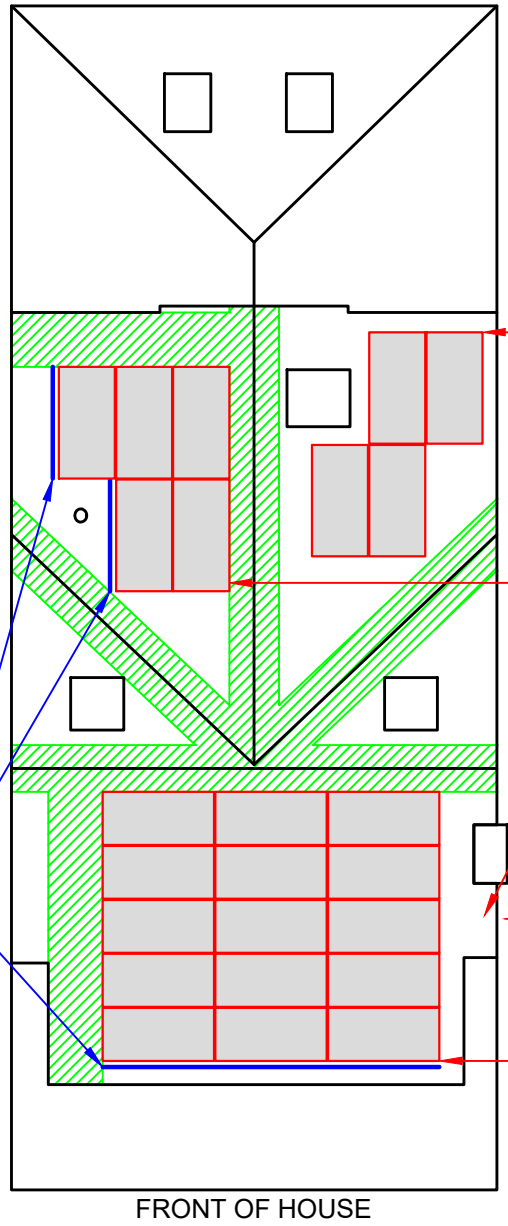
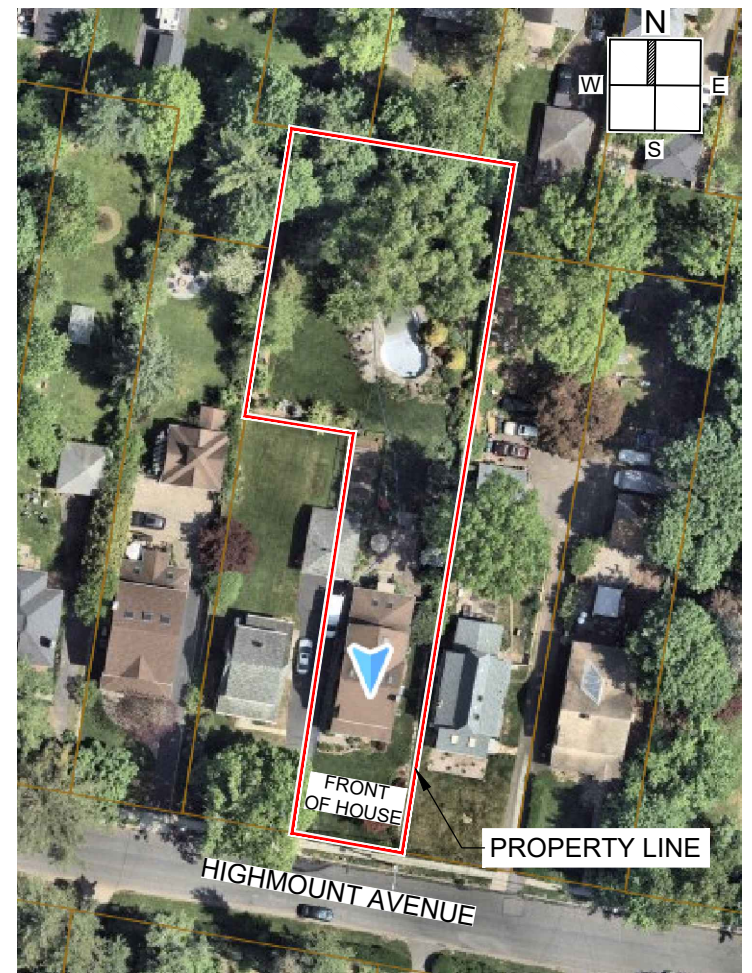
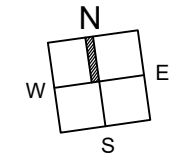


VICINITY MAP
N.T.S.



SITE PLAN



KEY MAP
N.T.S.

General Notes

1. Modules to be SUNPOWER 425 Watt BoB Residential AC Module, to be installed per SUNPOWER Installation Manual.
2. Racking to be InvisiMount Racking, to be installed as per InvisiMount Racking Manufacturer's Specifications.

Wind and Snow Load

Wind Speed: 115 mph
Snow Load: 40 psf

Design Notes (New York)

Design complies with 2020 Fire Code of NYS, 2020 NYSRC and NEC 2017

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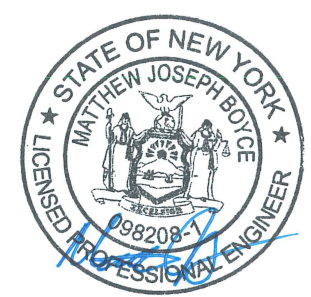
LUBECK RESIDENCE
122 HIGHMOUNT AVENUE
NYACK, NY, 10960
SECTION 60.17 BLOCK 2 LOT 74
NYACK
VILLAGE OF UPPER NYACK

DATE	VER.	BY	CHK	REMARKS
7/27/2023	R0	DJ		
JOB #23-0228				

SYSTEM DESCRIPTION:

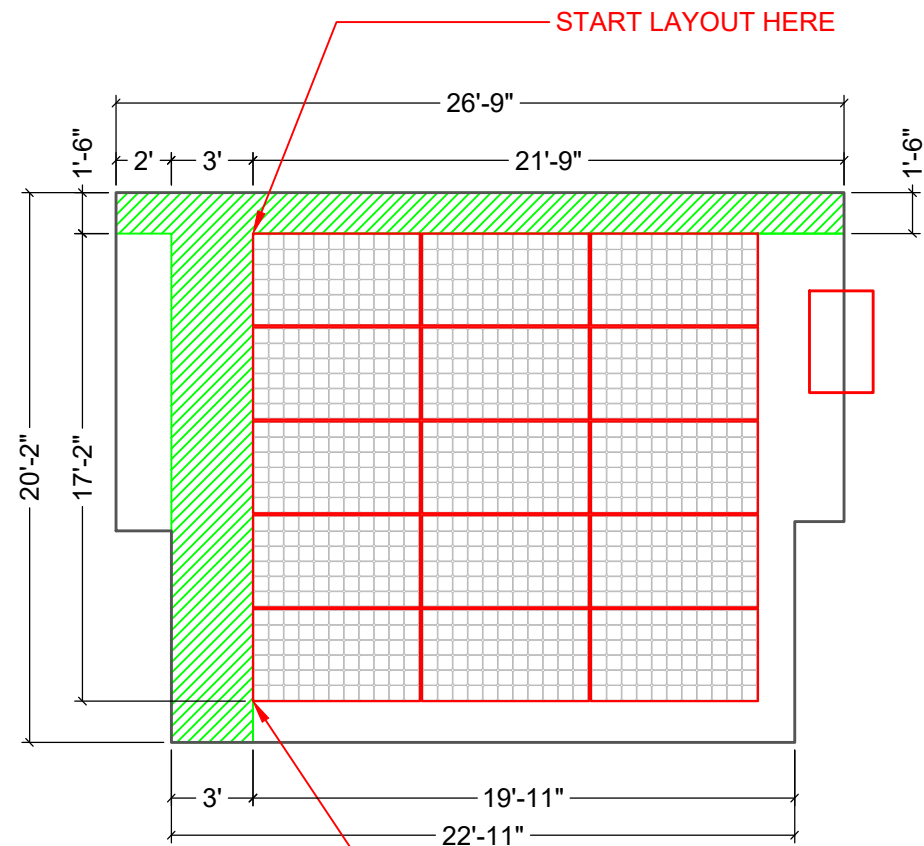
- 24 Photovoltaic Panels
- SUNPOWER
- SPR-M425-BLK-H-AC, BoB
- System Size: 10.20 kW DC
9.22 kW AC

