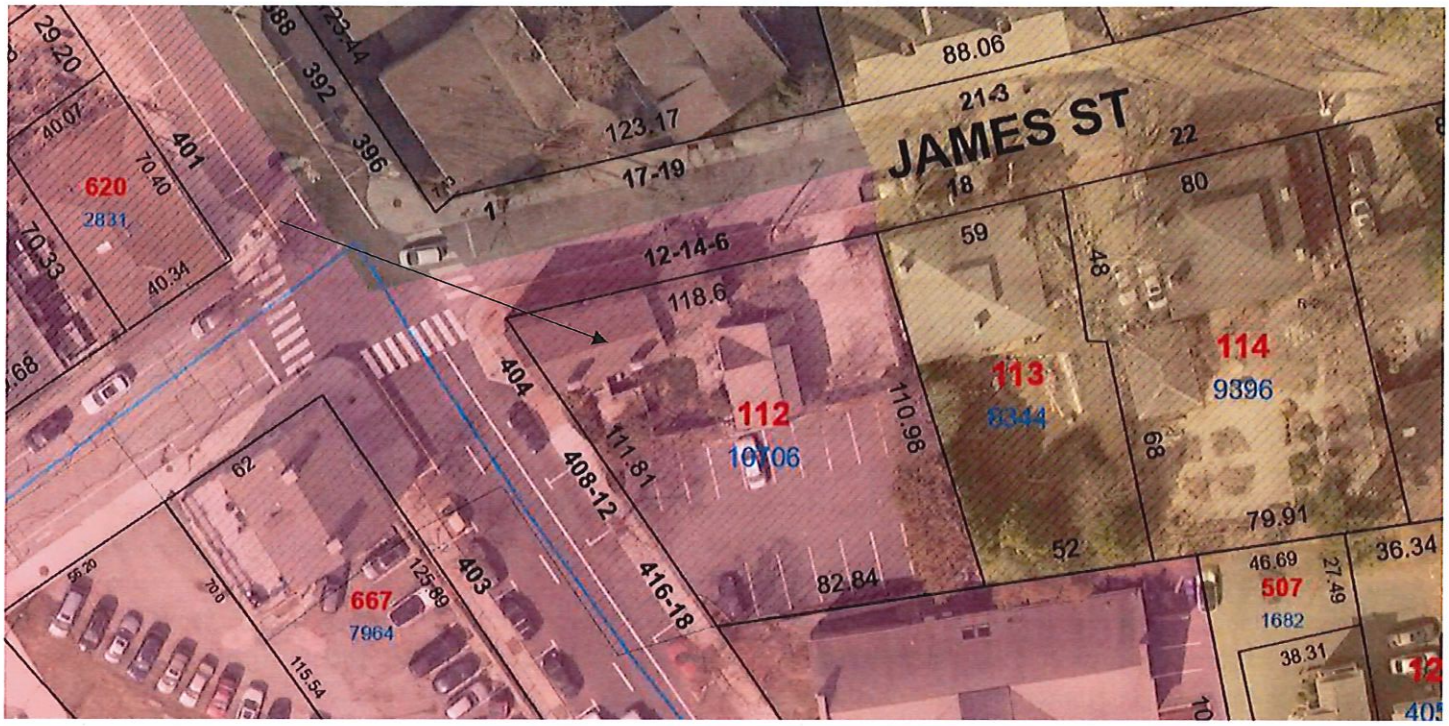
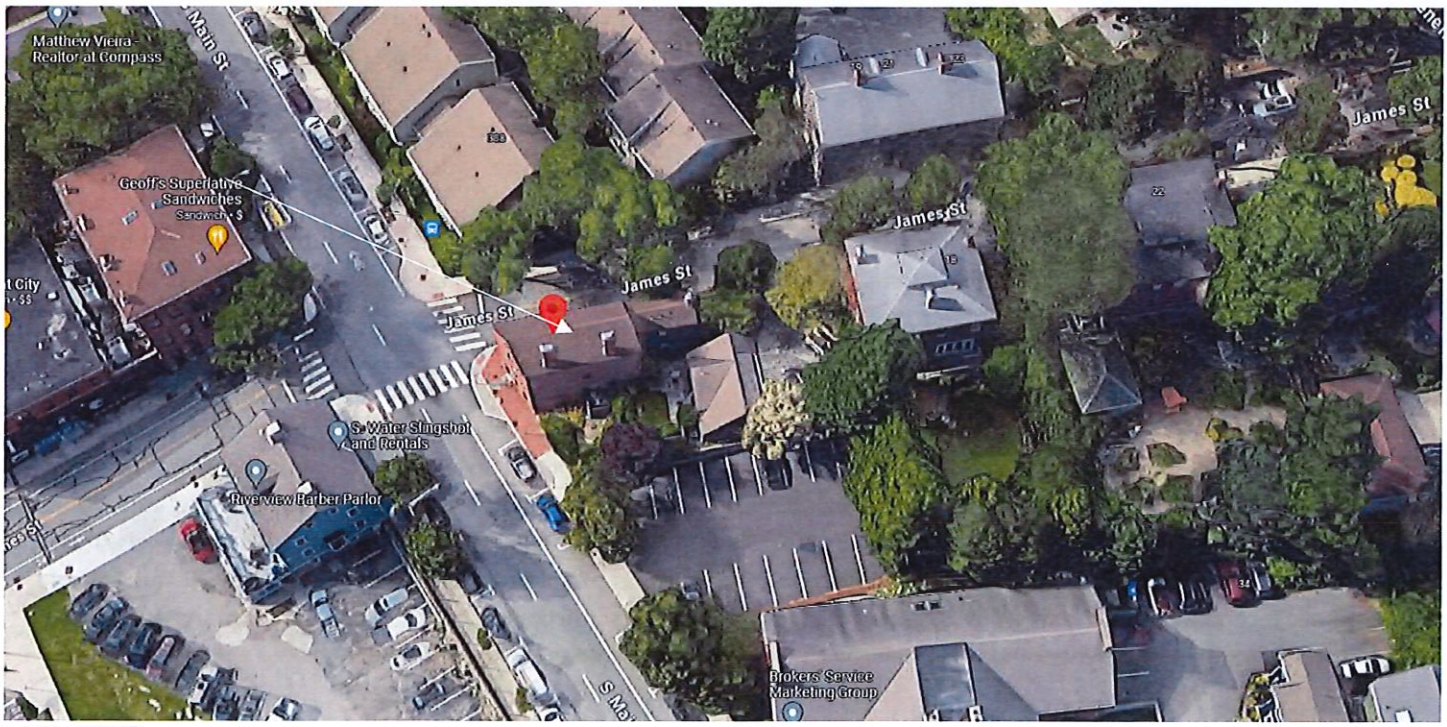
2. CASE 23.107, 404 SOUTH MAIN (aka 12 JAMES) STREET, Joseph Tillinghast House, 1801 (COLLEGE HILL)
Joseph Tillinghast House, 1801. Federal; 2-1/2 stories; brick; gable roof; 3 bay facade with a string course between first and second story windows; central fanlight doorway flanked by pilasters; store-front basement story on west faces South Main Street.
CONTRIBUTING



