COMPACTED GRADE.
- GROUND GRID CONDUCTOR TO BE SOFT-DRAWN, #4/0 AWG BARE CU, 7 STR.
- ALL BELOW GRADE GRID CONNECTIONS SHALL BE EXOTHERMIC CONNECTORS.
- THE GROUNDING SYSTEM IS SHOWN DIAGRAMMATICALLY AND LOCATION OF WIRES, RODS, ETC, MAY BE CHANGED.
- GROUND ROD, STRUCTURES, TRANSFORMERS, ETC., GROUNDS TO BE INSTALLED PER "DETAIL C" ON SHEET E504.
- EXERCISE CAUTION WHEN DRIVING RODS TO AVOID UNDERGROUND DUCTS, ETC. USE THE SPECIAL DRIVING HEADS AND DRIVING ADAPTERS FOR THREADLESS RODS ON ALL AIR HAMMERS. DO NOT DRIVE ROD DEEPER AFTER WELDED CONNECTION TO WIRE IS COMPLETED.
- PROVIDE 5 FOOT PIGTAILS AT ALL FOUNDATIONS.
- STATION SITE TO BE COVERED IN A MINIMUM OF 4 INCHES OF CLEAN CRUSHED STONE WITH A MINIMUM BULK RESISTIVITY OF 3000 OHM-METERS.
- GROUND EVERY GATE POST, CORNER POST AND EVERY OTHER LINE POST.
- MAINTAIN 2'-5" SPACING OF GROUND CONDUCTOR AROUND EQUIPMENT.
- GROUND THE REBAR AT NEAREST LOCATION AS PER "DETAIL C" ON SHEET E504.

LEGEND:

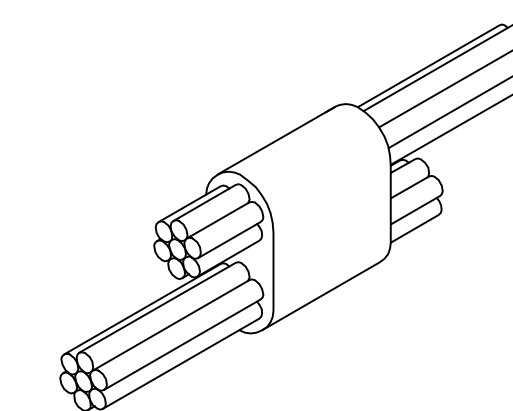
- GROUND CONDUCTOR TO BE SOFT DRAWN - 4/0 AWG BARE CU, 7 STR.
- ⊗ 10 FT. CU-CLAD-STEEL GROUND ROD 5/8" DIA.
- ▲ EXOTHERMIC CONNECTION.
- REBAR GROUNDING CONNECTION (SEE NOTE 11).



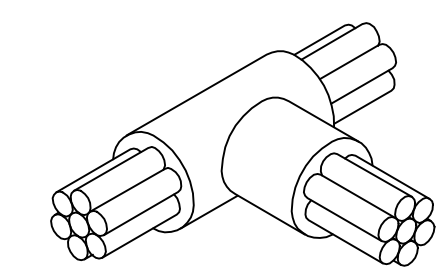
GROUNDING ROD INSTALLATION



REBAR GROUNDING DETAIL



CABLE TO CABLE



4/0 TO 4/0 TEE

C GROUNDING DETAILS
SCALE: NTS

PROJECT TITLE:

ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236

ENGINEER'S STAMP



Jeffrey W. Anselmy

BayWare
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 210956

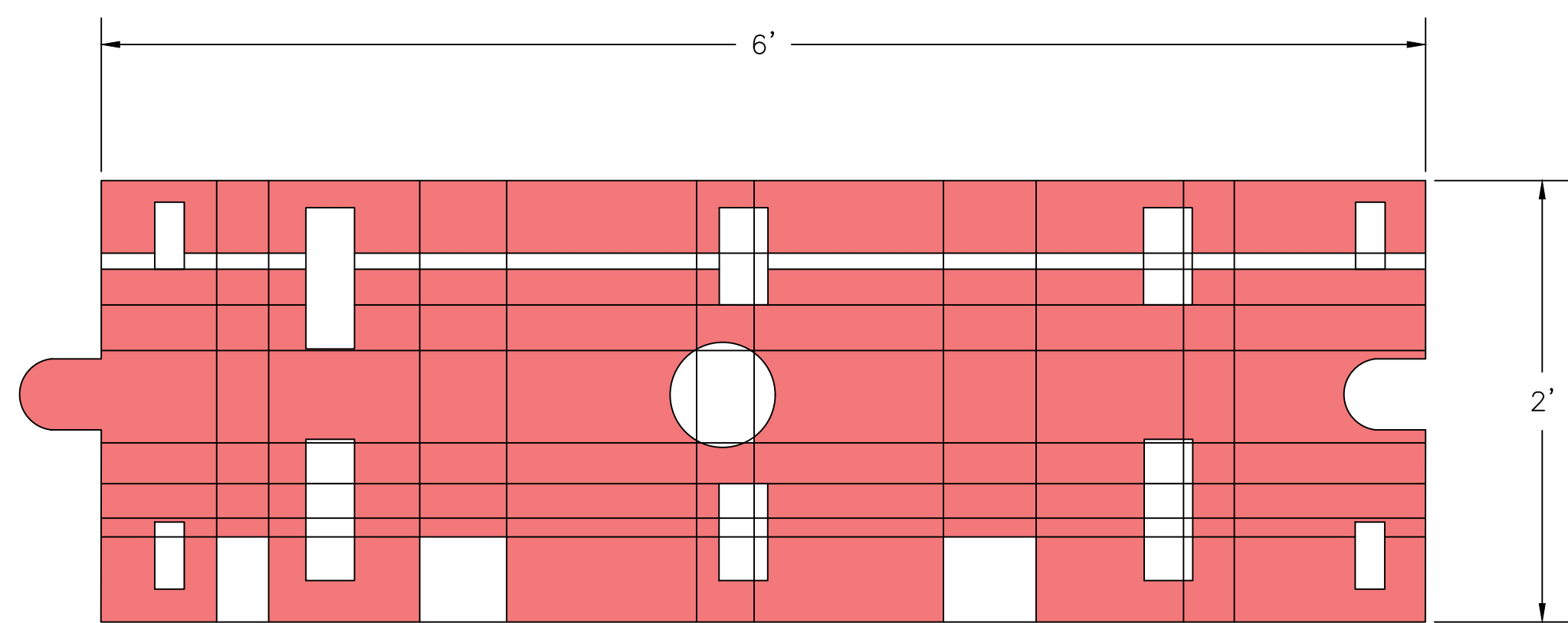
REVISIONS	
DATE	ISSUE
A	29-AUG-23 FOR SUBMITTAL
B	20-OCT-23 UPDATED CITY COMMENTS
C	04-JAN-24 FOR RE-SUBMITTAL

PAPER SIZE:	ARCH D
DRAWN BY:	AK
CHECKED BY:	JHA
APPROVED BY:	JHA

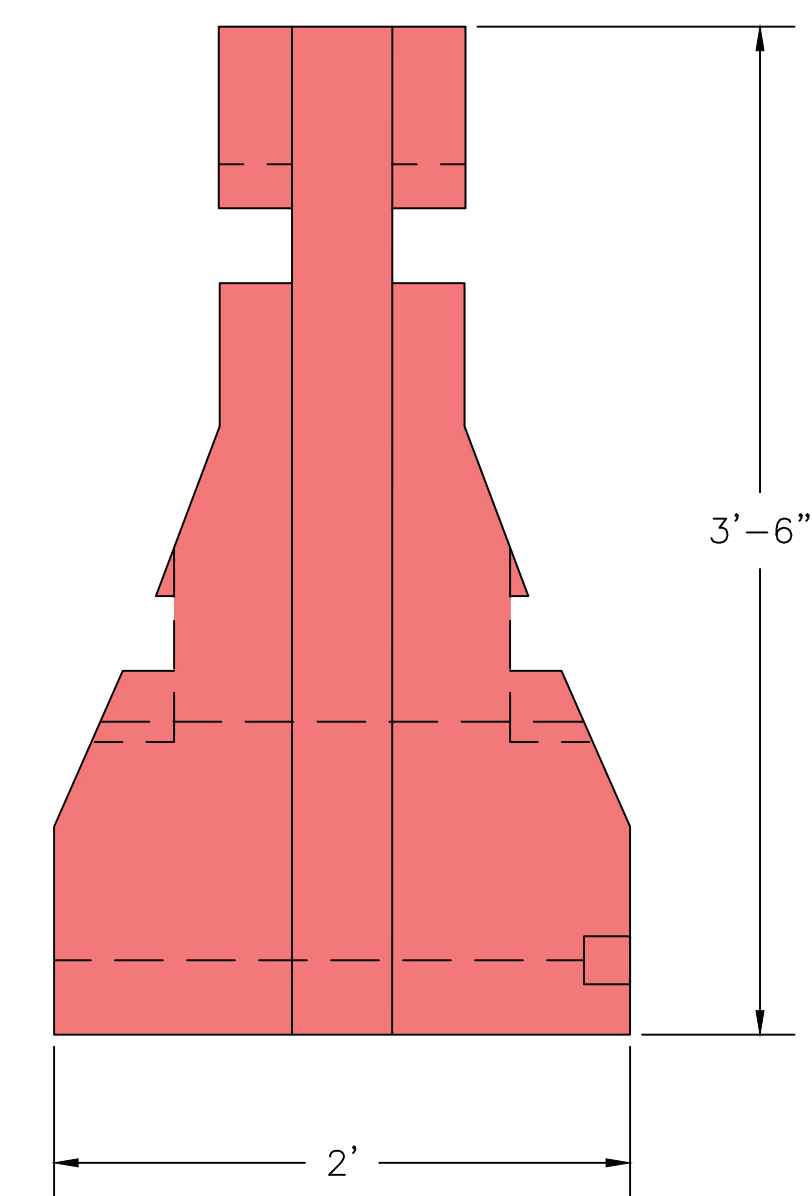
SCALE:
NTS

SHEET TITLE:
EQUIPMENT PAD GROUNDING GRID

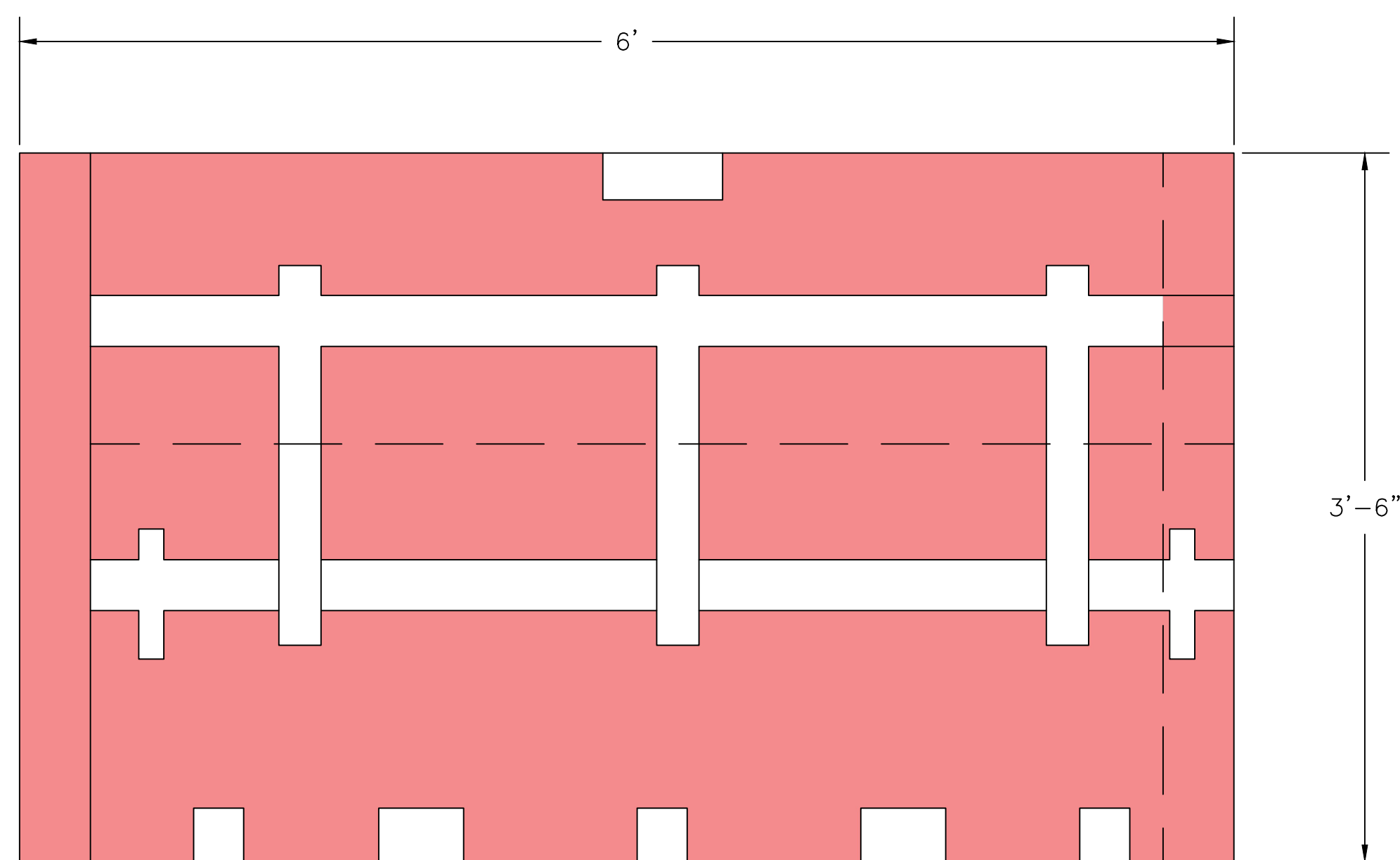
SHEET #:
E505



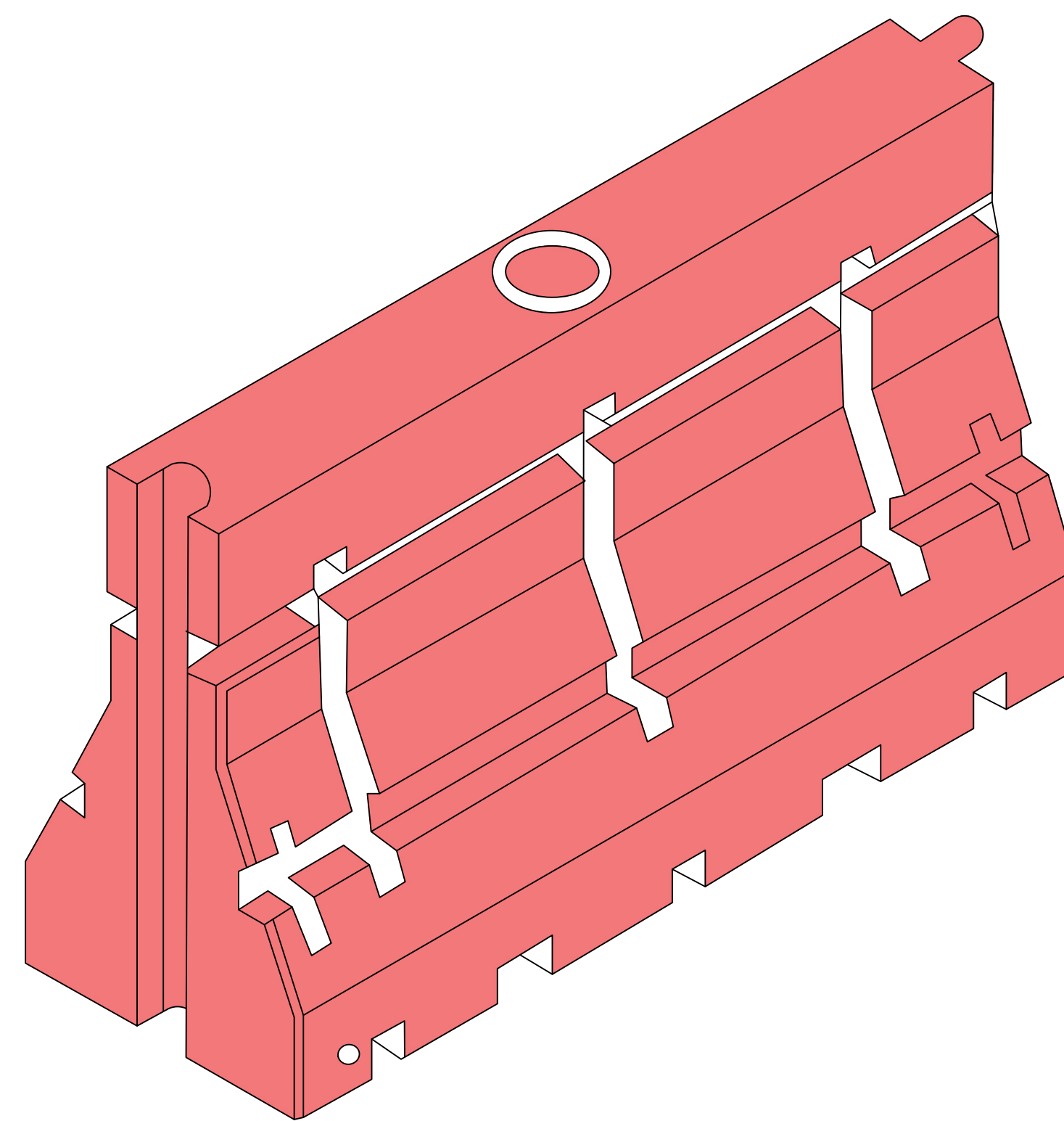
A K-RAIL PLASTIC WATER FILLED BARRIER (TOP VIEW)
SCALE: 1-1/2"=1'-0"



C K-RAIL PLASTIC WATER FILLED BARRIER (SIDE VIEW)
SCALE: 1-1/2"=1'-0"

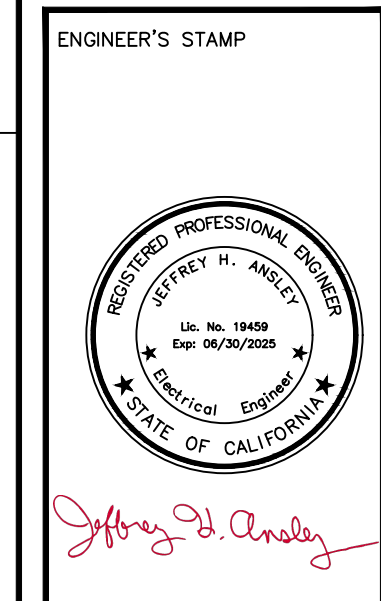


B K-RAIL PLASTIC WATER FILLED BARRIER (FRONT VIEW)
SCALE: 1-1/2"=1'-0"



D K-RAIL PLASTIC WATER FILLED BARRIER (SIDE VIEW)
SCALE: 1-1/2"=1'-0"

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236



BayWare
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 210956

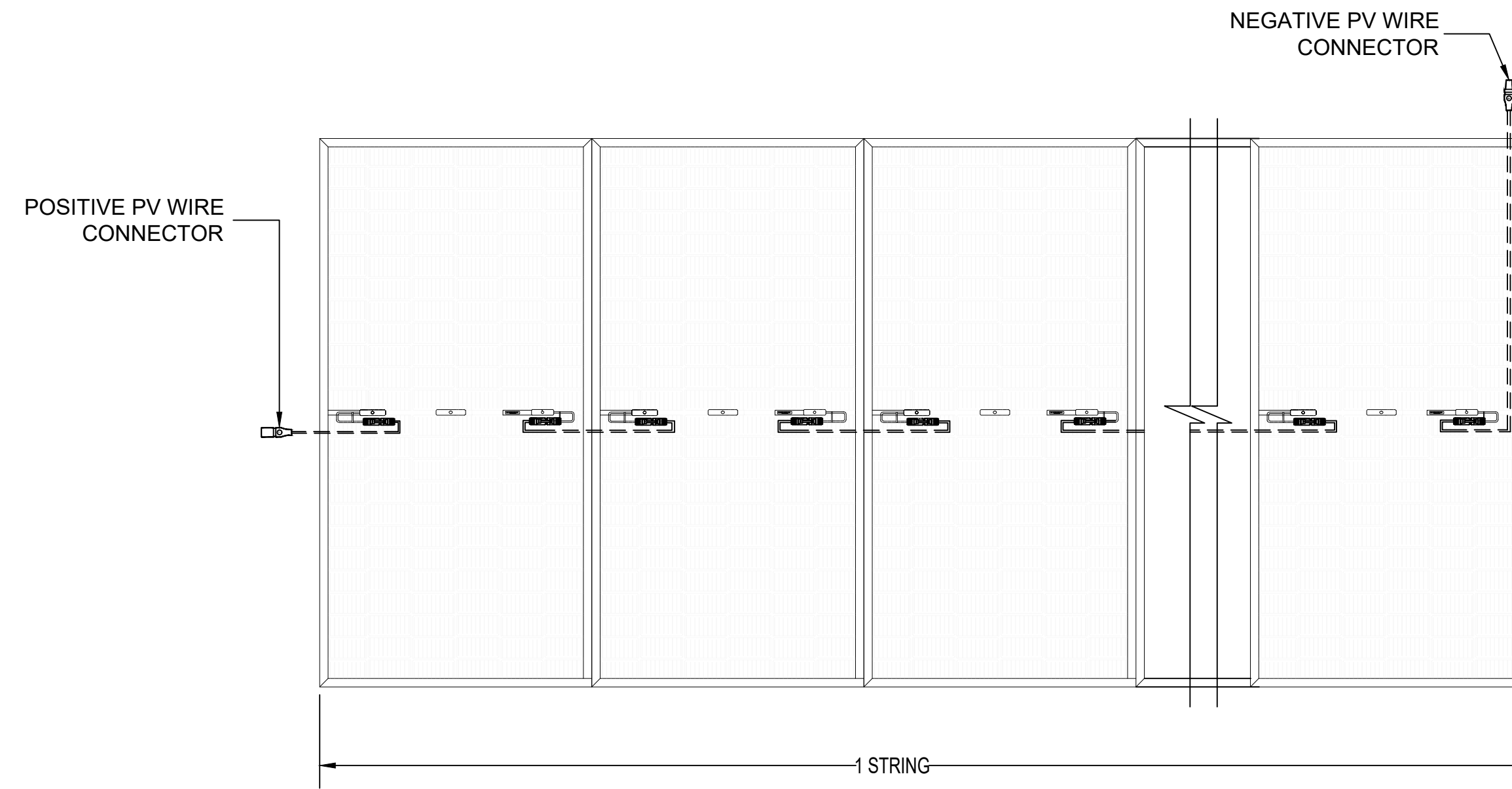
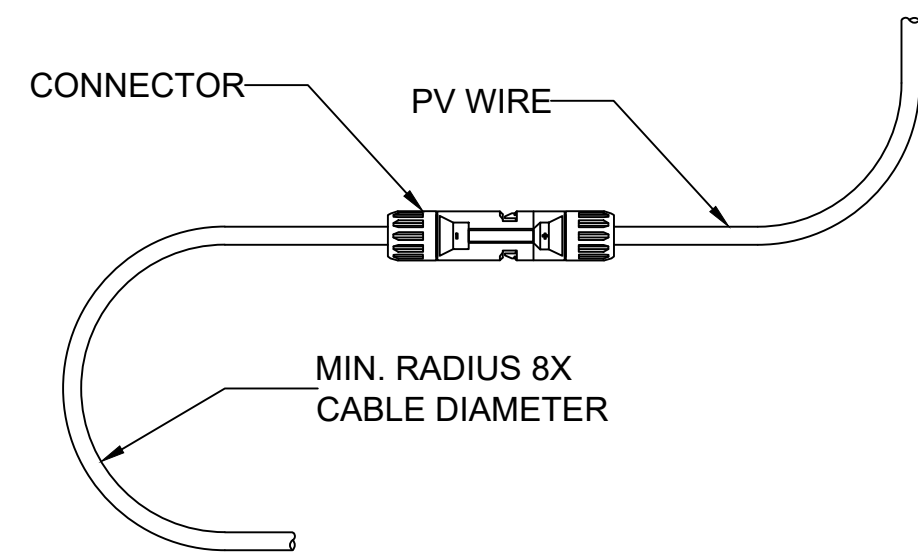
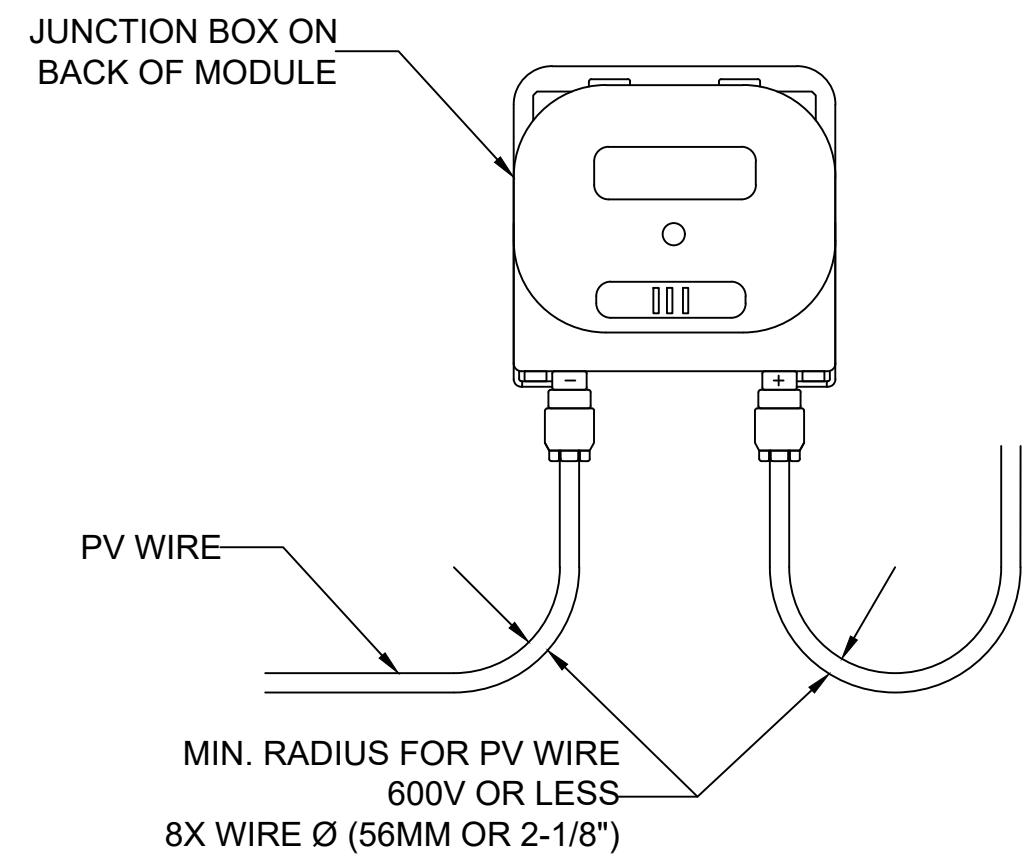
REVISIONS	
#	DATE
A	29-AUG-23
B	20-OCT-23
C	04-JAN-24

