

GENERAL NOTES

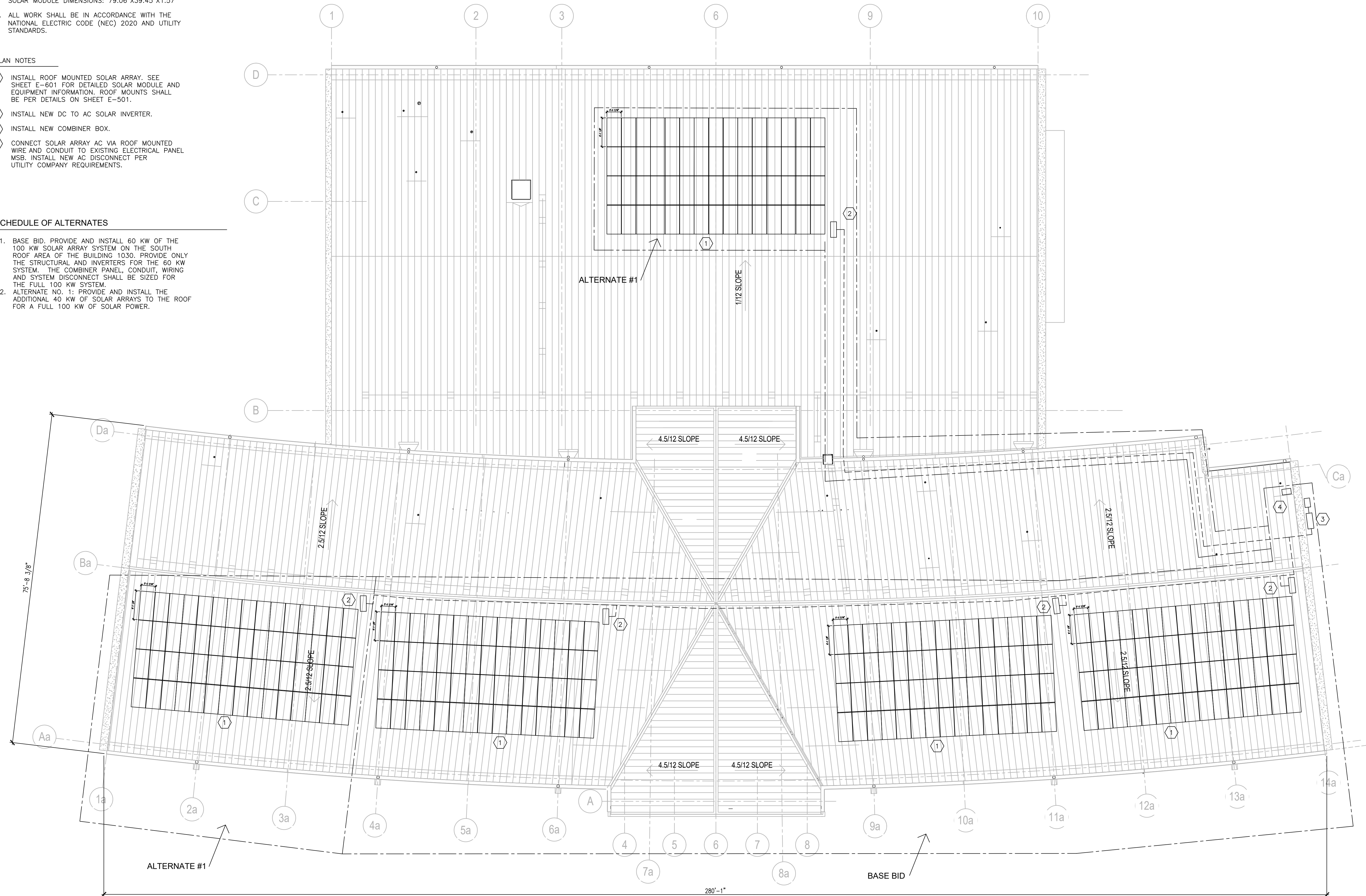
1. SEE GENERAL NOTES SHEET E-001 FOR ADDITIONAL INFORMATION
2. ALL CONDUIT RUNS ABOVE GRADE.
3. SYSTEM INFORMATION. (FOR REFERENCE ONLY)
SOLAR MODULE WEIGHT: 49.6 LBS.
SOLAR MODULE DIMENSIONS: 79.06"X39.45"X1.57"
4. ALL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC) 2020 AND UTILITY STANDARDS.

