

PHOTOVOLTAIC ROOF MOUNT SYSTEM

14 MODULES-ROOF MOUNTED - 5.740 KW DC, 4.886 KW AC, 9 HAMMOND STREET, PROVIDENCE, RI 02909

PHOTOVOLTAIC SYSTEM SPECIFICATIONS:

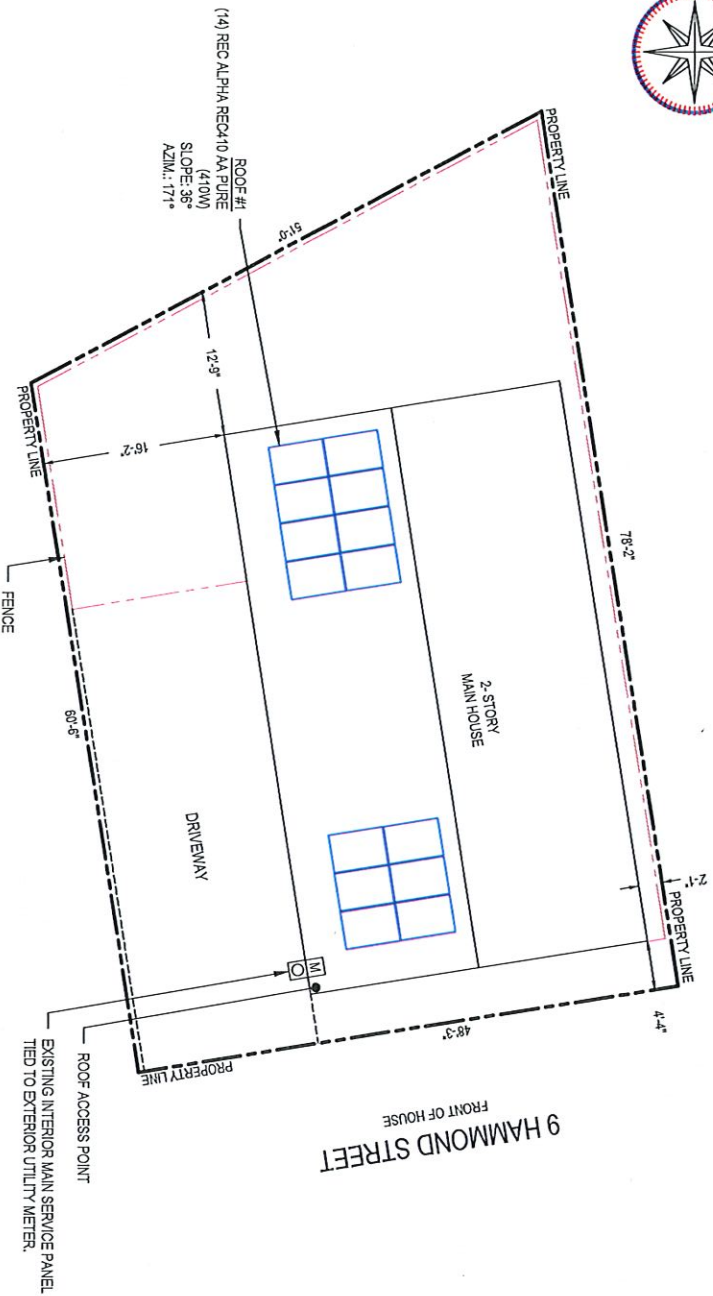
SYSTEM SIZE: 5.740 KW DC
 4.886 KW AC
 MODULE TYPE & AMOUNT: (14) REC ALPHA REC410 AA PURE (410W)
 MODULE DIMENSIONS: (LxW) 71.7x40.0071.20"
 INVERTER: (14) ENPHASE IQ84-72-2US (240V)
 INTERCONNECTION METHOD: LINE SIDE TAP

GOVERNING CODES

- ADOPTED CONSTRUCTION CODES
- 2018 INTERNATIONAL BUILDING CODE, IBC
- 2018 INTERNATIONAL RESIDENTIAL CODE, IRC
- 2020 NATIONAL ELECTRIC CODE

GENERAL NOTES:

- INSTALLATION OF SOLAR PHOTOVOLTAIC SYSTEM SHALL BE IN ACCORDANCE WITH NEC ARTICLE 690, AND ALL OTHER APPLICABLE NEC CODES WHERE NOTED OR EXISTING.
- PROPER ACCESS AND WORKING CLEARANCE AROUND EXISTING AND PROPOSED ELECTRICAL EQUIPMENT WILL COMPLY WITH NEC ARTICLE 110.
- ALL CONDUCTORS, INCLUDING THE GROUNDING ELECTRODE CONDUCTOR SHALL BE PROTECTED FROM PHYSICAL DAMAGE IN ACCORDANCE WITH NEC ARTICLE 250.
- THE PV MODULES ARE CONSIDERED NON-COMBUSTIBLE. THIS SYSTEM IS UTILITY INTERACTIVE PER UL 1741 AND DOES NOT INCLUDE STORAGE BATTERIES OR OTHER ALTERNATIVE STORAGE SOURCES.
- ALL DC WIRES SHALL BE SIZED ACCORDING TO NEC 690.81
- DC CONDUCTORS SHALL BE WITHIN PROTECTED RACEWAYS IN ACCORDANCE WITH (NEC 690.31)
- ALL SIGNAGE TO BE PLACED IN ACCORDANCE WITH LOCAL JURISDICTIONAL BUILDING CODE.
- PV MODULES TO BE RATED UL 1703 CLASS C FIRE RATING OR BETTER.
- ALL EQUIPMENT TO BE CERTIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY.



1 PLOT PLAN
 SCALE: 3/32" = 1'-0"
 PV 0.0

SHEET INDEX:

PV 0.0:	COVER SHEET
PV 1.0:	SITE PLAN
S 1.1:	MOUNT DETAILS & ROOF SECTION
E 1.1:	3-LINE DIAGRAM
E 1.2:	NOTES
E 1.3:	WARNING LABELS
DS-*	EQUIPMENT SPEC SHEET

ROOF ACCESS POINT

ROOF ACCESS POINT SHALL NOT BE LOCATED IN AREAS THAT REQUIRE THE PLACEMENT OF GROUND LADDERS OVER OPENINGS SUCH AS WINDOWS OR DOORS, AND LOCATED AT STRONG POINTS OF BUILDING CONSTRUCTION IN LOCATIONS WHERE THE ACCESS POINT DOES NOT CONFLICT WITH OVERHEAD OBSTRUCTIONS SUCH AS TREE LIMBS, WIRES OR SIGNS.



2 SATELLITE VIEW
 SCALE: NTS
 PV 0.0



3 VICINITY MAP
 SCALE: NTS
 PV 0.0



NEC SOLAR
 121 BROOKDAWSON RD,
 BRISTOL, RI 02809,
 PH#(401) 644-6932
 # RI AC685
 # WA AC2803

DESCRIPTION	DATE	REV
Revision	1/16/2023	01
Revision	3/27/2024	02

Signature with Seal

Project Name & Address

SARA MAJKA RESIDENCE
 9 HAMMOND STREET,
 PROVIDENCE, RI 02909
 APN NO. :PROVM32L312

Sheet Name
 COVER SHEET

Sheet Size
 ANSIB
 11" X 17"

Sheet Number
 PV 0.0

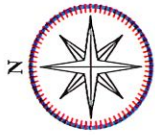
Drawn By
 PremiumCAD

1 PLOT PLAN
 SCALE: 3/32" = 1'-0"
 PV 0.0

PHOTOVOLTAIC SYSTEM SPECIFICATIONS:

SYSTEM SIZE:
 5.740 kW DC
 4.686 kW AC
 MODULE TYPE & AMOUNT:
 (14) REC ALPHA REC410 AA PURE (410W)
 (L/W/H) 71.7"X40.0"X1.20"
 INVERTER:
 (14) ENPHASE IQ8A-72-US (240V)