PAPER SIZE: ARCH D
DRAWN BY: AK
CHECKED BY: JHA
APPROVED BY: JHA

SCALE: NTS

SHEET TITLE:
BARRICADE DETAILS

SHEET #:
E506

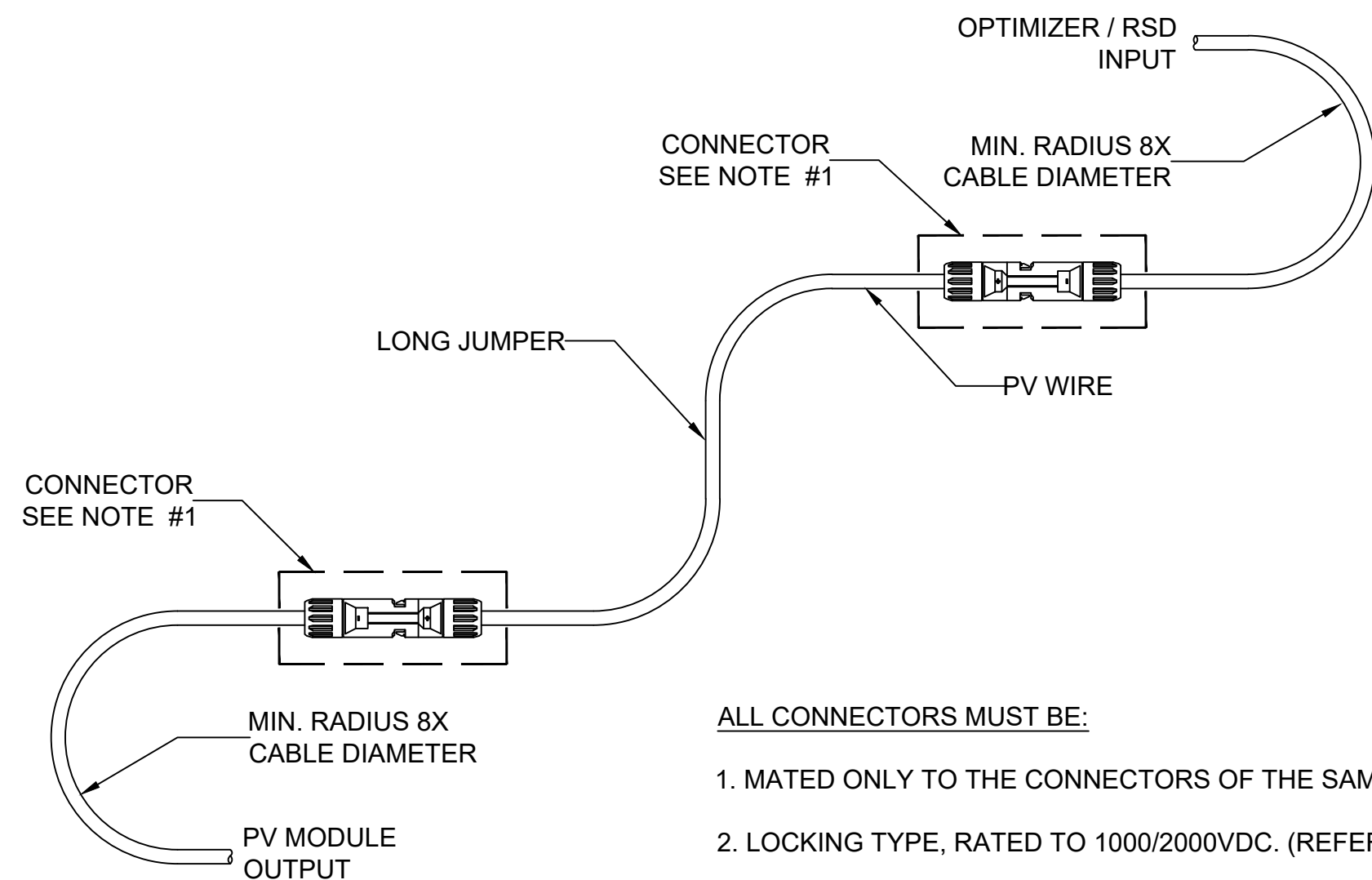


NOTES :

1. OBSERVE MIN. BENDING RADIUS REQUIREMENTS WHEN BUILDING AND SECURING SOURCE CIRCUIT CONDUCTORS TO MODULES AND RACKING.
2. SEE MODULE SPEC SHEET OR CABLE SPECIFICATION FOR CABLE DIAMETER.

A PV WIRE BENDING REQUIREMENTS (GREATER THAN 600V)
SCALE: NTS

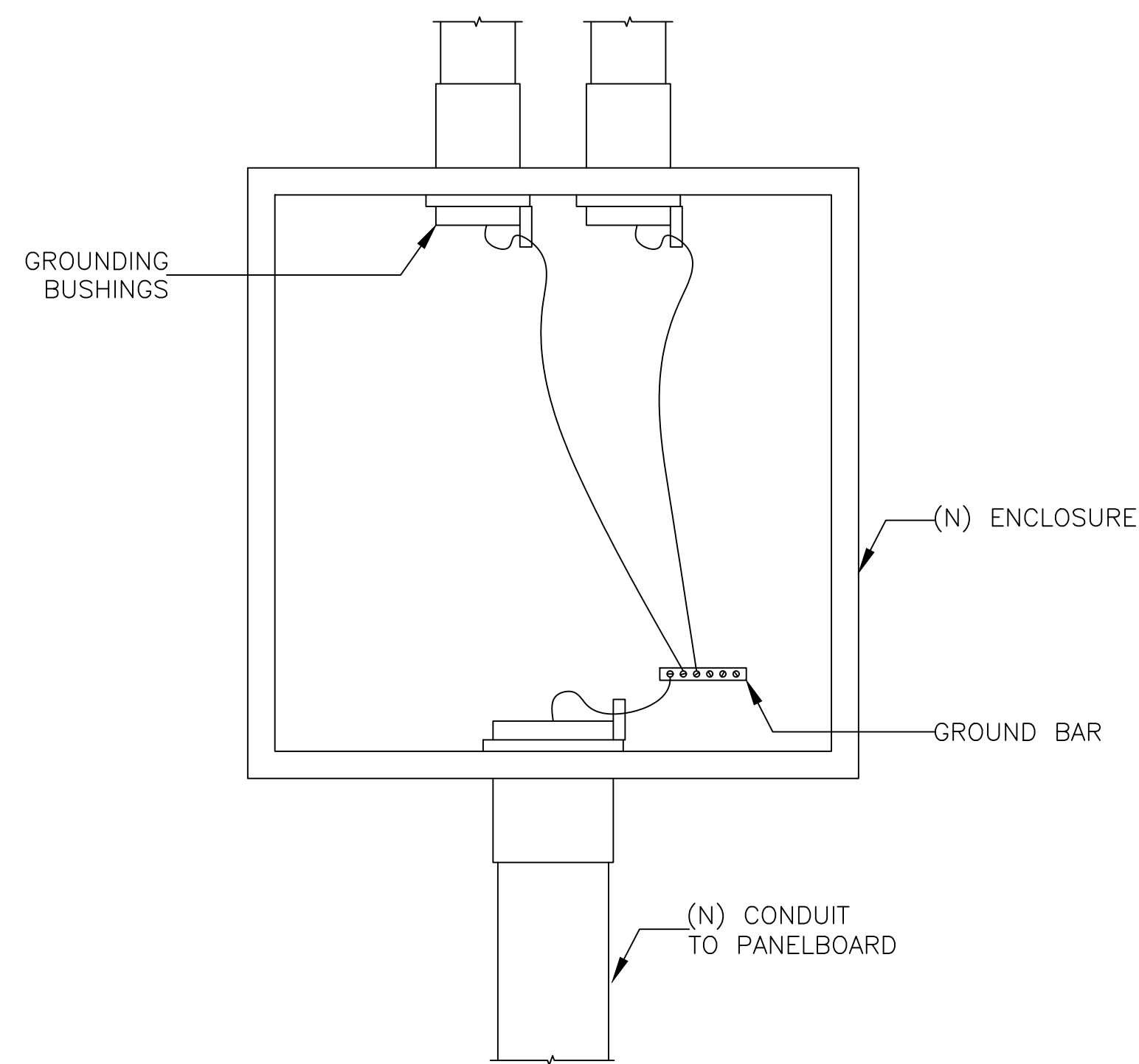
B TYPICAL MODULE TO MODULE WIRE ROUTING
SCALE: NTS



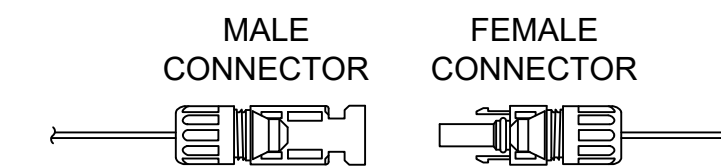
ALL CONNECTORS MUST BE:

1. MATED ONLY TO THE CONNECTORS OF THE SAME MANUFACTURER.
2. LOCKING TYPE, RATED TO 1000/2000VDC. (REFER SHEET E201/E202)
3. CRIMPED ONTO THE SOURCE CIRCUIT WIRE USING PROCEDURE AND TOOLS RECOMMENDED BY MANUFACTURER.
4. SECURED SUCH THAT THEY ARE NOT SUBJECTED TO RAIN OR DIRECT SUNLIGHT, SUCH AS WITHIN MODULE GAPS.

C CONNECTOR DETAIL
SCALE: NTS



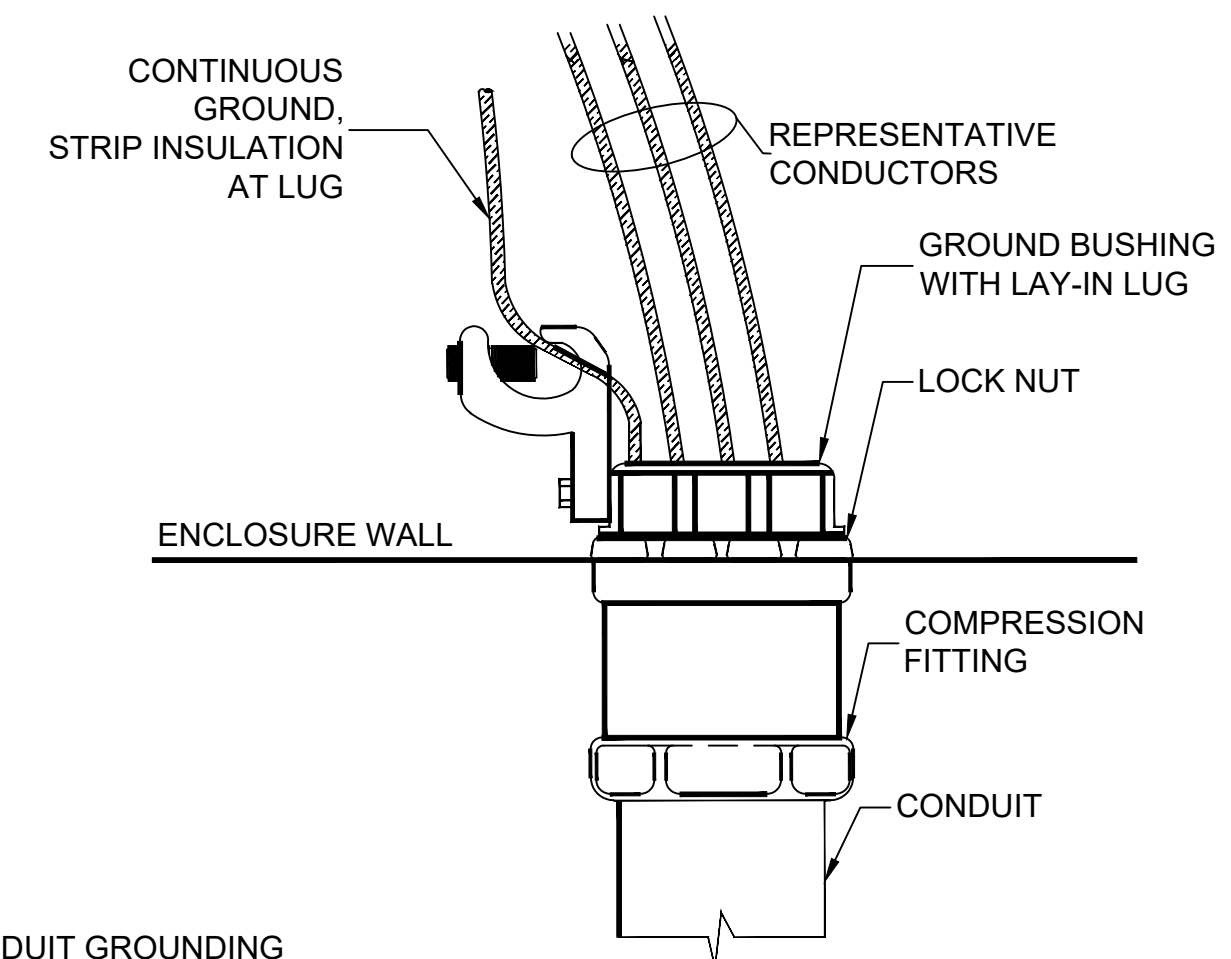
D TYPICAL ENCLOSURE GROUNDING
SCALE: NTS



ALL CONNECTORS MUST BE:

1. MATED ONLY TO THE CONNECTORS OF THE SAME MANUFACTURER.
2. LOCKING TYPE, RATED TO 1000/2000VDC. (REFER SHEET E201/E202)
3. CRIMPED ONTO THE SOURCE CIRCUIT WIRE USING PROCEDURE AND TOOLS RECOMMENDED BY MANUFACTURER.
4. SECURED SUCH THAT THEY ARE NOT SUBJECTED TO RAIN OR DIRECT SUNLIGHT, SUCH AS WITHIN MODULE GAPS.

E MODULE CONNECTOR DETAILS
SCALE: NTS



F CONDUIT GROUNDING
SCALE: NTS

PROJECT TITLE:

ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236

ENGINEER'S STAMP



Jeffrey W. Anselmi

BayWare
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 210956

REVISIONS	
DATE	ISSUE
A	29-AUG-23 FOR SUBMITTAL
B	20-OCT-23 UPDATED CITY COMMENTS
C	04-JAN-24 FOR RE-SUBMITTAL

PAPER SIZE: ARCH D
DRAWN BY: AK
CHECKED BY: JHA
APPROVED BY: JHA

SCALE: NTS

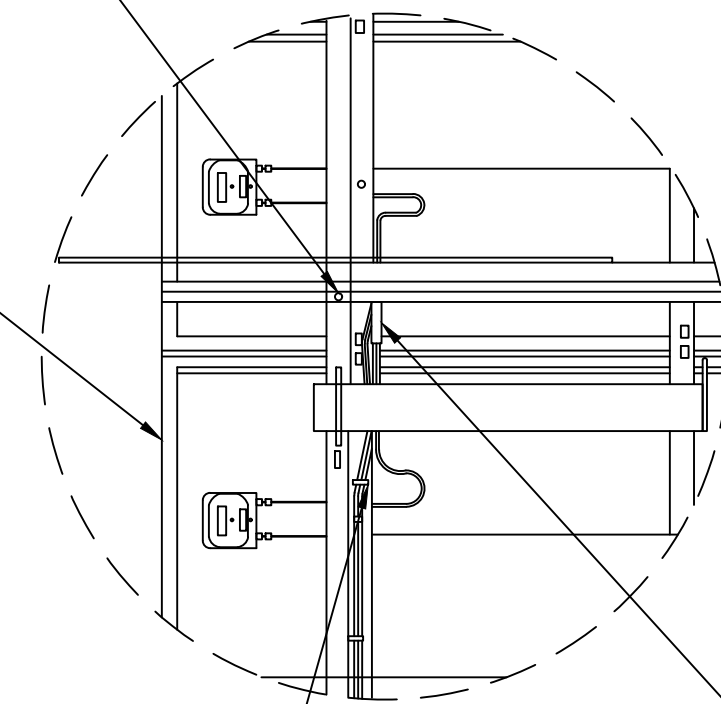
SHEET TITLE:
ELECTRICAL DETAILS-1

SHEET #:
E601

EACH SECTION OF WIRE MANAGEMENT SYSTEM SHALL BE BONDED TO THE RACK AT BOTH ENDS OF EACH ARRAY. THRU BOLT LAST SECTION TO PURLIN USING A BOLT, STAR WASHER AND NUT WITH INTEGRATED STAR WASHER TO BOND WIRE MANAGEMENT SYSTEM TO RACK.

LAST RACK IN ARRAY

AT THE END OF EACH STRING OF MODULES, ROUTE SOURCE CONDUCTORS TO SIDE OF Z-PURLIN WITH CABLE TIES. SEE NOTE 2



SEE NOTE 2

CONNECTOR (TYP.)

CABLE TIE (TYP.)

PROVIDE LOOP IN WIRING AS SHOWN TO PREVENT STRAIN ON THE SEAL WHERE WIRE ENTERS JUNCTION BOX ON THE BACK OF EACH MODULE. SEE "PV WIRE BENDING REQUIREMENT" DETAIL. SECURE WITH CABLE TIES AS REQUIRED. SUBMIT METHOD FOR APPROVAL.

ALL RACKS IN A ROW SHALL BE BONDED AT SEPARATIONS. PROVIDE LAY-IN GROUND LUG BOLTED THRU Z-PURLIN AT ENDS OF EACH RACK WITH #6 GREEN CU WIRE BETWEEN RACKS.

SOURCE CIRCUIT HOMERUN WIRES BUNDLED TOGETHER IN GAP BETWEEN RACKS.

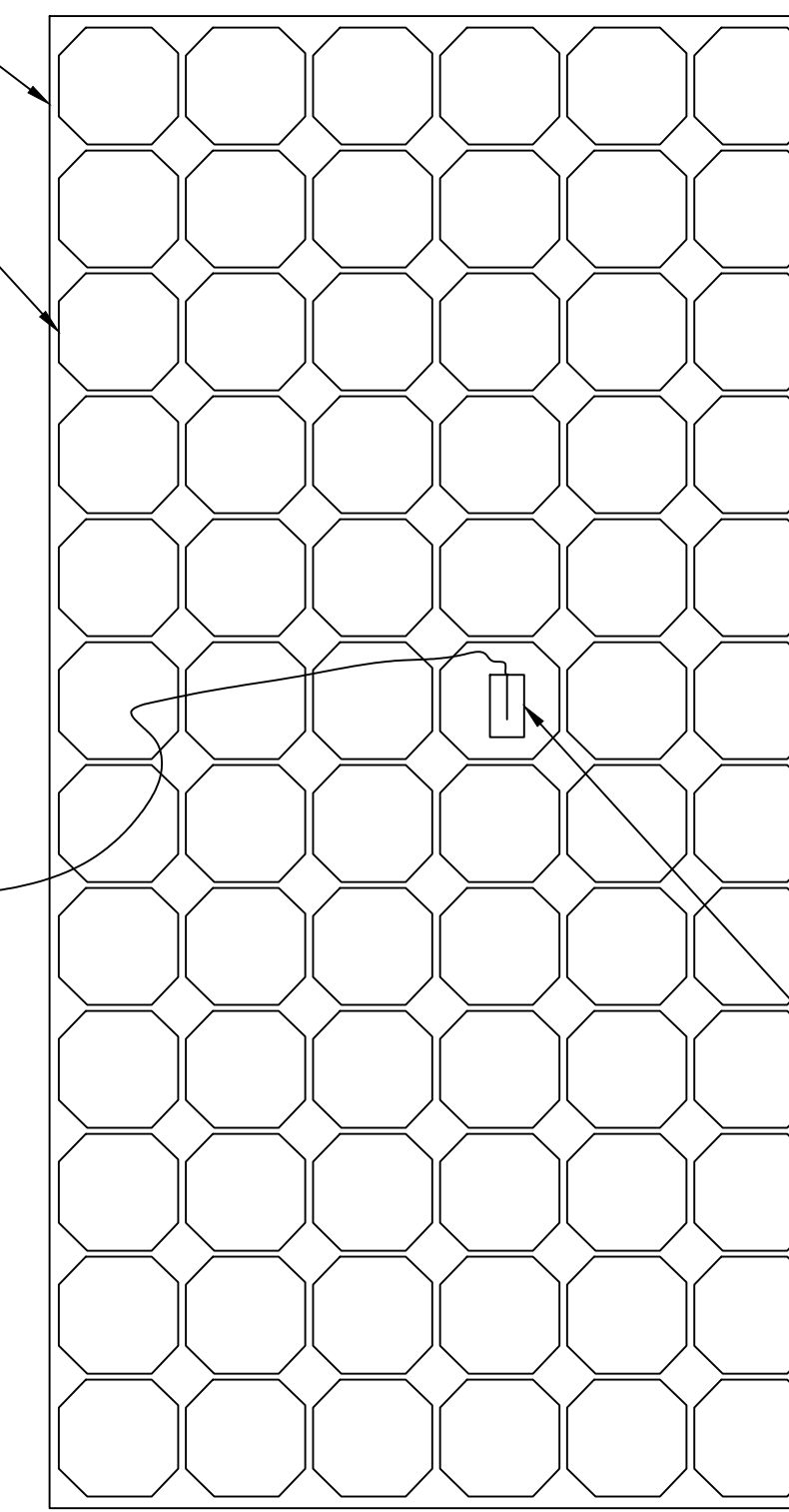
#6 GREEN CU GROUND BETWEEN RACKS. WIRE SHALL INCORPORATE A SMALL AMOUNT OF SLACK AS SHOWN.

NOTES:

1. NO PLASTIC-ONLY CABLE TIES. TIES SHALL BE BY HELLERMANN TYTON. ACTUAL LENGTH TO BE DETERMINED BY SUBCONTRACTOR BASED ON MOUNTING LOCATION.
2. SUBCONTRACTOR TO PROVIDE MEANS TO PREVENT CHAFING OF WIRES WHERE THEY MAY COME IN CONTACT WITH SHARP EDGES OF RACK. SUBMIT PROPOSED METHOD OF PROTECTION FOR APPROVAL.

SOLAR MODULE
SOLAR CELL OUTLINE AS VIEWED FROM UNDERSIDE OF MODULE

TO DAS



MODULE CELL TEMPERATURE SENSOR TO BE AFFIXED DIRECTLY TO THE CENTER OF A CELL IN THE CENTER BACK OF THE MODULE. FOLLOW MANUFACTURER PROVIDED INSTALLATION INSTRUCTIONS FOR SURFACE PENETRATION AND SENSOR ATTACHMENT.

A SOURCE CIRCUIT WIRE MANAGEMENT SCALE: NTS

B MODULE CELL TEMPERATURE SENSOR/ IF REQUIRED SCALE: NTS

"Stay Connected" with **HEYCO** Solar Power Components
a PennEngineering Company

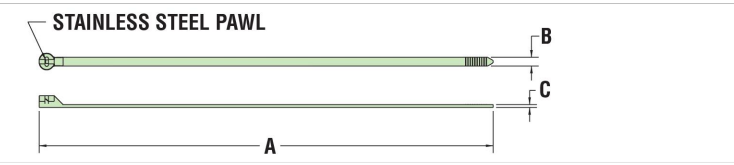


- Feature metal pawl for high strength and better durability.
- Self-locking head design speeds installation and locks into place at any length along the tie body.
- Provide a strong, durable method of cable bundling.
- Can be used in a wide range of indoor, outdoor, and underground (including direct burial) applications.
- Smooth surfaces and rounded edges assure cable protection and worker safety.
- Part Description Key: NTMP-XXX-YYY where XXX = tensile (foot pounds) and YYY = length (inches x 10).
- These parts are not covered under Heyco's solar warranty.

Heyco[®] Nytyes[®] with Stainless Steel Locking Device

PART SPECIFICATIONS		PART NO.		DESCRIPTION		PART DIMENSIONS				
Min. Tensile Strength	Max. Bundle Diameter	Natural	Black	A Length	B Width	C Thickness				
Lbs. / N	in. / mm			in. / mm	in. / mm	in. / mm				
18 / 80	3.7 / 22.0	13000	13000B	NTMP-018-039	3.90	100	.12	3.0	.04	1.1
35 / 160	7.42 / 36.0	13001	13001B	NTMP-035-059	5.90	150	.16	4.0	.05	1.2
45 / 200	2.99 / 53.0	13002	13002B	NTMP-045-079	7.90	200				
	2.56 / 65.0	13003	13003B	NTMP-045-098	9.80	250				
	2.99 / 76.0	13004	13004B	NTMP-045-118	11.80	300				
	2.99 / 53.0	13008	13008B	NTMP-056-079	7.90	200				
	2.60 / 66.0	13009	13009B	NTMP-056-094	9.40	240				
	2.99 / 76.0	13010	13010B	NTMP-056-118	11.80	300				
	2.99 / 76.0	13011	13011B	NTMP-112-118	11.80	300				
	3.74 / 95.0	13012	13012B	NTMP-112-138	13.80	350				
	4.45 / 113.0	13013	13013B	NTMP-112-157	15.70	400				
	4.72 / 120.0	13014	13014B	NTMP-124-177	17.70	450				
	6.22 / 158.0	13015	13015B	NTMP-124-197	19.70	500				

Standard colors natural and UV Black.



Material: Nylon 6/6 wire tie with a stainless steel locking pawl
Flammability Rating: 94V-2
Temperature Range: -40°F (-40°C) to 185°F (85°C)

For Heyco's complete line of Nylon Cable Ties & Platforms, see pages 7-64 thru 7-69



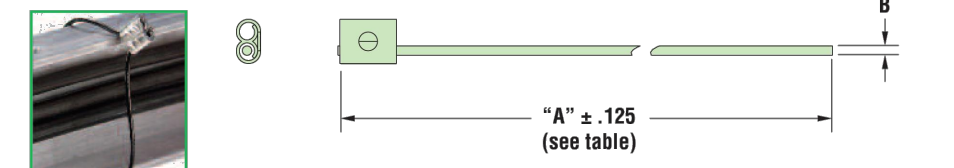
- Extremely durable, vinyl jacketed Stainless Steel Cable Tie.
- Smooth vinyl jacketing prevents damage to installation cable insulation.
- Stainless steel crimp sleeve for easy field installation with electrician linesman pliers, or wire cutters.
- Certified by UL Specification 62275 for indoor and outdoor usage.
- UV protected vinyl jacket is excellent for solar installation where product durability is required.
- Use standard wire cutters to both crimp the sleeve and cut the excess wire.
- Not for use in a marine salt water environment. Contact Heyco for alternative materials.
- DFARS Compliant.

