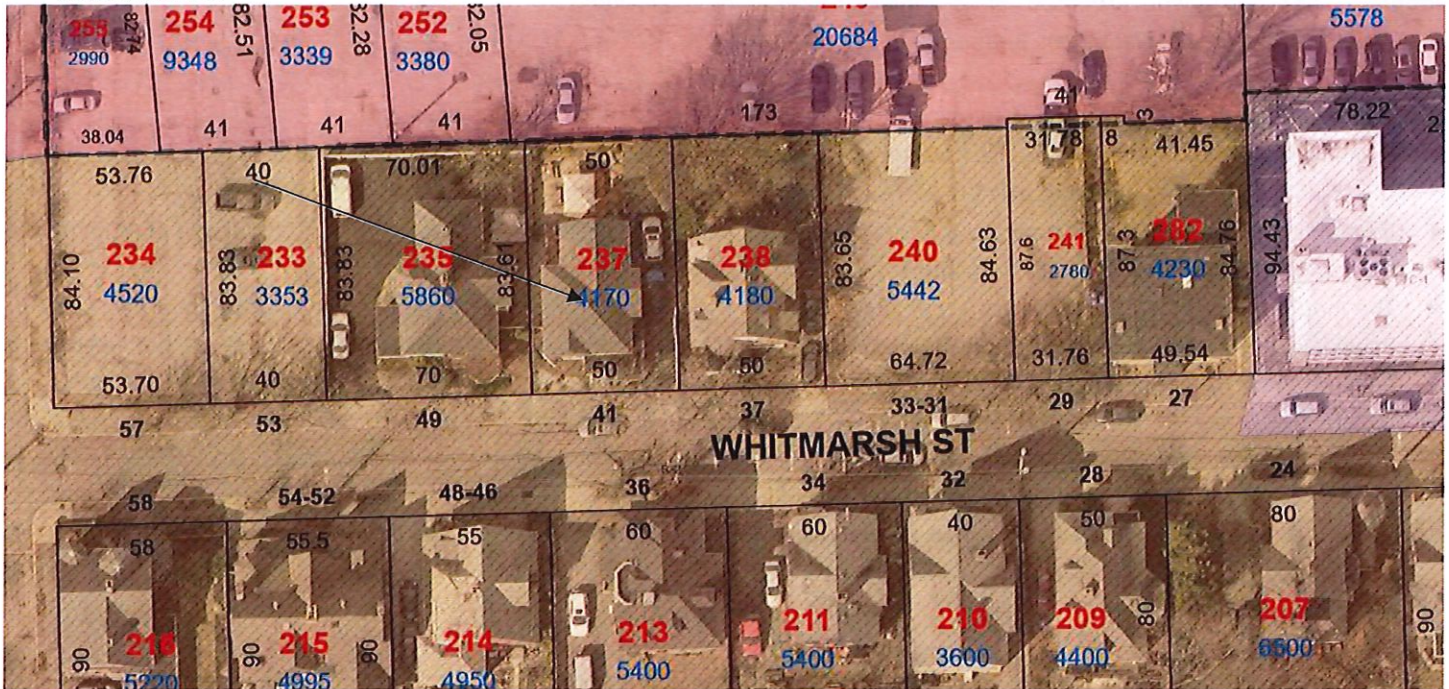


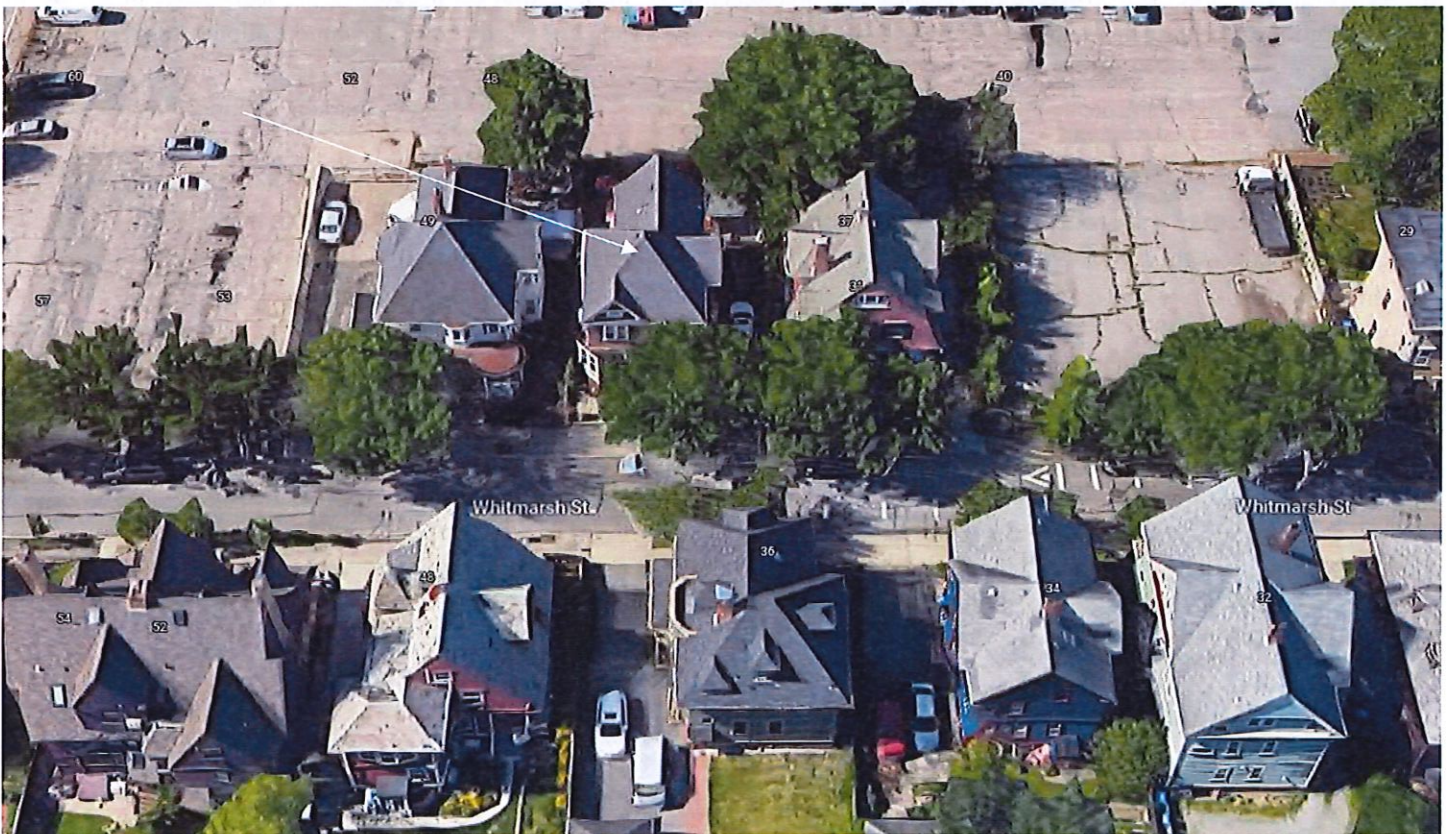
5. CASE 23.074, 41 WHITMARSH STREET, Alfred M. Williams House, c1889 (NORTH ELMWOOD)

Gable-fronted 2½-story-hip-roofed Queen Anne structure, with a Colonial Revival, Ionic column corner porch. Williams was Editor of The Providence Journal.

CONTRIBUTING



Arrow indicates 41 Whitmarsh Street.



Arrow indicates project location, looking north.

Applicant/Contractor: Bright Power Solar, Scott LeDuc, 1451 Grafton Street, Worcester, MA 01604

Owner: Evans Peralta, 41 Whitmarsh Street, Providence, RI 02907

Proposal: The scope of work proposed consists of Minor Alterations and includes:

- the installation of 22 solar panels to three slopes of the hip roof.

Issues: The following issues are relevant to this application:

- Some of the modifications as proposed will be (minimally) visible from the public rights-of-way; due to the close proximity to the neighbors it is Staff's opinion that the panels on the east and west forward slope will be minimally visible;
- If feasible, Staff recommends relocating the three panels on the east slope to be relocated to the rear slopes and that the panels on the west slope be adjust as far north and east as possible;
- The modifications as proposed meets Minor Alterations: Solar Energy Systems Guidelines, Section 2, in the following manner: Panel layout shall be sympathetic or appropriate to design and scale of building. Rectangular configurations are preferred, with ample setback from edge of roof, dormers, chimneys, etc. (2.A); Panels shall be installed parallel to the existing roof slope and matched as closely as possible to the roof plane (2.B); Panels shall be installed without destroying or replacing original or historic materials or significantly compromising or altering the building's structural integrity (2.C); Panels shall be compatible in color to existing roofing insofar as possible (2.D); Installation of panels shall be as inconspicuous as possible when viewed from public right-of-way (2.E); Installation shall be reversible. Panels shall be removed when no longer viable or functioning and roofing restored to pre-existing conditions (2.F); and,
- Plans, specifications and pictures have been submitted.

Recommendations: The staff recommends the PHDC make the following findings of fact:

- a) 41 Whitmarsh Street is a structure of historical and architectural significance that contributes to the significance of the North Elmwood local historic district, having been recognized as a contributing structure to the Elmwood National Register Historic District;
- b) The modifications as proposed meets Minor Alterations: Solar Energy Systems Guidelines, Section 2, and the application is considered complete; and,
- c) The work as proposed is in accord with PHDC Standards 8 & 9 as follows: 8) the work will be done so that it does not destroy the historic character of the property or the district as they are not on the primary elevation and will be minimally-to-not visible from the public rights-of-way; and, 9) Whenever possible... alterations to structures shall be done in such a manner that if removed in the future, the essential form and integrity of the structure and the site will be unimpaired.