ARRAY	1	2	3		
TILT	27°	26°	26°		
AZIMUTH	188°	98°	278°		

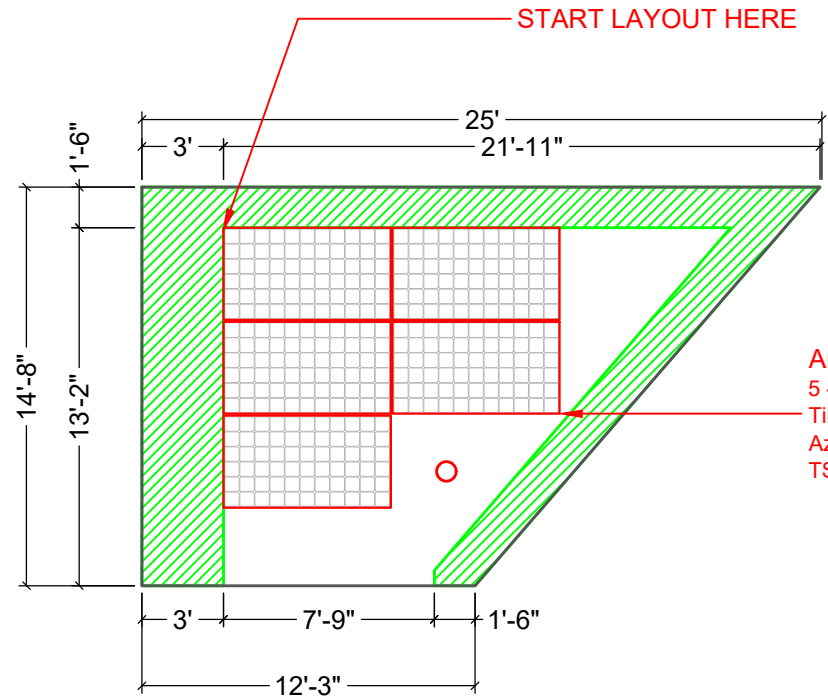


S1

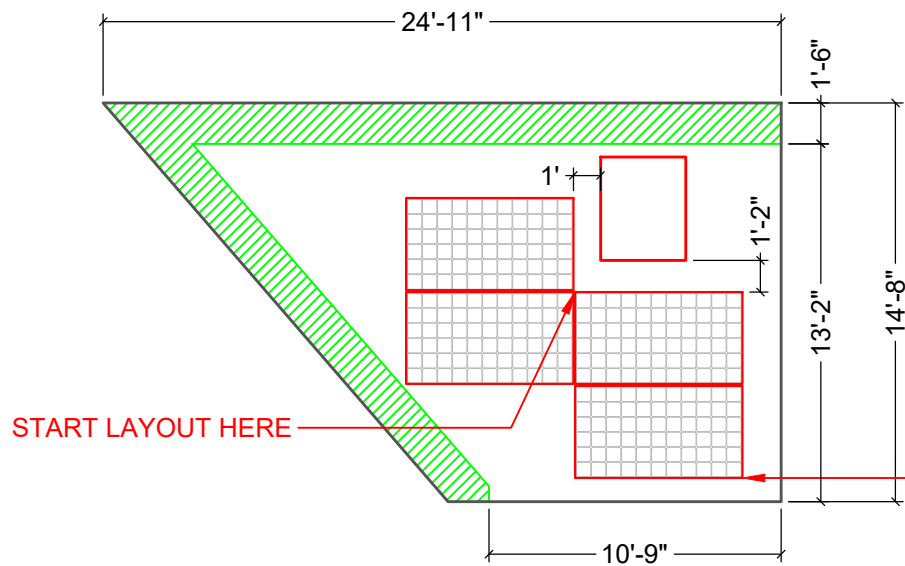
SITE PLAN



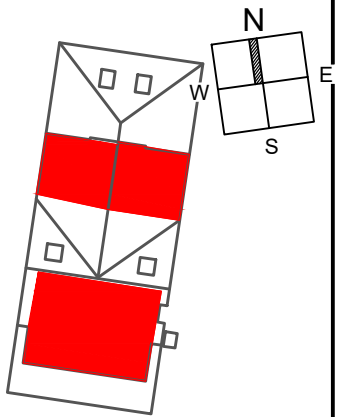
Array 1
15 - Panels
Tilt: 27°
Azimuth: 188°
TSRF: 83%



Array 3
5 - Panels
Tilt: 26°
Azimuth: 278°
TSRF: 70%



Array 2
4 - Panels
Tilt: 26°
Azimuth: 98°
TSRF: 74%



KEY MAP
N.T.S.

Array 1
Rafters: 2x6 @ 24" o.c.

Array 2 & 3
Rafters: 2x8 @ 16" o.c.

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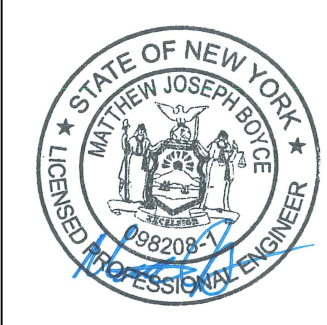
LUBECK RESIDENCE
122 HIGHMOUNT AVENUE
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SECTION 60.17 BLOCK 2 LOT 74
NYACK
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DATE	VER.	BY	CHK	REMARKS
7/27/2023	R0	DJ		
JOB #23-0228				

SYSTEM DESCRIPTION:

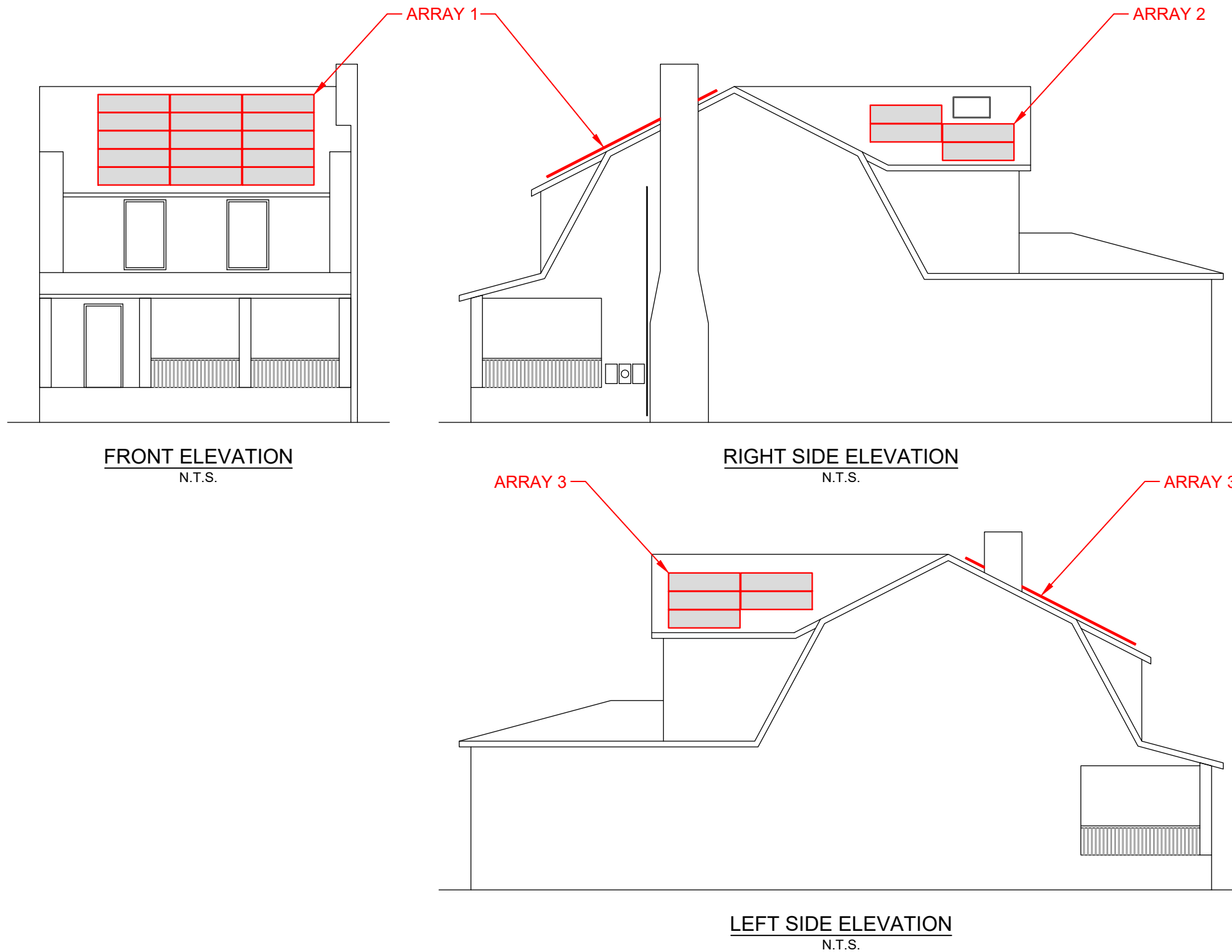
- 24 Photovoltaic Panels
- SUNPOWER
- SPR-M425-BLK-H-AC, BoB
- System Size: 10.20 kW DC
9.22 kW AC

ARRAY	1	2	3			
TILT	27°	26°	26°			
AZIMUTH	188°	98°	278°			



S2.1

ROOF PLAN



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 NYACK
 VILLAGE OF UPPER NYACK

DATE	VER.	BY	CHK	REMARKS
7/27/2023	R0	DJ		
JOB #23-0228				

SYSTEM DESCRIPTION:

- 24 Photovoltaic Panels
- SUNPOWER
- SPR-M425-BLK-H-AC, BoB
- System Size: 10.20 kW DC
9.22 kW AC

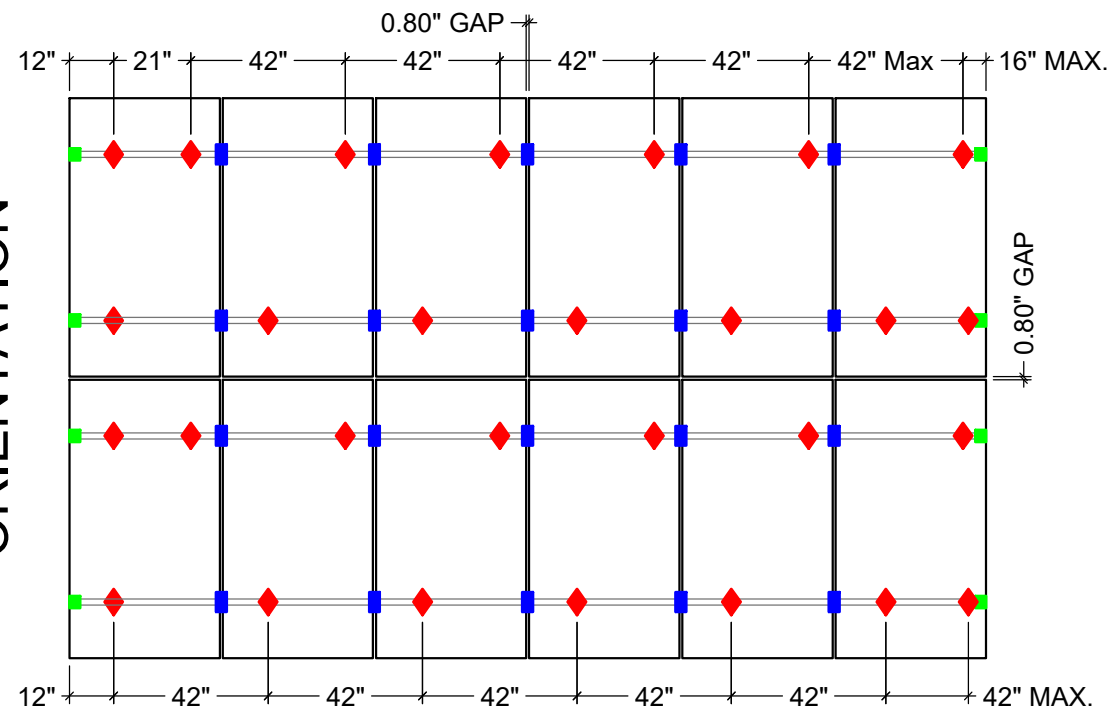
ARRAY	1	2	3			
TILT	27°	26°	26°			
AZIMUTH	188°	98°	278°			