Heyco[®] SunBundler[®]

Crimp Lock PVC Coated Stainless Steel Wire Cable Ties

PART SPECIFICATIONS		PART NO.		DESCRIPTION		PART DIMENSIONS		
Max. Tensile Strength	Max. Bundle Diameter	100 Pack	Bulk	A Length	B Diameter			
Lbs. / N	in. / mm			in. / mm	in. / mm			
Black vinyl jacketed 302/304 stainless steel wire								
	2.30	58.4	S6408	S6409	SunBundler [®] 8	8	203	
	2.92	74.2	S6410	S6411	SunBundler [®] 10	10	254	
	3.88	98.6	S6412	S6413	SunBundler [®] 12	12	305	.06
	4.20	106.7	S6414	S6415	SunBundler [®] 14	14	356	
	6.36	161.5	S6420	S6421	SunBundler [®] 20	20	508	

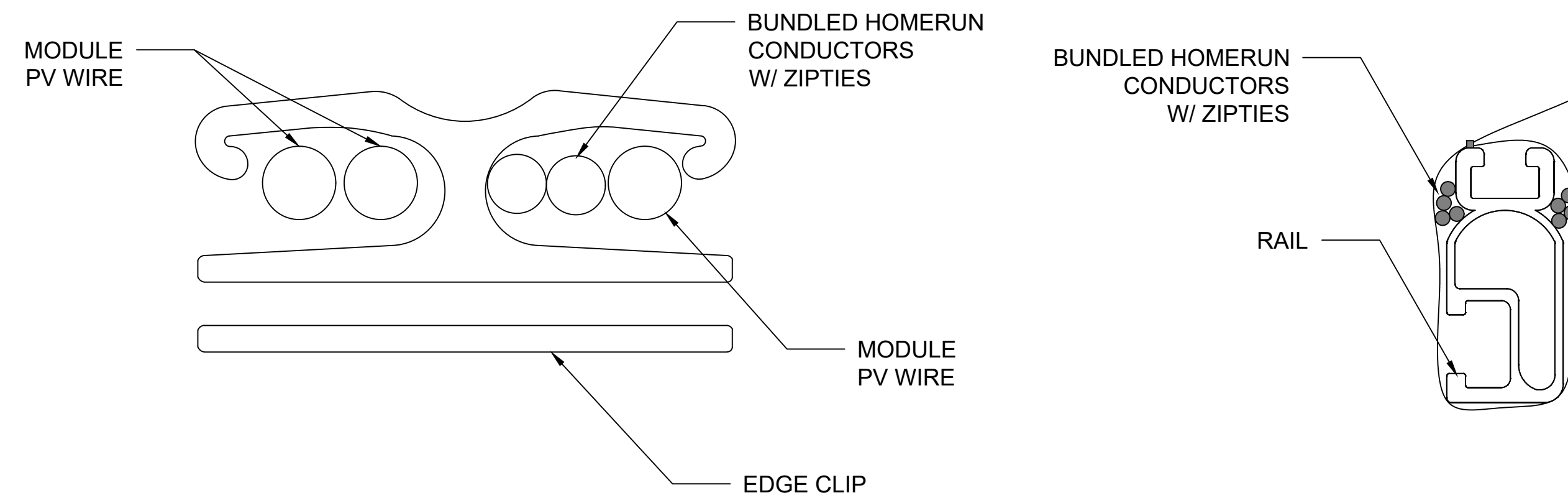
Standard color Black.



Material: Commercial Aircraft Grade 302/304 stainless wire w/UV protected vinyl jacket
Certifications: Certified by Underwriters' Laboratories for Compliance to both Canadian and U.S. Requirements under File E54523
Temperature Range: -40°F (-40°C) to 221°F (105°C)

1-800-926-4182 • 732-286-1800 (NJ) • FAX: 732-244-8843 • www.heyco.com

C WIRE MANAGEMENT DETAIL SCALE: NTS



D TYPICAL EDGE CLIP DETAIL-2 SCALE: NTS

E PULL BOX FILL CALCULATION SCALE: NTS

TYPE OF PULL	REQUIRED SIZE OF PULL BOX "PB-1", "PB-2", "PB-4"
STRAIGHT PULL	$(8 \times 2'') + 2'' + 0.75'' = 18.75''$
ANGLE PULL	$(6 \times 2'') + 1.5'' + 2'' + 0.75'' = 16.25''$
INSTALL MIN. 20" x 20" PULL BOX	

TYPE OF PULL	REQUIRED SIZE OF PULL BOX "PB-3", "PB-6" & "PB-7"
ANGLE PULL	$(6 \times 2'') + 1.5'' + 2'' + 2'' + 1.25'' + 0.75'' = 19.5''$
INSTALL MIN. 22" x 22" PULL BOX	

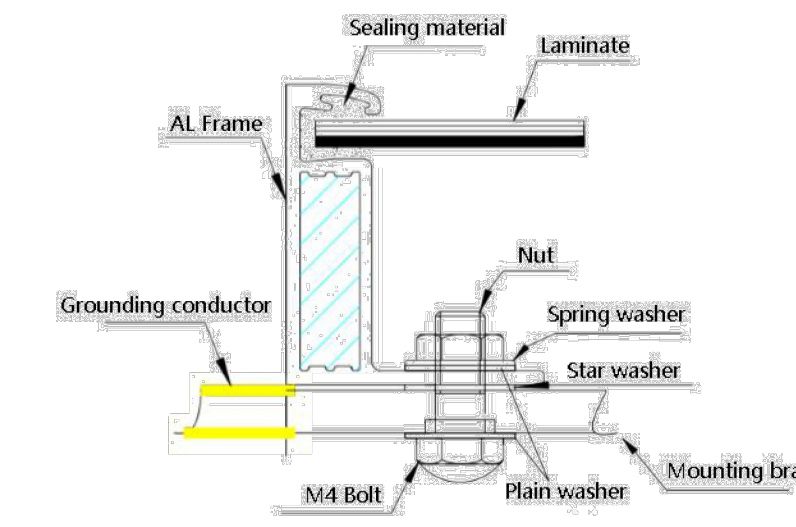
TYPE OF PULL	REQUIRED SIZE OF PULL BOX "PB-5"
STRAIGHT PULL	$(8 \times 3.5'') + 2'' + 0.75'' = 30.75''$
ANGLE PULL	$(6 \times 3.5'') + 2'' + 2'' + 3.5'' + 0.75'' = 29.25''$
INSTALL MIN. 32" x 32" PULL BOX	

4. Grounding

All PV module frames and mounting brackets must be properly grounded in accordance with the applicable national electrical code.

Correct grounding is achieved by continuously connecting the PV module frame and all metal modules together using the appropriate grounding conductor. The grounding wire may be copper, copper alloy or other materials that can be used as conductors and meet the requirements of the national electrical code. It is recommended to use the copper wire (4-14mm² or AWG 6-12) as the grounding wire. The signal "⊕" can be found at the grounding hole position. The ground wire must also be connected to ground through a suitable ground electrode. The tight connection of all the joint point should be ensured.

On a grounding hole with a diameter of φ4 mm, use a separate grounding wire and related accessories to connect the aluminum frame of the solar PV module and connect the grounding wire to the ground. The grounding uses the M4*12mm bolts and M4 nuts, star washers and plain washers, this ensures that the modules are firmly grounded. You can find the corresponding product drawing in module datasheet to know the detailed number, size and position of the grounding holes. The torque applied to ground fixation is 4N·m ~ 8N·m.



When grounding, each module can be grounded directly or in series or in parallel. If you choose the latter two options, it is recommended that the maximum number of modules connected in parallel should not exceed four, and in series should not exceed eight.

In addition to use the grounding hole, you can also choose the following grounding ways:

- (1) Grounding by unused mounting holes
- (2) Other professional grounding devices

The electrical contact points of all the above grounding methods should penetrate the anodized film of the aluminum frame. PV modules can be grounded by other grounding devices, which must be reliable and certified. The manufacturer's requirements should be followed.

F MODULE GROUNDING DETAIL SCALE: NTS

PROJECT TITLE:

ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236

ENGINEER'S STAMP



Jeffrey W. Anselmy

BayWare
1101 National Drive, Suite B
Sacramento, CA 95834
CSL# 990593
JOB NUMBER: 210956

DATE	ISSUE	REVISIONS
A	29-AUG-23	FOR SUBMITTAL
B	20-OCT-23	UPDATED CITY COMMENTS
C	04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE: ARCH D
DRAWN BY: AK
CHECKED BY: JHA
APPROVED BY: JHA

SCALE: NTS

SHEET TITLE: ELECTRICAL DETAILS-2

SHEET #: E602

AC Gutter Sizing	
20% Fill of total area of conductors 366.22(A)	
Gutter Size (in inches)	6
Area Of Gutter (in sq. inches)	36
Total Area of conductors (in sq. inches)	5.14
Percentage Allowable fill	71%

A AC GUTTER CALCULATION
SCALE: NTS

210956_Armtec defense systems
Baywa R.E.

Available Fault Current Calculation

by John Sokolik Ver. 2016
jmp1jds@comcast.net

Utility Fault Current amperes kVA =
E =
trans. FLA =
I = $kVA \times 1000 = trans. FLA$
E x 1.732

$I_{sca} = \frac{trans. FLA \times 100 \times PF}{transformer Z}$ = PF =
Z =
 I_{sca} = ampere short-circuit current RMS symmetrical. $I_{sca} = 20,919$ amperes

Point to Point Method Length (distance) FEET L =
(ASC) $I_{sca} = 20,919$ Aluminum in Nonmetallic Raceway
'f' factor = $\frac{1.732 \times L \times I}{N \times C \times E \times L-N}$ # conductors per phase N =
Phase conductor constant C = Phase Conductor AWG
Volt Line to Line E L-L = Volt
Neutral conductor constant f =
Volt Line to Neutral C = Neutral Conductor AWG
E L-N = Volt
Multiplier f =
 $M = \frac{1}{1+f}$ Line to Line M =
Line to Neutral M =
Fault Current at Service Equipment
 $I_{sca} \times M$ = fault current at terminals of main disconnect L-L = amperes
 $I_{sca} \times M$ = fault current at terminals of main disconnect L-N = amperes

Fault Current from Aluminum in Nonmetallic Raceway
Three Phase

Three Phase Feeder Length (distance) L =
(ASC) $I_{sca} = 20,919$ Phase 20,919 Neutral
'f' factor = $\frac{1.732 \times L \times I}{N \times C \times E \times L-N}$ # conductors per phase N =
Phase conductor constant C = Phase Conductor 750 kcmil
Volt Line to Line E L-L = Volt
Neutral conductor constant f =
Volt Line to Neutral C = Neutral Conductor 400 kcmil
E L-N = Volt
Multiplier f =
 $M = \frac{1}{1+f}$ Line to Line M =
Line to Neutral M =
 $I_{sca} \times M$ = fault current at terminal of the panel L-L = amperes
 $I_{sca} \times M$ = fault current at terminal of the panel L-N = amperes
Calculation does not include motor contribution

Branch Circuit Fault from Aluminum in Nonmetallic Raceway
Three Phase

Three Phase Branch Length (distance) L =
(ASC) $I_{sca} = 20,752$ Phase 20,598 Neutral
'f' factor = $\frac{1.732 \times L \times I}{N \times C \times E \times L-N}$ # conductors per phase N =
Phase conductor constant C = Phase Conductor 500 kcmil
Volt Line to Line E L-L = Volt
Neutral conductor constant f =
Volt Line to Neutral C = Neutral Conductor 500 kcmil
E L-N = Volt
Multiplier f =
 $M = \frac{1}{1+f}$ Line to Line M =
Line to Neutral M =
 $I_{sca} \times M$ = fault current at terminal of the panel L-L = amperes
 $I_{sca} \times M$ = fault current at terminal of the panel L-N = amperes
Calculation does not include motor contribution

B FAULT CURRENT CALCULATION-2
SCALE: NTS

210956_Armtec defense systems
Baywa R.E.

Available Fault Current Calculation

by John Sokolik Ver. 2016
jmp1jds@comcast.net

Utility Fault Current amperes kVA =
E =
trans. FLA =
I = $kVA \times 1000 = trans. FLA$
E x 1.732

$I_{sca} = \frac{trans. FLA \times 100 \times PF}{transformer Z}$ = PF =
Z =
 I_{sca} = ampere short-circuit current RMS symmetrical. $I_{sca} = 20,919$ amperes

Point to Point Method Length (distance) FEET L =
(ASC) $I_{sca} = 20,919$ Aluminum in Nonmetallic Raceway
'f' factor = $\frac{1.732 \times L \times I}{N \times C \times E \times L-N}$ # conductors per phase N =
Phase conductor constant C = Phase Conductor AWG
Volt Line to Line E L-L = Volt
Neutral conductor constant f =
Volt Line to Neutral C = Neutral Conductor AWG
E L-N = Volt
Multiplier f =
 $M = \frac{1}{1+f}$ Line to Line M =
Line to Neutral M =
Fault Current at Service Equipment
 $I_{sca} \times M$ = fault current at terminals of main disconnect L-L = amperes
 $I_{sca} \times M$ = fault current at terminals of main disconnect L-N = amperes

Fault Current from Aluminum in Nonmetallic Raceway
Three Phase

Three Phase Feeder Length (distance) L =
(ASC) $I_{sca} = 20,919$ Phase 20,919 Neutral
'f' factor = $\frac{1.732 \times L \times I}{N \times C \times E \times L-N}$ # conductors per phase N =
Phase conductor constant C = Phase Conductor 750 kcmil
Volt Line to Line E L-L = Volt
Neutral conductor constant f =
Volt Line to Neutral C = Neutral Conductor 400 kcmil
E L-N = Volt
Multiplier f =
 $M = \frac{1}{1+f}$ Line to Line M =
Line to Neutral M =
 $I_{sca} \times M$ = fault current at terminal of the panel L-L = amperes
 $I_{sca} \times M$ = fault current at terminal of the panel L-N = amperes
Calculation does not include motor contribution

Branch Circuit Fault from Aluminum in Nonmetallic Raceway
Three Phase

Three Phase Branch Length (distance) L =
(ASC) $I_{sca} = 20,752$ Phase 20,598 Neutral
'f' factor = $\frac{1.732 \times L \times I}{N \times C \times E \times L-N}$ # conductors per phase N =
Phase conductor constant C = Phase Conductor 500 kcmil
Volt Line to Line E L-L = Volt
Neutral conductor constant f =
Volt Line to Neutral C = Neutral Conductor 4/0
E L-N = Volt
Multiplier f =
 $M = \frac{1}{1+f}$ Line to Line M =
Line to Neutral M =
 $I_{sca} \times M$ = fault current at terminal of the panel L-L = amperes
 $I_{sca} \times M$ = fault current at terminal of the panel L-N = amperes
Calculation does not include motor contribution

C FAULT CURRENT CALCULATION-3
SCALE: NTS

PROJECT TITLE:

ARMTEC DEFENSE
PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236

ENGINEER'S STAMP



Jeffrey W. Anstey

BayWa re.
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 210956

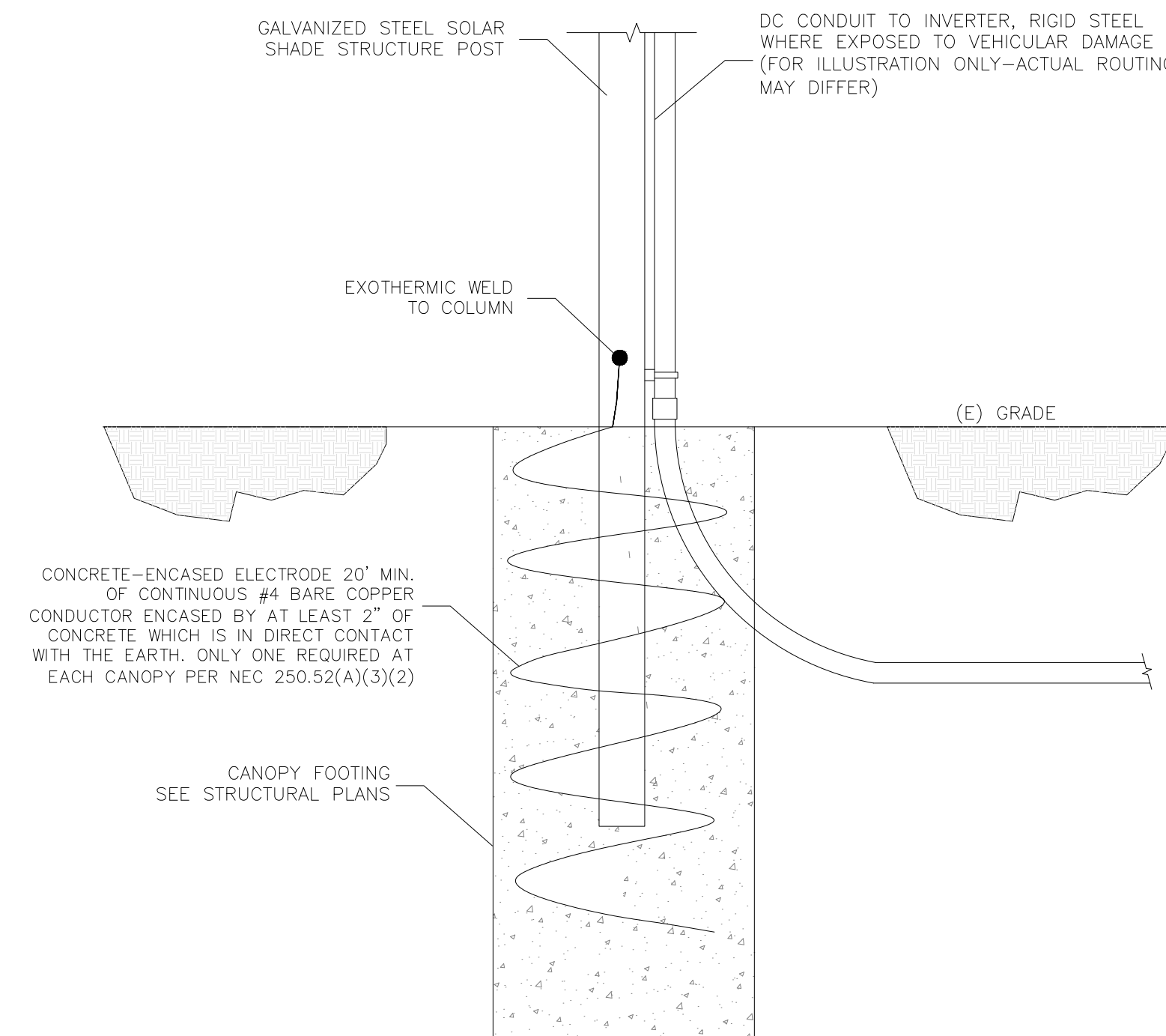
#	DATE	ISSUE
A	29-AUG-23	FOR SUBMITTAL
B	20-OCT-23	UPDATED CITY COMMENTS
C	04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE: ARCH D
DRAWN BY: AK
CHECKED BY: JHA
APPROVED BY: JHA

