

GENERAL:

1.

CONTRACTOR SHALL PROVIDE A COMPLETE WORKING ELECTRICAL INSTALLATION WITH ALL EQUIPMENT CALLED FOR IN PROPER OPERATING CONDITION. DOCUMENTS DO NOT UNDERTAKE TO SHOW OR LIST EVERY ITEM TO BE PROVIDED. WHEN AN ITEM NOT SHOWN OR LISTED IS CLEARLY NECESSARY FOR PROPER OPERATION OF EQUIPMENT SHOWN OR LISTED, PROVIDE THE ITEM WHICH WILL ALLOW THE SYSTEM TO FUNCTION PROPERLY.
2.

CODE COMPLIANCE: COMPLY WITH ALL RELEVANT CODES, LAWS, RULES, REGULATIONS, AND STANDARDS OF APPLICABLE CODE-ENFORCING AUTHORITIES.
3.

REFERENCES AND STANDARDS: ALL MATERIALS AND EQUIPMENT SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE STANDARDS LISTED BELOW. NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO APPLICABLE LAWS, ORDINANCES, RULES, OR REGULATIONS. IT IS NOT THE INTENT OF DRAWINGS OR SPECIFICATIONS TO REPEAT REQUIREMENTS OF CODES EXCEPT WHERE NECESSARY FOR COMPLETENESS OR CLARITY.

• AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).

• INSULATED CABLE ENGINEERS ASSOCIATION (ICEA).

• INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE).

• NATIONAL ELECTRICAL CODE (NEC) (NFPA 70).

• NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA).

• NATIONAL FIRE PROTECTION ASSOCIATION (NFPA).

• INTERNATIONAL FIRE CODE (IFC).

• INTERNATIONAL BUILDING CODE (IBC).

• UNDERWRITERS LABORATORIES, INC. (UL).

• LOW-VOLTAGE ELECTRICAL SAFETY ORDERS (OSHA).

• HIGH-VOLTAGE ELECTRICAL SAFETY ORDERS (OSHA).

4.

IF ANY OF THE REQUIREMENTS OF THE ABOVE STANDARDS ARE IN CONFLICT WITH ONE ANOTHER, OR WITH THE REQUIREMENTS OF THESE DRAWINGS OR SPECIFICATIONS, THE MOST STRINGENT REQUIREMENT SHALL GOVERN.

5.

THE CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY MEASURES AND OSHA REQUIREMENTS ON SITE.

6.

ALL DIMENSIONS OF EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES NOTED.

7.

THE CONTRACTOR IS RESPONSIBLE FOR ALL BRACING AND SHORING OF EQUIPMENT DURING INSTALLATION.

8.

ALL CONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR APPROVAL PRIOR TO MAKING ANY CHANGES.
- MANNER OF INSTALLATION:
9.

CONTRACTOR SHALL READ AND UNDERSTAND ALL DRAWINGS AND EQUIPMENT MANUALS PRIOR TO INSTALLATION OR OPERATION OF EQUIPMENT. THE CONTRACTOR IS RESPONSIBLE FOR PROPER INSTALLATION OF ALL EQUIPMENT AND SHALL FOLLOW ALL MANUFACTURER INSTRUCTIONS AND RECOMMENDATIONS. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCY BETWEEN MANUFACTURER RECOMMENDATIONS AND THE INSTRUCTIONS INDICATED IN THIS DRAWING SET.

10.

EXACT LOCATION AND MOUNTING OF ALL EQUIPMENT SHALL BE VERIFIED IN THE FIELD.

11.

ALL WORK SHALL BE PERFORMED IN A SAFE, EFFICIENT, AND WORKMANLIKE MANNER. CONTRACTOR SHALL USE GOOD TRADE PRACTICES AS REQUIRED BY SECTION 110.12 OF THE NEC.
- ELECTRICAL EQUIPMENT AND ENCLOSURES:
12.