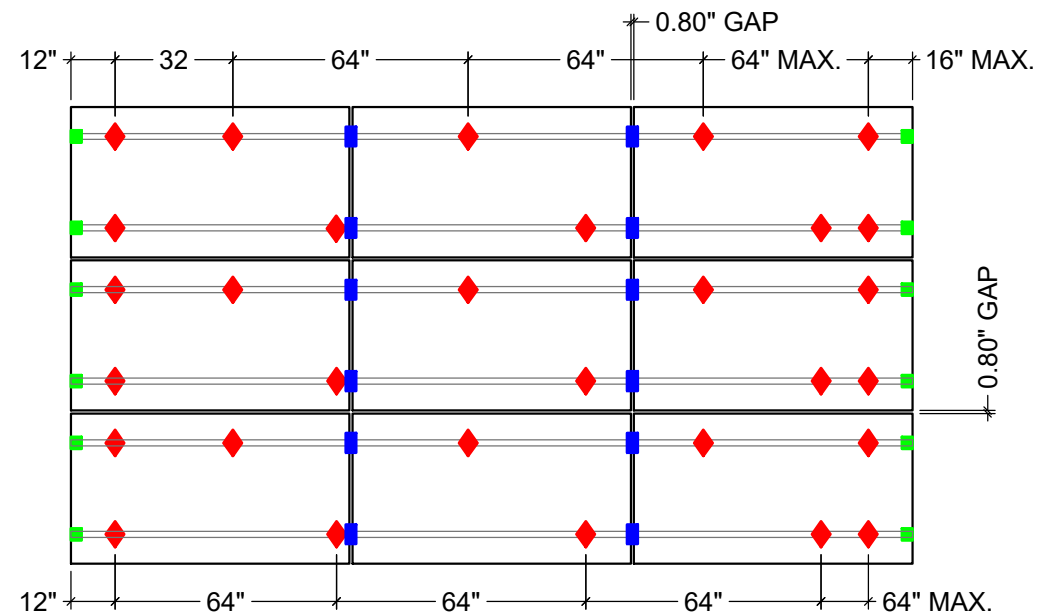
S2.2

ELEVATION

PORTRAIT ORIENTATION



LANDSCAPE ORIENTATION



ARRAY LAYOUT
NTS

LEGEND

- MID CLAMP
- END CLAMP
- ◆ ROOF ATTACHMENT (MAX SPACING: 64")
- INVISIMOUNT RAILS (2 PER MODULE)
- MODULE
- RAIL LOCATION, LANDSCAPE ORIENTATION
- RAIL LOCATION, PORTRAIT ORIENTATION

ATTACHMENT NOTES

- ATTACHMENTS NOT TO EXCEED 42" O.C. HORIZONTALLY
- MAXIMUM RAIL CANTILEVER: 16"
- MINIMUM 2 ATTACHMENT PER MODULE (GLOBALLY)
- STAGGER ATTACHMENTS

CLAMPS NOTES

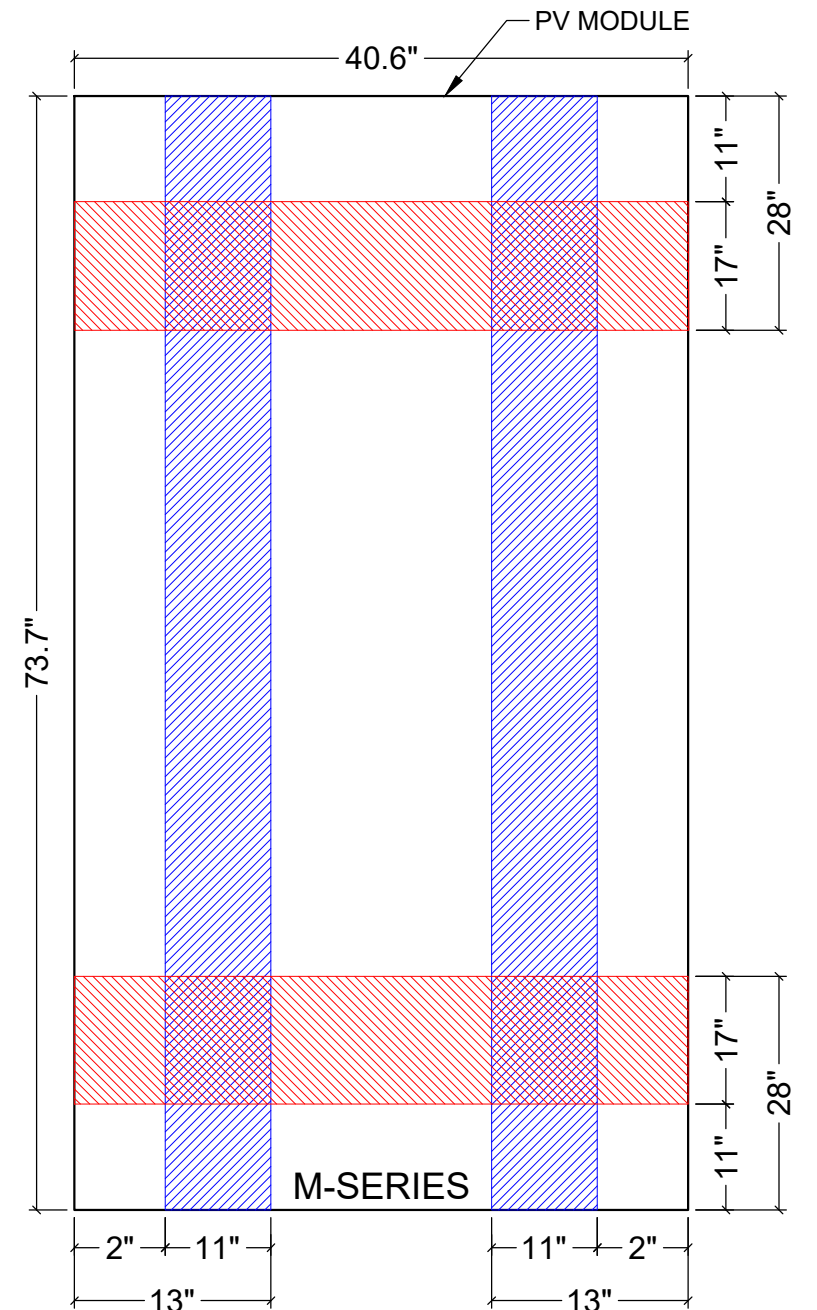
- FOR SUNPOWER U-SERIES MODULE USE UNIVERSAL MID CLAMP AND UNIVERSAL END CLAMP
- FOR SUNPOWER A, M, X & E SERIES USE CLASSIC MID CLAMP AND CLASSIC END CLAMP

RAIL NOTES

- RAILS SHALL BE POSITIONED IN THE HATCHED REGION

MODULE NOTES

- WARNING! DO NOT STEP ON, STAND ON, OR WALK ON THE MODULES OR THE MODULE FRAMES, AND DO NOT PLACE ANYTHING ON THEM--EVEN FOR A MOMENT.