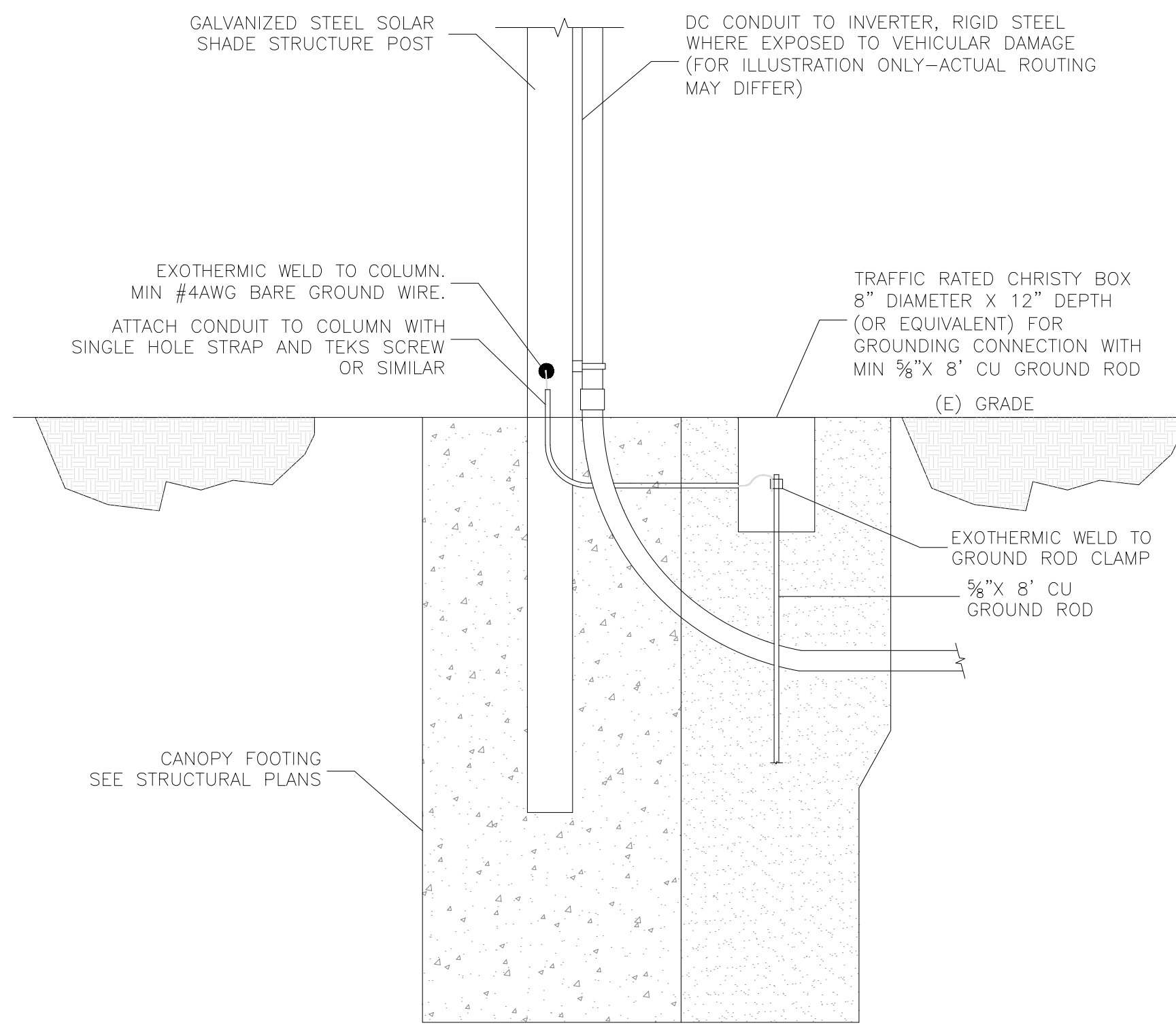
SCALE:
NTS

SHEET TITLE:
ELECTRICAL
DETAILS-3

SHEET #:
E603

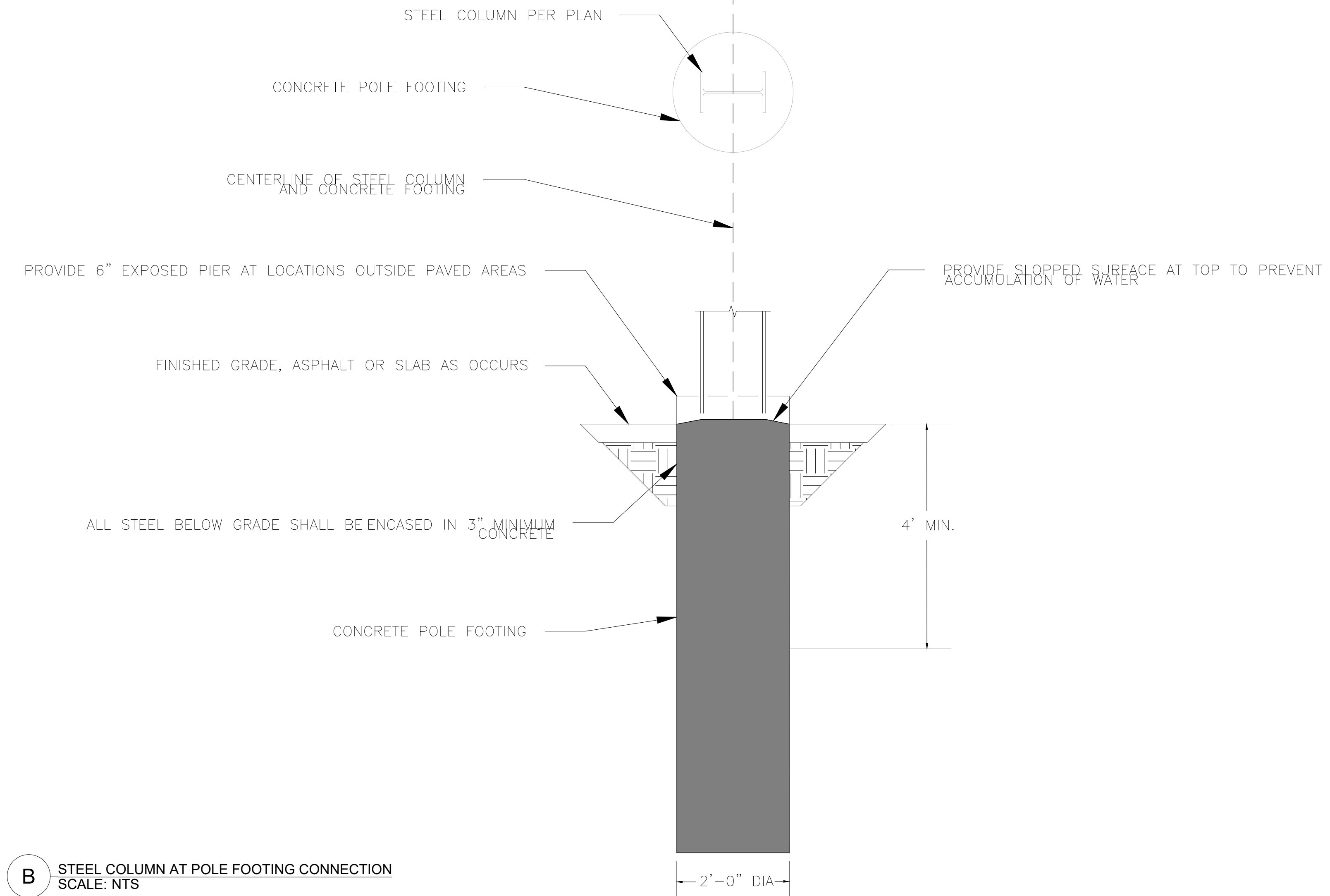


OR

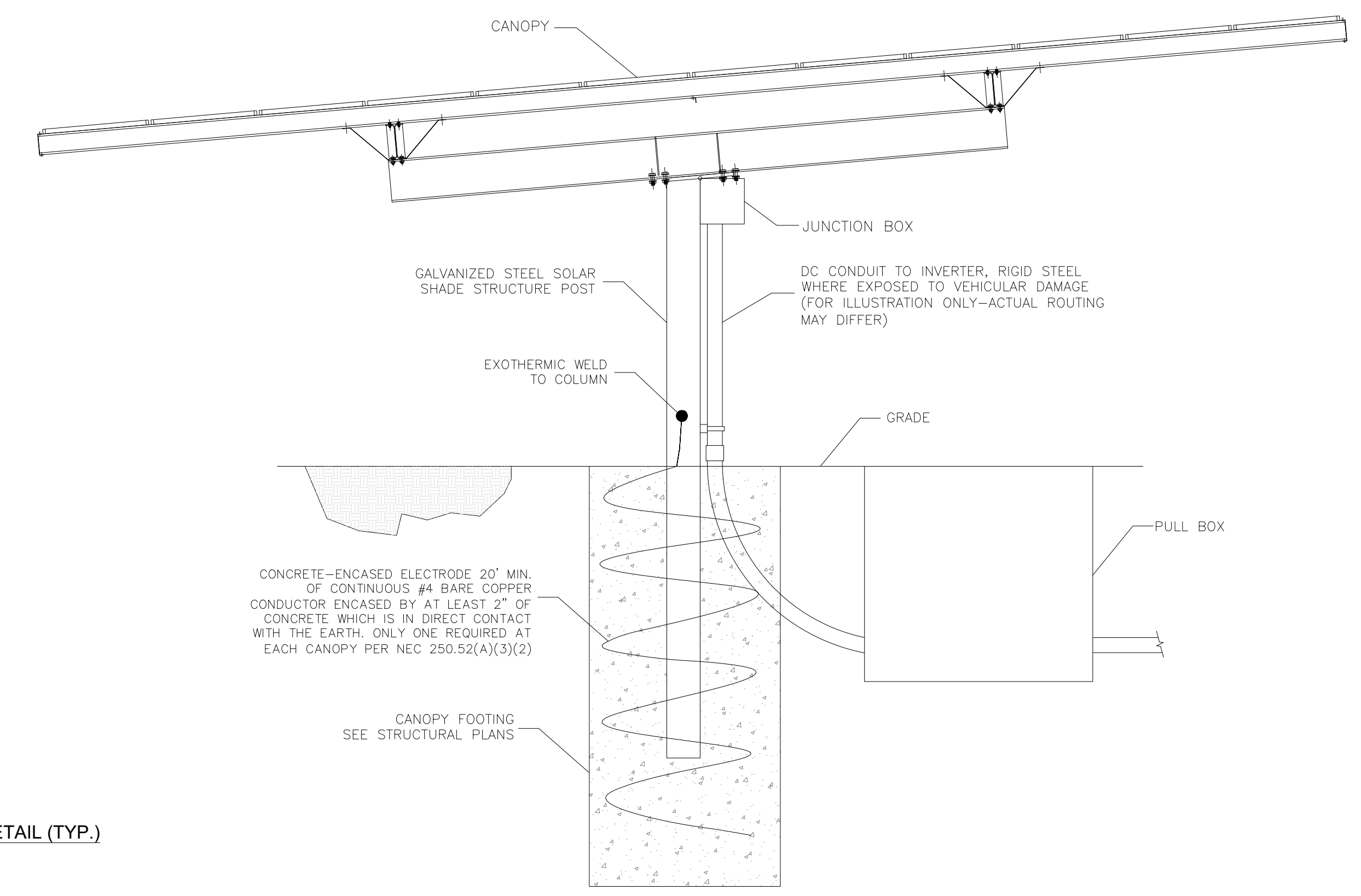


A CANOPY COLUMN GROUNDING DETAIL
SCALE: NTS

NOTE:
1. AT CONTRACTORS OPTIONS, EXTEND STEEL COLUMN TO BOTTOM OF FOOTING IN LIEU OF THE WELDED REBAR.

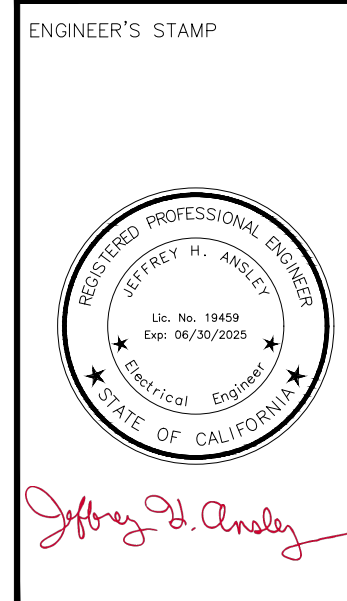


B STEEL COLUMN AT POLE FOOTING CONNECTION
SCALE: NTS



C CONDUIT TRANSITION DETAIL (TYP.)
SCALE: NTS

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236



BayWare
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 210956

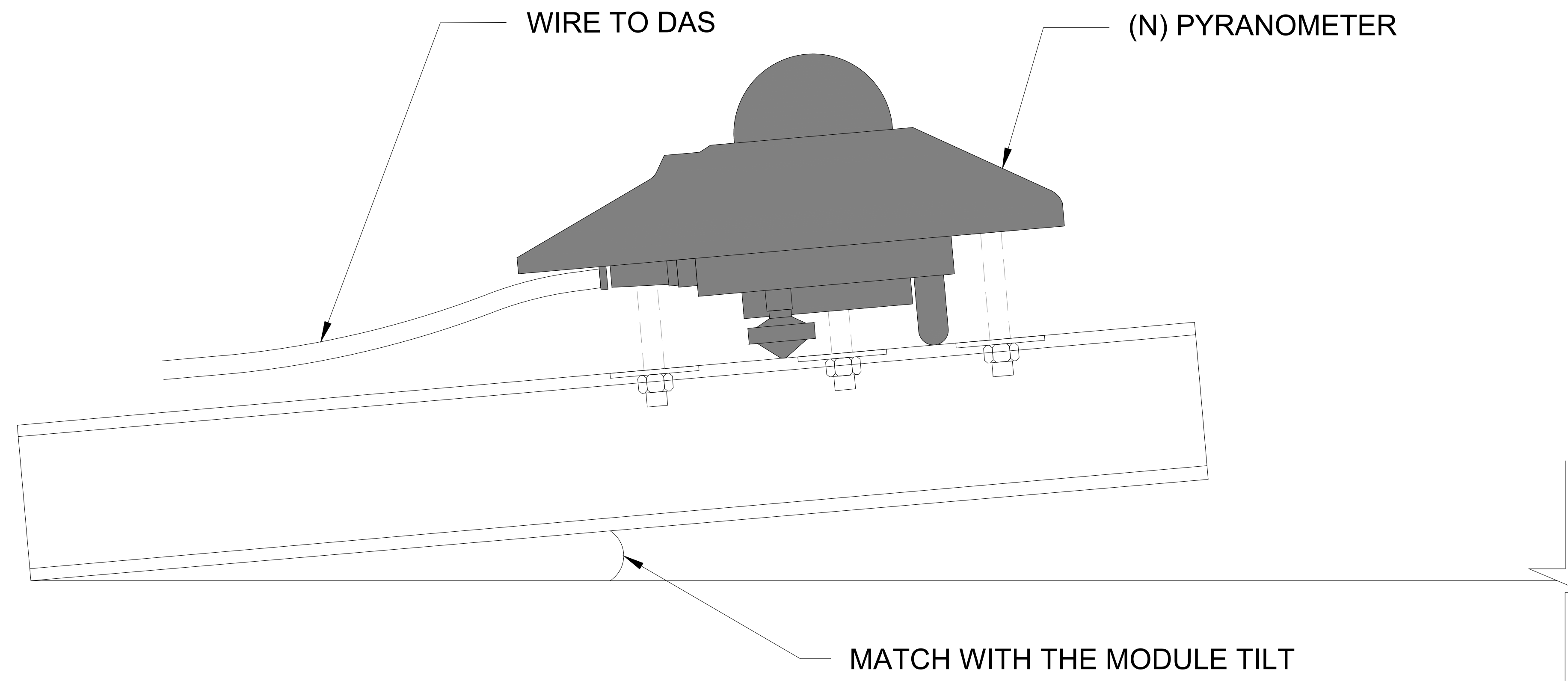
DATE	ISSUE	REVISIONS
29-AUG-23	FOR SUBMITTAL	
20-OCT-23	UPDATED CITY COMMENTS	
04-JAN-24	FOR RE-SUBMITTAL	

PAPER SIZE:	ARCH D
DRAWN BY:	AK
CHECKED BY:	JHA
APPROVED BY:	JHA

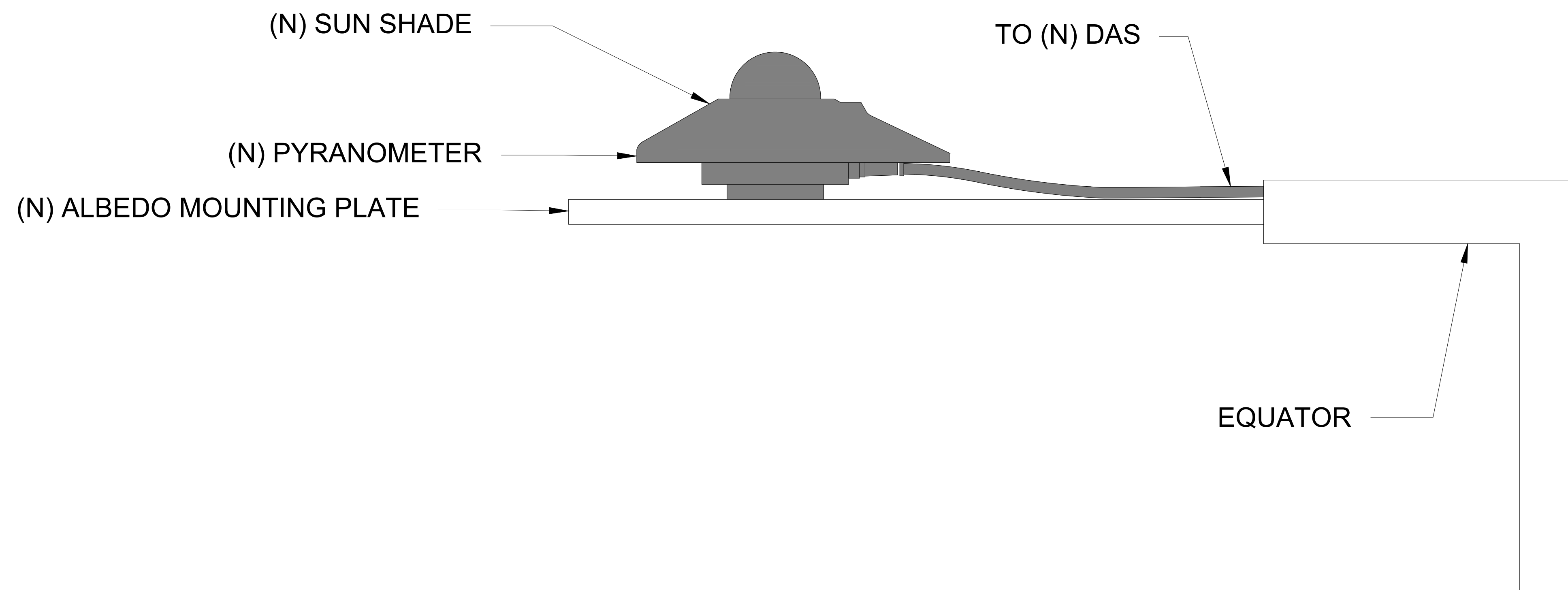
SCALE:
NTS

SHEET TITLE:
ELECTRICAL DETAILS-4

SHEET #:
E604



A PYRANOMETER (POA) MOUNTING DETAIL
SCALE: NTS

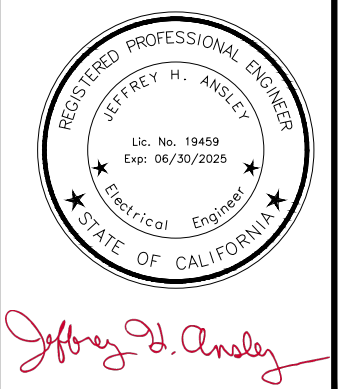


B PYRANOMETER (GHI) MOUNTING DETAIL
SCALE: NTS

PROJECT TITLE:

ARMTEC DEFENSE
PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236

ENGINEER'S STAMP



BayWare re.
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 210956

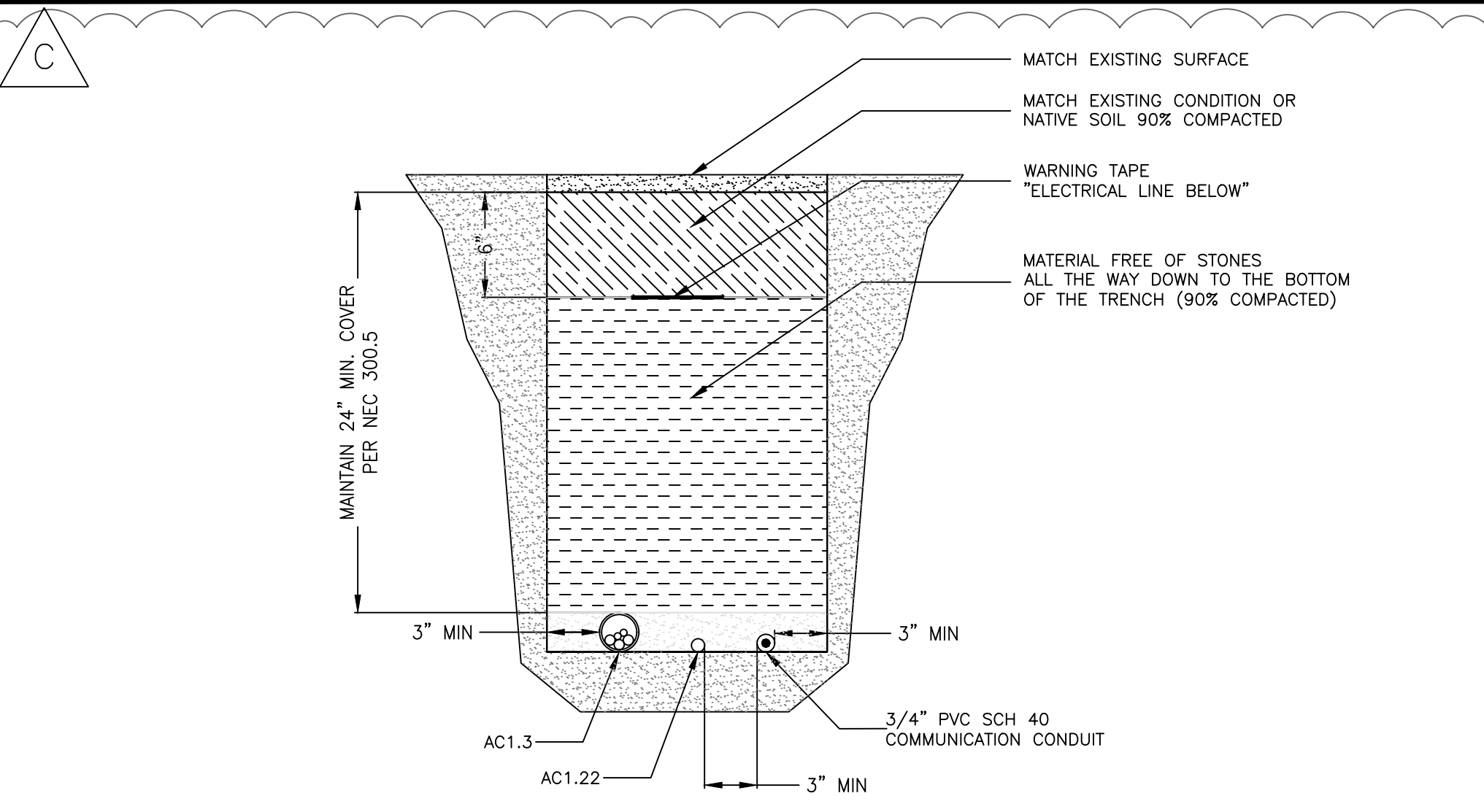
REVISIONS	
#	DATE
A	29-AUG-23 FOR SUBMITTAL
B	20-OCT-23 UPDATED CITY COMMENTS
C	04-JAN-24 FOR RE-SUBMITTAL

PAPER SIZE:	ARCH D
DRAWN BY:	AK
CHECKED BY:	JHA
APPROVED BY:	JHA

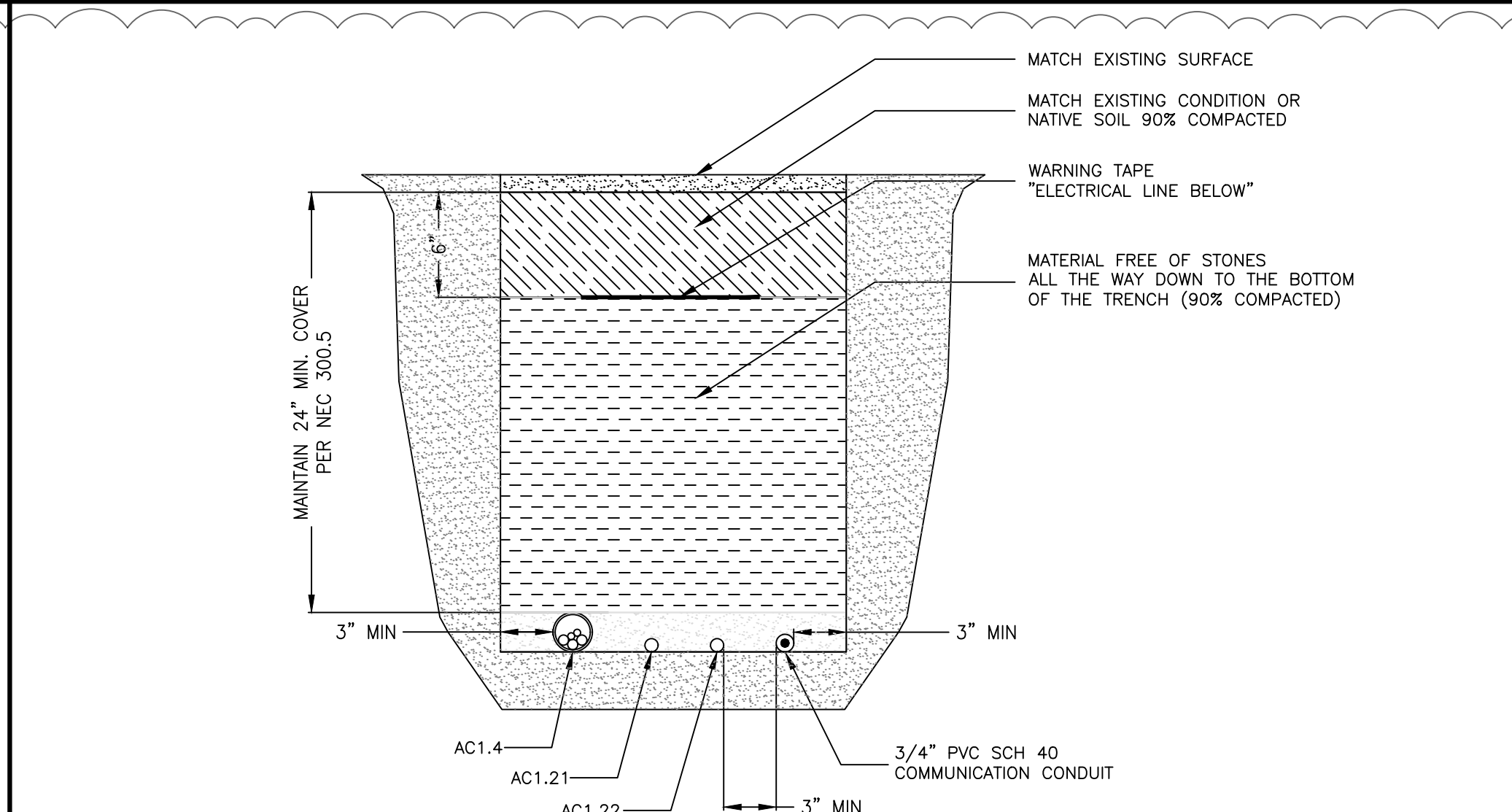
SCALE:
NTS

SHEET TITLE:
ELECTRICAL
DETAILS-5

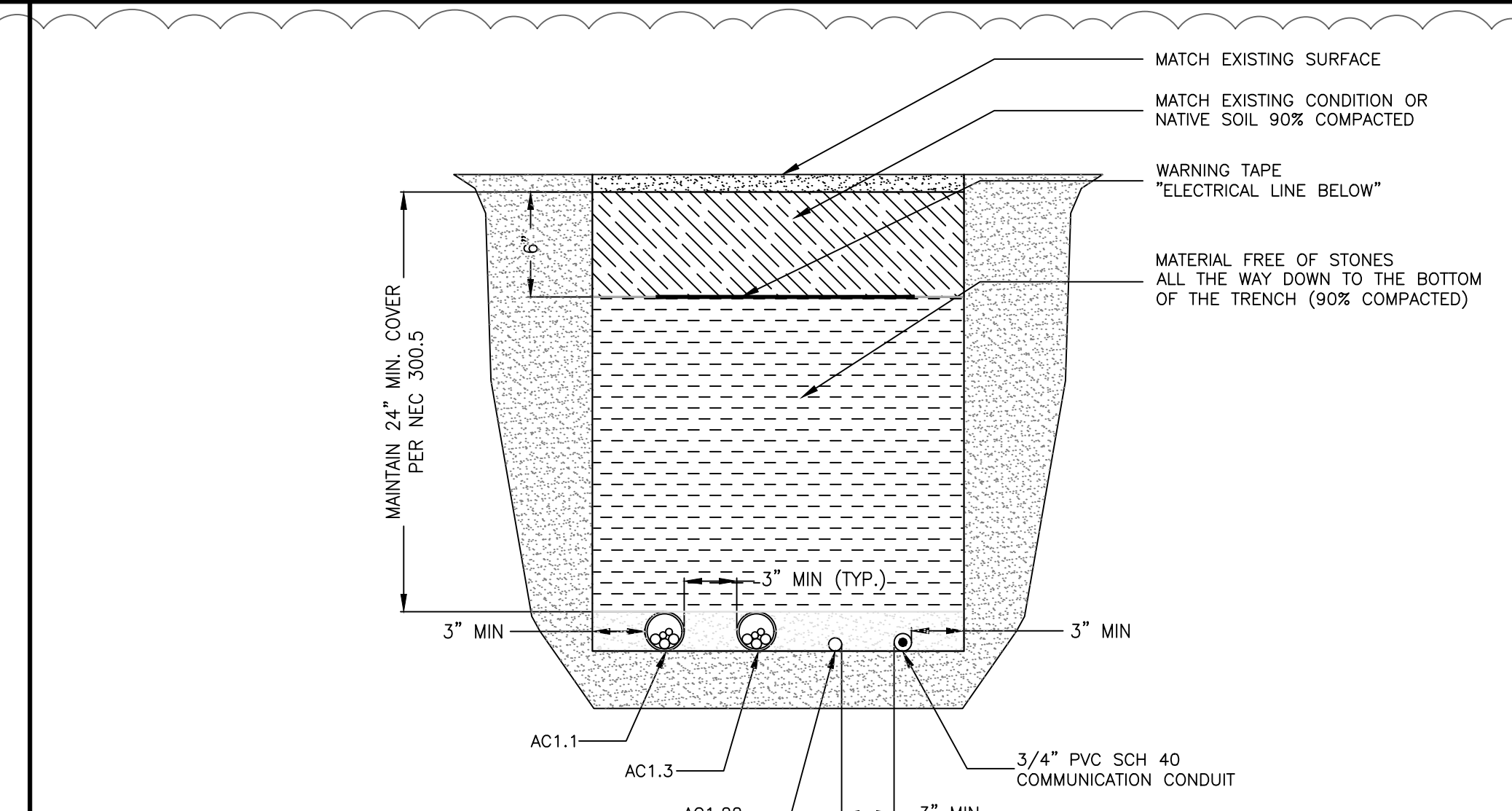
SHEET #:
E605



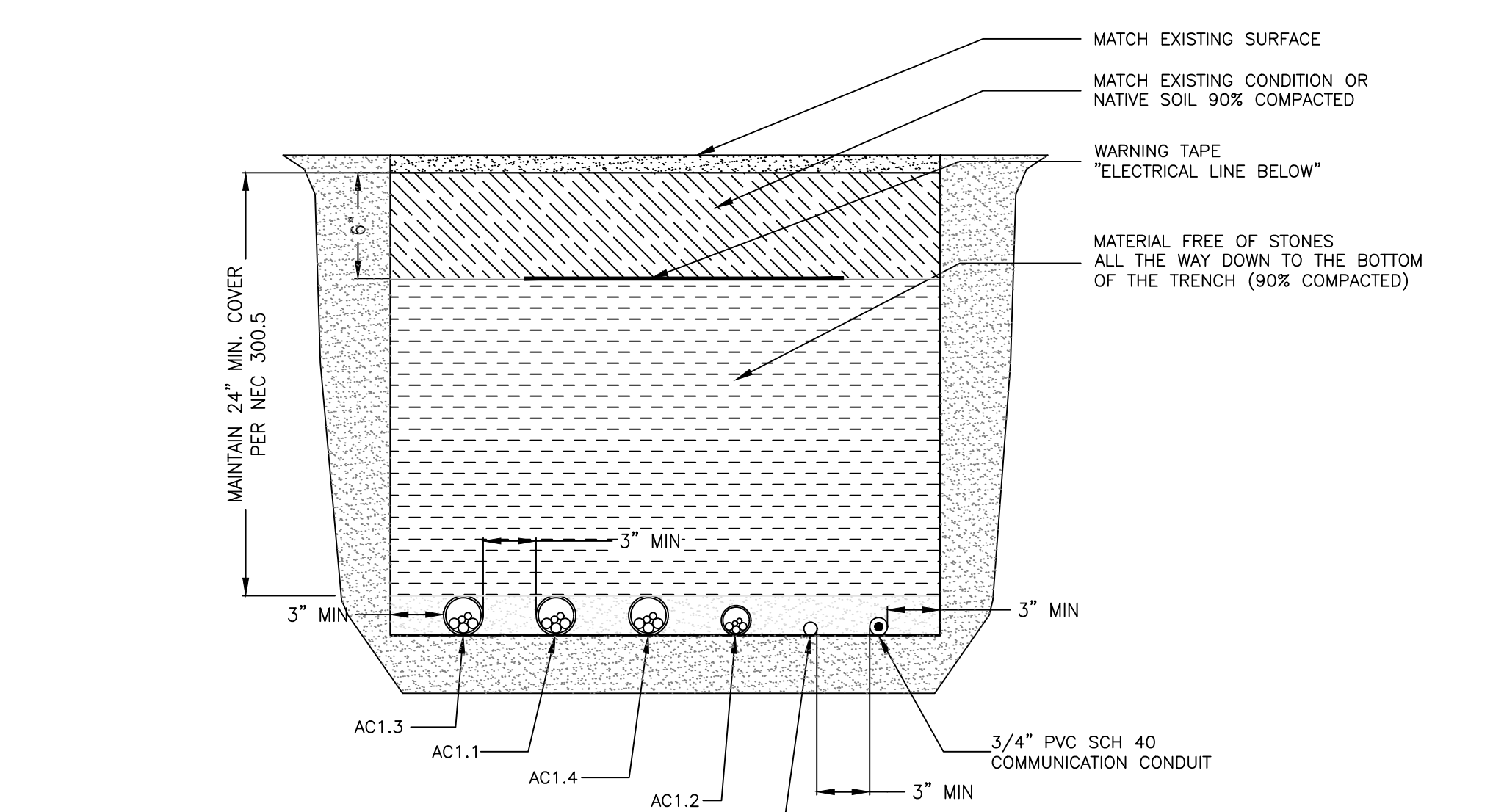
A TRENCH DETAILS-TR-1
SCALE: 1-1/2"=1'-0"