ALL EQUIPMENT AND COMPONENTS SHALL BE LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (UL, ETL, ETC.).

13.

ALL OUTDOOR EQUIPMENT ENCLOSURES SHALL BE RATED NEMA 3R, 4, OR 4X.

14.

GALVANIZED 12 GAUGE STRUT AND ZINC-COATED OR STAINLESS-STEEL COMPONENTS (BOLTS, NUTS, ETC.) SHALL BE USED TO MOUNT ALL ENCLOSURES, PULL BOXES, AND OTHER EQUIPMENT.

15.

TO PREVENT WATER BUILD-UP, WEEP HOLES SHALL BE PROVIDED IN ENCLOSURES WHERE CONDENSATION OR WATER BUILD-UP MAY OCCUR.

16.

CONTRACTOR SHALL CLEAN ANY METAL SHAVINGS WITHIN ENCLOSURES, ON TOP OF ENCLOSURES, AT GROUND LEVEL, AND ANY ADDITIONAL AREAS WHERE OXIDIZED OR CONDUCTIVE METAL SHAVINGS MAY CAUSE RUST, ELECTRICAL SHORT CIRCUITS, OR OTHER DAMAGE.

17.

ALL SWITCHES AND CIRCUIT BREAKERS USED AS SWITCHES SHALL BE LOCATED SUCH THAT THE CENTER OF THE GRIP OF THE OPERATING HANDLE, WHEN IN ITS HIGHEST POSITION, IS NOT MORE THAN 2.0 M (6 FT 7 IN.) ABOVE THE FLOOR OR WORKING PLATFORM. COORDINATE EQUIPMENT CONFIGURATIONS WITH THE REQUIRED HEIGHT OF CONCRETE PADS, IF ANY, TO ENSURE THAT DEVICE HANDLES DO NOT EXCEED HEIGHT LIMITATIONS.

18.

CLEARANCE: DO NOT INSTALL ANY EQUIPMENT SUCH THAT IT OBSTRUCTS SPACES REQUIRED BY CODE IN FRONT OF ELECTRICAL EQUIPMENT, ACCESS DOORS, ETC. ALLOW SAFE EGRESS FROM ELECTRICAL EQUIPMENT IN COMPLIANCE WITH OSHA AND THE NEC.

19.

THE INTERRUPTING RATINGS OF MAIN OCPD DEVICES, BRANCH OCPD DEVICES, AND BUS WITHSTAND CAPABILITY SHALL EACH MEET OR EXCEED THE MINIMUM AMPERE INTERRUPTING CAPACITY (AIC) RATING INDICATED (SHORT CIRCUIT CURRENT RATING OF ALL DEVICES IN THE EQUIPMENT).

20.

NO PENETRATIONS OR CABLE ENTRIES IN THE TOP OF OUTDOOR ELECTRICAL ENCLOSURES. ENTER OUTDOOR ENCLOSURES FROM THE BOTTOM (PREFERRED) OR SIDE.

21.

CAULK ALONG BOTTOM PERIMETER OF EQUIPMENT MOUNTED ON CONCRETE SLABS TO PREVENT WATER ENTRY BETWEEN THE BOTTOM OF ENCLOSURE AND TOP OF CONCRETE SLAB.
- GROUNDING:
22.

THE GROUNDING OF THE PHOTOVOLTAIC SYSTEM SHALL COMPLY WITH NEC 690 PART V, GROUNDING.

23.

PROVIDE ALL GROUNDING AND BONDING OF ELECTRICAL EQUIPMENT, SYSTEMS, AND EQUIPMENT SUPPORTS AS REQUIRED BY THE NATIONAL ELECTRICAL CODE, ARTICLE 250.

24.

PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR WITH EACH FEEDER AND BRANCH CIRCUIT.

25.

ALL EQUIPMENT GROUNDING CONDUCTORS (EGC), GROUNDING ELECTRODE CONDUCTORS (GEC), AND BONDING JUMPERS SHALL BE STRANDED COPPER.