Staff recommends a motion be made stating that: The application is considered complete. 41 Whitmarsh Street is a structure of historical and architectural significance that contributes to the significance of the North Elmwood local historic district, having been recognized as a contributing structure to the Elmwood National Register Historic District. The Commission grants Final Approval of the proposal as submitted as the proposed alteration is appropriate having determined that the proposed alteration does not destroy the historic character of the property or the district and are historically and architecturally compatible with the property and district as the proposed alteration meets Minor Alterations: Solar Energy Systems Guidelines, Section 2, is reversible and will not have an adverse effect on the property or district as they are not on the primary elevation and will be minimally visible from the public rights-of-way (Standards 8 & 9), and the recommendations in the staff report, with staff to review any additional required details.



41
WAITMARBH
ST

SHEET INDEX	
PV1	TITLE SHEET
PV2	ROOF/SITE PLAN
PV3 (P-V3.1 AS NEEDED)	ELECTRICAL LINE DIAGRAM / DETAILS
PV4	EQUIPMENT LABELS
PV4.1	PLACARD
PV5	ATTACHMENT PLAN
PV6	STRUCTURAL COMPONENTS
PV7	PROPERTY LINES
PV8-PV10	INSTALL DOCUMENTS STRUCTURAL ENGINEERING CALCUS (IF REQ.) EQUIPMENT DATA SHEETS

APPLICABLE CODES	
2020 INTERNATIONAL ELECTRICAL CODE (NECA 70)	
2020 INTERNATIONAL RESIDENTIAL CODE (IRC) AS AMENDED	
2020 NADRC (2018) BUILDING CODE (SBC) AS AMENDED	
2021 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED	

OCCUPANCY & CONSTRUCTION TYPE	
OCCUPANCY - R3	
CONSTRUCTION - S8	



651 W. DALTON AVE. AUBURN, MA 01501
PHONE (508) 888-9977
WWW.VECTORENR.COM

WELLS L. HOLMES
No. 13066
REGISTERED PROFESSIONAL ENGINEER
STRUCTURAL

04/11/2023
Firm License Number: PE.001LC86-COA
VSE Project Number: U1932.1020.231
Vector Structural Engineering has reviewed the existing structure with loading from the solar array and screw connections to the existing framing. The design of the structure is in accordance with the applicable codes and standards. The design is by others, mechanical, electrical, and all other nonstructural aspects of the design are by others. Electrical is by others, unless stamped by Dean Loveman.



BRIGHT PLANET SOLAR
103A MILLBURY ST.
AUBURN MA 01501
888-997-4469

SIGNATURE:	PROJECT #	BRSC75945
CONTRACTOR LICENSE: C-10H1020761	SYSTEM SIZE	8MW/DC 6MW/AC
DATE: 4/5/2023 11:21:05 AM	DATE:	4/5/2023 11:21:05 AM
	DESIGNER:	DAPHNIE GOLDEN

REV	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-

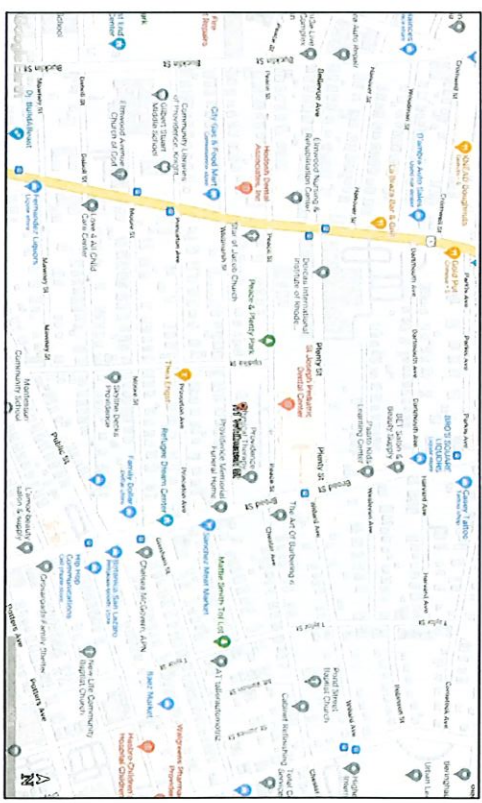
ALEXANDRA SANCHEZ
41 WHTMARSH ST
PROVIDENCE, RI 02907

