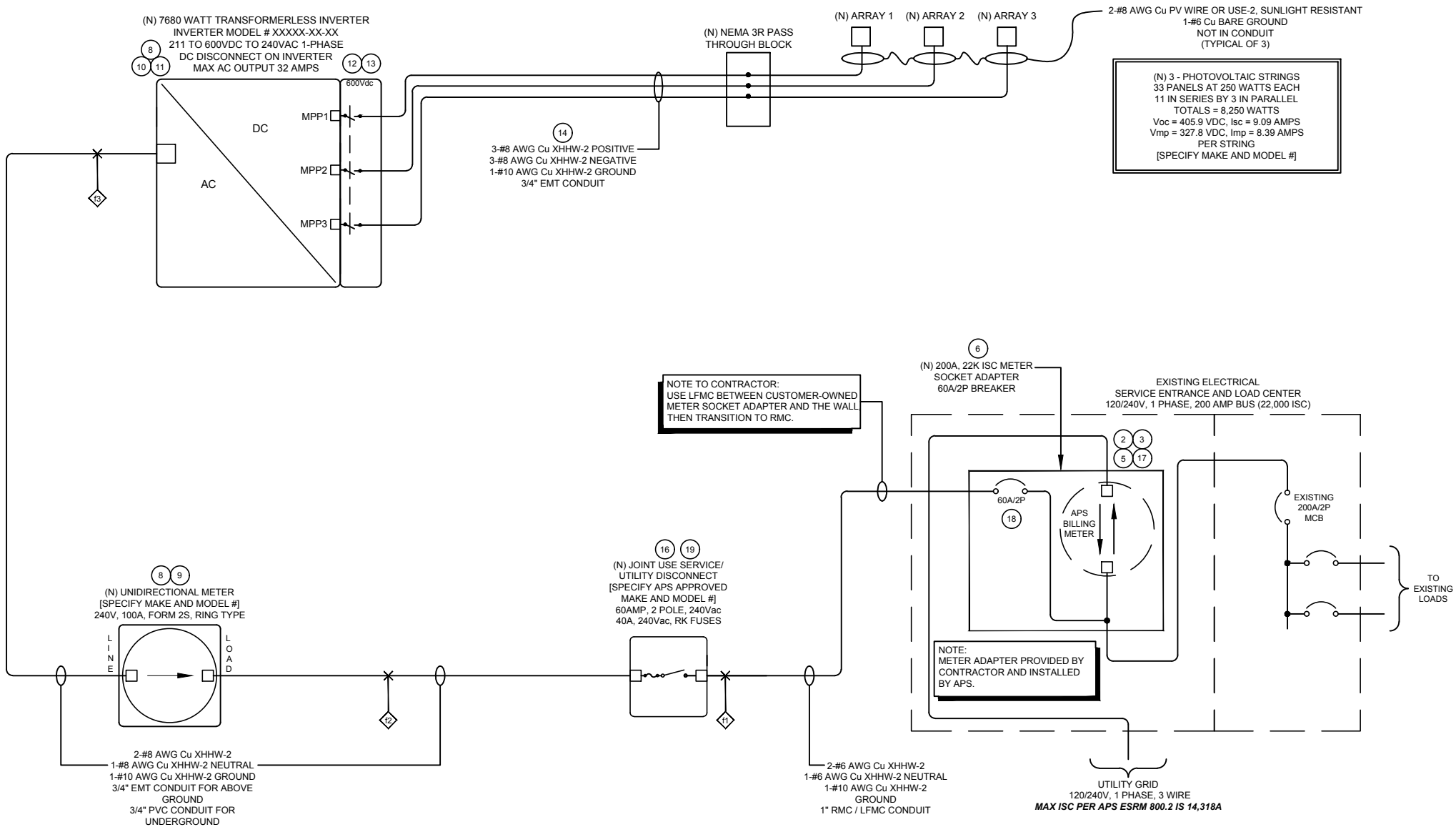


- 1 ALL EQUIPMENT SHALL BE INSTALLED AND LABELED IN ACCORDANCE WITH THE NEC AND ALL APPLICABLE REQUIREMENTS OF THE SERVING ELECTRIC UTILITY COMPANY AND OF THE LOCAL AUTHORITY HAVING JURISDICTION.
- 2 BI-DIRECTIONAL UTILITY METER INSTALLED BY UTILITY COMPANY.
- 3 INSTALL A PLACARD AT THE SERVICE ENTRANCE WITH EXPLICIT DIRECTIONS TO THE LOCATION OF THE UTILITY DISCONNECT AND VICE-VERSA, WHEN NOT ADJACENT AS REQUIRED BY APS.
- 4 LABEL "UTILITY DISCONNECT". SWITCH COVER TO BE LOCKED AT ALL TIMES BY UTILITY. SWITCH IS TO BE VISUAL OPEN AND ACCESSIBLE PER UTILITY REQUIREMENT AND CONFORM TO NFPA 70E 120.5(3) AND NEC 705.20, AND IS RATED FOR THE AVAILABLE FAULT CURRENT.
- 5 LABEL "WARNING - A GENERATION SOURCE IS CONNECTED BETWEEN APS BILLING METER AND THE MAIN SERVICE DISCONNECTING MEANS VIA METER SOCKET ADAPTER. FOLLOW PROPER LOCKOUT/TAGOUT PROCEDURES TO ENSURE UTILITY DISCONNECT IS OPEN PRIOR TO PERFORMING WORK ON THIS DEVICE".
- 6 UTILITY SIDE CONNECTION, ANY CONNECTIONS TO UTILITY EQUIPMENT MADE WITHIN UTILITY-SEALED COMPARTMENTS NEEDS TO BE MADE BY QUALIFIED APS PERSONNEL.
- 7 PROVIDE WARNING SIGN PER NEC 690.13(B) READING "WARNING-ELECTRIC SHOCK HAZARD-TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION".
- 8 EQUIPMENT SHALL BE TESTED, LISTED AND MARKED TO WITHSTAND THE AVAILABLE SHORT CIRCUIT CURRENT.