26.

WHERE GROUNDING CONNECTIONS ARE MADE AT UNTREATED STEEL, PRIOR TO MAKING THE CONNECTION THE FOLLOWING STEPS SHALL BE TAKEN FOR SURFACE TREATMENT: RUST SHALL BE THOROUGHLY AND COMPLETELY REMOVED AROUND THE LUG OR CONNECTION. THE EXPOSED METAL SHALL THEN BE TREATED WITH COLD GALVANIZING COMPOUND AND ALLOWED ENOUGH TIME TO CURE. A LIBERAL AMOUNT OF ANTI-OXIDANT CONDUCTOR COMPOUND SHOULD BE APPLIED AT THE CONNECTION POINT.
- CONDUITS AND RACEWAYS:
27.

CONDUIT AND CABLE TRAY ROUTING SHOWN ON PLANS IS DIAGRAMMATIC. CONTRACTOR SHALL ROUTE AND LOCATE RACEWAYS TO SUIT SITE CONDITIONS. CONTRACTOR SHALL COORDINATE ALL WIRING AND RACEWAY ROUTING WITH THE ENGINEER.

28.

WHERE CONDUIT AND RACEWAY ROUTING IS NOT SHOWN, AND DESTINATION ONLY IS INDICATED, CONTRACTOR SHALL DETERMINE EXACT ROUTING AND LENGTHS REQUIRED. A SHOP DRAWING OF PROPOSED INSTALLATION SHALL BE SUPPLIED TO ENGINEER PRIOR TO INSTALLATION.

29.

FIELD BENDS IN RACEWAY SHALL NOT DAMAGE RACEWAY OR SIGNIFICANTLY CHANGE THE INTERNAL DIAMETER.

30.

MINIMUM CONDUIT SIZE SHALL BE 1", UNLESS.
31.

SUPPORT CONDUIT USING STEEL PIPE STRAPS, LAY-IN ADJUSTABLE HANGERS, CLEVIS HANGERS OR SPLIT-HANGERS. SPACING OF CONDUIT SUPPORTS SHALL BE INSTALLED PER NEC REQUIREMENTS FOR THE TYPE OF CONDUIT BEING INSTALLED. USE APPROVED BEAM CLAMPS FOR CONNECTION TO STRUCTURAL MEMBERS.

32.

PROVIDE PULL BOXES, JUNCTION BOXES, OR CONCRETE HANDHOLES WHERE REQUIRED TO FACILITATE THE INSTALLATION OF WIRING IN ADDITION TO THOSE SHOWN ON THE DRAWINGS.

33.

BENDS IN CONDUITS BETWEEN PULL BOXES SHALL NOT EXCEED THE EQUIVALENT OF FOUR 90 DEGREE BENDS.

34.

WHEN FIELD CUTTING IS REQUIRED, THE CONDUIT SHALL BE CUT SQUARE AND DEBURRED.

35.

CONDUIT SIZES NOT SPECIFIED SHALL BE SIZED IN ACCORDANCE WITH NEC CHAPTER 9, TABLE 1 FOR CONDUIT FILL.

36.

ALL CONDUITS SHALL BE FREE OF ANY OBSTRUCTIONS, COMPLETELY ASSEMBLED, AND PROPERLY SECURED BEFORE WIRE IS PULLED.

37.

PER NEC 300.7(B), RACEWAY EXPANSION FITTINGS SHALL BE INSTALLED TO ALLOW FOR THERMAL EXPANSION AND CONTRACTION, SOIL MOVEMENT, OR WHERE OTHERWISE NECESSARY. REFER TO CALCULATIONS SHEETS.

38.

CONDUIT AND RACEWAY SYSTEMS SHALL BE WORKED INTO COMPLETE, INTEGRATED ARRANGEMENT WITH LIKE ELEMENTS TO MAKE WORK NEAT APPEARING AND FINISHED.

39.