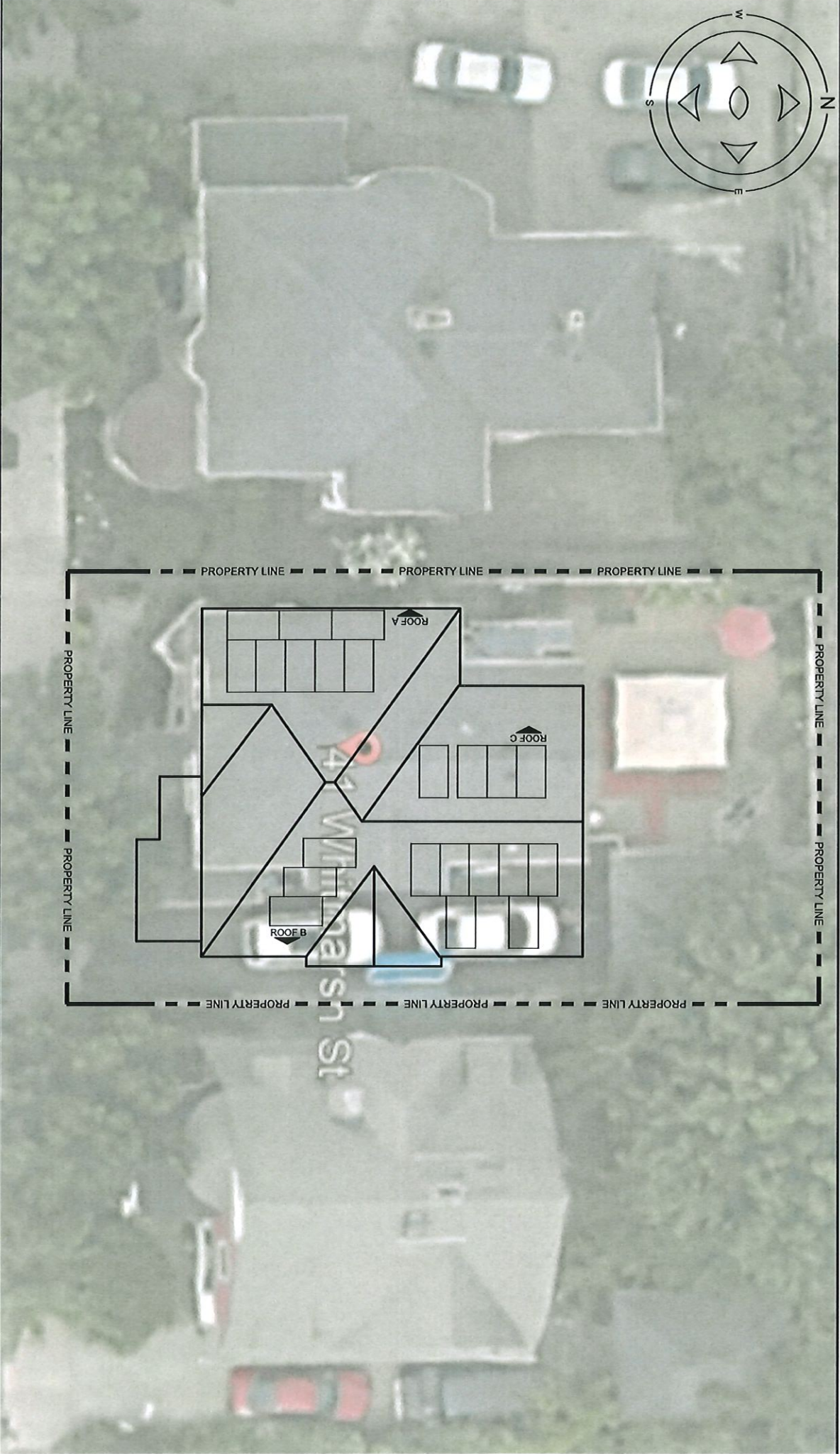
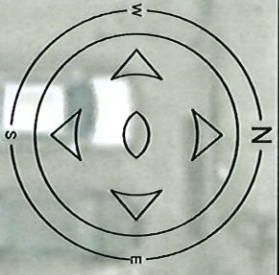
TITLE SHEET
PV1