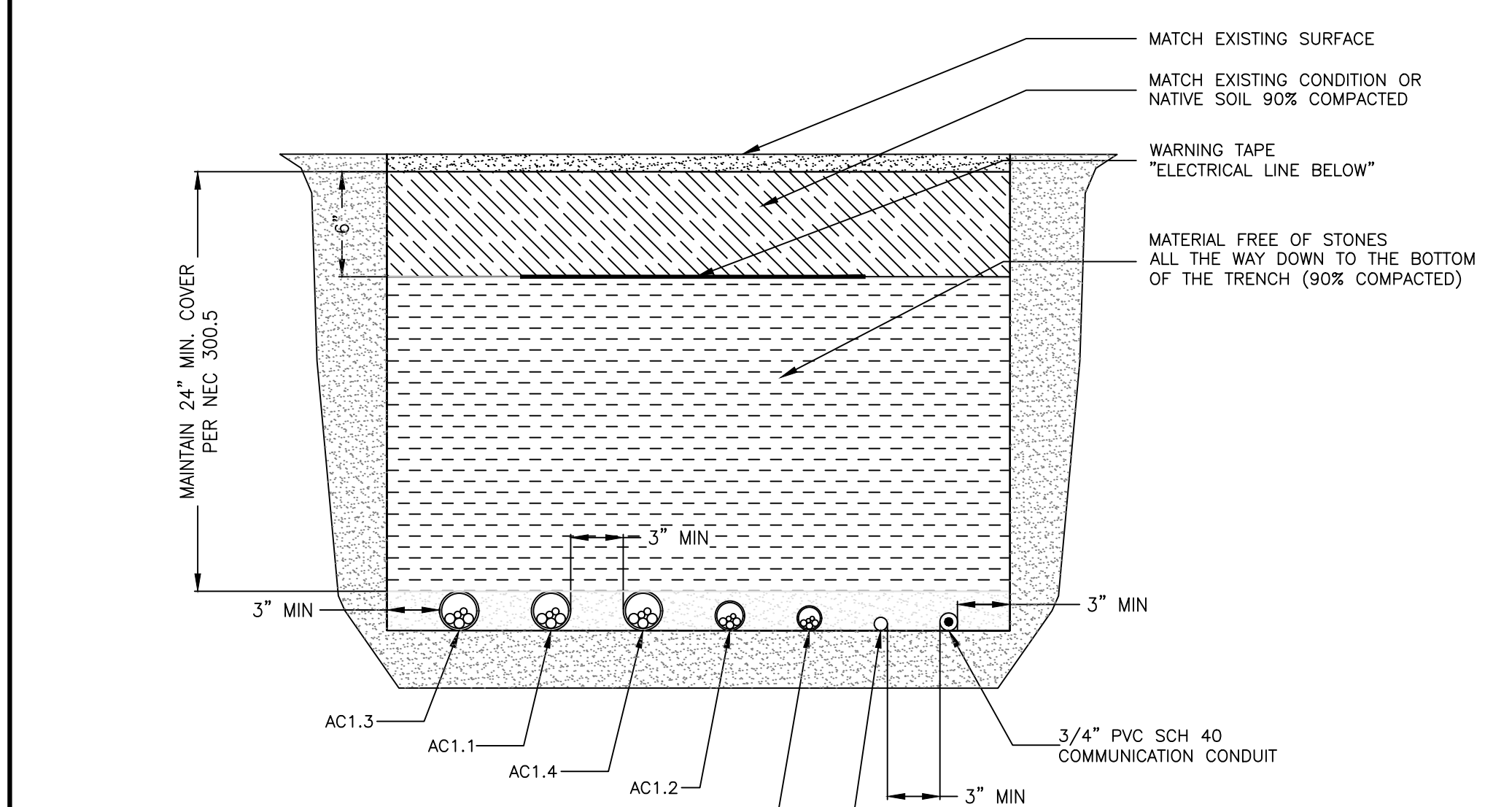
B TRENCH DETAILS-TR-2
SCALE: 1-1/2"=1'-0"



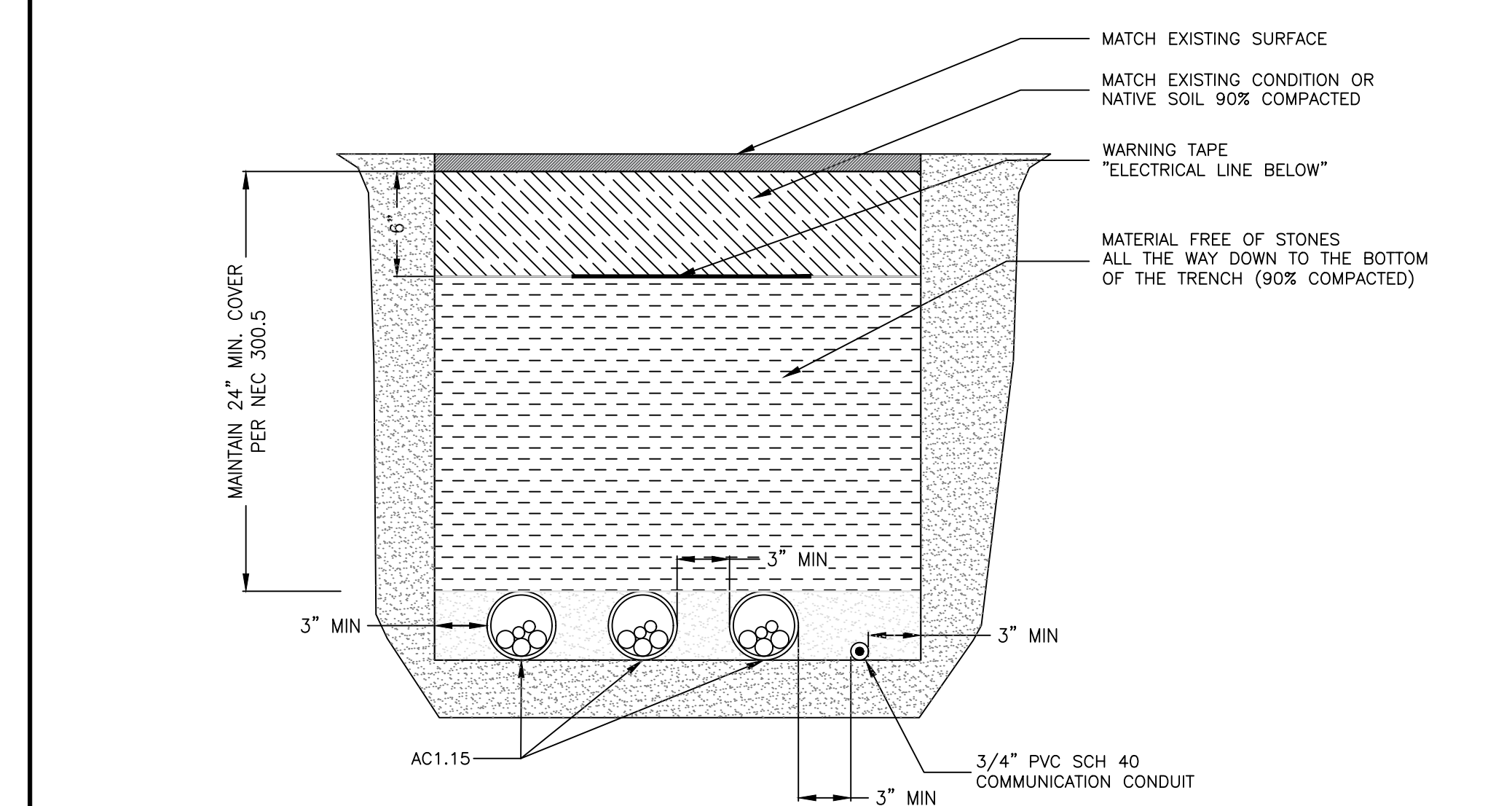
C TRENCH DETAILS-TR-3
SCALE: 1-1/2"=1'-0"



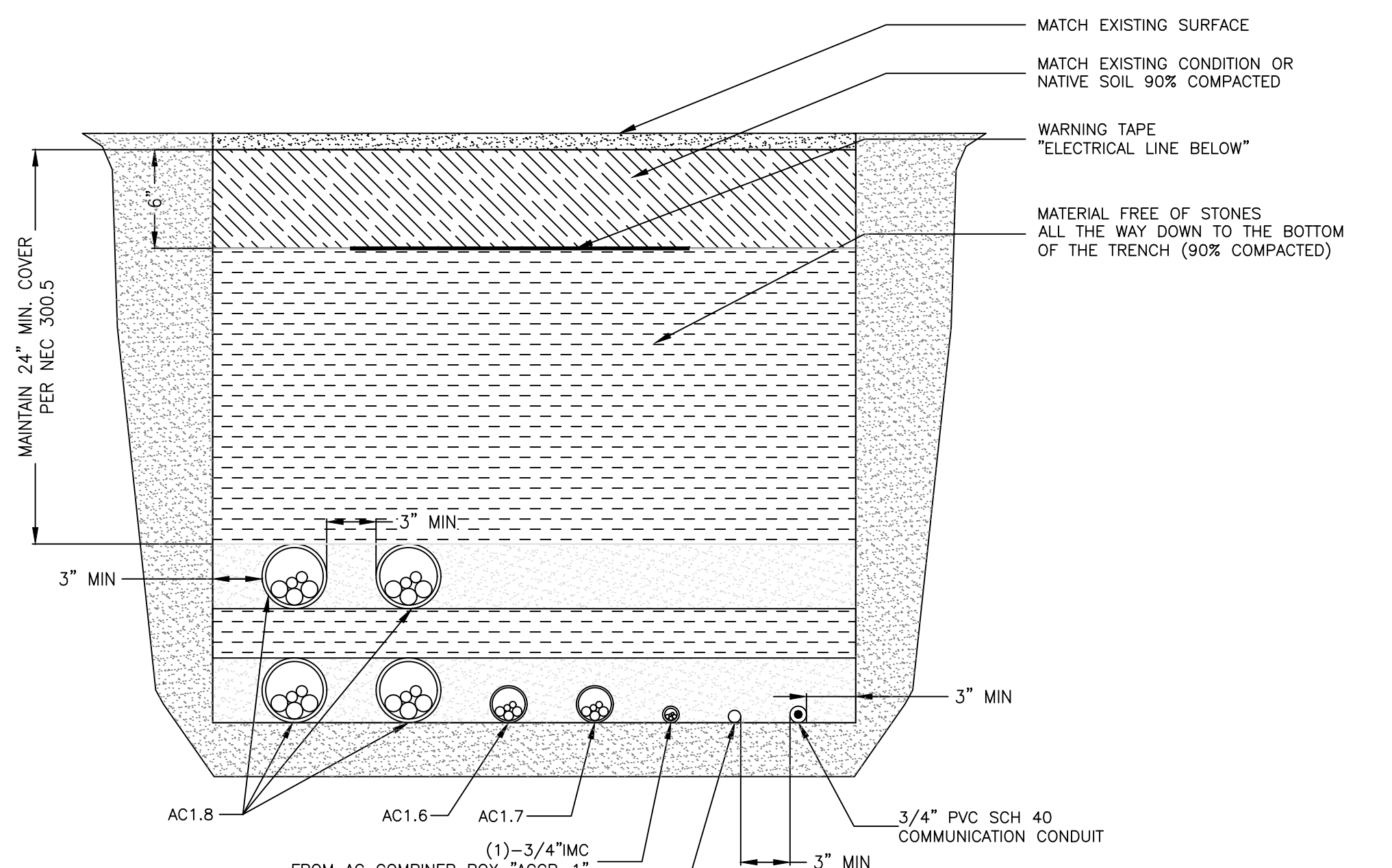
D TRENCH DETAILS-TR-4
SCALE: 1-1/2"=1'-0"



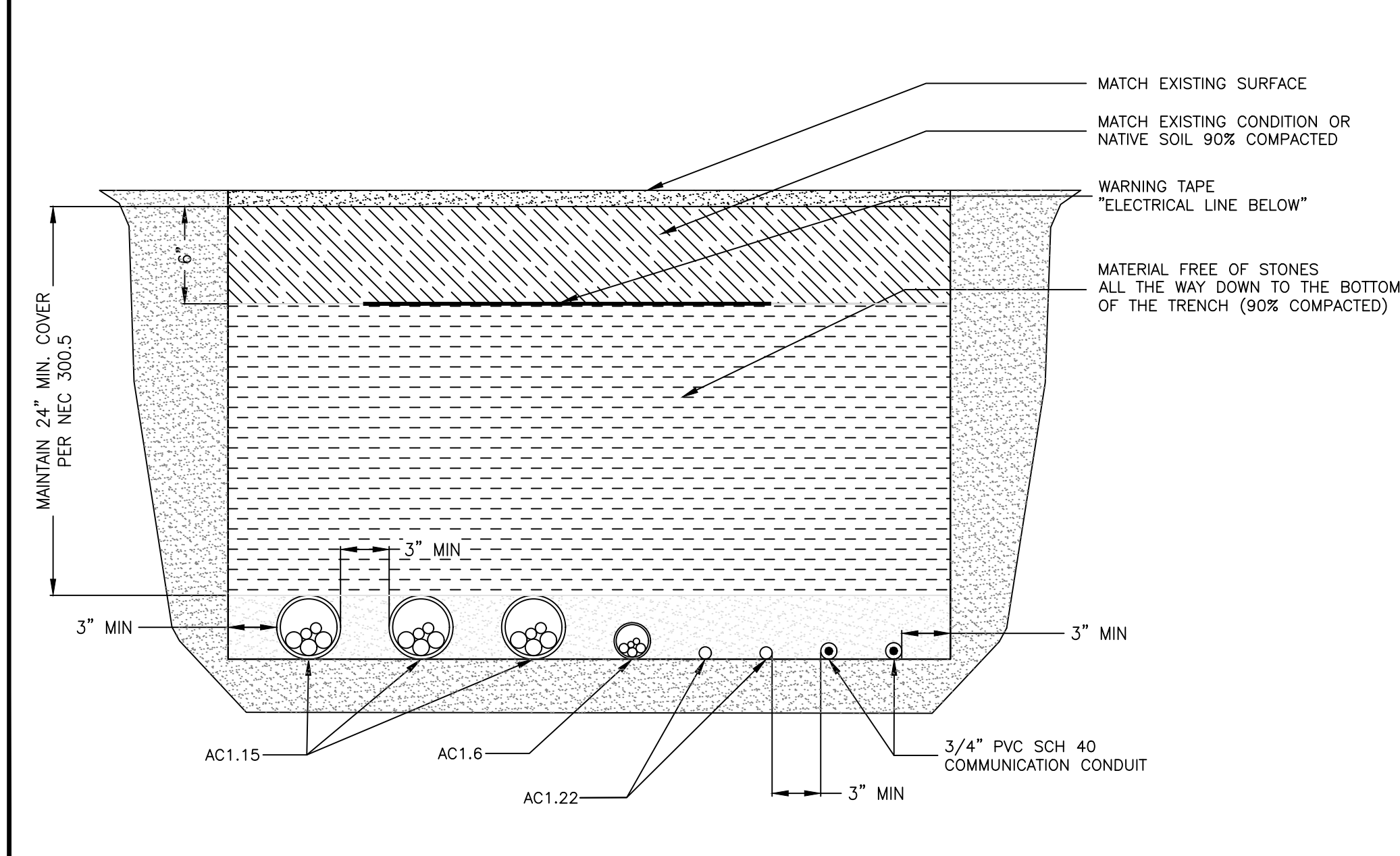
E TRENCH DETAILS-TR-5
SCALE: 1-1/2"=1'-0"



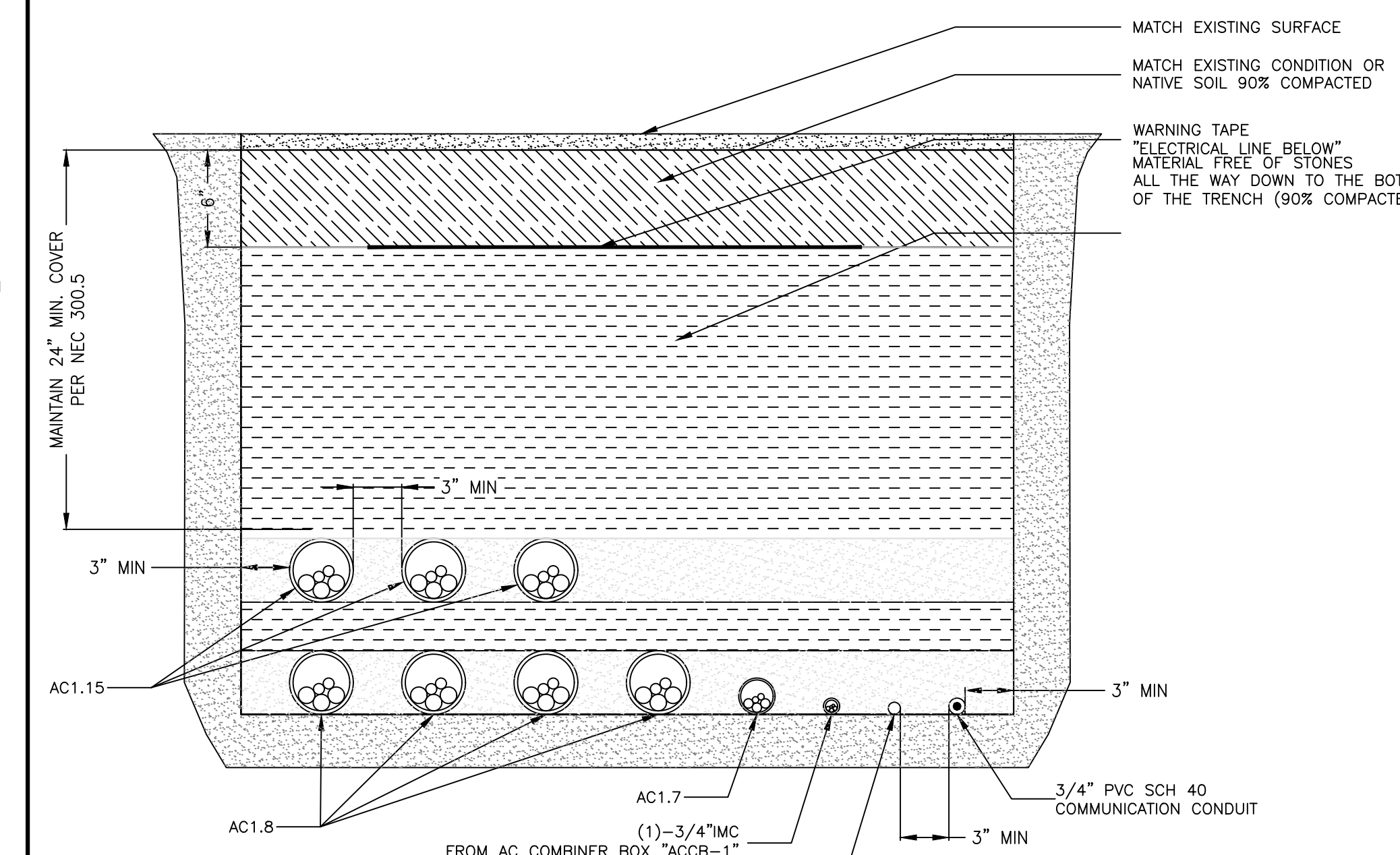
F TRENCH DETAILS-TR-6
SCALE: 1-1/2"=1'-0"



G TRENCH DETAILS-TR-7
SCALE: 1-1/2"=1'-0"

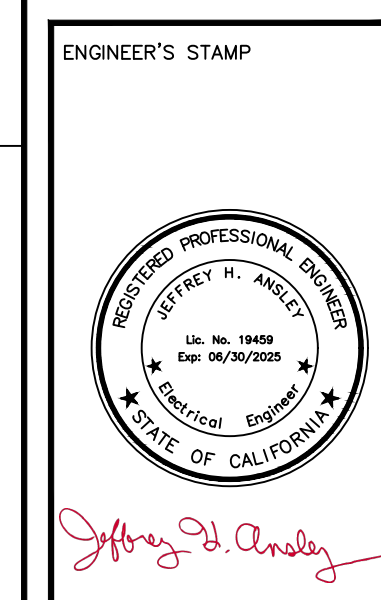


H TRENCH DETAILS-TR-8
SCALE: 1-1/2"=1'-0"



I TRENCH DETAILS-TR-9
SCALE: 1-1/2"=1'-0"

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236



BayWare
1101 National Drive, Suite B
Sacramento, CA 95834
CSL# 990593
JOB NUMBER: 210956

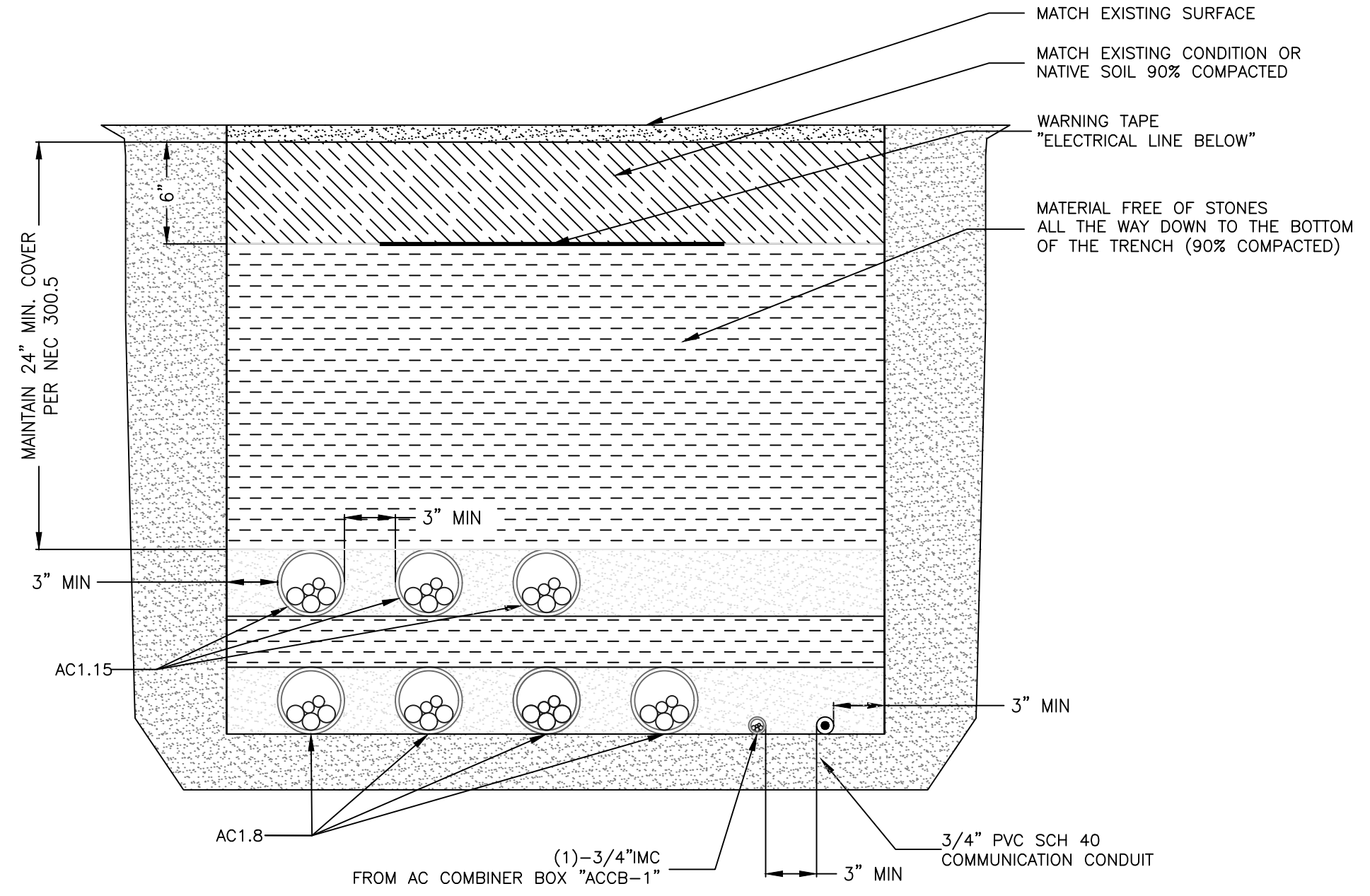
DATE	ISSUE
A 29-AUG-23	FOR SUBMITTAL
B 20-OCT-23	UPDATED CITY COMMENTS
C 04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE: ARCH D
DRAWN BY: AK
CHECKED BY: JHA
APPROVED BY: JHA