- 9 LABEL "UNIDIRECTIONAL METER". METER SOCKET ENCLOSURE AND SOCKET PROVIDED AND INSTALLED BY CUSTOMER PER APS ESRM. METER PROVIDED AND INSTALLED BY APS.
- 10 LISTING AGENCY NAMES AND NUMBERS TO BE INDICATED ON POWER INVERTER AND SOLAR MODULES PER NEC 110.3(B).
- 11 DC ARC FAULT PROTECTION TO BE INCLUDED IN THE INVERTER PER NEC 690.11 AS REQUIRED BY MUNICIPALITY.
- 12 LABEL "PHOTOVOLTAIC ARRAY DC DISCONNECT DEVICE 1/X PER NEC. LABEL WITH OPERATING CURRENT, OPERATING VOLTAGE, MAXIMUM SYSTEM VOLTAGE, AND SHORT CIRCUIT CURRENT PER NEC. SWITCH TO BE LOCKED PER NEC.
- 13 LABEL, "WARNING DO NOT OPEN FUSES UNDER LOAD."
- 14 METALLIC CONDUIT SHALL BE USED WITHIN BUILDING PER NEC 690.31.
- 15 GEC TO BE INSTALLED AS REQUIRED BY MANUFACTURER INSTRUCTIONS AND NEC 250.
- 16 LABEL "PHOTOVOLTAIC SERVICE DISCONNECT". SWITCH COVER TO BE LOCKED AT ALL TIMES BY CUSTOMER. SWITCH CONFORMS TO NEC 230 AND IS RATED FOR THE AVAILABLE FAULT CURRENT. LOCATE ADJACENT TO SES.
- 17 A PERMANENT PLACARD OR DIRECTORY IS INSTALLED PER NEC 705.10.
- 18 LABEL "METER SOCKET ADAPTER DISCONNECT - NOT SERVICE EQUIPMENT". SIMILAR TO NEC 230.82(3) LABEL FOR METER DISCONNECT. SWITCH COVER TO BE LOCKED AT ALL TIMES BY CUSTOMER. THE METER SOCKET ADAPTER DISCONNECT IS NOT LISTED, TESTED OR MARKED (REFER TO UL414) AS A SERVICE DISCONNECT. THEREFORE, THE CONDUCTORS BETWEEN THE LOAD SIDE OF THE MSA DISCONNECT AND THE FUSED SERVICE DISCONNECT ARE CONSIDERED SERVICE CONDUCTORS.
- 19 SHARED LOCK PROVIDED BY APS.