PVC CONDUIT SHALL BE A MINIMUM PVC 40 FOR INDIVIDUAL CONDUITS DIRECT-BURIED IN THE GROUND AND PVC 80 WHERE EXPOSED TO PHYSICAL DAMAGE.

40.

OPEN CONDUIT ENDS SHALL BE EQUIPPED WITH BUSHINGS OR END BELLS. USE POLYWATER FST SEALANT OR APPROVED EQUAL TO REDUCE INTRUSION OF WATER, RODENTS, AND INSECTS EXCEPT WHEN DIRECTLY BURIED.
- CONDUCTORS AND CONDUCTOR INSTALLATION:
41.

IN EVERY PULL BOX, TERMINAL BOX, GUTTER AND AT ALL PLACES WHERE WIRES MAY NOT BE READILY IDENTIFIED BY NAMEPLATE MARKINGS ON THE EQUIPMENT TO WHICH THEY CONNECT, IDENTIFY EACH CIRCUIT WITH A PLASTIC LABEL OR TAG FOR NUMBER AND POLARITY OR PHASE.

42.

WHERE CONDUCTOR ROUTING IS NOT SHOWN, AND DESTINATION ONLY IS INDICATED, CONTRACTOR SHALL DETERMINE EXACT ROUTING AND LENGTHS REQUIRED. A SHOP DRAWING OF PROPOSED INSTALLATION SHALL BE SUPPLIED TO ENGINEER PRIOR TO INSTALLATION.

43.

SUPPORT CONDUCTORS IN VERTICAL CONDUITS IN ACCORDANCE WITH REQUIREMENTS IN NEC 300.19.

44.

THE MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG UNLESS OTHERWISE NOTED.

45.

CONDUCTOR MARKINGS: INSULATION TYPE, VOLTAGE RATING, SIZE AND LISTING LABEL SHALL BE PRINTED WITH PERMANENT WHITE MARKINGS REPEATING ALONG ENTIRE LENGTH OF CONDUCTOR.

46.

PROVIDE ALL NEW WIRE AND CABLE, MANUFACTURED WITHIN 12 MONTHS OF DELIVERY TO SITE AND CONTINUOUSLY STORED IN A CLEAN, DRY, VENTILATED SPACE FREE FROM TEMPERATURE EXTREMES AND WEATHER.

47.

ALUMINUM TERMINATIONS SHALL BE MADE WITH UL LISTED COMPRESSION LUG FITTINGS. ALUMINUM TERMINATIONS SHALL NOT BE MADE WITH MECHANICAL LUG TERMINATIONS.

48.

ANTI-OXIDANT COMPOUND SHALL BE USED WITH ALL ALUMINUM LUGS. CLEAN OXIDATION FROM ALUMINUM WIRE STRANDS THOROUGHLY IMMEDIATELY PRIOR TO APPLICATION OF COMPOUND.
- MEDIUM VOLTAGE CONDUCTORS:
49.

SPLICING OF MV CABLES IS NOT PERMITTED UNLESS APPROVED IN WRITING BY THE SYSTEM OWNER.

50.

ALL MV CABLES SHALL BE SHIELDED WITH SHIELDS BONDED TO GROUND AT BOTH ENDS OF THE CIRCUIT. USE COPPER CONCENTRIC NEUTRAL SHIELDS, UNLESS OTHERWISE NOTED.

51.

MV CONNECTORS SHALL BE INSTALLED ONLY BY TRAINED QUALIFIED TECHNICIANS.

52.

MEDIUM VOLTAGE CABLES REQUIRE STRESS CONES AT THE TERMINATION OF THE CABLES. STRESS CONES SHALL BE OF THE PREFORMED TYPE SUITABLE FOR THE CABLE TO WHICH THEY ARE TO BE APPLIED.

53.

MV TERMINATIONS SHALL BE IEEE 48 CLASS 1.

54.

ELBOWS, BUSHINGS, AND TEST CAPS MUST BE CLEAN AND PROPERLY LUBRICATED.