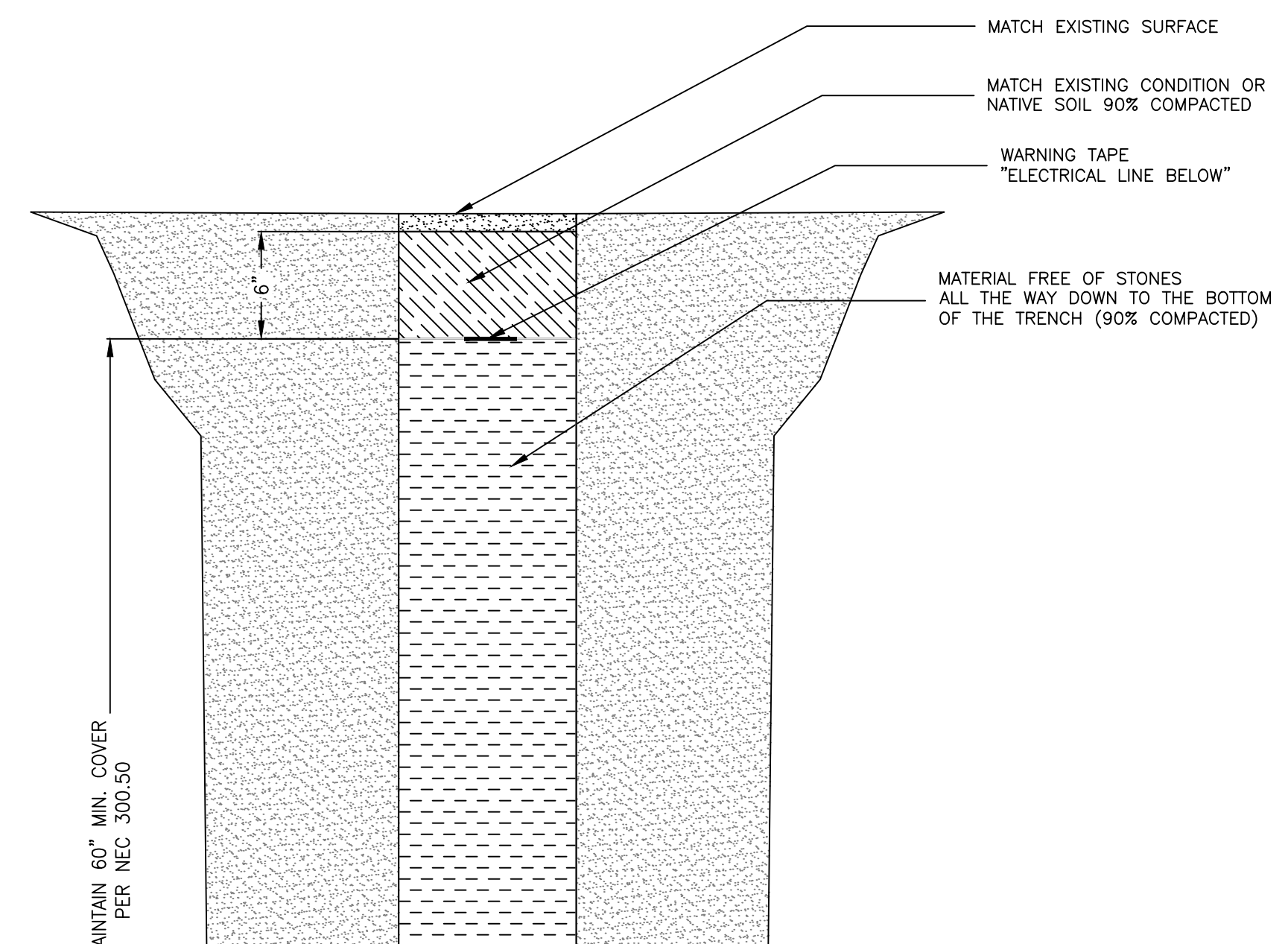
SCALE:
1-1/2"=1'-0"

SHEET TITLE:
TRENCH DETAILS-1

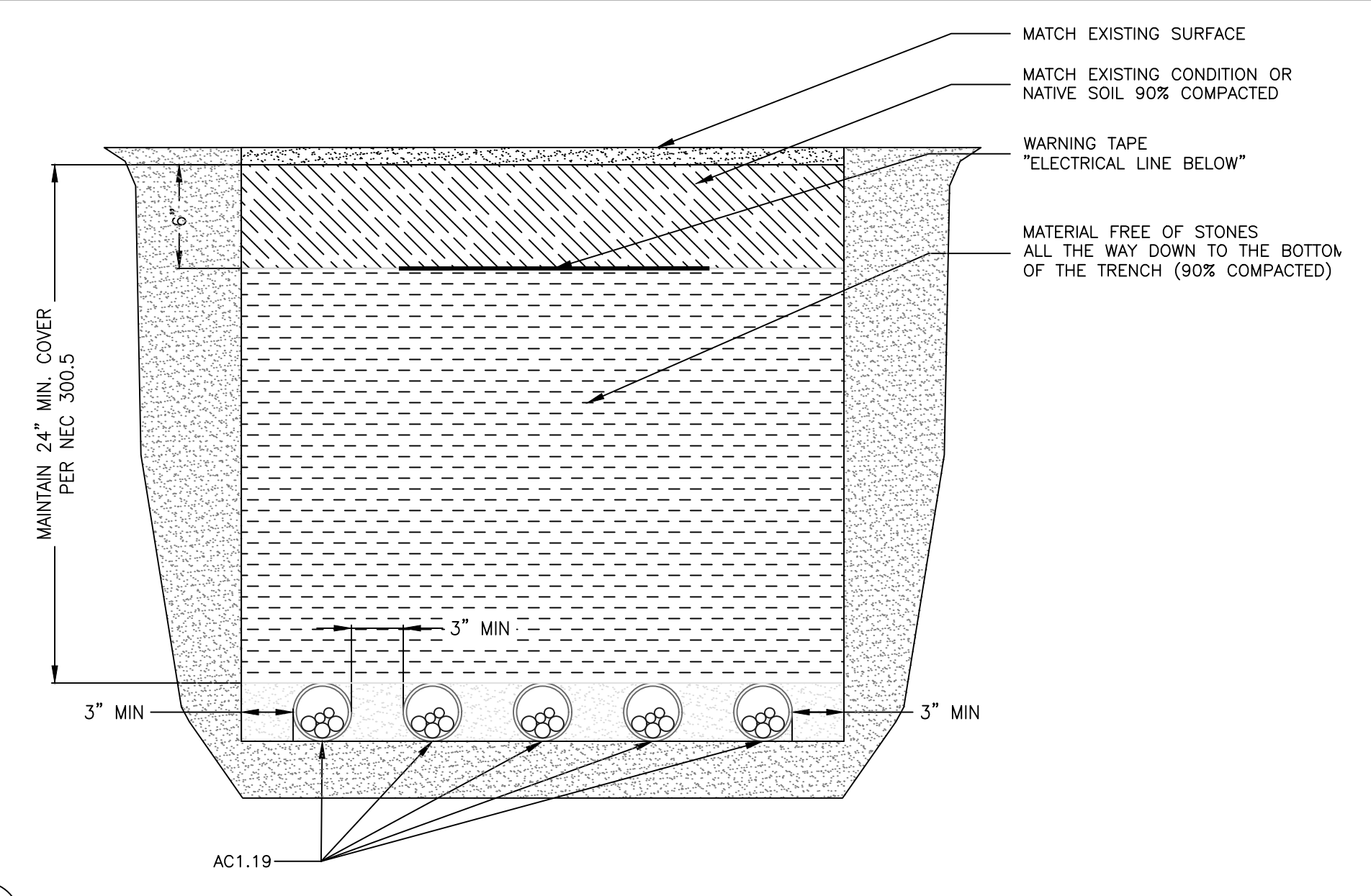
SHEET #:
E606



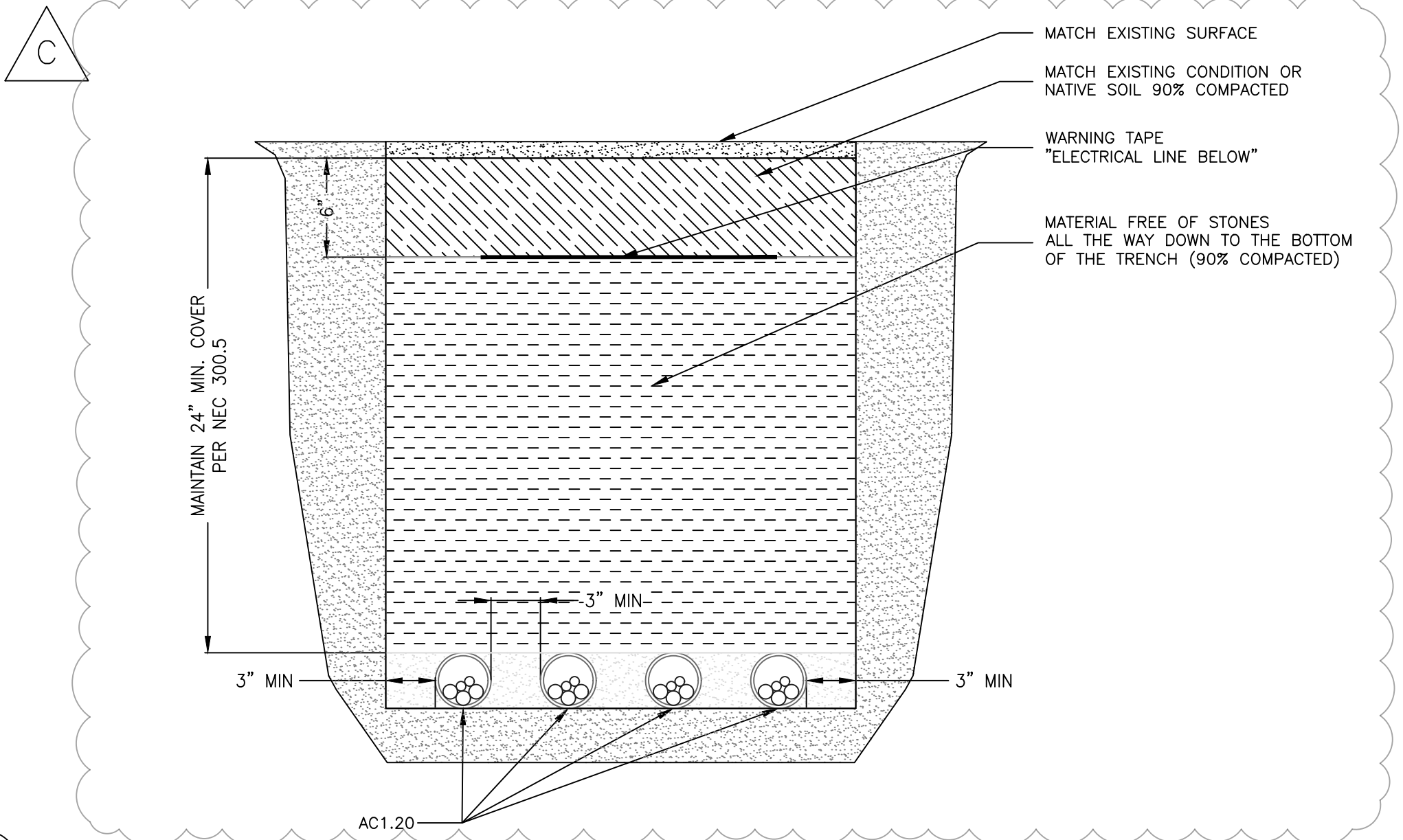
A TRENCH DETAILS-TR-10
 SCALE: 1-1/2"=1'-0"



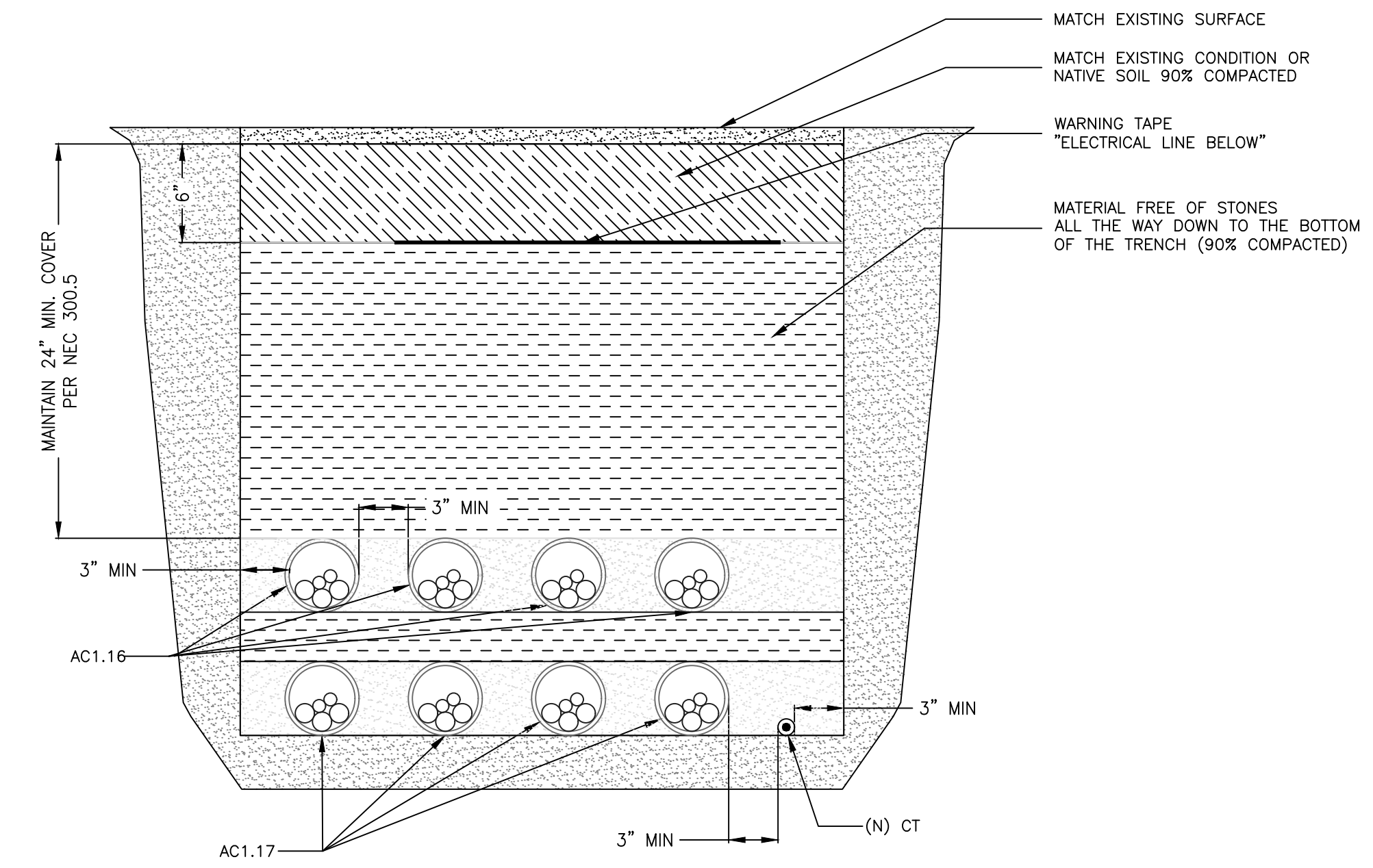
C TRENCH DETAILS-TR-12
 SCALE: 1-1/2"=1'-0"



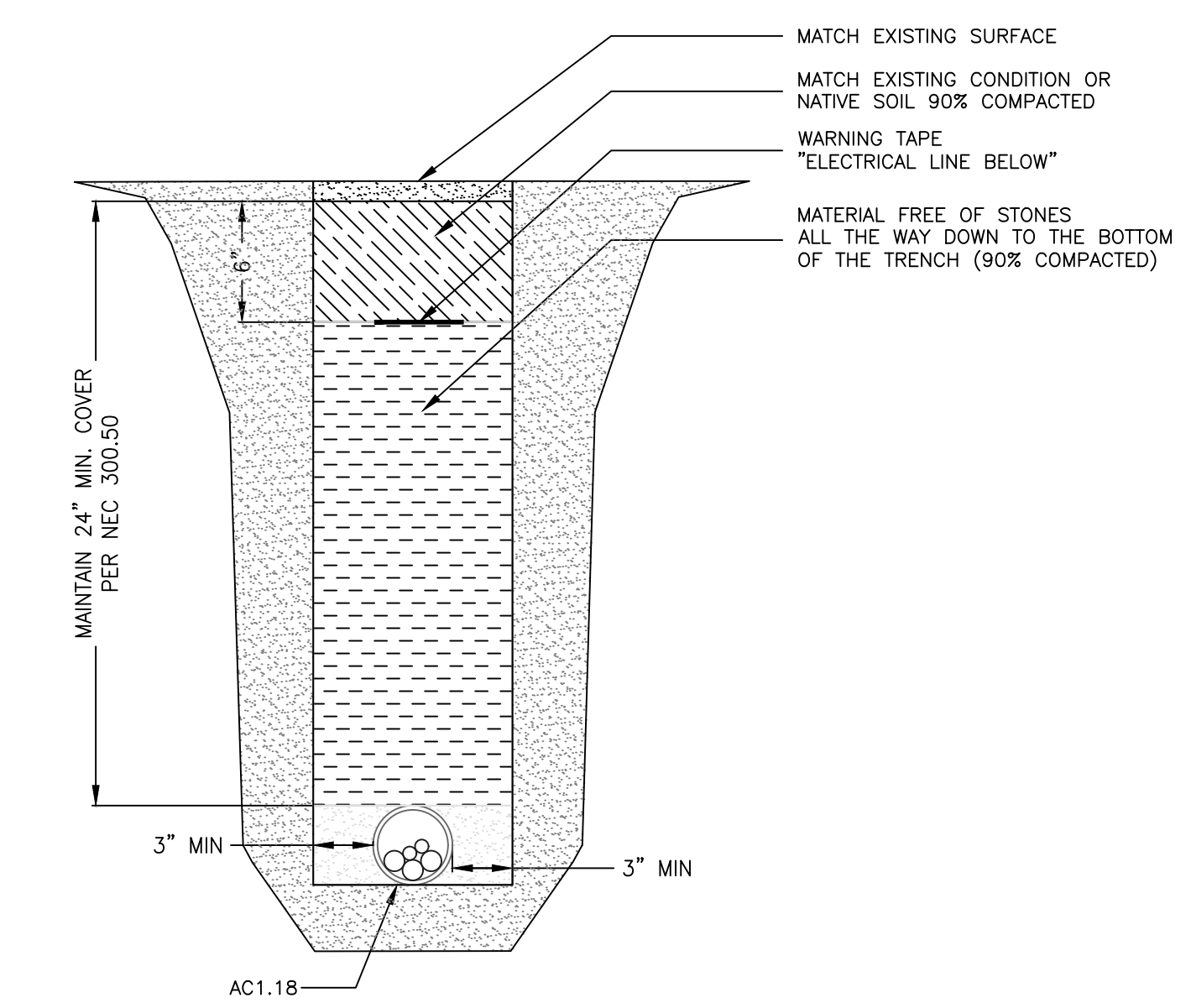
E TRENCH DETAILS-TR-14
 SCALE: 1-1/2"=1'-0"



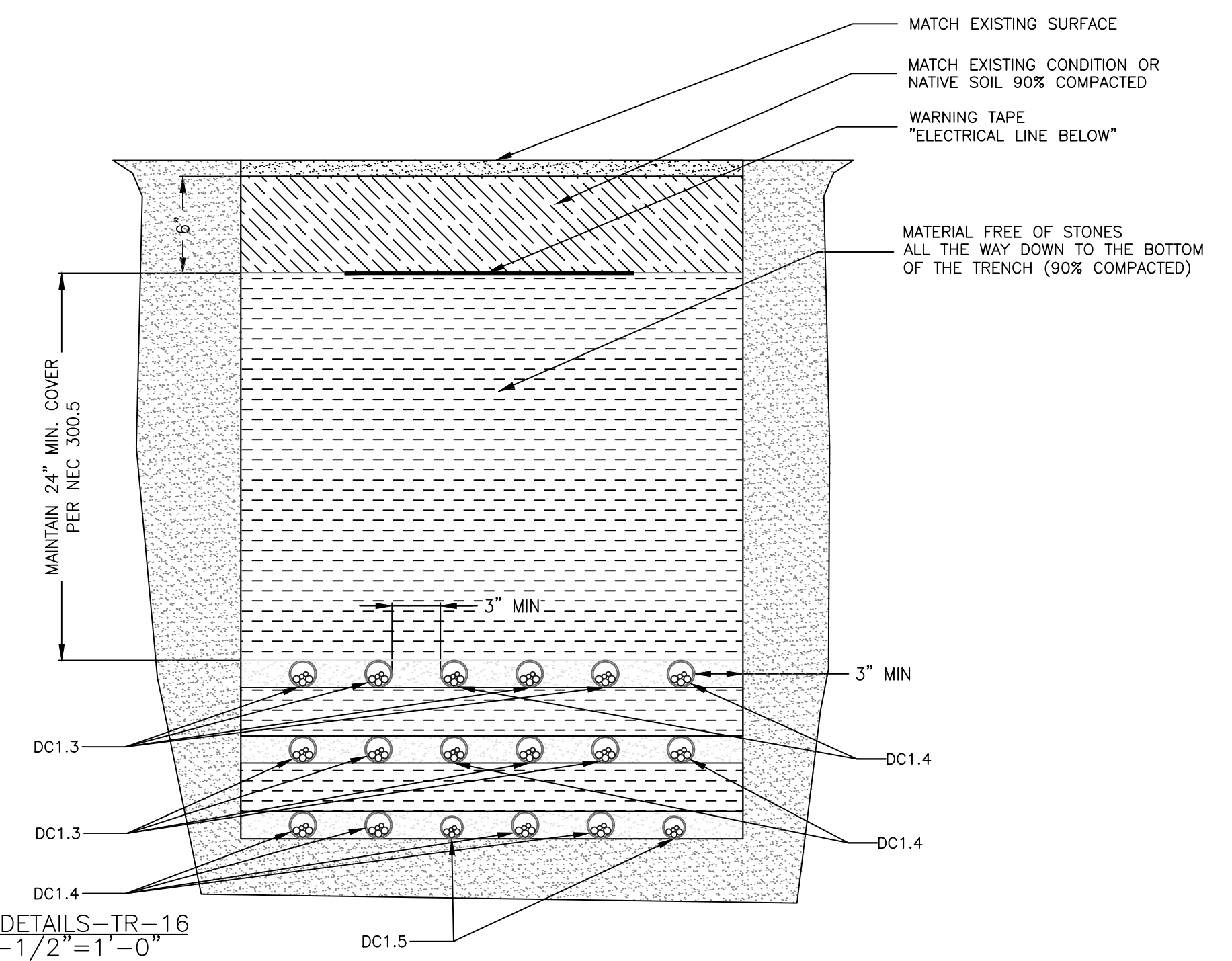
F TRENCH DETAILS-TR-15
 SCALE: 1-1/2"=1'-0"



B TRENCH DETAILS-TR-11
 SCALE: 1-1/2"=1'-0"



D TRENCH DETAILS-TR-13
 SCALE: 1-1/2"=1'-0"



G TRENCH DETAILS-TR-16
 SCALE: 1-1/2"=1'-0"

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
 85901 AVENUE 53
 COACHELLA, CA 92236



BayWare
 1101 National Drive, Suite B
 Sacramento, CA 95834
 CSLB# 990593
 JOB NUMBER: 210956

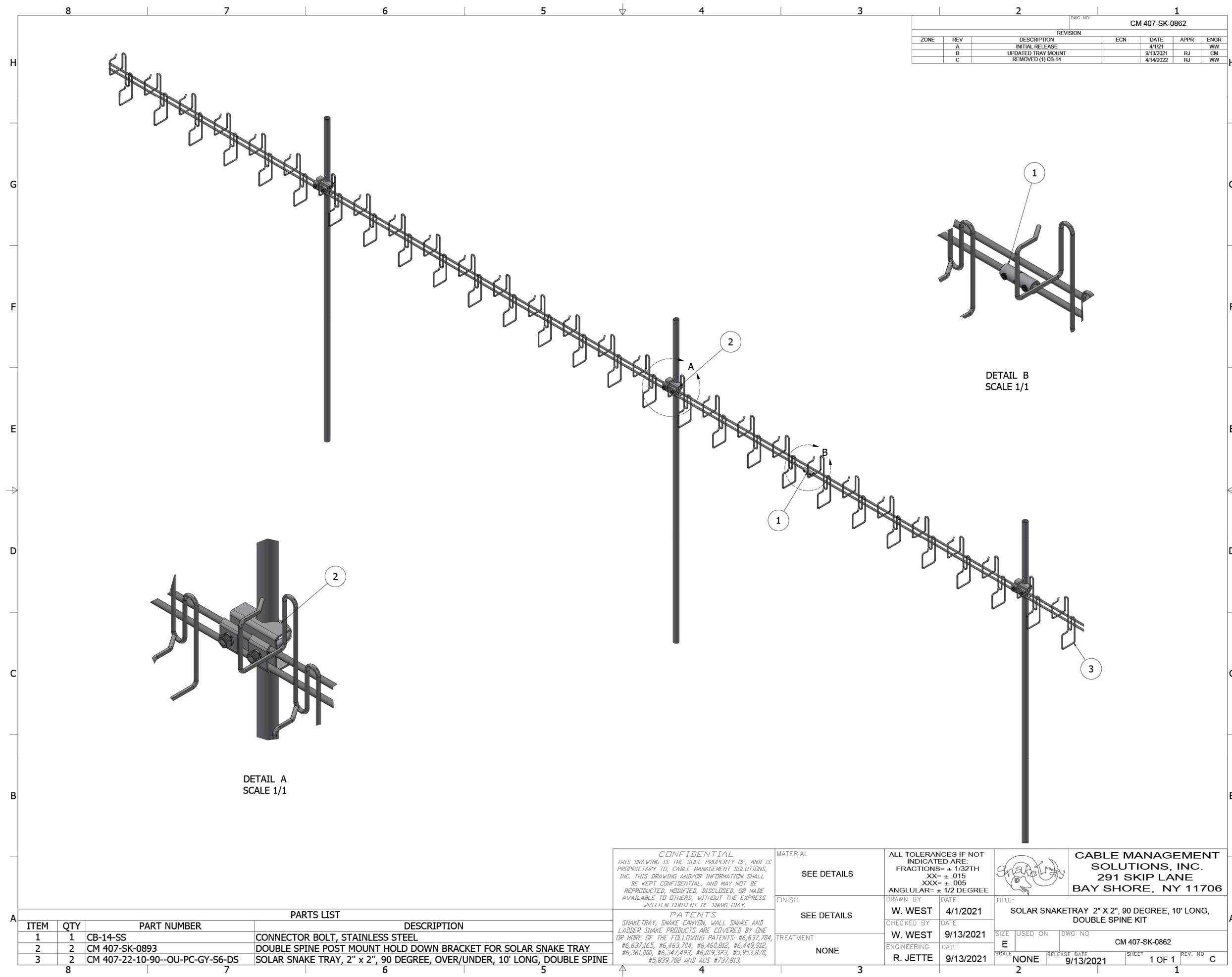
REVISIONS	
#	DATE
A	29-AUG-23 FOR SUBMITTAL
B	20-OCT-23 UPDATED CITY COMMENTS
C	04-JAN-24 FOR RE-SUBMITTAL