PLAN NOTES

1. INSTALL ROOF MOUNTED SOLAR ARRAY. SEE SHEET E-601 FOR DETAILED SOLAR MODULE AND EQUIPMENT INFORMATION. ROOF MOUNTS SHALL BE PER DETAILS ON SHEET E-501.
2. INSTALL NEW DC TO AC SOLAR INVERTER.
3. INSTALL NEW COMBINER BOX.
4. CONNECT SOLAR ARRAY AC VIA ROOF MOUNTED WIRE AND CONDUIT TO EXISTING ELECTRICAL PANEL MSB. INSTALL NEW AC DISCONNECT PER UTILITY COMPANY REQUIREMENTS.

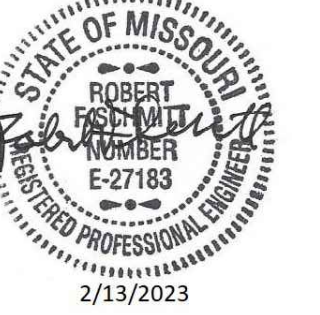
SCHEDULE OF ALTERNATES

1. BASE BID. PROVIDE AND INSTALL 60 KW OF THE 100 KW SOLAR ARRAY SYSTEM ON THE SOUTH ROOF AREA OF THE BUILDING 1030. PROVIDE ONLY THE STRUCTURAL AND INVERTERS FOR THE 60 KW SYSTEM. THE COMBINER PANEL, CONDUIT, WIRING AND SYSTEM DISCONNECT SHALL BE SIZED FOR THE FULL 100 KW SYSTEM.
2. ALTERNATE NO. 1: PROVIDE AND INSTALL THE ADDITIONAL 40 KW OF SOLAR ARRAYS TO THE ROOF FOR A FULL 100 KW OF SOLAR POWER.



1	ROOF PLAN	
3/32"=1'-0"	-	

STATE OF MISSOURI
MICHAEL L. PARSON,
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AND CONSTRUCTION

MISSOURI NATIONAL GUARD
OFFICE OF THE ADJUTANT GENERAL
FACILITIES MANAGEMENT OFFICE

CONSTRUCT SOLAR ARRAY

REGIONAL TRAINING
INSTITUTE
BUILDING 1030
FT. LEONARD WOOD, MO 65473

PROJECT # T2231-01
SITE # 6306
ASSET # 8136306003

REVISION: _____
DATE: _____
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DATE: _____
ISSUE DATE: 2/13/2023