CLAMP LOCATION
NTS

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LUBECK RESIDENCE

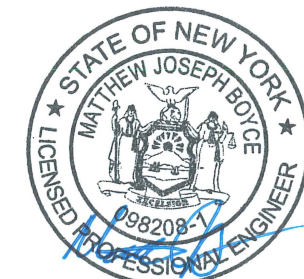
122 HIGHMOUNT AVENUE
NYACK, NY, 10960
SECTION 60.17 BLOCK 2 LOT 74
NYACK
VILLAGE OF UPPER NYACK

DATE	VER.	BY	CHK	REMARKS
7/27/2023	R0	DJ		
JOB #23-0228				

SYSTEM DESCRIPTION:

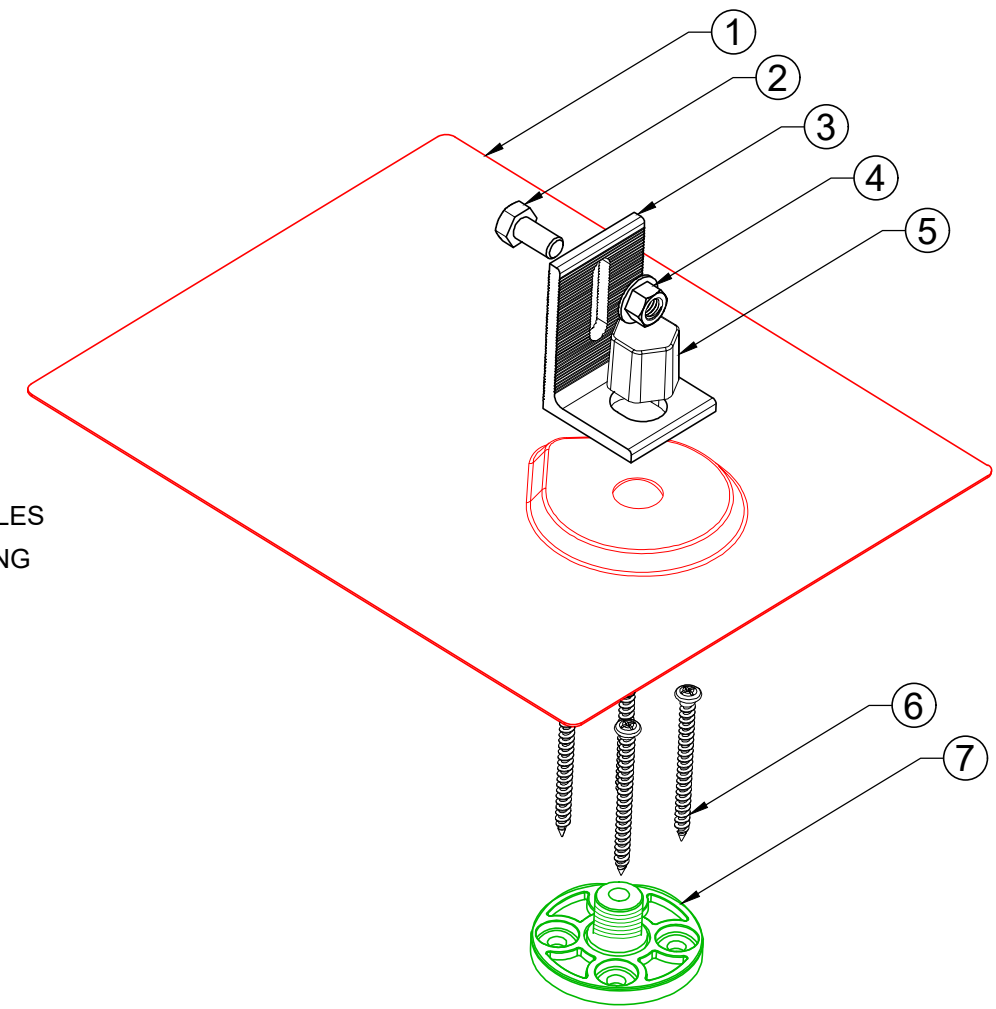
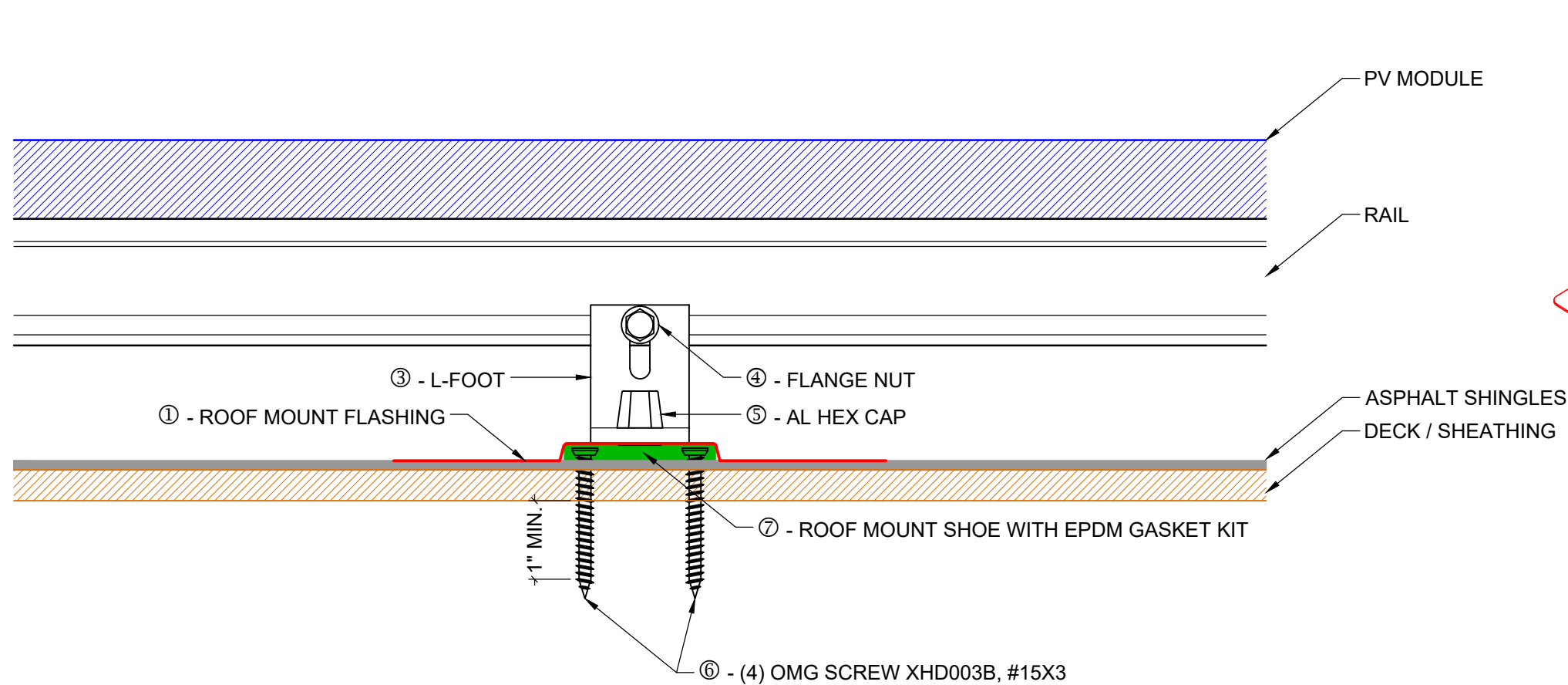
- 24 Photovoltaic Panels
- SUNPOWER
- SPR-M425-BLK-H-AC, BoB
- System Size: 10.20 kW DC
9.22 kW AC

ARRAY	1	2	3		
TILT	27°	26°	26°		
AZIMUTH	188°	98°	278°		



S3

RACKING LAYOUT



ITEM	PART NUMBER	DESCRIPTION	QTY
1	A20052-001	ROOF MOUNT FLASHING	1
2	B15018-001	HEX CAP SCREW 3/8-16 X 3/4	1
3	A20064-003	L-FOOT	1
4	B15003-001	FLANGE NUT 3/8-16	1
5	A20066-001	AL HEX CAP	1
6	B15040-001	OMG SCREW XHD003B,#15X3	4
7	K10291-001	ROOF MOUNT SHOE WITH EPDM GASKET KIT	1