55.

POWER CABLE, ELBOW, AND MV TERMINATION DRAINS SHALL BE INSTALLED IN A MANNER THAT WILL ALLOW FOR THE REMOVAL, STANDING OFF, AND/OR LANDING OF ELBOWS WITH MINIMUM BENDING RADIUS PER NEC 300.34.

56.

MAINTAIN ALL CONDUIT ENTRIES TO EQUIPMENT WITHIN MANUFACTURER'S DESIGNATED CONDUIT ENTRY SPACE AND ARRANGE CONDUITS TO PERMIT THE MOST DIRECT ROUTING OF CABLES TO TERMINALS AND TO ALLOW ADEQUATE SLACK FOR DISCONNECTION AND PARKING OF LOADBREAK AND DEADBREAK ELBOW CONNECTORS.

57.

ALL MEDIUM VOLTAGE CABLES SHALL BE LABELED AT EACH END, AT AN ACCESSIBLE POINT INSIDE EQUIPMENT ENCLOSURE, WITH CIRCUIT AND PHASE IDENTIFICATION CORRESPONDING TO THE DRAWINGS. LABELS SHALL BE ENGRAVED AND FILLED STAINLESS STEEL OR TWO-COLOR PHENOLIC, SECURED WITH UV-RESISTANT WIRE TIES. LABELS SHALL BE VISIBLE FROM OUTSIDE THE ENCLOSURE WITHOUT REACHING INSIDE OR MOVING CABLES.

58.

MOUNT FAULT INDICATORS SUCH THAT INDICATOR WINDOW IS READILY VISIBLE WITHOUT THE NEED TO ENTER THE CABLE COMPARTMENT OR MOVE CONDUCTORS OR OTHER COMPONENTS. LOCATE REQUIRED CONDUCTOR IDENTIFICATION LABEL ADJACENT TO FAULT INDICATOR.

59.

INSTALL HAND HOLES AS REQUIRED TO MINIMIZE MAXIMUM ALLOWABLE CABLE TENSION PER CABLE MANUFACTURER WHEN PULLING CABLES.

60.

WHERE APPLICABLE, ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL BURIED CABLE MARKERS AT:

60.1.

BOTH SIDES OF ROAD CROSSINGS OUTSIDE OF PROJECT BOUNDARY.

60.2.

BOTH SIDES OF WETLAND CROSSINGS.

60.3.

FENCE CROSSINGS.

60.4.

PROPERTY LINE CROSSINGS.

60.5.

UTILITY CROSSING.
- DC CONDUCTORS:
61.

ALL DC CONDUCTORS INCLUDING SOURCE CIRCUITS AND PV OUTPUT CIRCUITS SHALL BEAR PERMANENT CABLE LABELS AT ALL ENDS AND ALL CONNECTORS THAT UNIQUELY IDENTIFY THE CABLES AND ARE TRACEABLE TO THE ELECTRICAL DRAWINGS.

62.

SPLIT LOOM SHALL BE USED TO PROTECT CONDUCTORS FROM SHARP EDGES AND FROM EXPOSURE TO DIRECT SUNLIGHT.

63.

PV CIRCUITS AND EXPOSED TO FREE AIR OR DIRECTLY BURIED SHALL BE UL LISTED TO UL 854 AND CLASSIFIED AS USE-2 OR UL LISTED TO UL 4703 AND CLASSIFIED AS PV WIRE.

64.

ALL CONDUCTORS SHALL BE RATED FOR 90°C IN WET LOCATIONS.

65.

PV WIRES SHALL BE SUPPORTED AND SECURED WITH STAINLESS STEEL CLIPS, AWM MODULE HANGERS, HEYCO SUNBUNDLER PVC COATED, CRIMP LOCK, STAINLESS STEEL CABLE TIES, OR APPROVED EQUIVALENT. CLIP TAILS AFTER INSTALLATION. AVOID RUBBING, SHARP EDGES AND EXPOSURE TO DIRECT SUNLIGHT.