CONSTRUCTION NOTES

- A LADDER SHALL BE IN PLACE FOR ANY INSPECTIONS IN COMPLIANCE WITH OSHA REGULATIONS.
- THIS SYSTEM IS A UTILITY INTERCONNECTED SYSTEM AND DOES NOT HAVE STORAGE BATTERIES UNLESS SPECIFICALLY INDICATED ON SHEET P&R 3.1.
- THIS SYSTEM IS A UTILITY INTERCONNECTED SYSTEM AND DOES NOT HAVE STORAGE BATTERIES UNLESS SPECIFICALLY INDICATED ON SHEET P&R 3.1.
- A GROUNDING ELECTRODE SYSTEM WILL BE PROVIDED IN ACCORDANCE WITH NEC 690.47 & 250.56. GROUNDING ELECTRODE SYSTEM OF EXISTING BUILDING MAY BE USED WHEN BONDED AT THE SERVICE ENTRANCE. IF EXISTING SYSTEM IS INACCESSIBLE OR INADEQUATE, OR IS ONLY METAL WATER PIPING, A SUPPLEMENTAL GROUNDING ELECTRODE WILL BE USED AT THE INVERTER LOCATION CONSISTING OF A UL LISTED 8FT GROUND ROD WITH ACORN CLAMP, GROUNDING ELECTRODE CONDUCTOR SHALL BE NO LESS THAN #6 AWG AND NO GREATER THAN #6 AWG COPPER AND BONDED TO THE EXISTING GROUNDING ELECTRODE TO PROVIDE FOR A EACH MODULE WILL BE GROUNDING USING THE SUPPLIED CONNECTION POINTS IDENTIFIED IN THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- THE EXPOSED METALLIC TABS OF THE SOLARWEDGE OPTIMIZERS SHALL BE BONDED AND/OR GROUNDING PER NEC 690.43(A) AND THE MANUFACTURER'S INSTRUCTIONS.
- PROPER ACCESS AND WORKING CLEARANCE AROUND EXISTING AND PROPOSED ELECTRICAL EQUIPMENT WILL BE PROVIDED AS PER NEC 110.26.
- ALTERNATE POWER SOURCE PLACARD SHALL BE PLASTIC, ENGRAVED IN A CONTRASTING COLOR (WHITE). THIS PLACARD WILL BE PERMANENTLY ATTACHED & UV RESISTANT.
- ALL PLACARDS AND SIGNS WILL BE INSTALLED AS REQUIRED BY 2021 NEC.
- ALL ELECTRICAL APPROVED AND TESTED BY THE STATE PER MECHANICAL SHALL BE INSTALLED IN EACH DWELLING WHEN A PERMIT FOR ALTERATIONS, REPAIRS OR ADDITIONS IS REQUIRED AND THE ELECTRICAL SYSTEM SHALL BE TESTED AND APPROVED BY THE STATE PER MECHANICAL.
- SMALLER THAN #6 AWG COPPER WIRE AS PER NEC 250-648. THE GROUNDING ELECTRODE CONDUCTOR WILL BE CONTINUOUS, EXCEPT FOR SPICES OR JOINTS AS SUBSAS WITHIN LISTED EQUIPMENT AS PER NEC 250.64C.
- ROOF COVERINGS SHALL BE DESIGNED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE BUILDING CODE OF THE LOCAL JURISDICTION.
- PER STATE CONNECTION IN THE SWITCH GEAR (PANEL) SHALL BE POSITIONED AT THE OPPOSITE END FROM THE INPUT FEEDER LOCATION OR MAIN CIRCUIT LOCATION AS PER NEC 408.17.
- ALL EQUIPMENT SUPPLIED SHALL BE UL LISTED OR LISTED BY A LISTING AGENCY RECOGNIZED BY THE STATE IN WHICH THE SYSTEM IS CONSTRUCTED.
- ALL DISCONNECTS SHALL BE IN COMPLIANCE WITH NEC 690.17.
- ALL DC CONDUCTORS SHALL BE 90° RATED THW, THWN-2, USE-2 OR PV WIRE. ALL AC CONDUCTORS SHALL BE 75° RATED THWN WIRE.
- THE UTILITY DISCONNECT SHALL BE VISIBLE, BLAGED, IS LOCKABLE AND IS ACCESSIBLE TO THE UTILITY 24/7.
- ALL DISCONNECTS SHALL BE SUITABLE FOR BACKFEED. WHEN BACKFEED BREAKERS IS THE METHOD OF UTILITY INTERCONNECTION THE BREAKER SHALL NOT READ TUNE AND LOAD.
- COORDINATE ANY POWER OUTAGE WITH LOCAL UTILITY AND PROPERTY OWNER. NOTIFY UTILITY BEFORE ACTIVATION OF PV SYSTEM.
- CITY BUILDING INSPECTOR SHALL INSPECT ACCESSIBLE STRUCTURAL CONNECTIONS AND THE HOUSE CURRENT SIDE OF THE SYSTEM. ALL OTHER EQUIPMENT SHALL BE UL LISTED AND APPROVED.
- ALL ELECTRICAL APPROVED AND TESTED BY THE STATE PER MECHANICAL SHALL NOT BE INSTALLED OVER ANY ATTC, PLUMBING OR MECHANICAL UNIT. PLUMBING VENTS TO EXTEND A MIN OF 6" ABOVE ROOF OR MODULE. NO BLOC PLUG OR MECH VENTS TO BE COVERED, DISTRIBUTED OR BLOWN AROUND MODULES.
- ROOF ACCESS POINT SHALL BE LOCATED IN AREAS THAT DO NOT REQUIRE THE PLACEMENT OF GROUND ADAPTERS OVER THE OPENINGS SUCH AS WINDOWS OR DOORS, AND LOCATED AT A STRONG POINT OF BUILDING CONSTRUCTION. FIELD VERIFY EXACT LOCATION.
- THE DISCHARGE OF POLLUTANTS TO ANY STORM DRAINAGE SYSTEM IS PROHIBITED. NO SOLID WASTE, PETROLEUM BYPRODUCTS, SOIL PARTICULATE, CONSTRUCTION WASTE OR OTHER SOLID WASTE SHALL BE DEPOSITED ON CONSTRUCTION SITE OR BY CONSTRUCTION ACTIVITIES SHALL BE PLACED, COVERED OR DISCHARGED INTO THE WATERWAY.
- ALL WIRING MUST BE PROPERLY SUPPORTED BY DEVICES OR MECHANICAL MEANS DESIGNED AND LISTED FOR SUCH USE AND WIRING MUST BE PERMANENTLY AND COMPLETELY HELD OFF OF THE ROOF SURFACE.
- PAIN SURFACE MOUNTED CONDUIT TO MATCH EXISTING STRUCTURE.