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 SECTION 60.17 BLOCK 2 LOT 74
 NYACK
 VILLAGE OF UPPER NYACK

DATE	VER.	BY	CHK	REMARKS
7/27/2023	R0	DJ		
JOB #23-0228				

SYSTEM DESCRIPTION:

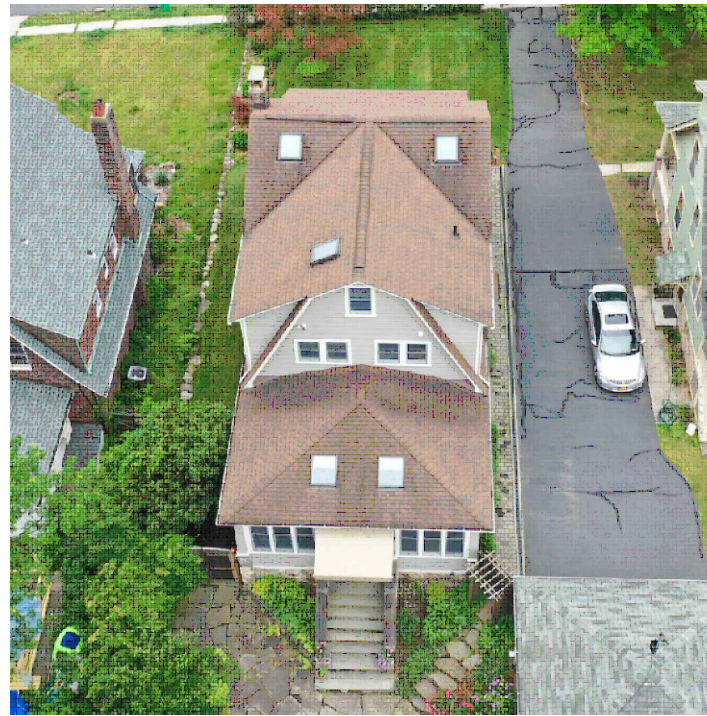
- 24 Photovoltaic Panels
- SUNPOWER
- SPR-M425-BLK-H-AC, BoB
- System Size: 10.20 kW DC
9.22 kW AC