66.

ALL CONDUCTORS, INCLUDING DC CONDUCTORS UTILIZED IN THE PV MODULE STRING CIRCUITS AND FOR CONDUCTORS BETWEEN COMBINERS AND INVERTERS, SHALL BEAR PERMANENT CABLE LABELS AT EACH END THAT UNIQUELY IDENTIFY THE CABLES AND ARE TRACEABLE TO THE ELECTRICAL DRAWINGS.

67.

MODULE CONNECTORS MATED TOGETHER SHALL BE OF THE SAME TYPE AND FROM THE SAME MANUFACTURER. MC4 EVO-2 CONNECTORS SHALL ONLY BE ALLOWED WITH USE OF DUAL JACKETED PV CABLE.

68.

ALL PLUG AND SOCKET CONNECTORS SHALL BE INSTALLED USING MANUFACTURER APPROVED TOOLS AND METHODS.

69.

DC CONDUCTORS, WHEN CONNECTED TO MOVING PARTS OF TRACKERS, SHALL HAVE STRANDING IN COMPLIANCE WITH 2020 NEC 690.31(C)(4) UNLESS APPROVED OTHERWISE BY AHJ.
- AC CONDUCTORS:
70.

FOR ALL AC CIRCUITS, REQUIRED TORQUE VALUES SHALL BE WRITTEN ON CONDUCTORS AND TORQUE MARKS SHALL BE PRESENT AT LEAST ONCE PER CIRCUIT TERMINATION.

71.

ALL AUXILIARY CIRCUIT BREAKERS SHALL HAVE TERMINALS RATED FOR 75°C.

72.

ALL CONDUCTORS SHALL BE RATED FOR 90°C IN WET LOCATIONS.
- CONDUCTOR COLORS:
73.

DC CONDUCTOR COLOR CODING:

POSITIVE CONDUCTOR (+)

NEGATIVE CONDUCTOR (-)

GROUNDING CONDUCTOR (EGC)

RED

BLACK

GREEN/BARE

74.

AC CONDUCTOR COLOR CODING:

CONDUCTOR:

PHASE A

PHASE B

PHASE C

GROUNDING

≤ 34,500V

BLACK

RED

BLUE

-

600/347V

BROWN

ORANGE

YELLOW

GREY

480/277V

BROWN

ORANGE

YELLOW

GREY

208/120V

BLACK

RED

BLUE

WHITE

75.

FOR WIRE SIZES #8 AWG AND LARGER, COLOR BANDING TAPE, MIN. 2 INCHES WIDE, MAY BE USED AT ALL ACCESSIBLE LOCATIONS IN LIEU OF COLORED INSULATION.
- MEDIUM VOLTAGE EQUIPMENT:
76.

OVERHEAD MEDIUM VOLTAGE CIRCUITS SHALL BE CONSTRUCTED PER INTERCONNECTION UTILITY STANDARDS.

77.

EQUIPMENT AND COMPONENTS SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) SUCH AS UL OR ETL, WHERE SUCH LISTING IS AVAILABLE FOR THE APPLICATION.

78.

MEDIUM VOLTAGE EQUIPMENT INSTALLED OUTSIDE OF FENCES WHERE ACCESSIBLE TO THE PUBLIC SHALL COMPLY WITH NESC REQUIREMENTS FOR TAMPER-PROOF CONSTRUCTION.

79.

LIGHTNING ARRESTERS SHALL BE INSTALLED AT UNDERGROUND CABLE TERMINATIONS, ON RISER POLES, AND AT THE END OF A LOOP-FEED CONNECTED CIRCUIT OF TRANSFORMERS.

80.

BUSHINGS, STUDS, AND LUGS OF INTERFACES SHALL BE OF THE SAME MATERIAL (COPPER OR ALUMINUM). VERIFY MANUFACTURER PROVIDED BUSHINGS ARE COMPATIBLE WITH CONNECTORS SPECIFIED.
- SAFETY SIGNS AND LABELS:
81.