VICINITY MAP





Bright Planet Solar
 103A MILLBURY ST.
 AUBURN MA 01501
 888-997-4469

SIGNATURE:

CONTRACTOR LICENSE:
 C-10#1020761

DATE: 4/5/2023 11:21:11 AM

PROJECT #
 SYSTEM SIZE
 DATE:
 DESIGNER:

PROJECT #	SYSTEM SIZE	DATE	DESCRIPTION
BPS275445	8.8kWDC 6kWAC	4/5/2023 11:21:11 AM	
REV			
DATE			
DESIGNER:	DAPHNE COLON		

ALEXANDRA SANCHEZ
 41 WHITMARSH ST.
 PROVIDENCE, RI 02907

PROPERTY LINE:

PV7

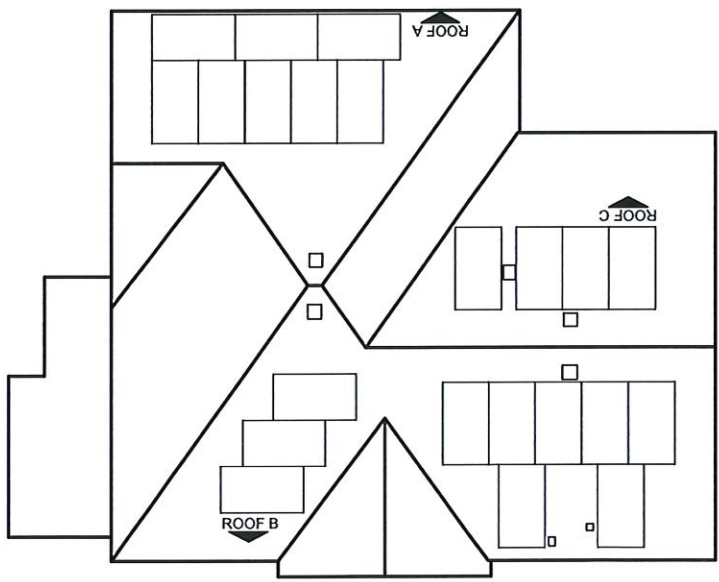
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6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25
26	27	28	29	30
31	32	33	34	35
36	37	38	39	40
41	42	43	44	45

MAPPING INSTRUCTIONS:

1. REMOVE THE SQUARE OPTIMIZER STICKER AND PLACE NEATLY ON THE APPROPRIATE NUMBERED SPACE.
 2. WRITE THE CORRESPONDING NUMBER ON THE APPROPRIATE MODULE WITHIN THE ARRAY.
- DO NOT MAKE ANY TIE IN CHANGES UNLESS APPROVED AND DOCUMENTED BY BPS DESIGN TEAM
 - MAXIMUM WATTAGE ALLOWED IN CIRCUIT/STRING IS 6000W FOR SOLAREGE INVERTERS 7600-11400
 - MAXIMUM WATTAGE ALLOWED IN CIRCUIT/STRING IS 5700W FOR SOLAREGE INVERTERS 3000-6000
 - MINIMUM OPTIMIZERS IN CIRCUIT/STRING = 8 (6 WITH P405/P505)

AZIMUTH AND TILT ANGLE		ROOF A	ROOF B	ROOF C	ROOF D	ROOF E	ROOF F
Module	Wattage	1200	1200	1200	1200	1200	1200
Quantity	Wattage	24	24	24	24	24	24
Total Wattage	Wattage	2880	2880	2880	2880	2880	2880
Number of Strings	Wattage	3	3	3	3	3	3
String Wattage	Wattage	960	960	960	960	960	960
Number of Inverters	Wattage	3	3	3	3	3	3
Inverter Wattage	Wattage	3000	3000	3000	3000	3000	3000

INVERTER(S) SERIAL NUMBERS	
#	_____
#	_____
#	_____



SIGNATURE: _____



BRIGHT PLANET SOLAR
 103A MILLBURY ST,
 AUBURN MA 01501
 888-997-4469

CONTRACTOR LICENSE:
 C-1047020751
 DATE: 4/5/2023 11:21:11 AM

PROJECT #	REV	DATE	DESCRIPTION
9P8275645			
SYSTEM SIZE	8.8kWDC	8kWAC	
DATE:	4/5/2023 11:21:11 AM		
DESIGNER:	DAPHNE COLON		