NOTE: All equipment must be utilized in accordance with the manufacturer's intended use and design specifications.

<p>11</p>	<p>AVAILABLE = xx,xxx.xx AIC D = x' F = x,xxx M = x,xxx ISC = xx,xxx.xx AIC</p>
<p>12</p>	<p>AVAILABLE = xx,xxx.xx AIC D = x' F = x,xxx M = x,xxx ISC = x,xxx.xx AIC</p>
<p>13</p>	<p>AVAILABLE = x,xxx.xx AIC D = x' F = x,xxx M = x,xxx ISC = x,xxx.xx AIC</p>

NOTE: SYSTEM DESIGNED IN
ACCORDANCE WITH THE 2023 NEC



THESE SAMPLE DRAWINGS ARE INTENDED FOR
METER SOCKET ADAPTER PRODUCTS THAT
CONNECT A RENEWABLE SOURCE TO THE
SUPPLY SIDE OF THE MAIN DISCONNECT.

THESE SAMPLE DRAWINGS ARE FOR ILLUSTRATION PURPOSES ONLY AND ARE NOT TO BE USED FOR DESIGN OR CONSTRUCTION. THE DRAWINGS AND THEIR SUITABILITY FOR END USE IS NOT IMPLIED. THE INTENT IS TO ONLY ILLUSTRATE TYPICAL MINIMUM INFORMATION REQUIRED AT THE TIME OF APPLICATION TO APS. ADDITIONAL INFORMATION MAY BE REQUIRED.

SAMPLE METER SOCKET ADAPTER ONE-LINE DIAGRAM

										JOHN DOE RESIDENCE 1234 W. ABC AVENUE, PHOENIX 7.68KW(AC) & 8.25KW(DC) ONE-LINE DIAGRAM	<div><div></div><div>aps</div></div> <div>SCALE <u>N.T.S.</u> DATE <u>5-19-23</u></div>							
											DWN JRL	EXD	APPROVED					
											CHD SRB	RVWD	DRAWING APPROVED BY					
											DWG	UNIT	DISC	TYPE	SYS	NUMBER	SHEET	
											123456						1 OF 5	
NO.	DATE	REVISION			DWN	CHD	EXD	RVWD	APVD	W A								


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- 9 LABEL "UNIDIRECTIONAL METER". METER SOCKET ENCLOSURE AND SOCKET PROVIDED AND INSTALLED BY CUSTOMER PER APS ESRM. METER PROVIDED AND INSTALLED BY APS.
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- 17 A PERMANENT PLACARD OR DIRECTORY IS INSTALLED PER NEC 705.10.
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- 19 SHARED LOAD PROVIDED BY APS.