Arrow indicates 404 South Main Street.



Arrow indicates project location, looking north.

Applicant/Contractor: Renewable Energy of New England, 32 Kearsarge Drive, Cranston, RI 02920
Owner: Valerie Sonnenthal, 400 South Main Street, Providence, RI 02903

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

- the installation of 19 solar panels, 12 to the south slope of the main house's gable-end roof, two to the rear ell's south slope's gable-end roof, and five on the west slope of carriage house's gable roof.

Issues: The following issues are relevant to this application:

- All of the proposed modifications will be visible to some degree from the public rights-of-way. Solar Standards for "panels... installed of on a sloped roof on a primary elevation on a primary elevation, visible from the right-of-way additional factors must be taken into consideration. For most historic properties, locating solar panels on the primary elevation is the least desirable option because it will have the greatest adverse effect on the district's and property's character defining features, as well as its effect on the historic streetscape. All other options should be thoroughly explored and ruled out before considering installing solar panels on a primary elevation. For the installation of solar panels on primary elevations, proof that all other elevations or locations on property are not viable or feasible for installation of solar panels is required. Only installations where the proposed solar array is not visually intrusive, or highly visible, from the public right-of-way will be considered appropriate. Solar panels that are visually intrusive interact negatively with the historic structure resulting from an incompatibility with the subject property's scale, roof slope, color compatibility with the existing historic roofing materials, placement of the building on subject lot, or the grade of the right-of-way as it exists at the property". The south slope of the main body of the house is considered a primary elevation and is highly visible form the public rights-of-way;
- The modifications as proposed does not meet Minor Alterations: Solar Energy Systems Guidelines, Section 2.E, in the following manner: Installation of panels shall be as inconspicuous as possible when viewed from public right-of-way; and,
- Plans, specifications and pictures have been submitted.

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

a) 404 South Main Street is a structure of historical and architectural significance that contributes to the significance of the College Hill local historic district, having been recognized as a contributing structure to the College Hill National Historic Landmarks District;
b) The modifications as proposed does not meet Minor Alterations: Solar Energy Systems Guidelines, Section 2.E: Installation of panels shall be as inconspicuous as possible when viewed from public rights-of-way;
c) The application is considered complete; and,
c) The work as proposed is not in accord with PHDC Standard 8 as follows: the work will be done so that it does not destroy the historic character of the property or the district as some panels are located on the primary elevation and will be visible from the public rights-of-way.

Staff recommends a motion be made stating that: The application is considered complete. 404 South Main Street is a structure of historical and architectural significance that contributes to the significance of the College Hill local historic district, having been recognized as a contributing structure to the College Hill National Historic Landmarks District. The Commission denies the request of the proposal as submitted as the proposed alteration is inappropriate having determined that the proposed alterations does not meet Minor Alterations: Solar Energy Systems Guidelines, Section 2.E in the following manner: Installation of panels shall be as inconspicuous as possible when viewed from public rights-of-way and as submitted adversely affects and are historically and architecturally incompatible with the property and district (Standard 8) as some panels are located on the primary elevation and will be visible from the public rights-of-way, agreeing with the recommendations in the staff report.

Project: Solar installation
Address: 400 S main Street
Date: 8/9/2023
Re: Application Information

Narrative - Scope of Work

Solar Installation
The client would like to install solar panels on the south-side facing roof of 400 S Main Street.

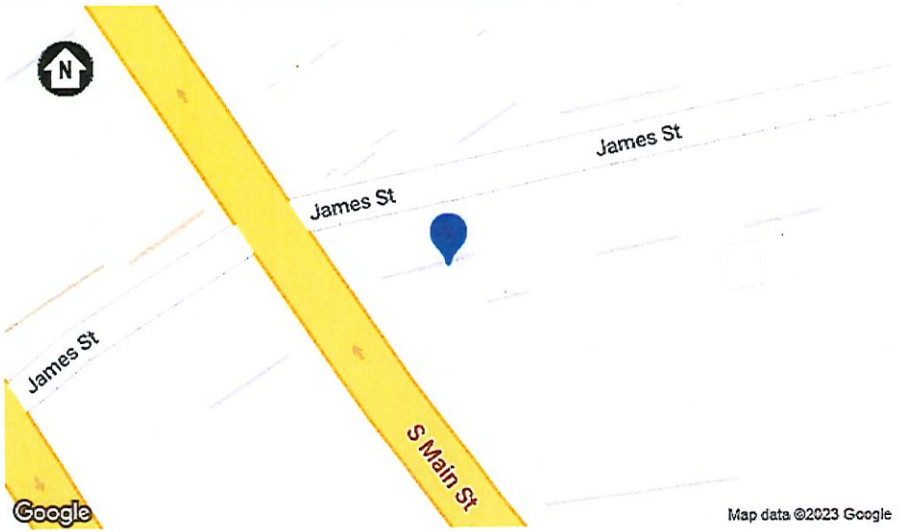
Evaluation
The roof is in good conidtion. Shingles are dark colored and new

Solar Installation
We propose the installation of nine-teen(19) black colored solar panels on the south side facing roof. Along with the installation of a grid-interactive PV system. PV modules will be mounted using a pre engineered mounting system. The modules will be electrically connected with dc to ac power inverters and interconnected to the local utility using means and methods consistent with the rules enforced by the local utility and permitting jurisdiction. The inverters will be hidden inside the maintenance room inside of the property and all conduits will be hidden from view.