PAPER SIZE: ARCH D
 DRAWN BY: AK
 CHECKED BY: JHA
 APPROVED BY: JHA

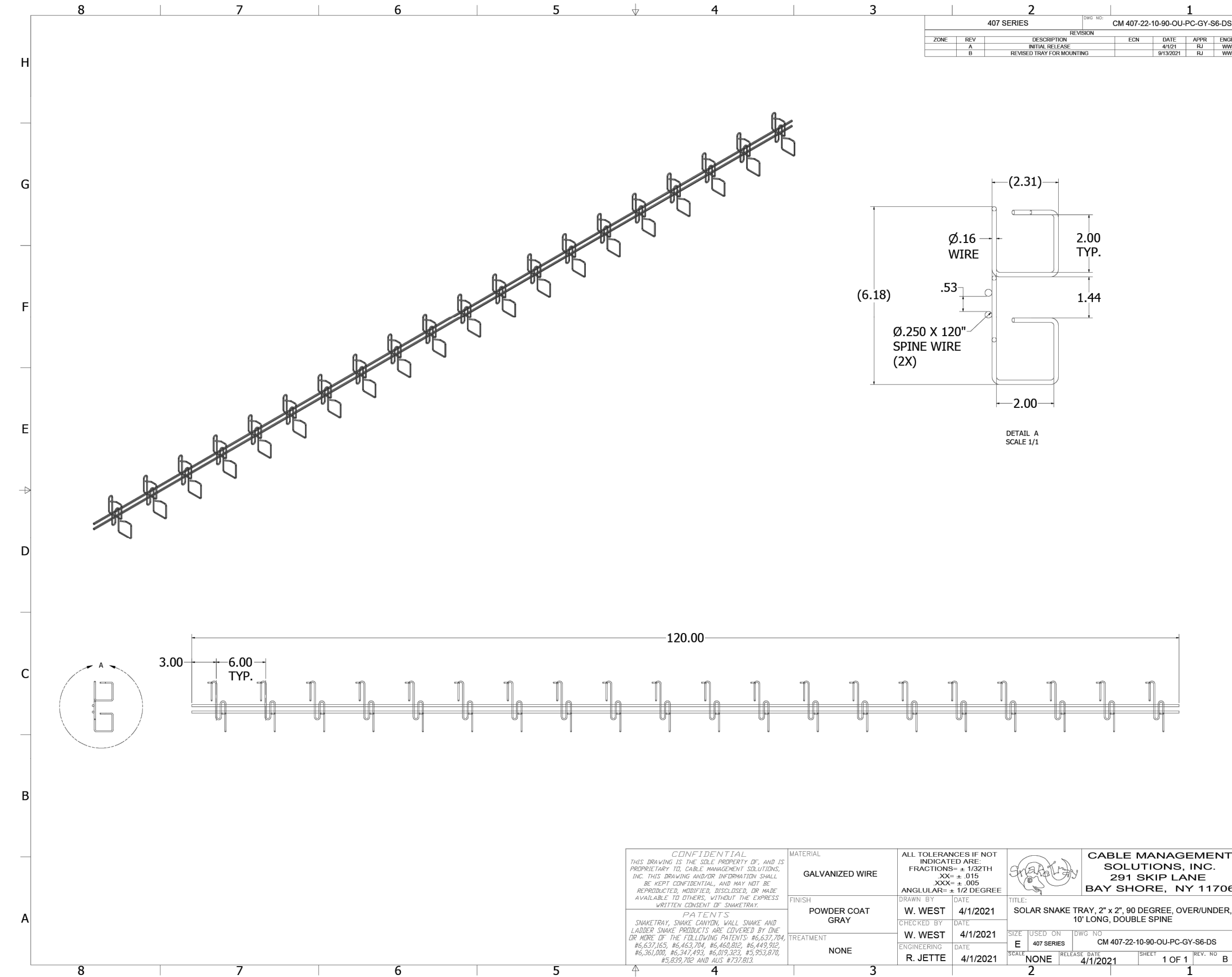
SCALE:
 1-1/2"=1'-0"

SHEET TITLE:
TRENCH DETAILS-2

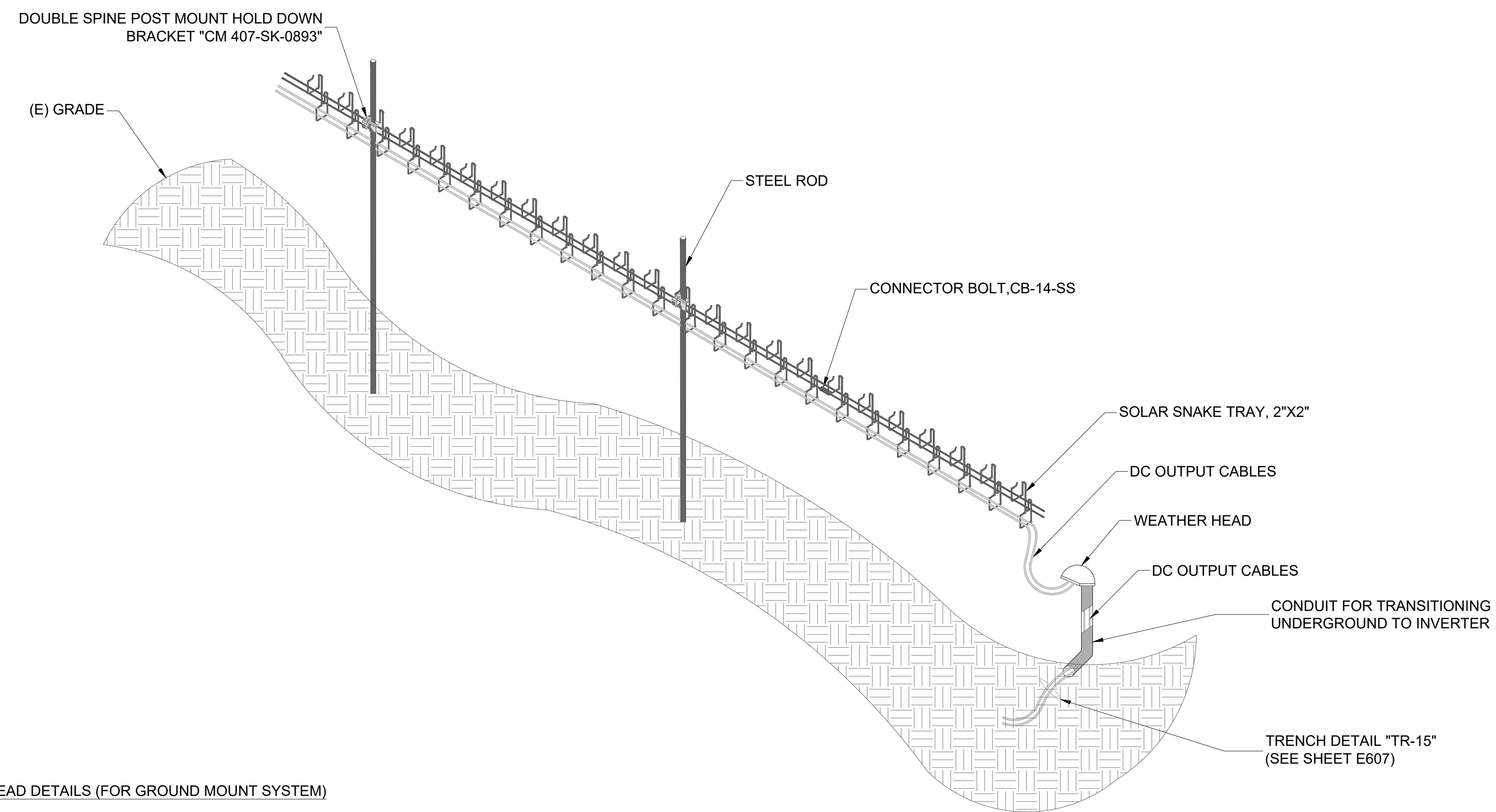
SHEET #:
 E607



A SNAKE TRAY MOUNTING DETAIL-1
SCALE: NTS



B SNAKE TRAY MOUNTING DETAIL-2
SCALE: NTS



C DC CONDUIT TRANSITION FROM SNAKE TRAY TO WEATHER HEAD DETAILS (FOR GROUND MOUNT SYSTEM)
SCALE: NTS

PROJECT TITLE:

ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236

ENGINEER'S STAMP

REGISTERED PROFESSIONAL ENGINEER
JEFFREY W. ANDERSON
No. 19459
Exp. 06/30/2025
Civil
STATE OF CALIFORNIA

Jeffrey W. Anderson

BayWare
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 2110256

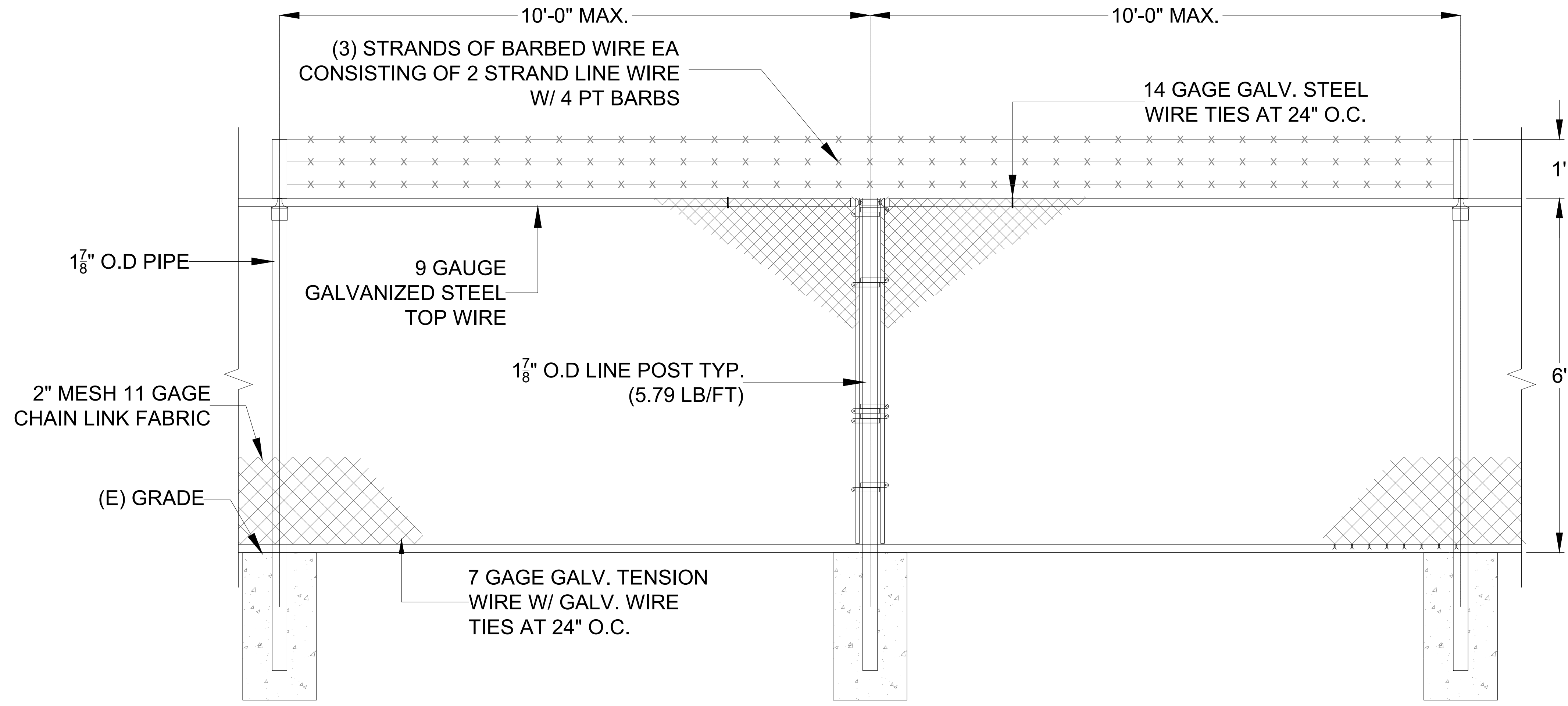
NO.	DATE	ISSUE
A	29-AUG-23	FOR SUBMITTAL
B	20-OCT-23	UPDATED CITY COMMENTS
C	04-JAN-24	FOR RE-SUBMITTAL

PAPER SIZE: ARCH D
DRAWN BY: AK
CHECKED BY: JHA
APPROVED BY: JHA

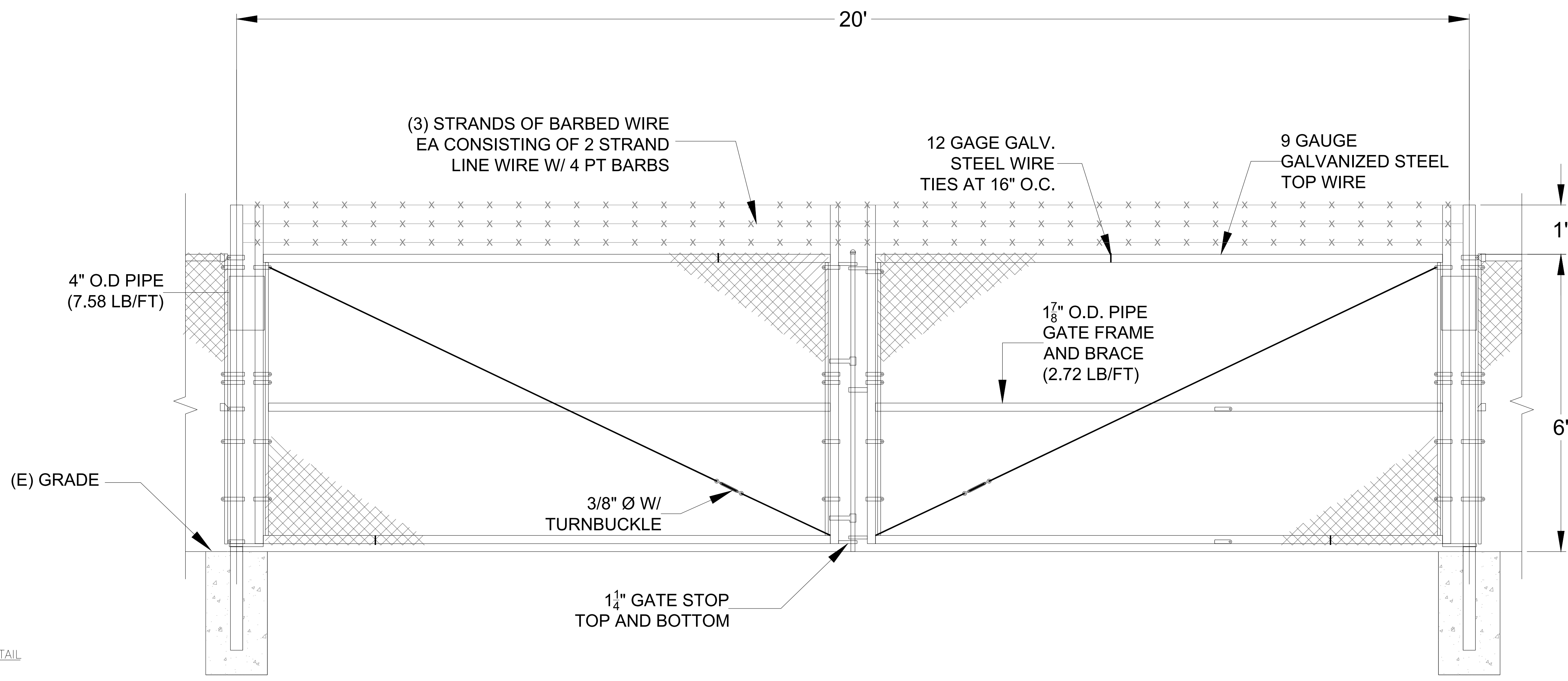
SCALE: NTS

SHEET TITLE:
SNAKE TRAY DETAIL

SHEET #:
E608

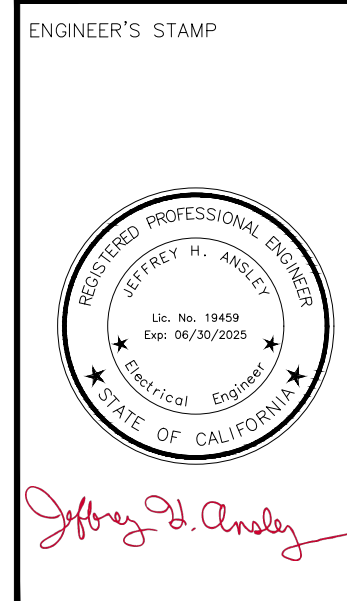


A FENCE ELEVATION DETAIL
SCALE: NTS



B DOUBLE SWING GATE ELEVATION DETAIL
SCALE: NTS

PROJECT TITLE:
ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236



BayWare
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 210956

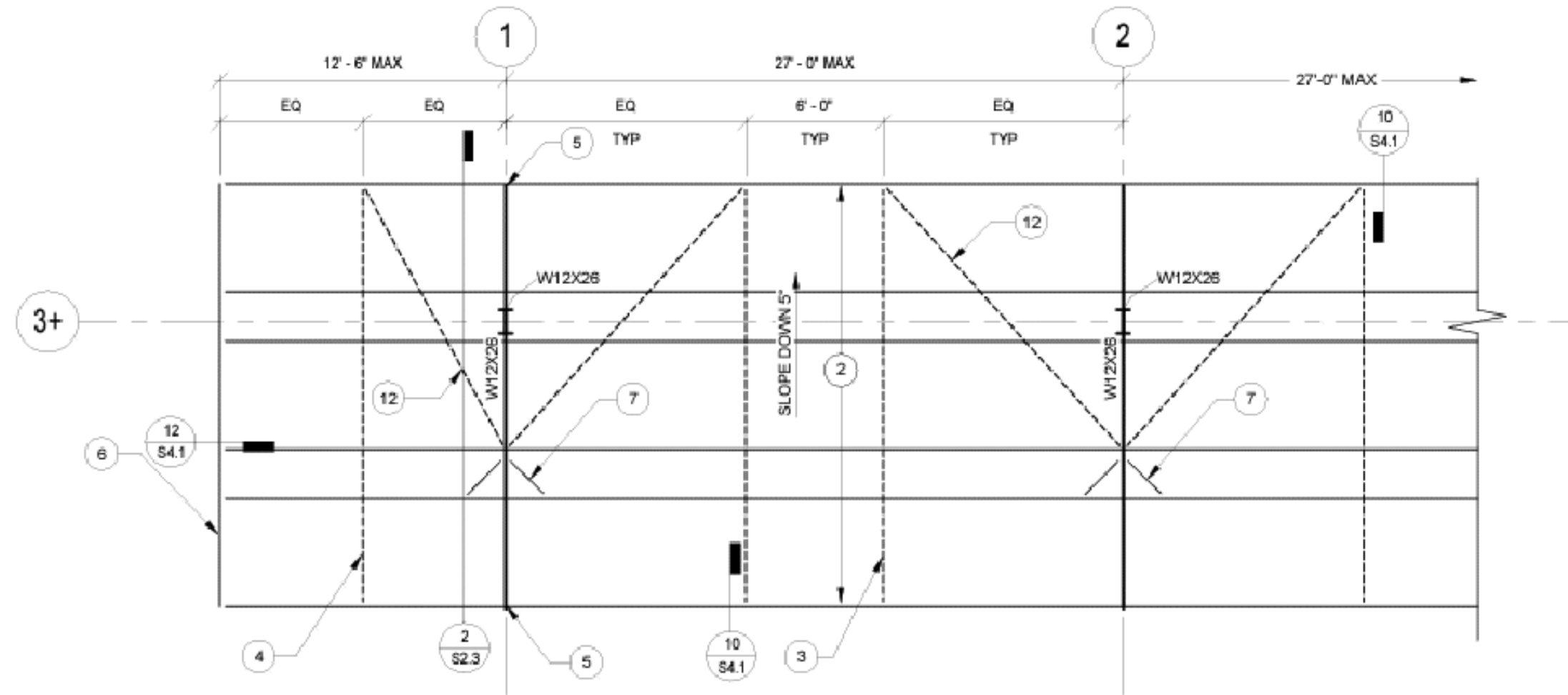
REVISIONS	
#	DATE
A	29-AUG-23 FOR SUBMITTAL
B	20-OCT-23 UPDATED CITY COMMENTS
C	04-JAN-24 FOR RE-SUBMITTAL

PAPER SIZE: ARCH D
DRAWN BY: AK
CHECKED BY: JHA
APPROVED BY: JHA

SCALE: NTS

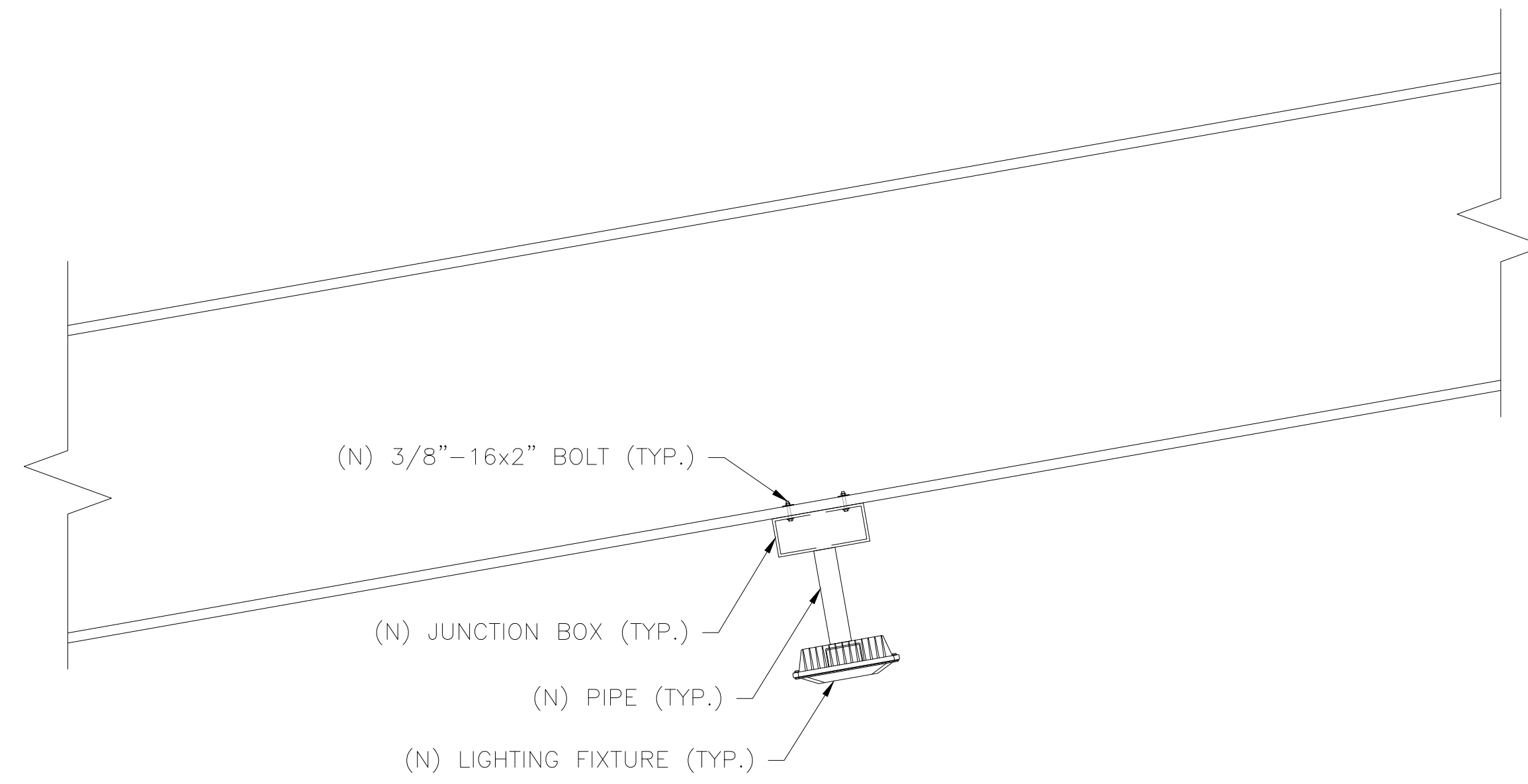
SHEET TITLE:
FENCE AND GATE DETAIL

SHEET #:
E609

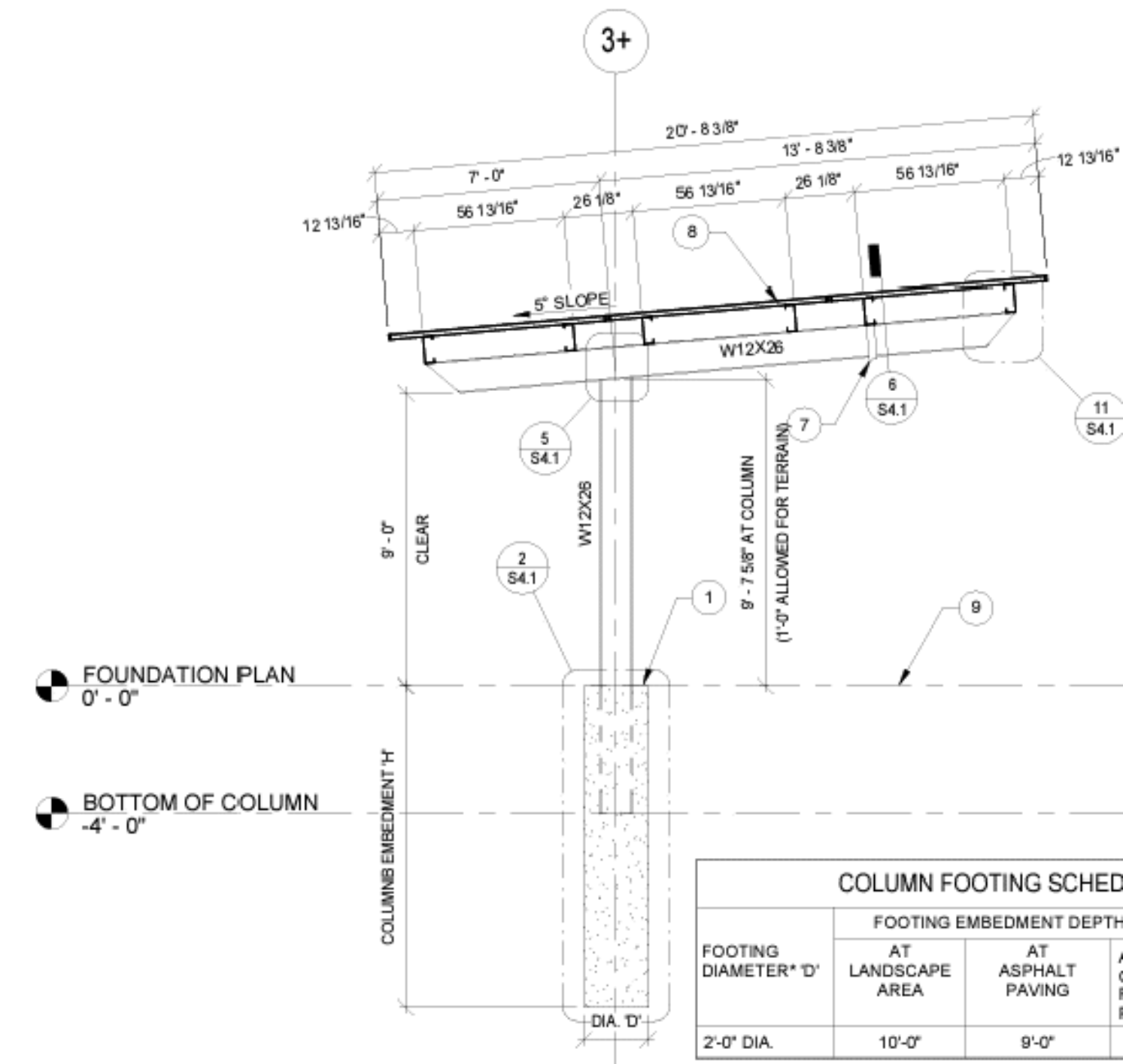


A 3 PANEL DEG+ FRAMING PLAN
SCALE: NTS

NOTE: BEFORE SCREWING PIPE ONTO FIXTURE ADD ONE WASHER NUT. SCREW PENDANT ONTO FIXTURE ADD WASHER NUT AND FEED WIRES THROUGH PIPE