VISIBLE, LOCKABLE, LABELED DISCONNECT
 WITHIN 10' OF UTILITY METER



BILL OF MATERIALS

NUMBER OF MODULES	DESCRIPTION
14	REC ALPHA REC410 AA PURE (410W)
14	ENPHASE IQ8A-72-US (240V)
1	125A ENPHASE IQ COMBINER 44C X-IQ-AM1-240-44C, 240V COMBINER PANEL
1	60A FUSIBLE AC DISCONNECT WITH 30A FUSES, 240V AC DISCONNECT
34	SNAPRACK COMPOSITION L-FOOT KIT
7	SNAPRACK ULTRA RAIL 40 RACKING -168" SECTION
0	SPLICE KIT
20	MID CLAMPS /UFO
16	END CLAMPS /STOPPER SLEEVE
4	GROUNDING LUG

SYSTEM LEGEND

- M** EXISTING INTERIOR MAIN SERVICE PANEL & POINT OF INTERCONNECTION, TIED TO EXTERIOR UTILITY METER.
- AC** NEW VISIBLE, LOCKABLE, LABELED DISCONNECT LOCATED WITHIN 10' FROM THE UTILITY METER
- C** NEW DEDICATED PV SYSTEM COMBINER PANEL.
- 14 NEW REC ALPHA REC410 AA PURE (410W) MODULES WITH NEW 14-ENPHASE IQ8A-72-US (240V) INVERTERS, MOUNTED ON THE BACK OF EACH MODULES.
- ▨** = FIRE PATHWAY
- = ROOF OBSTRUCTIONS
- = ATTACHMENT POINTS
- = RAFTER
- - -** = RACKING SYSTEM
- - -** = ATTIC RUN
- ⊕** = CONDUIT ROOF TOP JUNCTION BOX

EXISTING INTERIOR MAIN SERVICE PANEL & POINT OF INTERCONNECTION, TIED TO EXTERIOR UTILITY METER.

NEW VISIBLE, LOCKABLE, LABELED DISCONNECT LOCATED WITHIN 10' FROM THE UTILITY METER

NEW DEDICATED PV SYSTEM COMBINER PANEL.

14 NEW REC ALPHA REC410 AA PURE (410W) MODULES WITH NEW 14-ENPHASE IQ8A-72-US (240V) INVERTERS, MOUNTED ON THE BACK OF EACH MODULES.

= FIRE PATHWAY

= ROOF OBSTRUCTIONS

= ATTACHMENT POINTS

= RAFTER

= RACKING SYSTEM

= ATTIC RUN

= CONDUIT ROOF TOP JUNCTION BOX

ROOF SECTIONS

- ROOF #01** MODULE - 14
 SLOPE - 36°
 AZIMUTH - 171°
 INTERIOR ROOF SHINGLE
 RAFTER SIZE & SPACING - 2"x6" @ 24" O.C.

CIRCUIT(S)

- CIRCUIT #1** - 08 MODULES
- CIRCUIT #2** - 06 MODULES

MODULE, ARRAY WEIGHT (LOAD CALC'S)

Number of Modules	14
Module Weight	45.20 LBS
Total Module (Array) Weight	632.80 LBS
Number of Attachment point	34
Mounting System Weight	1.5 LBS
Mounting System Weight	51.00 LBS
Total System Weight	683.80 LBS
Module Weight / Mounting System Weight	18.61 LBS
Weight at Each Attachment Point	19.92 SqFt
Module Area (71.7"x40.00")	278.83 SqFt
Total Array Area	2,34 SqFt
Distributed Load	1502 SqFt
Total Roof Area	18.56%
Total Percentage of Roof Covered	

NEC SOLAR
 12 BRISTOL AVENUE
 BRISTOL, RI 02809
 PH# (401) 644-5662
 # RI AC4682
 # WA 420803

REVISIONS

Description	Date	Rev
	11/22/2023	01
	3/27/2024	02

Signature with Seal

Project Name & Address
 SARA MAJKA RESIDENCE
 9 HAMMOND STREET,
 PROVIDENCE, RI 02909
 APN NO.: R0YMA32L312

Sheet Name
 SITE PLAN

Sheet Size
 ANSIB
 11" X 17"

Sheet Number
 PV 1.0
 Drawn By
 PremiumCAD



1 SITE PLAN
 PV 1.0
 SCALE: 3/16" = 1'-0"