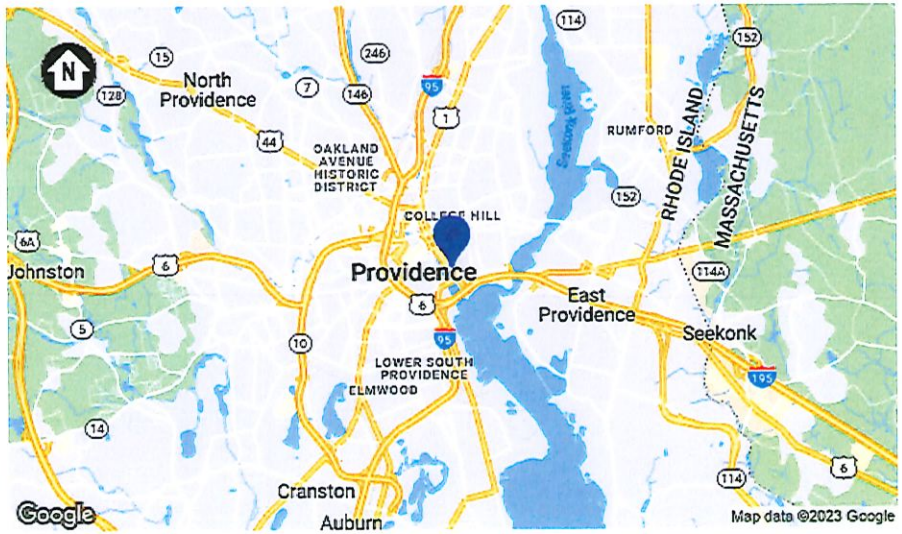
DIRECTORY OF PAGES	
PV-1	PROJECT SUMMARY
PV-2	SITE PLAN
PV-3	SINGLE-LINE DIAGRAM
PV-4	PV SAFETY LABELS
PV-5.1	ATTACHMENT PLAN 1
PV-5.2	ATTACHMENT PLAN 2
PV-5.3	ATTACHMENT PLAN 3
PV-6	ATTACHMENT DETAILS
PV-7	FIRE SAFETY PLAN
APPENDIX	ANCHOR DATASHEET
	ARRAY WIRING BOX DATASHEET
	DISCONNECT DATASHEET
	INVERTER DATASHEET
	MODULE DATASHEET
	MOUNTING SYSTEM DATASHEET
	MOUNTING SYSTEM ENGINEERING LETTER
	OPTIMIZER DATASHEET
	UL 2703 CLASS A FIRE CERTIFICATION
	UL 2703 GROUNDING AND BONDING CERTIFICATION

PROJECT DETAILS	
PROPERTY OWNER	SONNENTHAL
PROPERTY ADDRESS	400 S MAIN ST, PROVIDENCE, RI 02903
APN	16-112-2
ZONING	RESIDENTIAL
USE AND OCCUPANCY CLASSIFICATION	ONE- OR TWO-FAMILY DWELLING GROUP (GROUP R3)
AHJ	CITY OF PROVIDENCE
UTILITY COMPANY	RHODE ISLAND ENERGY
ELECTRICAL CODE	2020 NEC (NFPA 70)
FIRE CODE	2015 NFPA 1
OTHER BUILDING CODES	SBC-2-2021 IBC 2018

CONTRACTOR INFORMATION	
COMPANY	RENEWABLE ENERGY SERVICES OF NEW ENGLAND, INC.
ADDRESS	32 KEARSARGE DR, CRANSTON, RI 02920
PHONE NUMBER	(401) 229-4626
CONTRACTOR SIGNATURE	



1 PV-1 PARCEL
SCALE: NTS



2 PV-1 LOCALE
SCALE: NTS

SCOPE OF WORK

THIS PROJECT INVOLVES THE INSTALLATION OF A GRID-INTERACTIVE PV SYSTEM. PV MODULES WILL BE MOUNTED USING A PREENGINEERED MOUNTING SYSTEM. THE MODULES WILL BE ELECTRICALLY CONNECTED WITH DC TO AC POWER INVERTERS AND INTERCONNECTED TO THE LOCAL UTILITY USING MEANS AND METHODS CONSISTENT WITH THE RULES ENFORCED BY THE LOCAL UTILITY AND PERMITTING JURISDICTION.

THIS DOCUMENT HAS BEEN PREPARED TO DESCRIBE THE DESIGN OF A PROPOSED PV SYSTEM WITH ENOUGH DETAIL TO DEMONSTRATE COMPLIANCE WITH APPLICABLE CODES AND REGULATIONS. THE DOCUMENT SHALL NOT BE RELIED UPON AS A SUBSTITUTE FOR FOLLOWING MANUFACTURER INSTALLATION INSTRUCTIONS. THE SYSTEM SHALL COMPLY WITH ALL MANUFACTURERS INSTALLATION INSTRUCTIONS, AS WELL AS ALL APPLICABLE CODES. NOTHING IN THIS DOCUMENT SHALL BE INTERPRETED IN A WAY THAT OVERRIDES THEM. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL DETAILS IN THIS DOCUMENT.