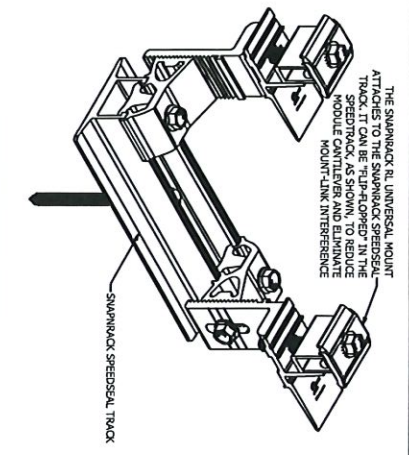
ALEXANDRA SANCHEZ
 41 WHITMARSH ST
 PROVIDENCE, RI 02907

**OPTIMIZER TRACKING
 PV8**

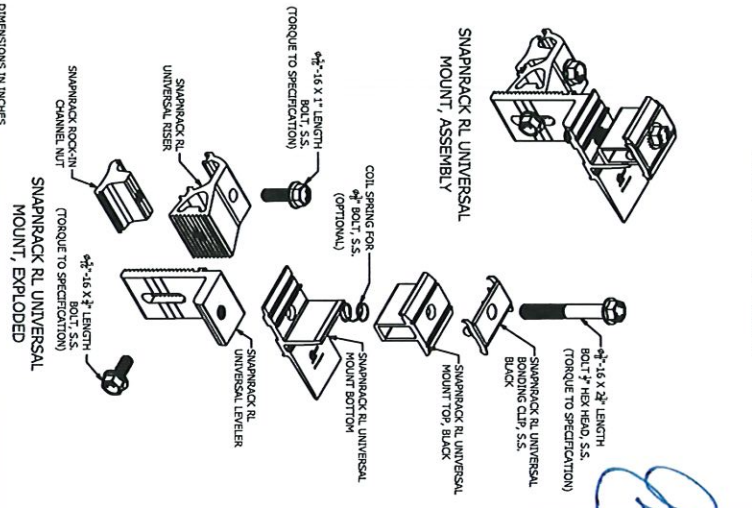
SNAPNRACK RAILLESS ROOF MOUNT SYSTEM

PARTS LIST

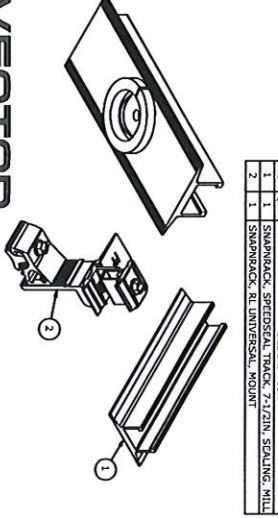
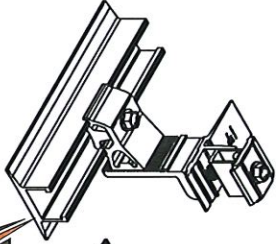
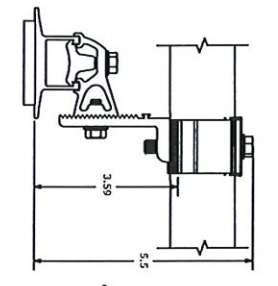
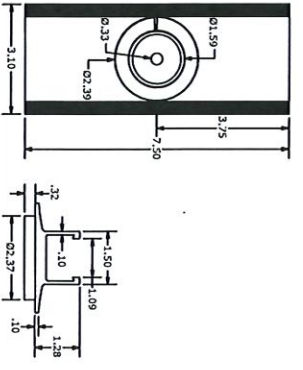
ITEM QTY	DESCRIPTION
1	SNAPNRACK SPEEDSEAL TRACK
1	SNAPNRACK RL UNIVERSAL MOUNT