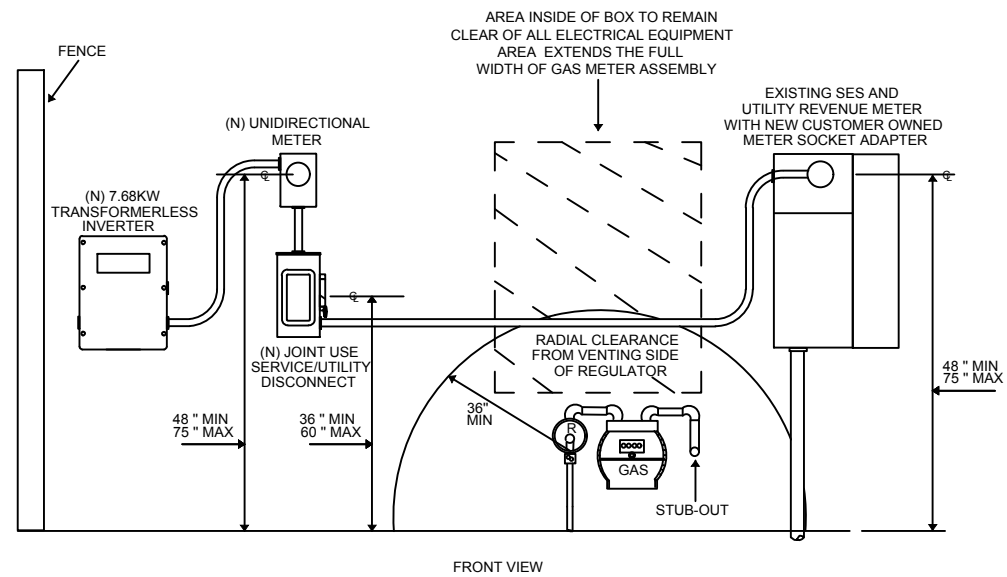
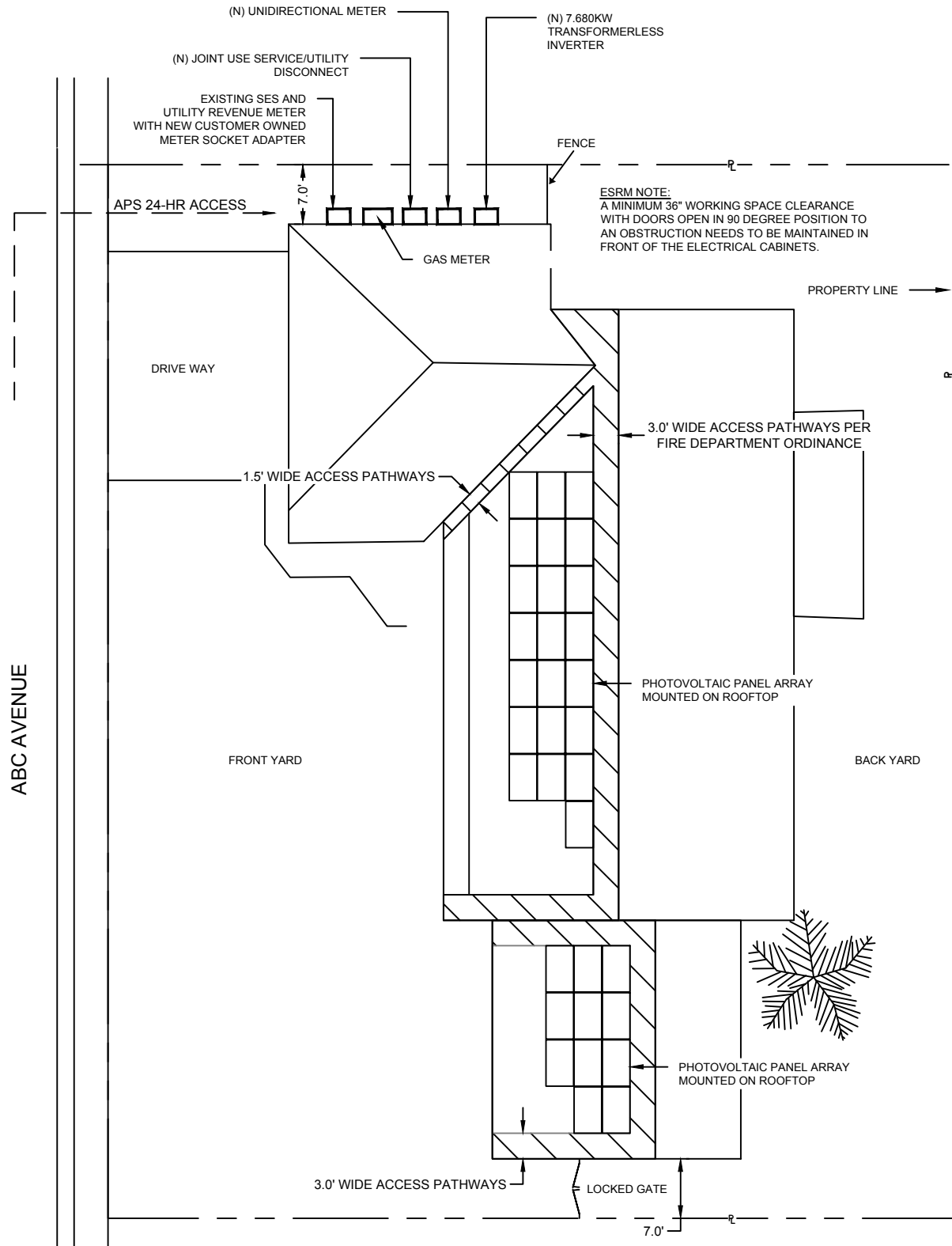
FAULT CALCULATIONS