SYSTEM DETAILS	
DESCRIPTION	NEW GRID-INTERACTIVE PHOTOVOLTAIC SYSTEM WITH NO ENERGY STORAGE
DC RATING OF SYSTEM	7.60KW
AC OUTPUT RATINGS	7.60KW, 32.0A
DERATED AC POWER	7.00KW
INVERTER(S)	1 X SOLAR EDGE SE7600H-US
MODULE(S)	19 X Q-CELLS Q.PEAK DUO BLK ML-G10+ 400
ARRAY WIRING	(1) STRING OF 9 (1) STRING OF 10

INTERCONNECTION DETAILS	
POINT OF INTERCONNECTION	NEW LOAD-SIDE AC CONNECTION PER NEC 705.12(B)(3)(4) AT MSP
UTILITY SERVICE	120/240V 1Φ
ELECTRICAL PANEL	MAIN SERVICE PANEL W/ CENTER-FED 200A BUSBAR 200A MCB

SITE DESIGN PARAMETERS	
ASHRAE EXTREME LOW	-14°C (6°F)
ASHRAE 2% HIGH	32°C (90°F)
CLIMATE DATA SOURCE	PROVIDENCE
WIND (ASCE 7-10)	100 MPH, EXPOSURE CATEGORY B, RISK CATEGORY II
GROUND SNOW LOAD	30 PSF

2023-371

BEHAN ENGINEERING

GRID-TIED PV SYSTEM

SONNENTHAL RESIDENCE
400 S MAIN ST
PROVIDENCE, RI 02903

KEVIN E. BEHAN
No. 8437
REGISTERED PROFESSIONAL ENGINEER

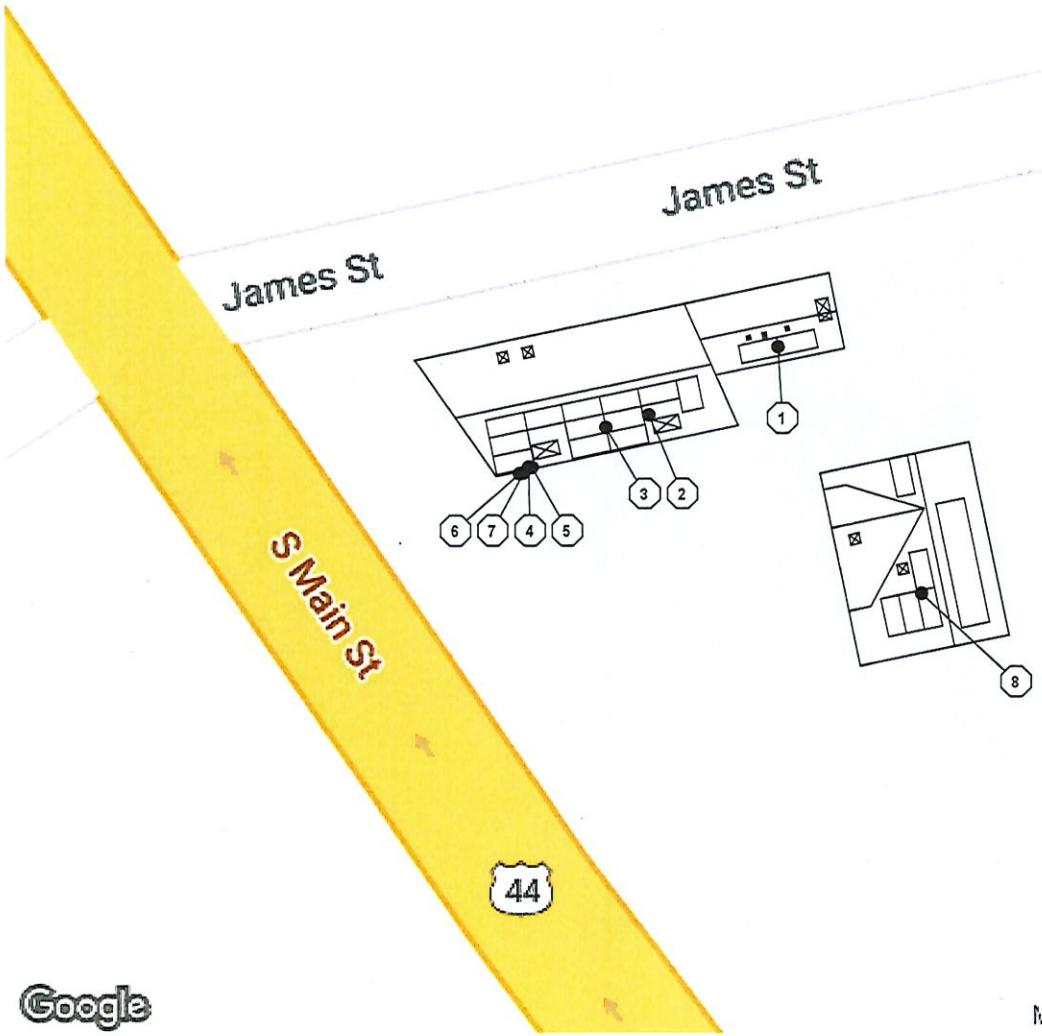
Kevin E. Behan PE
2023.06.19 23:42:07 -04'00

PROJECT SUMMARY

DOC ID: 4BF9DC-1
DATE: 6/20/23
CREATOR: K.B.
REVIEWER:

REVISIONS

PV-1



1 PV-2 SITE PLAN
SCALE: 1" = 20'

GENERAL NOTES	
1	EQUIPMENT LIKELY TO BE WORKED UPON WHILE ENERGIZED SHALL BE INSTALLED IN LOCATIONS THAT SATISFY MIN. WORKING CLEARANCES PER NEC 110.26.
2	24/7 UNESCORTED KEYLESS ACCESS SHALL BE PROVIDED TO ALL RHODE ISLAND ENERGY EQUIPMENT.
3	CONTRACTOR SHALL USE ONLY COMPONENTS LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY FOR THE INTENDED USE.
4	CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL EQUIPMENT, CABLES, ADDITIONAL CONDUITS, RACEWAYS, AND OTHER ACCESSORIES NECESSARY FOR A COMPLETE AND OPERATIONAL PV SYSTEM.
5	ALL EXPOSED PV ROOFTOP CONDUCTORS NOT UNDER THE ARRAY SHALL BE PROTECTED BY A RACEWAY WITH A LISTED JUNCTION BOX AT BOTH ENDS AND COMPLY WITH NEC 690.31(A).
6	WHERE DC PV SOURCE OR DC PV OUTPUT CIRCUITS ARE RUN INSIDE THE BUILDING, THEY SHALL BE CONTAINED IN METAL RACEWAYS, TYPE MC METAL-CLAD CABLE, OR METAL ENCLOSURES FROM THE POINT OF PENETRATION INTO THE BUILDING TO THE FIRST READILY ACCESSIBLE DISCONNECTING MEANS, PER NEC 690.31(D).
7	ALL EMT CONDUIT FITTINGS SHALL BE LISTED AS WEATHERPROOF FITTINGS AND INSTALLED TO ENSURE A RAINTIGHT FIT, PER NEC 358.42.