ELECTRICAL CONTRACTOR SHALL PROVIDE SIGNAGE ON ALL ELECTRICAL BOXES, JUNCTION BOXES, PULL BOXES, DC DISCONNECTS, CONDUIT RUNS, AC DISCONNECTS, SUB PANELS, MAIN SERVICES AND ANY OTHER EQUIPMENT THAT REQUIRES MARKING PER NEC ARTICLE 690, THE LOCAL FIRE CODE, AND AS SHOWN ON THE LABELS IN THIS PACKAGE.

82.

ALL RELEVANT COMPONENTS OF THE PHOTOVOLTAIC SYSTEM SHALL BE CLEARLY MARKED AND LABELED IN ACCORDANCE WITH NEC ARTICLE 690.
- TESTING:
83.

INSULATION RESISTANCE TEST: TEST ALL AC AND DC CONDUCTORS FOR LINE-TO-GROUND AND LINE-TO-LINE INSULATION RESISTANCE. MINIMUM TEST VOLTAGES AND ACCEPTABLE RESISTANCE PER LATEST ANSINETA ATS (TABLE 100.1). DOCUMENT A SCHEDULE OF ALL FEEDERS AND INDICATE LINE-TO-GROUND AND LINE-TO-LINE RESISTANCES.

84.

GROUNDING SYSTEM TEST: CONTRACTOR SHALL PERFORM GROUND IMPEDANCE TEST BY 2 OR 3-POINT FALL-OF-POTENTIAL METHOD OR BY 4-POINT WENNER METHOD. GROUNDING SYSTEM RESISTANCE SHALL BE 25 OHMS OR AS INDICATED IN THE GROUNDING STUDY REPORT (IF PROVIDED), WHICHEVER VALUE IS LESS.

85.

ALL EQUIPMENT RATED OVER 1000 VOLTS SHALL BE INSPECTED AND PERFORMANCE TESTED PRIOR TO BEING ENERGIZED AS REQUIRED BY NEC SECTION 225.56. A TEST REPORT COVERING THE RESULTS OF THE TESTS SHALL BE DELIVERED TO THE AUTHORITY HAVING JURISDICTION PRIOR TO ENERGIZATION.

86.

TRENCH BACKFILL COMPACTION TEST: FIELD TEST COMPACTION IN FIRST 1/4 MILE OF TRENCH AT 2-3 LOCATIONS. IF COMPACTION METHOD PROVES ACCEPTABLE, NO FURTHER TESTS REQUIRED.
- REQUIRED SUBMITTALS:
- THE FOLLOWING ITEMS MUST BE SUBMITTED TO THE EOR FOR REVIEW AND APPROVAL PRIOR TO PURCHASING OR INSTALLING:

87.

CABLES AND CONDUCTORS

88.

DISCONNECTS

89.

OVERCURRENT PROTECTION DEVICES AND RELAYS

90.

SWITCHGEAR, SWITCHBOARDS, PANELBOARDS, AC AND DC COMBINERS, AND TRANSFORMERS
- DESIGN COORDINATOR
-
- KNOBELSDORFF
- 25701 370TH STREET
GOODHUE, MN 55027
- PROJECT
- 138883 CEMETERY
SUN, LLC
- 24638 ADAMS RD,
FREDERICK, IL 62639
40.089020°, -90.442132°
- ENGINEER
-
- STELLAVISE
SOLAR ENGINEERING
- 2535 CAMINO DEL RIO S, STE. 235
SAN DIEGO, CA 92108
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- REVISIONS
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| 1 | IFC R1 | 02/27/2026 |
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- ISSUED FOR CONSTRUCTION
FEBRUARY 27, 2026
- SHEET TITLE
- ELECTRICAL NOTES
- SHEET NO.
- E-003
- 138883 CEMETERY
SUN, LLC
FREDERICK, IL, 62639