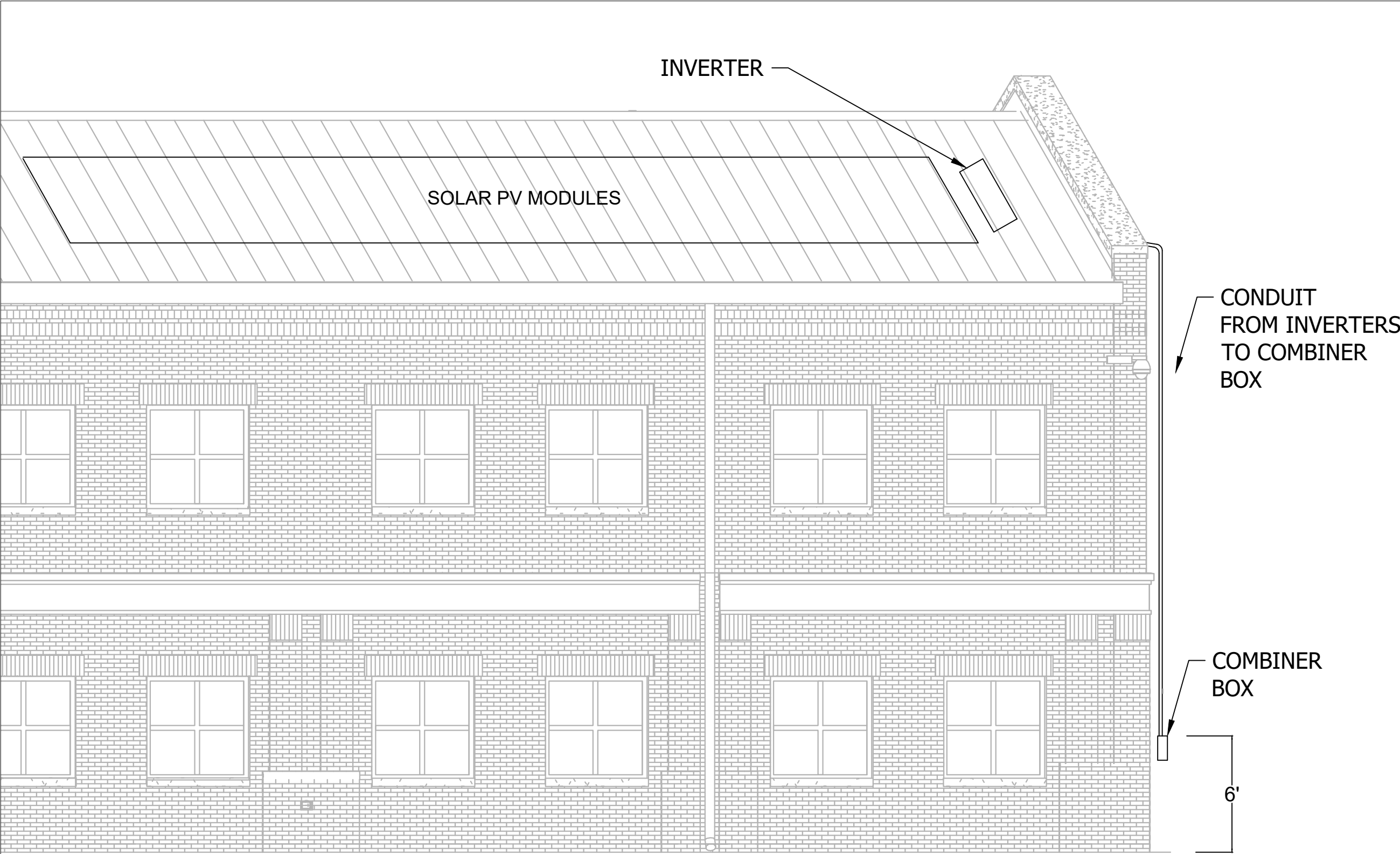
CAD DWG FILE: E-101.DWG
DRAWN BY: RFS
CHECKED BY: JC
DESIGNED BY: RFS

SHEET TITLE:
ELECTRICAL PLAN
SOLAR ARRAY

SHEET NUMBER:

E-101

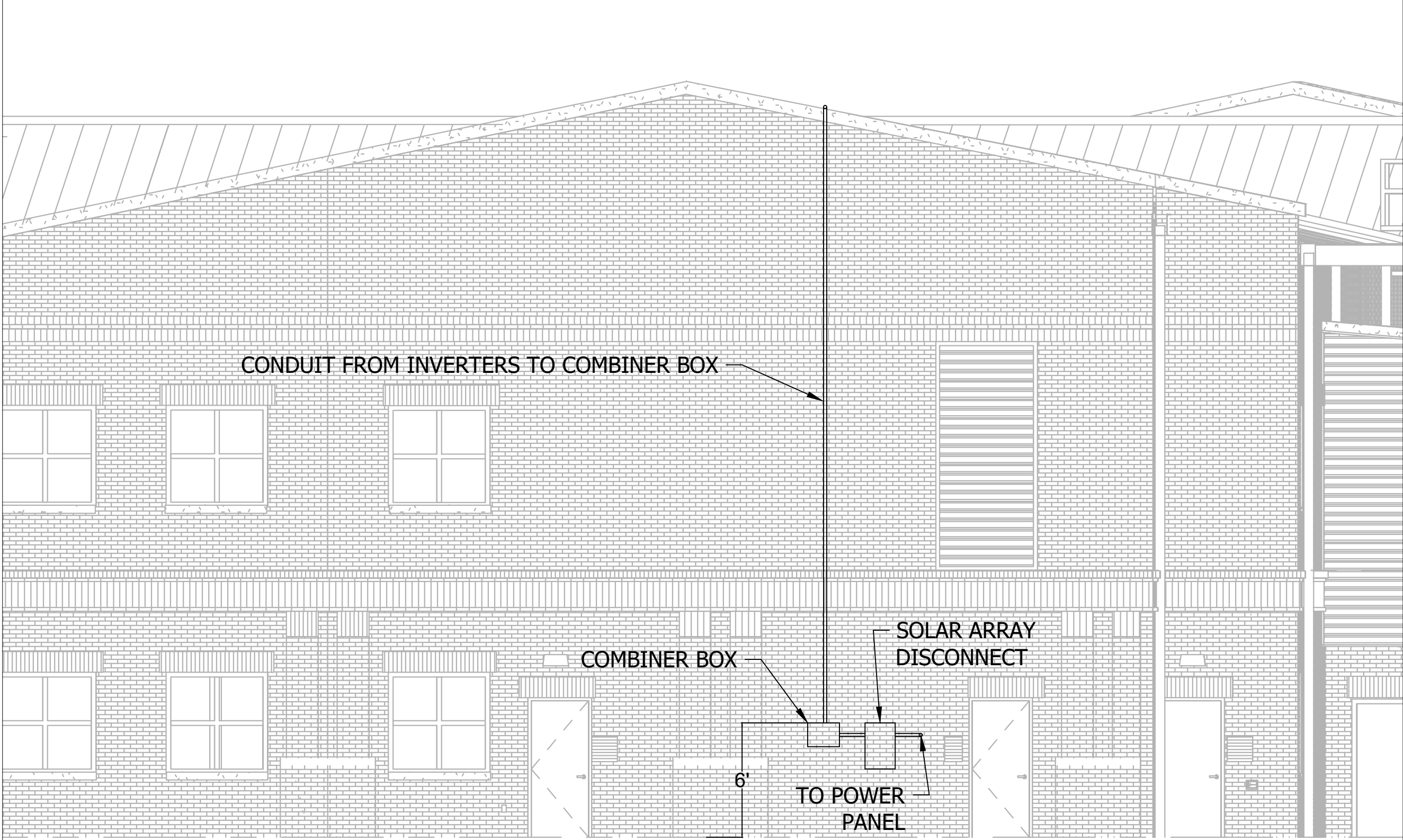
3 OF 5 SHEETS
FEBRUARY 13, 2023



NOTES

- 1. CONDUIT TO BE SECURED TO ROOF/WALL STRUCTURE WITH CONDUIT STRAPS.
- 2. SEE ONE LINE DIAGRAM E-601 FOR EQUIPMENT REQUIREMENTS. ALL CONDUIT, CONDUCTORS AND EQUIPMENT SHALL BE PER DIVISION 26 SPECIFICATIONS.