1. (N) PROPOSED ROOF-MOUNTED PV ARRAY. 8/12 (33.0°) SLOPED ROOF, (2) Q-CELLS Q.PEAK DUO BLK ML-G10+ 400 MODULES (BLACK FRAME, BLACK BACKSHEET), 168° AZIMUTH
2. (N) TRANSITION BOX, OUTDOOR, OUTPUT CIRCUIT CONDUCTORS SHALL BE RUN IN EMT CONDUIT THROUGH THE INTERIOR OF THE BUILDING
3. (N) PROPOSED ROOF-MOUNTED PV ARRAY. 8/12 (33.0°) SLOPED ROOF, (12) Q-CELLS Q.PEAK DUO BLK ML-G10+ 400 MODULES (BLACK FRAME, BLACK BACKSHEET), 168° AZIMUTH
4. (E) MAIN SERVICE PANEL (MSP), INDOOR
5. (N) SOLAR EDGE SE7600H-US INVERTER (1), INDOOR
6. (N) VISIBLE-OPEN TYPE, LOCKABLE, READILY ACCESSIBLE, LABELED PV SYSTEM DISCONNECT LOCATED WITHIN 10 FT OF UTILITY METER (SW1), OUTDOOR
7. (E) UTILITY METER, OUTDOOR
8. (N) PROPOSED ROOF-MOUNTED PV ARRAY. 8/12 (33.0°) SLOPED ROOF, (5) Q-CELLS Q.PEAK DUO BLK ML-G10+ 400 MODULES (BLACK FRAME, BLACK BACKSHEET), 258° AZIMUTH
9. ALL ARRAY CIRCUITS SHALL BE ROUTED THROUGH THE INTERIOR OF THE BUILDING, AND WHERE POSSIBLE, ALONG THE BOTTOM OF LOAD BEARING MEMBERS. NO CONDUIT SHALL BE INSTALLED ABOVE THE ROOF.

2023-371

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SONNENTHAL RESIDENCE
400 S MAIN ST
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KEVIN E. BEHAN
No. 8437
REGISTERED PROFESSIONAL ENGINEER

SITE PLAN

DOC ID: 4BF9DC-1
DATE: 6/20/23
CREATOR: K.B.
REVIEWER:

REVISIONS

PV-2

STRUCTURAL DESIGN PARAMETERS	
WIND (ASCE 7-10)	100 MPH, EXPOSURE CATEGORY B, RISK CATEGORY II
GROUND SNOW LOAD	30 PSF

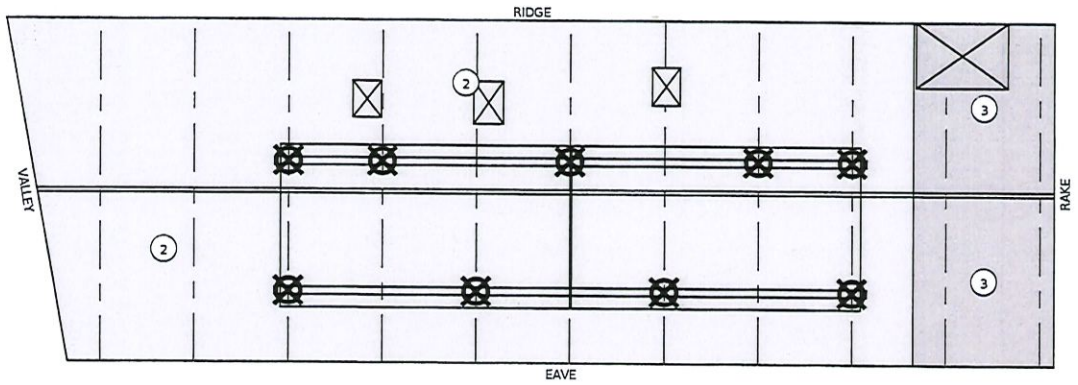
ROOF PROPERTIES	
ROOF MATERIAL	COMPOSITION SHINGLE (1 LAYER)
SLOPE	8/12 (33.0°)
MEAN ROOF HEIGHT	16.3FT
ROOF DECKING	TONGUE AND GROOVE
CONSTRUCTION	RAFTERS (4X6'S), 26IN OC

MODULE MECHANICAL PROPERTIES	
MODEL	Q-CELLS Q.PEAK DUO BLK ML-G10+ 400
DIMENSIONS (AREA)	74.0IN X 41.1IN X 1.3IN (21.1 SQ FT)
WEIGHT	48.5 LBS

MOUNTING SYSTEM PROPERTIES	
RAIL MODEL	IRONRIDGE XR100
ANCHOR MODEL	IRONRIDGE FV-01-B1 (FLASHED), 3.38IN AIR GAP
FASTENING METHOD	2.5 INCH EMBEDMENT INTO RAFTERS WITH (1) 5/16IN DIA. FASTENER
GROUNDING AND BONDING	INTEGRAL GROUNDING CERTIFIED TO UL 2703 REQUIREMENTS

DEAD LOAD CALCULATIONS			
LOAD	QTY	LBS	TOTAL LBS
MODULES	2	48.5	97.0
OPTIMIZERS	2	1.4	2.9
LINEAR FEET OF RAIL	25 FT	0.7	17.2
ANCHORS	9	0.6	5.4
MISC. HARDWARE		1.5	1.5
TOTAL ARRAY WEIGHT			123.9 LBS
AREA NAME	QTY	SQFT	TOTAL SQFT
MODULES	2	21.1	42.2
POINT LOAD (123.9 LBS / 9 ATTACHMENTS)			13.8 LBS
DIST. LOAD (123.9 LBS / 42.2 SQFT)			2.94 PSF