ARRAY	1	2	3			
TILT	27°	26°	26°			
AZIMUTH	188°	98°	278°			

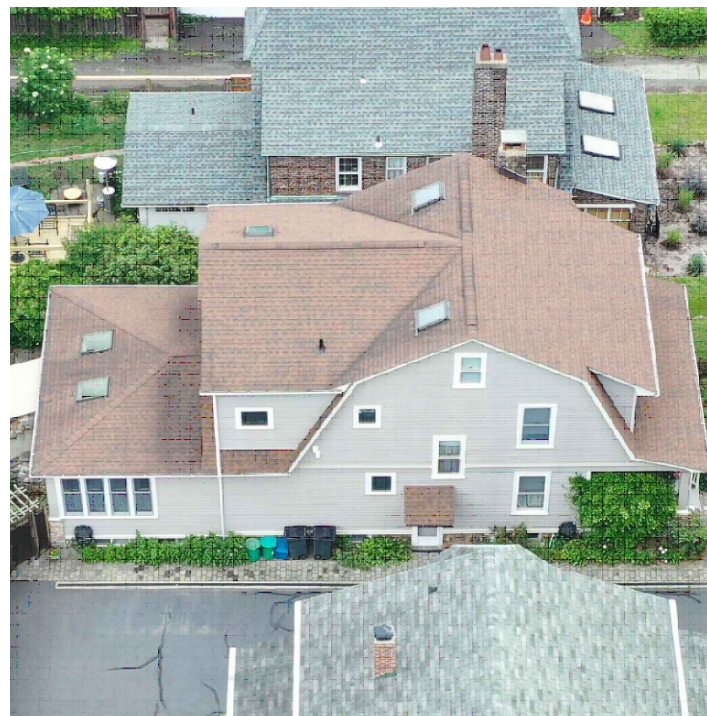


S4

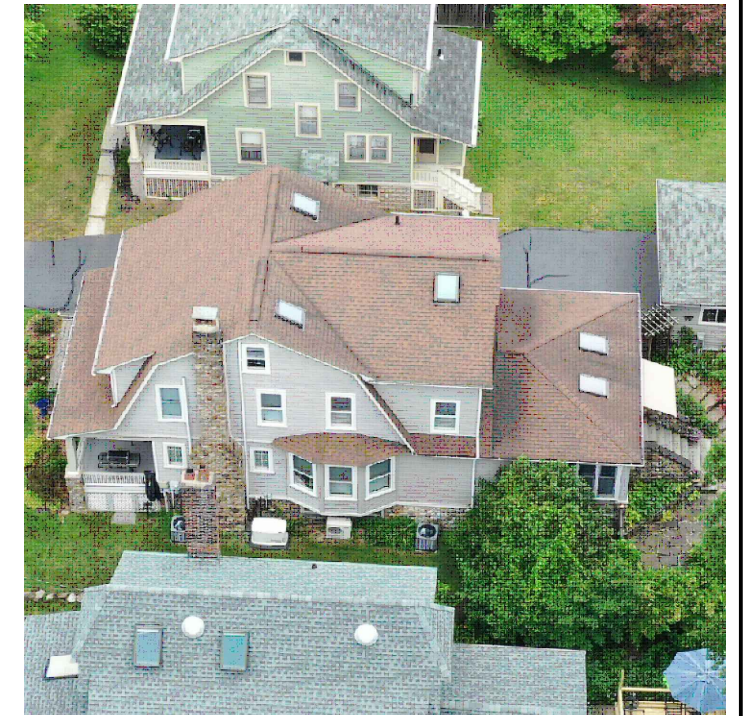
**ATTACHMENT
 DETAIL**



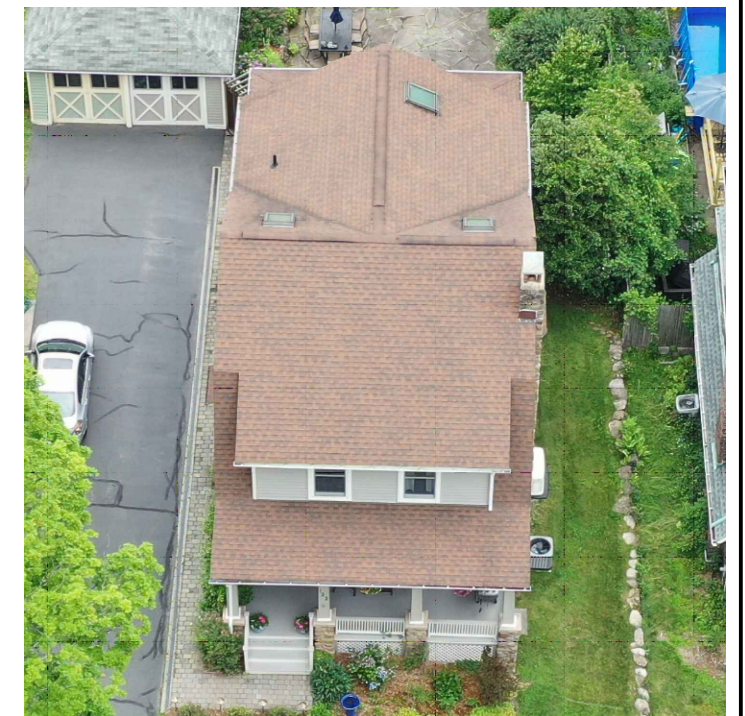
NORTH SIDE



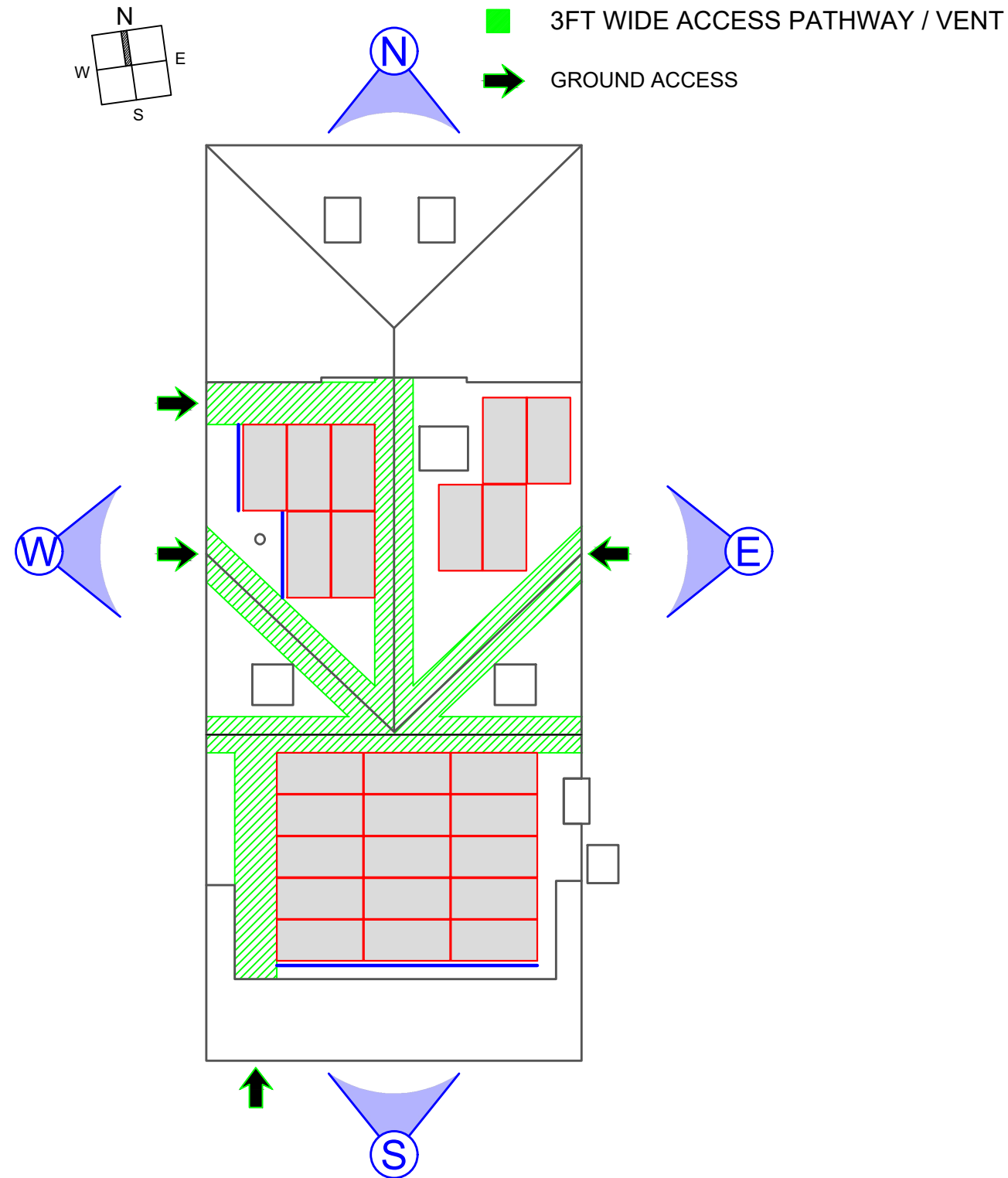
WEST SIDE



EAST SIDE



SOUTH SIDE



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DATE	VER.	BY	CHK	REMARKS
7/27/2023	R0	DJ		
JOB #23-0228				

SYSTEM DESCRIPTION:

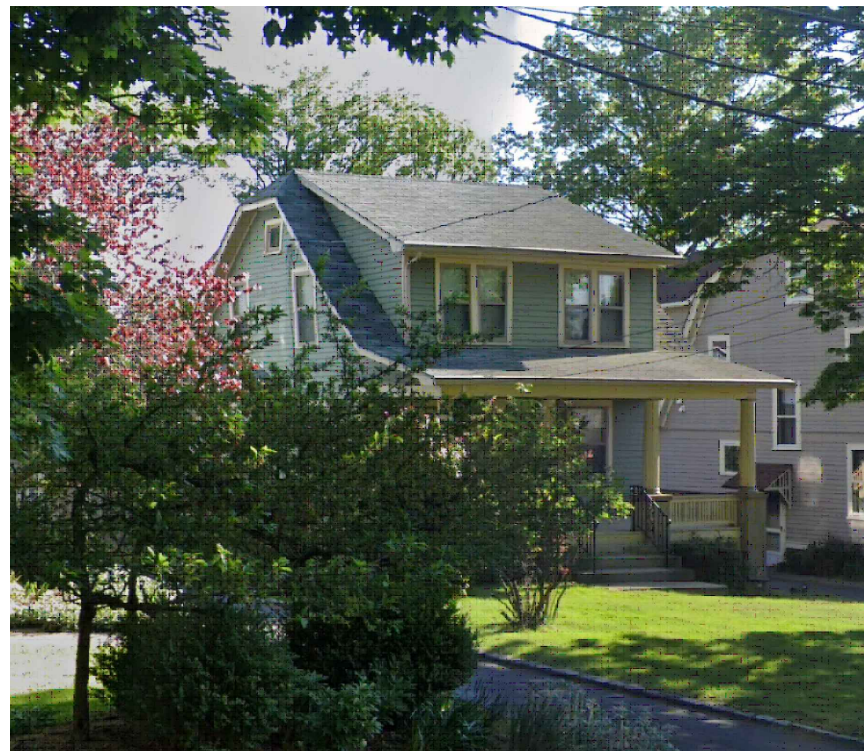
- 24 Photovoltaic Panels
- SUNPOWER
- SPR-M425-BLK-H-AC, BoB
- System Size: 10.20 kW DC
9.22 kW AC

ARRAY	1	2	3			
TILT	27°	26°	26°			
AZIMUTH	188°	98°	278°			



S5

ROOF ACCESS
PLAN



ADJACENT PROPERTY ON THE LEFT



OWNER'S PROPERTY



ADJACENT PROPERTY ON THE RIGHT



PROPERTY ACROSS THE STREET

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 NYACK
 VILLAGE OF UPPER NYACK