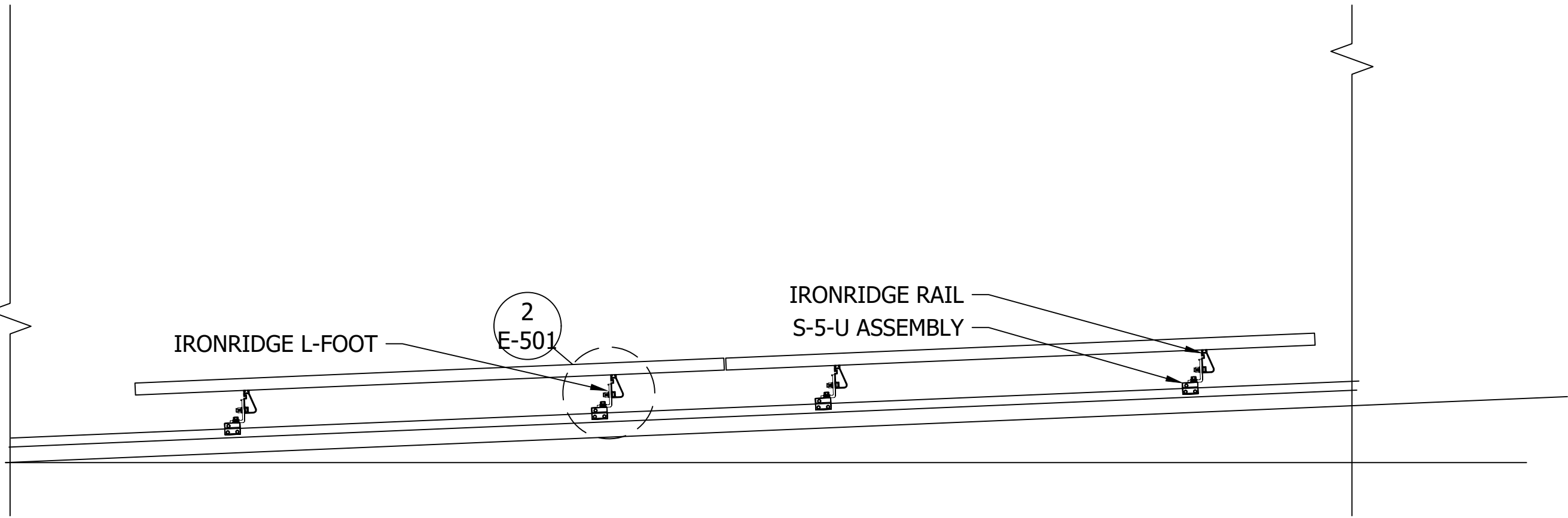
3 BUILDING SOUTH VIEW LAYOUT DETAIL



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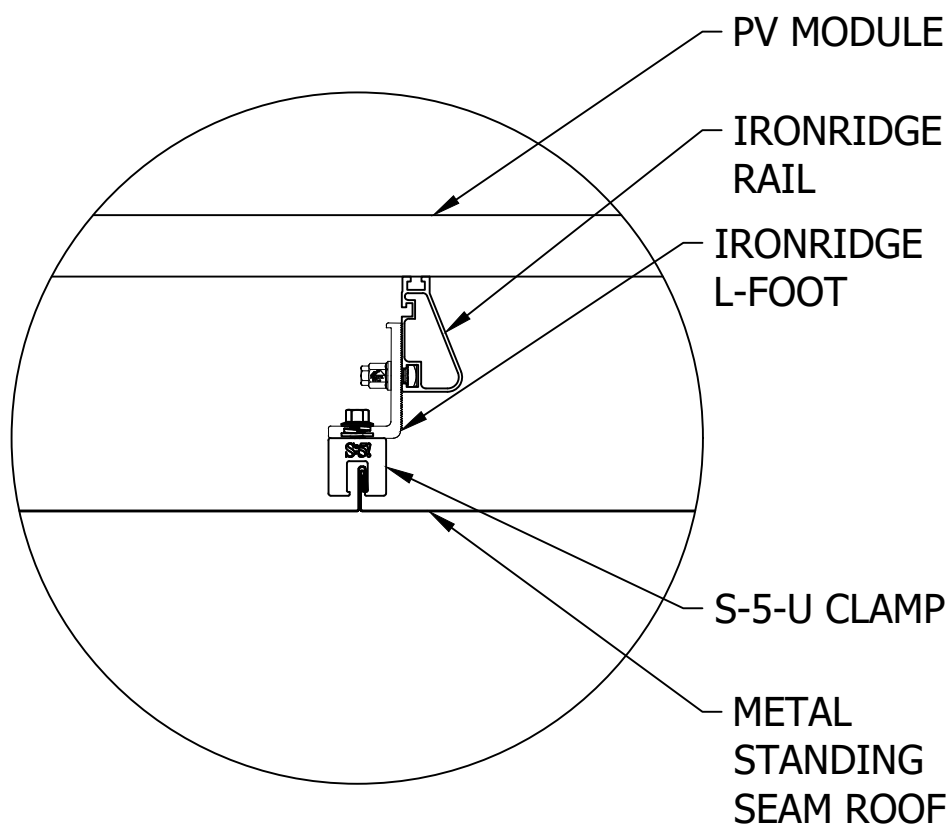
4 BUILDING EAST VIEW LAYOUT DETAIL



NOTES

- 1. SOLAR MODULES SUPPORTS SHALL BE IRONRIDGE RAIL SERIES ROOF MOUNTS OR APPROVED EQUAL BY PROSOLAR, SNAPRACK OR UNIRAC, WITH S5 METAL SEAM ROOF CLIPS.

1 SOLAR PANEL ROOF SUPPORT DETAIL



NOTES

- 1. CONTRACTOR SHALL COORDINATE WITH SOLAR MODULE PROVIDER, RAIL SYSTEM PROVIDER, AND ROOF INSTALLER.

2 ROOF MOUNTING DETAILS

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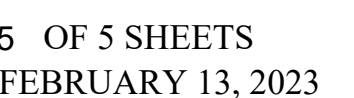
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CAD DWG FILE: E-501.DWG
DRAWN BY: RFS
CHECKED BY: RFS
DESIGNED BY: RFS

SHEET TITLE:
ELECTRICAL
DETAILS

SHEET NUMBER:

E-501



SITE CONDITIONS:		
ASHRAE MAX AVG. TEMP:	98.3°F	
ASHRAE EXTREM MIN TEMP	-0.4°F	
PV MODULE OUTPUT		
VOC:	49.1 Vdc	
TEMP. COEFFICIENT OF Voc	-0.29 %/°C	
ISC	10.81 Adc	
VMP	40.16 Vdc	
IMP	9.96 Adc	
INVERTER DETAILS		
RATED POWER OUTPUT (kW)	20.0	
OUTPUT VOLTAGE (V)	480	
OUTPUT CURRENT (A)	24	
SOURCE CIRCUIT DETAILS		
MODULES PER STRING	15	
TEMPERATURE ADJUSTED VOC	824.9	
SHORT CIRCUIT CURRENT		49.1