NOTES	
1	RAFTER LOCATIONS ARE APPROXIMATE. CONTRACTOR MAY NEED TO MAKE MINOR ADJUSTMENTS TO ANCHOR LOCATIONS. IN NO CASE SHALL THE ANCHOR SPACING EXCEED "MAX. ANCHOR SPACING"



ANCHOR PLACEMENT PARAMETERS (ASCE 7-10)			
WIND PRESSURE ZONE	MAX. ALLOWABLE RAIL SPAN	MAX. ANCHOR SPACING	MAX. ALLOWABLE CANTILEVER
ZONES 1, 2	52.0IN	52.0IN	20.8IN

DISTANCE α IS EQUAL TO 10% OF THE BUILDING'S LEAST HORIZONTAL DIMENSION ("LHD") OR 40% OF THE MEAN ROOF HEIGHT, WHICHEVER IS SMALLER, BUT NOT LESS THAN 4% OF THE LHD OR 3 FT. THESE SETBACKS ARE APPLIED TO THE BUILDING FOOTPRINT AND PROJECTED TO THE ROOF PLANES IN ACCORDANCE WITH GUIDANCE PROVIDED BY ASCE 7-10 FIGURES 30.4-2 B, C, AND D.

α = MAX(MIN(0.4 * MEAN ROOF HEIGHT, 0.1 * LHD), 0.04 * LHD, 3 FT)

3.0 FT = MAX(MIN(0.4 * 16.3 FT, 0.1 * 20.7 FT), 0.04 * 20.7 FT, 3 FT)

1 / PV-5.1 ATTACHMENT PLAN (ORTHOGONAL PROJECTION)
SCALE: 3/8" = 1'

2023-371

BEHAN ENGINEERING

GRID-TIED PV SYSTEM

SONNENTHAL RESIDENCE
400 S MAIN ST
PROVIDENCE, RI 02903

KEVIN E. BEHAN
No. 8437
REGISTERED PROFESSIONAL ENGINEER

ATTACHMENT PLAN

DOC ID: 4BF9DC-1
DATE: 6/20/23
CREATOR: K.B.
REVIEWER:

REVISIONS

PV-5.1

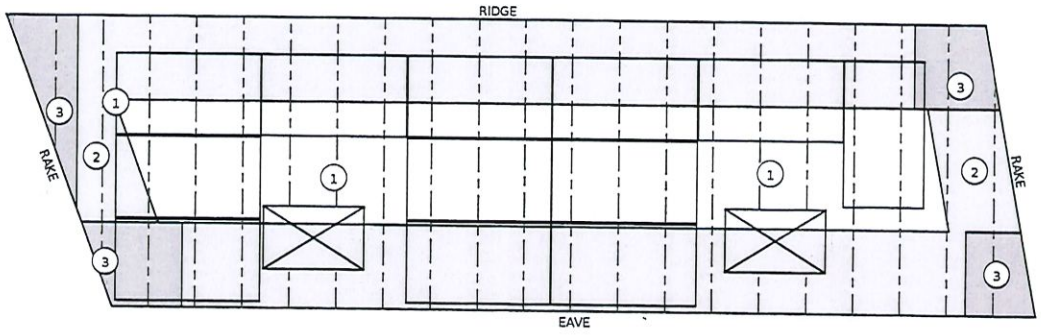
STRUCTURAL DESIGN PARAMETERS	
WIND (ASCE 7-10)	100 MPH, EXPOSURE CATEGORY B, RISK CATEGORY II
GROUND SNOW LOAD	30 PSF

ROOF PROPERTIES	
ROOF MATERIAL	COMPOSITION SHINGLE (1 LAYER)
SLOPE	8/12 (33.0°)
MEAN ROOF HEIGHT	24.7FT
ROOF DECKING	TONGUE AND GROOVE
CONSTRUCTION	RAFTERS (4X6'S), 26IN OC

MODULE MECHANICAL PROPERTIES	
MODEL	Q-CELLS Q.PEAK DUO BLK ML-G10+ 400
DIMENSIONS (AREA)	74.0IN X 41.1IN X 1.3IN (21.1 SQ FT)
WEIGHT	48.5 LBS

MOUNTING SYSTEM PROPERTIES	
ANCHOR MODEL	IRONRIDGE FV-01-B1 (FLASHED), 3.38IN AIR GAP
FASTENING METHOD	2.5 INCH EMBEDMENT INTO RAFTERS WITH (1) 5/16IN DIA. FASTENER
GROUNDING AND BONDING	INTEGRAL GROUNDING CERTIFIED TO UL 2703 REQUIREMENTS

NOTES	
1	RAFTER LOCATIONS ARE APPROXIMATE. CONTRACTOR MAY NEED TO MAKE MINOR ADJUSTMENTS TO ANCHOR LOCATIONS. IN NO CASE SHALL THE ANCHOR SPACING EXCEED "MAX. ANCHOR SPACING"



ANCHOR PLACEMENT PARAMETERS (ASCE 7-10)			
WIND PRESSURE ZONE	MAX. ALLOWABLE RAIL SPAN	MAX. ANCHOR SPACING	MAX. ALLOWABLE CANTILEVER
ZONES 1, 2, 3	52.0IN	52.0IN	20.8IN

DISTANCE α IS EQUAL TO 10% OF THE BUILDING'S LEAST HORIZONTAL DIMENSION ("LHD") OR 40% OF THE MEAN ROOF HEIGHT, WHICHEVER IS SMALLER, BUT NOT LESS THAN 4% OF THE LHD OR 3 FT. THESE SETBACKS ARE APPLIED TO THE BUILDING FOOTPRINT AND PROJECTED TO THE ROOF PLANES IN ACCORDANCE WITH GUIDANCE PROVIDED BY ASCE 7-10 FIGURES 30.4-2 B, C, AND D.