MOUNT "FLIP-FLOP" ABILITY

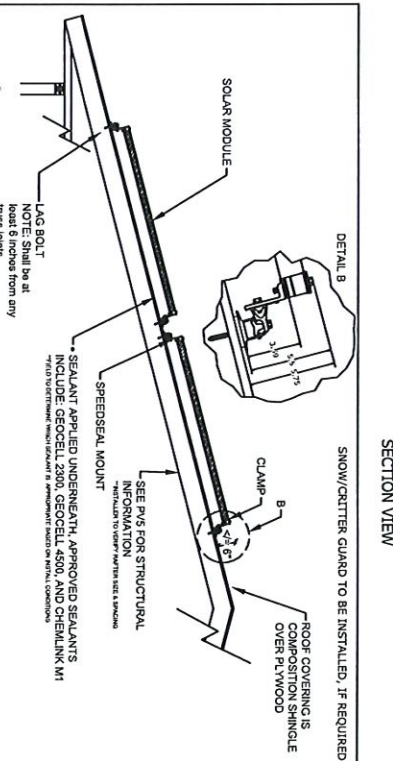
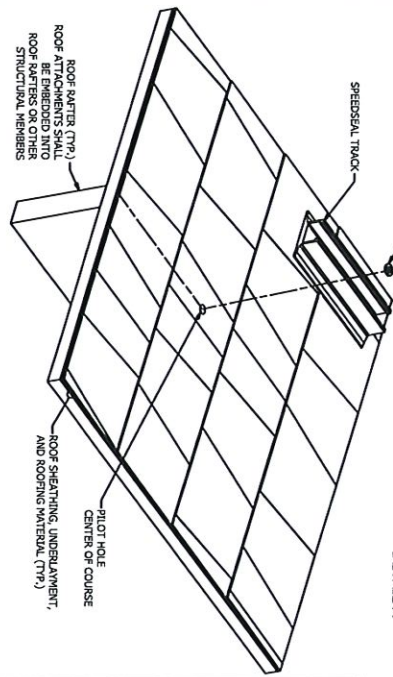
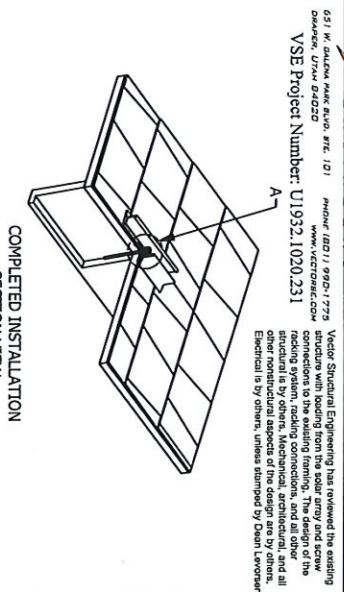
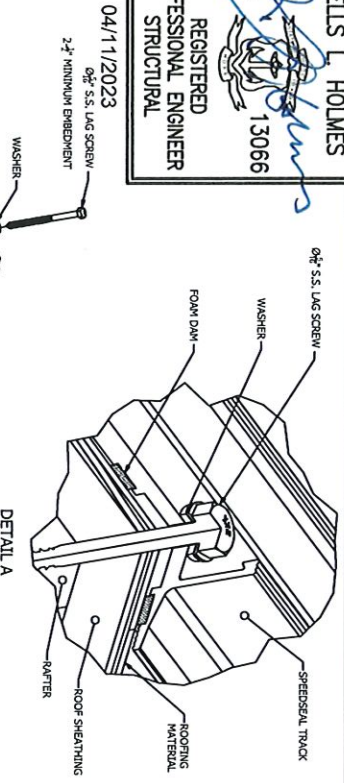


ALL DIMENSIONS IN INCHES



WELLS L. HOLMES
 No. 13066
 REGISTERED PROFESSIONAL ENGINEER
 STRUCTURAL

04/11/2023



BRIGHT PLANET SOLAR
 103A MILLBURY ST.,
 AUBURN MA 01501
 888-997-4469

CONTRACTOR LICENSE: C-10H-020761
 DATE: 4/5/2023 11:21:10 AM

PROJECT #	REV	DATE	DESCRIPTION
BR8275445			
SYSTEM SIZE	8.8kWDC	6kWAC	
DATE:	4/5/2023 11:21:10 AM		
DESIGNER:	DAPHNE GOLDON		

ALEXANDRA SANCHEZ
 41 WHITMARSH ST.
 PROVIDENCE, RI 02907

PV6

STRUCTURAL COMPONENTS

VECTOR Firm License Number: PE.001LC86-COA

651 W. GALENA PARK BLVD., #121
 PROVIDENCE, RI 02909
 PHONE: (401) 990-1775
 WWW.VECTOR.COM
 VSE Project Number: U1932.1020.231

Vector Structural Engineering has prepared the existing structure with bearing from the solar array and screw connections to the existing framing. The design of the racking system, racking connections, and all other structural components of the design are by others. Electrical is by others, unless stamped by Dean Lewiston.

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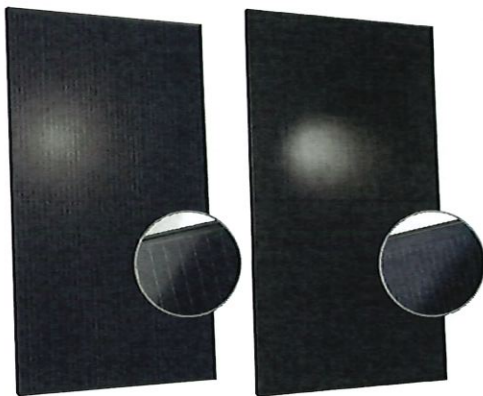
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CELL TECHNOLOGY

¹ APT test conditions according to IEC/TS 62804-1:2015, method A (-1500V, 96h)
² See data sheet on rear for further information.

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