11	AVAILABLE = $\frac{V}{Z_{\text{fault}}}$ D = $\frac{V}{Z_{\text{fault}}}$ F = $\frac{V}{Z_{\text{fault}}}$ M = $\frac{V}{Z_{\text{fault}}}$ Isc = $\frac{V}{Z_{\text{fault}}}$
12	AVAILABLE = $\frac{V}{Z_{\text{fault}}}$ D = $\frac{V}{Z_{\text{fault}}}$ F = $\frac{V}{Z_{\text{fault}}}$ M = $\frac{V}{Z_{\text{fault}}}$ Isc = $\frac{V}{Z_{\text{fault}}}$
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* SOURCE: COOPER
BUSSMAN SPD MANUAL
REV 2009. CALCULATIONS
IN ACCORDANCE WITH NEC
ARTICLE 110.9 & 110.10



										JOHN DOE RESIDENCE 1234 W. ABC AVENUE, PHOENIX 7.68KW(AC) & 8.25KW(DC) THREE-LINE DIAGRAM	SCALE <u>N.T.S.</u>  DATE <u>5-19-23</u>						
											DWN JRL	EXD	APPROVED				
											CHD SRB	RVWD					
											DRAWING APPROVED BY						
											DWG 123456	UNIT	DISC	TYPE	SYS	NUMBER	SHEET 2 OF 5
NO.	DATE	REVISION			DWN	CHD	EXD	RVWD	APVD	W A							



NOTE:

1. UTILITY HAS 24-HR UNRESTRICTED ACCESS TO UTILITY DISCONNECT, APS METERS, AND METER DISCONNECTS.

REFERENCE SECTION 301.15 OF THE APS ESRM FOR ELECTRIC METER SEPARATION BETWEEN WATER AND GAS.

2. WORKSPACE IN FRONT OF AC ELECTRICAL SYSTEM COMPONENTS SHALL BE IN ACCORDANCE WITH APS ESRM AND NEC REQUIREMENTS.

FOR APS REQUIREMENT, REFERENCE SECTION 300 OF THE APS ESRM AND SECTION 8.2 OF THE APS INTERSECTION REQUIREMENTS.

NOTE: SYSTEM DESIGNED IN ACCORDANCE WITH THE 2023 NEC

SAMPLE METER SOCKET ADAPTER SITE PLAN

NO.	DATE	REVISION	DWN	CHD	EXD	RVWD	APVD	W	A	

JOHN DOE RESIDENCE
1234 W. ABC AVENUE
7.68KW(AC) & 8.25KW(DC)
SITE PLAN

SCALE

N.T.S.

DATE 5-19-23

DWN

JRL

EXD

CHD

SRB

RVWD

APPROVED

DWG

123456

UNIT

DISC

TYPE

SYS

NUMBER

SHEET

4 OF 5

DRAWING APPROVED BY

aps