α = MAX(MIN(0.4 * MEAN ROOF HEIGHT, 0.1 * LHD), 0.04 * LHD, 3 FT)

3.0 FT = MAX(MIN(0.4 * 24.7 FT, 0.1 * 20.7 FT), 0.04 * 20.7 FT, 3 FT)

1 / PV-5.2 ATTACHMENT PLAN (ORTHOGONAL PROJECTION)
SCALE: 3/16" = 1'

2023-371

BEHAN ENGINEERING

GRID-TIED PV SYSTEM

SONNENTHAL RESIDENCE
400 S MAIN ST
PROVIDENCE, RI 02903

KEVIN E. BEHAN
No. 8437
REGISTERED PROFESSIONAL ENGINEER

ATTACHMENT PLAN

DOC ID: 4BF9DC-1
DATE: 6/20/23
CREATOR: K.B.
REVIEWER:

REVISIONS

PV-5.2

STRUCTURAL DESIGN PARAMETERS	
WIND (ASCE 7-10)	100 MPH, EXPOSURE CATEGORY B, RISK CATEGORY II
GROUND SNOW LOAD	30 PSF

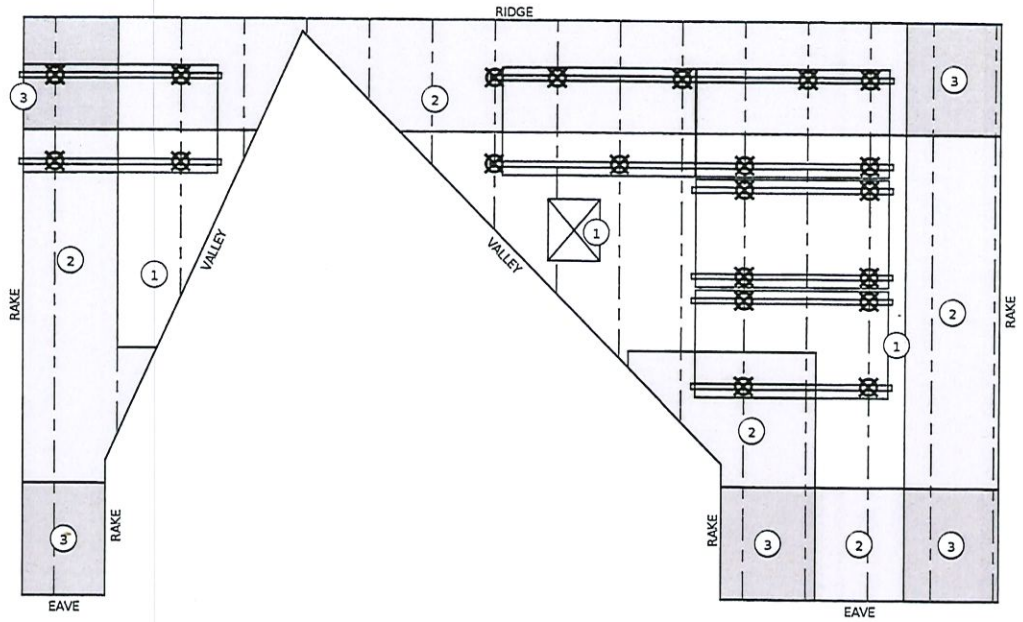
ROOF PROPERTIES	
ROOF MATERIAL	COMPOSITION SHINGLE (1 LAYER)
SLOPE	8/12 (33.0°)
MEAN ROOF HEIGHT	19.3FT
ROOF DECKING	TONGUE AND GROOVE
CONSTRUCTION	RAFTERS (4X6'S), 26IN OC

MODULE MECHANICAL PROPERTIES	
MODEL	Q-CELLS Q.PEAK DUO BLK ML-G10+ 400
DIMENSIONS (AREA)	74.0IN X 41.1IN X 1.3IN (21.1 SQ FT)
WEIGHT	48.5 LBS

MOUNTING SYSTEM PROPERTIES	
RAIL MODEL	IRONRIDGE XR100
ANCHOR MODEL	IRONRIDGE FV-01-B1 (FLASHED), 3.38IN AIR GAP
FASTENING METHOD	2.5 INCH EMBEDMENT INTO RAFTERS WITH (1) 5/16IN DIA. FASTENER
GROUNDING AND BONDING	INTEGRAL GROUNDING CERTIFIED TO UL 2703 REQUIREMENTS

DEAD LOAD CALCULATIONS			
LOAD	QTY	LBS	TOTAL LBS
MODULES	5	48.5	242.5
OPTIMIZERS	5	1.4	7.2
LINEAR FEET OF RAIL	64 FT	0.7	43.7
ANCHORS	21	0.6	12.6
MISC. HARDWARE		4.2	4.2
TOTAL ARRAY WEIGHT			310.2 LBS
AREA NAME	QTY	SQFT	TOTAL SQFT
MODULES	5	21.1	105.5
POINT LOAD (310.2 LBS / 21 ATTACHMENTS)			14.8 LBS
DIST. LOAD (310.2 LBS / 105.5 SQFT)			2.94 PSF

NOTES	
1	RAFTER LOCATIONS ARE APPROXIMATE. CONTRACTOR MAY NEED TO MAKE MINOR ADJUSTMENTS TO ANCHOR LOCATIONS. IN NO CASE SHALL THE ANCHOR SPACING EXCEED "MAX. ANCHOR SPACING"



ANCHOR PLACEMENT PARAMETERS (ASCE 7-10)			
WIND PRESSURE ZONE	MAX. ALLOWABLE RAIL SPAN	MAX. ANCHOR SPACING	MAX. ALLOWABLE CANTILEVER
ZONES 1, 2, 3	52.0IN	52.0IN	20.8IN

DISTANCE a IS EQUAL TO 10% OF THE BUILDING'S LEAST HORIZONTAL DIMENSION ("LHD") OR 40% OF THE MEAN ROOF HEIGHT, WHICHEVER IS SMALLER, BUT NOT LESS THAN 4% OF THE LHD OR 3 FT. THESE SETBACKS ARE APPLIED TO THE BUILDING FOOTPRINT AND PROJECTED TO THE ROOF PLANES IN ACCORDANCE WITH GUIDANCE PROVIDED BY ASCE 7-10 FIGURES 30.4-2 B, C, AND D.

a = MAX(MIN(0.4 * MEAN ROOF HEIGHT, 0.1 * LHD), 0.04 * LHD, 3 FT)