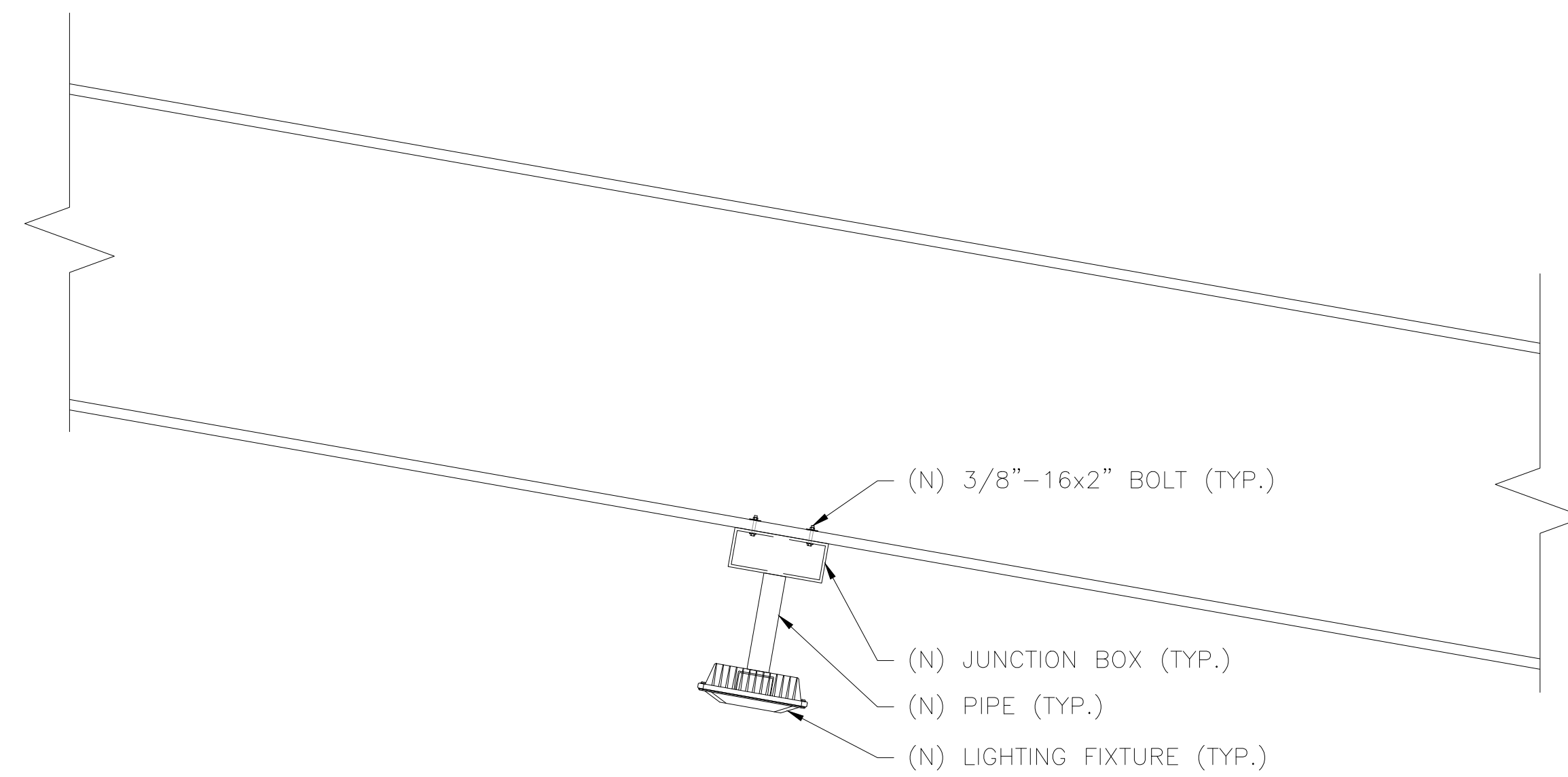


C LIGHT FIXTURE MOUNTING DETAILS-1
SCALE: 1"=1'-0"



B 3 PANEL DEG+ SECTION
SCALE: NTS

NOTE: BEFORE SCREWING PIPE ONTO FIXTURE ADD ONE WASHER NUT. SCREW PENDANT ONTO FIXTURE ADD WASHER NUT AND FEED WIRES THROUGH PIPE



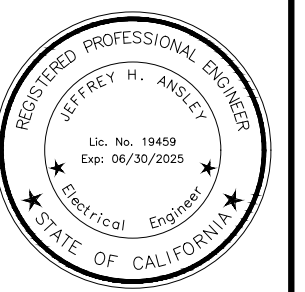
D LIGHT FIXTURE MOUNTING DETAILS-1
SCALE: 1"=1'-0"

FOOTING DIAMETER 'D'	FOOTING EMBEDMENT DEPTH 'H'		
	AT LANDSCAPE AREA	AT ASPHALT PAVING	AT CONCRETE PAD OR CONCRETE RESTRAINT CAP PER DETAIL 16/S4.1.
2'-0" DIA.	10'-0"	9'-0"	7'-6"

PROJECT TITLE:

ARMTEC DEFENSE PRODUCTS CO.
85901 AVENUE 53
COACHELLA, CA 92236

ENGINEER'S STAMP



Jeffrey W. Anselmy

BayWare
1101 National Drive, Suite B
Sacramento, CA 95834
CSLB# 990593
JOB NUMBER: 210956

REVISIONS	
#	DATE
A	29-AUG-23 FOR SUBMITTAL
B	20-OCT-23 UPDATED CITY COMMENTS
C	04-JAN-24 FOR RE-SUBMITTAL

PAPER SIZE:	ARCH D
DRAWN BY:	AK
CHECKED BY:	JHA
APPROVED BY:	JHA

SCALE:
NTS

SHEET TITLE:
CANOPY POST DETAIL

SHEET #:
E610

ZXM7-SHLDD144 Series

Znshinesolar 10BB HALF-CELL Bifacial Light-Weight Double Glass Monocrystalline PERC PV Module



520W | 525W | 530W | 535W | 540W | 545W



Excellent cells efficiency

MBB technology decreases the distance between bus bars and finger grid line which is benefit to power increase.



Better Weak Illumination Response

More power output in weak light condition, such as haze, cloudy, and morning



Anti PID

Limited power degradation caused by PID effect is guaranteed under strict testing condition for mass production



High wind and snow resistance

5400 Pa snow load 2400 Pa wind load



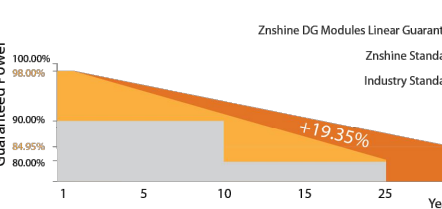
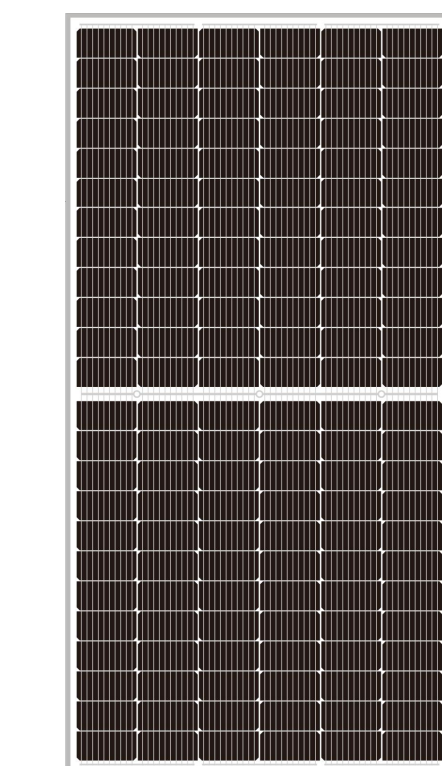
30 years power warranty

After 30 years our solar panel keeps at least 80% of its initial power output



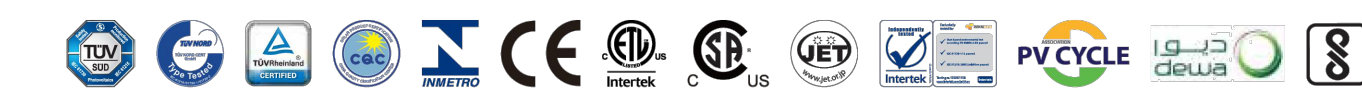
Bifacial technology

Enables additional energy harvesting from rear side(up to 25%)



12 years product guarantee 30 years output guarantee

0.45% annual degradation over 30 years



Founded in 1988, Znshinesolar is a world's leading high-tech PV module manufacturer...

www.znshinesolar.com

ZXM7-SHLDD144 Series | Znshinesolar 10BB HALF-CELL Bifacial Light-Weight Double Glass Monocrystalline PERC PV Module



Table with 5 columns: Electrical Characteristics | STC, Nominal Power, Maximum Power, Open Circuit Voltage, Short Circuit Current, Module Efficiency.

Table with 5 columns: Electrical Characteristics | NMOT, Maximum Power, Maximum Power Voltage, Maximum Power Current, Open Circuit Voltage, Short Circuit Current.

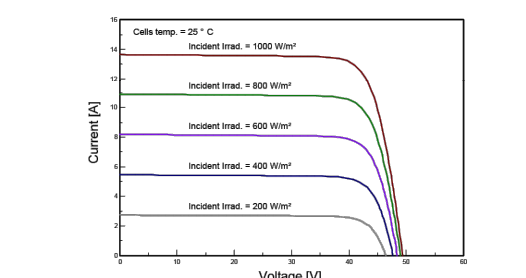
Table with 5 columns: Electrical Characteristics with 25% Rear Side Power Gain, Front power, Total power, Vmp, Imp, Voc, Isc.

Table with 2 columns: Mechanical Data, Solar cells, Cells orientation, Module dimension, Weight, Glass, Junction box, Cables, Connectors.

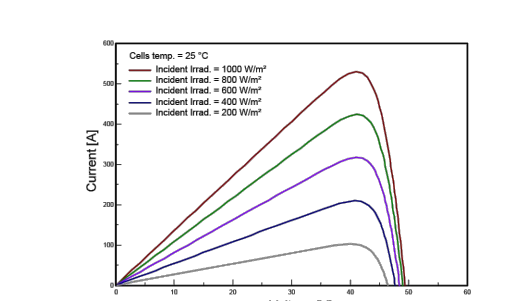
Table with 2 columns: Temperature Ratings, Working Conditions, Refer. Bifacial Factor, Temperature coefficient of Pmax, Temperature coefficient of Voc, Temperature coefficient of Isc.

Table with 2 columns: Packaging Configuration, Piece/Box, Piece/Container.

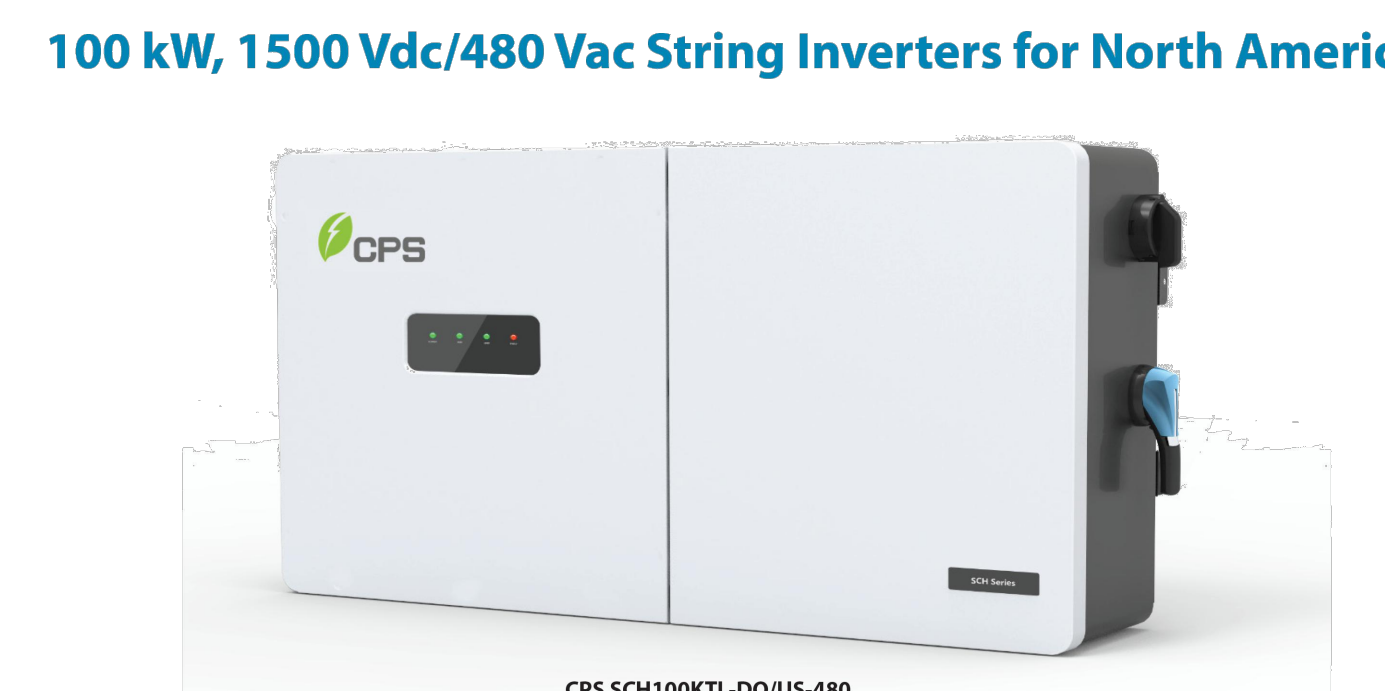
I-V CURVES OF PV MODULE(S30W)



P-V CURVES OF PV MODULE(S30W)

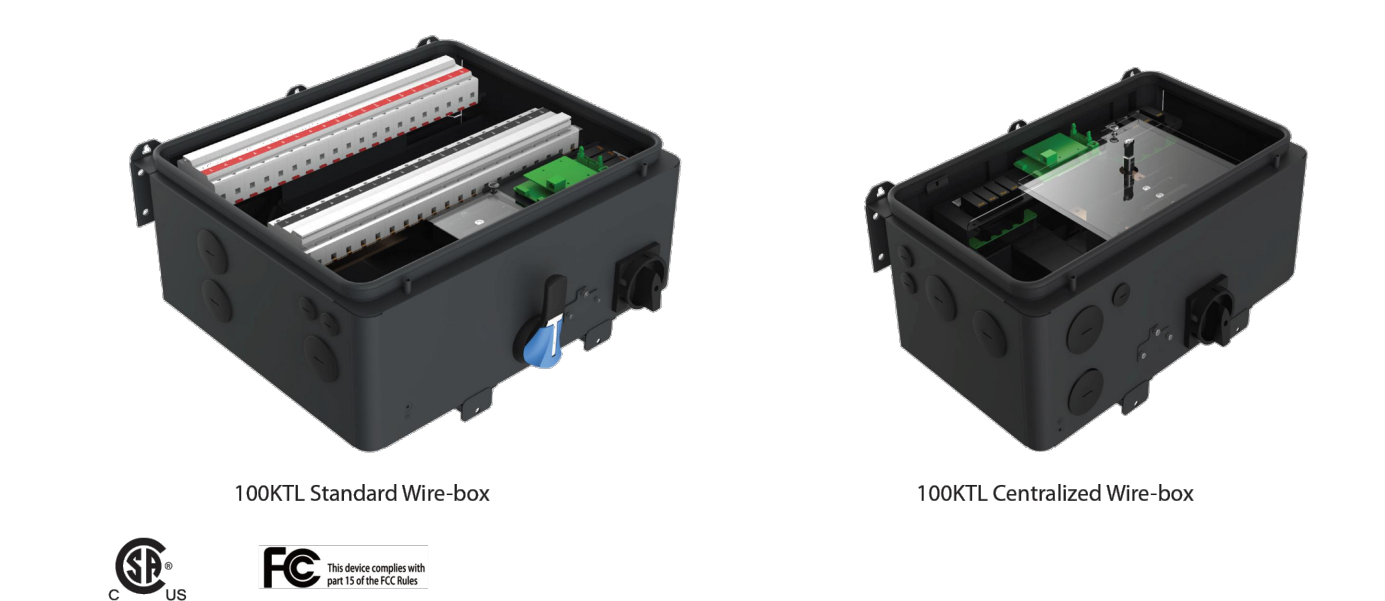


100 kW, 1500 Vdc/480 Vac String Inverters for North America



The 100 kW high power CPS three-phase string inverters are designed for ground-mount applications with 480 Vac service voltage.

- Key Features: NFPA 70 and NEC compliant, Touch-safe DC fuse holders, CPS FlexOM Gateway, Integrated AC and DC disconnect switches, MPTT with 20 fused inputs, Copper- and Aluminum-compatible AC connections, NEMA Type 4X outdoor rated, Advanced Smart-Grid features, CPS FlexOM Gateway enables remote firmware upgrades, Generous DC/AC inverter load ratios, Separable wire-box design for fast service, Standard 5-year warranty with extensions up to 20 years.



CHINT POWER SYSTEMS AMERICA 2023/1-AMT-NA

50/60kW, 1000Vdc String Inverters for North America

The 50 & 60kW (55 & 66kVA) medium-power CPS three-phase string inverters are designed for ground mount, large rooftop and carport applications.



Key Features: NEC 2017/2020 PVRS certified for rapid shutdown, 55 & 66kVA rating allows max rated active power @0.91PF, Selectable max AC apparent power of 50/55kVA and 60/66kVA, NEC-compliant & UL listed Arc-Fault circuit protection, 15-90° Mounting orientation for low profile roof installs, Optional FlexOM Gateway enables remote firmware upgrades, Integrated AC & DC disconnect switches, 3 MPPTs with 5 inputs each for maximum flexibility, NEMA Type 4X outdoor rated enclosure, UL 1741-SA certified to CA Rule 21, including 5A8-SA18, UL 1741-SB and IEEE 1547-2018 certified, Separable wire-box design for fast service, Standard 10-year warranty with extensions up to 20 years.



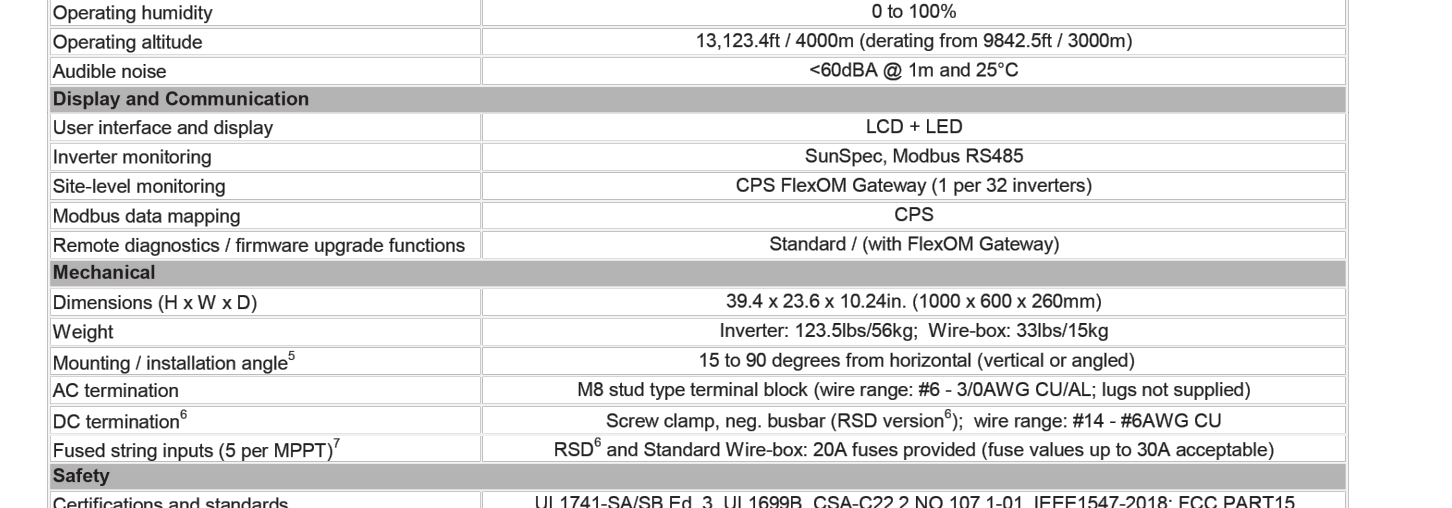
50/60KTL Standard Wire-box, 50/60KTL Rapid Shutdown Wire-box, Tigo Enhanced, APsmart, CHINT POWER SYSTEMS AMERICA 2022/8-AMT-NA

NEW 36 kW, 1000 Vdc String Inverters for North America

The new, v2 version of the 36 kW (36 kVA) CPS three-phase string inverter is designed for rooftop and carport applications.



Key Features: NEC 2017/2020 PVRS certified for rapid shutdown, NEC-compliant & UL listed arc-fault circuit protection, 15-90° mounting orientation for low-profile roof installs, Optional FlexOM Gateway enables remote firmware upgrades, Integrated AC and DC disconnect switches, Copper- and Aluminum-compatible AC connections, 3 MPPTs with 5 inputs each for maximum flexibility, NEMA Type 4X outdoor rated enclosure, UL 1741-SA certified to CA Rule 21, including 5A8-SA18 VV, UL 1741-SB and IEEE 1547-2018 certified, Separable wire-box design for fast service, Standard 10-year warranty with extensions up to 20 years.



36/50/60KTL Standard Wire-box, 36/50/60KTL Rapid Shutdown Wire-box, CHINT POWER SYSTEMS AMERICA 2023/1-AMT-NA

50/60kW, 1000Vdc String Inverters for North America

Table with 2 columns: Model Name, DC Input, AC Output, System and Performance, Environment, Display and Communication, Mechanical, Safety, Certifications and standards, Warranty.

Table with 2 columns: Model Name, DC Input, AC Output, System and Performance, Environment, Display and Communication, Mechanical, Safety, Certifications and standards, Warranty.

CHINT POWER SYSTEMS AMERICA 2023/1-AMT-NA

NEW 36 kW, 1000 Vdc String Inverters for North America

The new, v2 version of the 36 kW (36 kVA) CPS three-phase string inverter is designed for rooftop and carport applications.

Table with 2 columns: Model Name, DC Input, AC Output, System and Performance, Environment, Display and Communication, Mechanical, Safety, Certifications and standards, Warranty.

Table with 2 columns: Model Name, DC Input, AC Output, System and Performance, Environment, Display and Communication, Mechanical, Safety, Certifications and standards, Warranty.

CHINT POWER SYSTEMS AMERICA 2023/1-AMT-NA

PROJECT TITLE: ARMTEC DEFENSE PRODUCTS CO. 85901 AVENUE 53 COACHELLA, CA 92236. ENGINEER'S STAMP: BayWare Inc. 1101 National Drive, Suite B Sacramento, CA 95834. JOB NUMBER: 2103956. PAPER SIZE: ARCH D. DRAWN BY: JHA. CHECKED BY: JHA. APPROVED BY: JHA. SCALE: NTS. SHEET TITLE: SPEC SHEETS-1. SHEET #: E801.