DATE	VER.	BY	CHK	REMARKS
7/27/2023	R0	DJ		
JOB #23-0228				

SYSTEM DESCRIPTION:

- 24 Photovoltaic Panels
- SUNPOWER
- SPR-M425-BLK-H-AC, BoB
- System Size: 10.20 kW DC
9.22 kW AC

ARRAY	1	2	3			
TILT	27°	26°	26°			
AZIMUTH	188°	98°	278°			



S6

ADJACENT /
 ACROSS
 PROPERTIES

INVERTER SETTINGS:

IEEE1547 Protective Settings

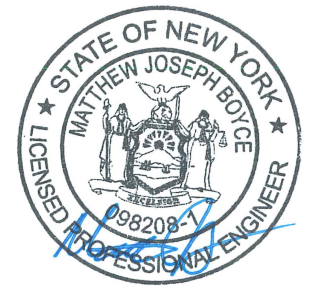
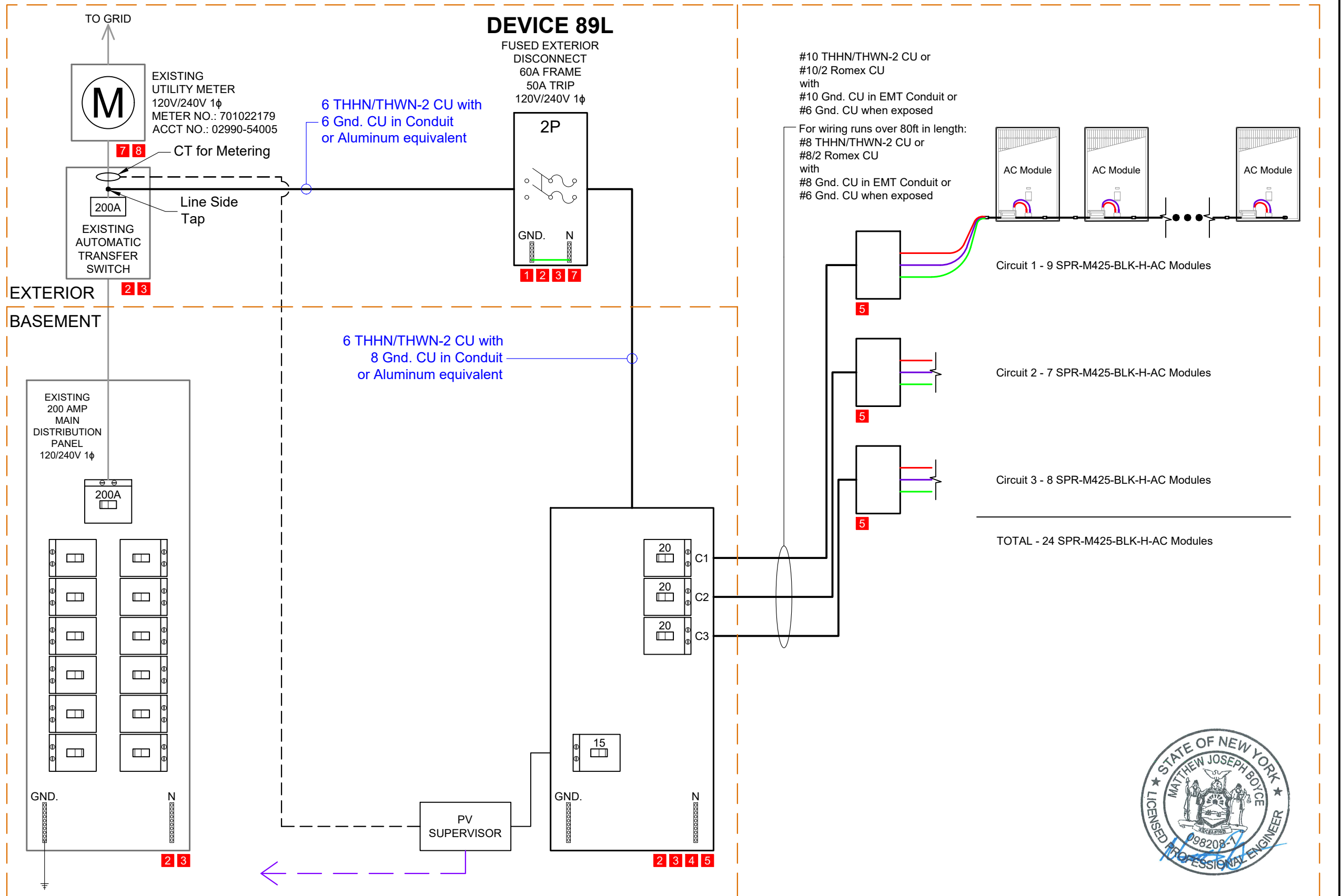
FREQUENCY DISTURBANCE TRIP		
Trip Function	Voltage (p.u.)	Clearing Time (s)
OF2	62.0	0.16
OF1	61.2	300
UF1	58.5	300
UF2	56.5	0.16

VOLTAGE DISTURBANCE TRIP		
Trip Function	Voltage (p.u.)	Clearing Time (s)
OV2	1.20	0.16
OV1	1.10	2.00
UV1	0.80	3.00
UV2	0.50	1.10

NOTES:

- Labels to comply with PSC and NEC requirements.
- All wiring to comply with NEC.
- Ground to be continuous
- Ground wire connections to be "irreversible"
- Meter pan to be grounded only.
- Neutral to pass through Meter Pan
- No line side tap connection in utility meter pan
- All equipment to be bonded with ground lug per NEC Code.
- No additional breakers to be added to spare spaces

- 1** 89L SOLAR AC DISCONNECT
- 2** Warning - Inverter Output Connection Do NOT Relocate This Overcurrent Device
- 3** WARNING - DUAL POWER SOURCES
Second Source is a Photovoltaic System
Rated AC Current _____ Amps
Nominal AV Voltage _____ Volts
- 4** SOLAR AC COMBINER PANEL
- 5** SOLAR PV CIRCUITS ONLY
Do Not Use For Non-PV Circuits
- 6** SOLAR PRODUCTION METER
- 7** WARNING
DUAL POWER SOURCE
SECOND SOURCE IS PV SYSTEM
- 8** PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN



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LUBECK RESIDENCE
122 HIGHMOUNT AVENUE
NYACK, NY 10960
Sect. 60.17, Block 2, Lot 17

DATE	VER.	BY	CHK	REMARKS
DJ	RO			

JOB #23-0228

Circuit Calculation:
 Max. no. of Inverter per circuit = 10
 $(1.25 \times 10 \times 384W) \div 240V = 20.00A$, Use 20A OCPD
 Total no. of Inverter = 24
 $(1.25 \times 24 \times 384W) \div 240V = 48.00A$, Use 50A OCPD

System Specifications:
 Total System:
 24 Mod x 425W = 10.2kW DC STC
 24 Inv x 384W = 9.2kW AC
 Nominal AC Voltage = 240V
 Max AC Current = 38.4A

Legend:

— Existing Service	— Ground
— L3 Blue Wire	— Data Comm.
— L2 Red Wire	— Sensor or Switch
— L1 Black Wire	— PV Label
— Neutral	

E1
LINE DIAGRAM