3.0 FT = MAX(MIN(0.4 * 19.3 FT, 0.1 * 24.3 FT), 0.04 * 24.3 FT, 3 FT)

1 / PV-5.3 ATTACHMENT PLAN (ORTHOGONAL PROJECTION)
SCALE: 1/4" = 1'

2023-371

BEHAN ENGINEERING

GRID-TIED PV SYSTEM

SONNENTHAL RESIDENCE
400 S MAIN ST
PROVIDENCE, RI 02903

KEVIN E. BEHAN
No. 8437
REGISTERED PROFESSIONAL ENGINEER

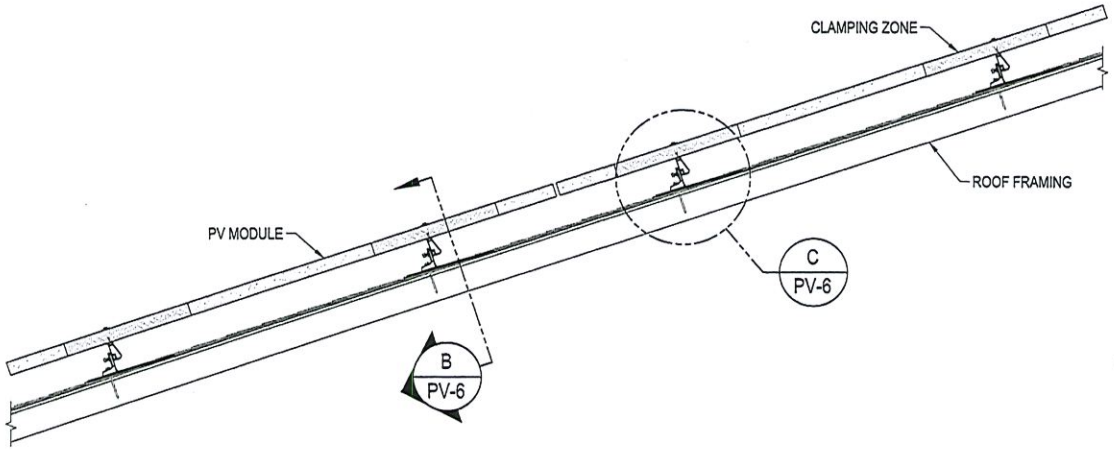
ATTACHMENT PLAN

DOC ID: 4BF9DC-1
DATE: 6/20/23
CREATOR: K.B.
REVIEWER:

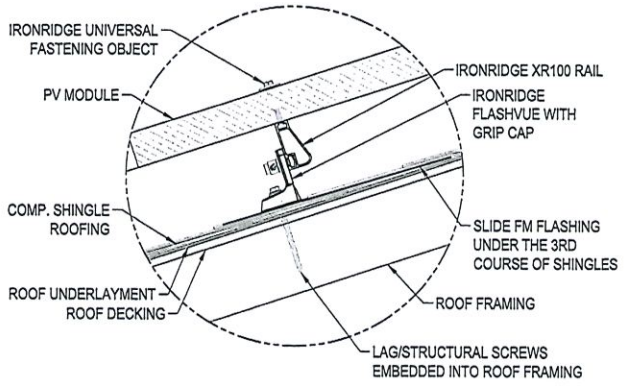
REVISIONS

PV-5.3

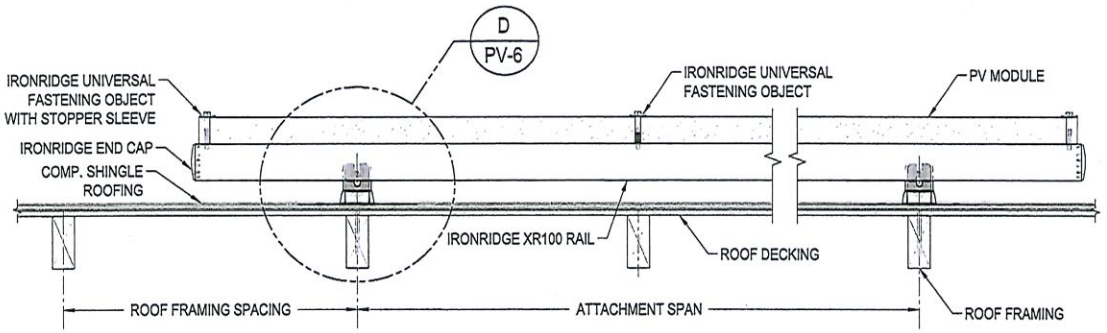
MOUNTING SYSTEM NOTES	
1	FLASHING SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.
2	IF THERE IS ANY CONFLICT BETWEEN WHAT IS DEPICTED HERE AND INSTRUCTIONS PROVIDED BY A MANUFACTURER, THE MANUFACTURER'S INSTRUCTIONS SHALL SUPERCEDE.



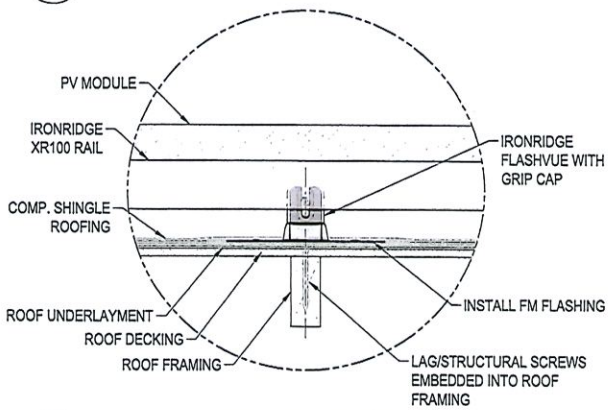
A PV-6 RACKING ELEVATION (TRANSVERSE VIEW)
SCALE: NTS



C PV-6 ATTACHMENT DETAIL (TRANSVERSE VIEW)
SCALE: NTS



B PV-6 RACKING ELEVATION (LONGITUDINAL VIEW)
SCALE: NTS



D PV-6 ATTACHMENT DETAIL (LONGITUDINAL VIEW)
SCALE: NTS

2023-371

BEHAN ENGINEERING

GRID-TIED PV SYSTEM

SONNENTHAL RESIDENCE
400 S MAIN ST
PROVIDENCE, RI 02903

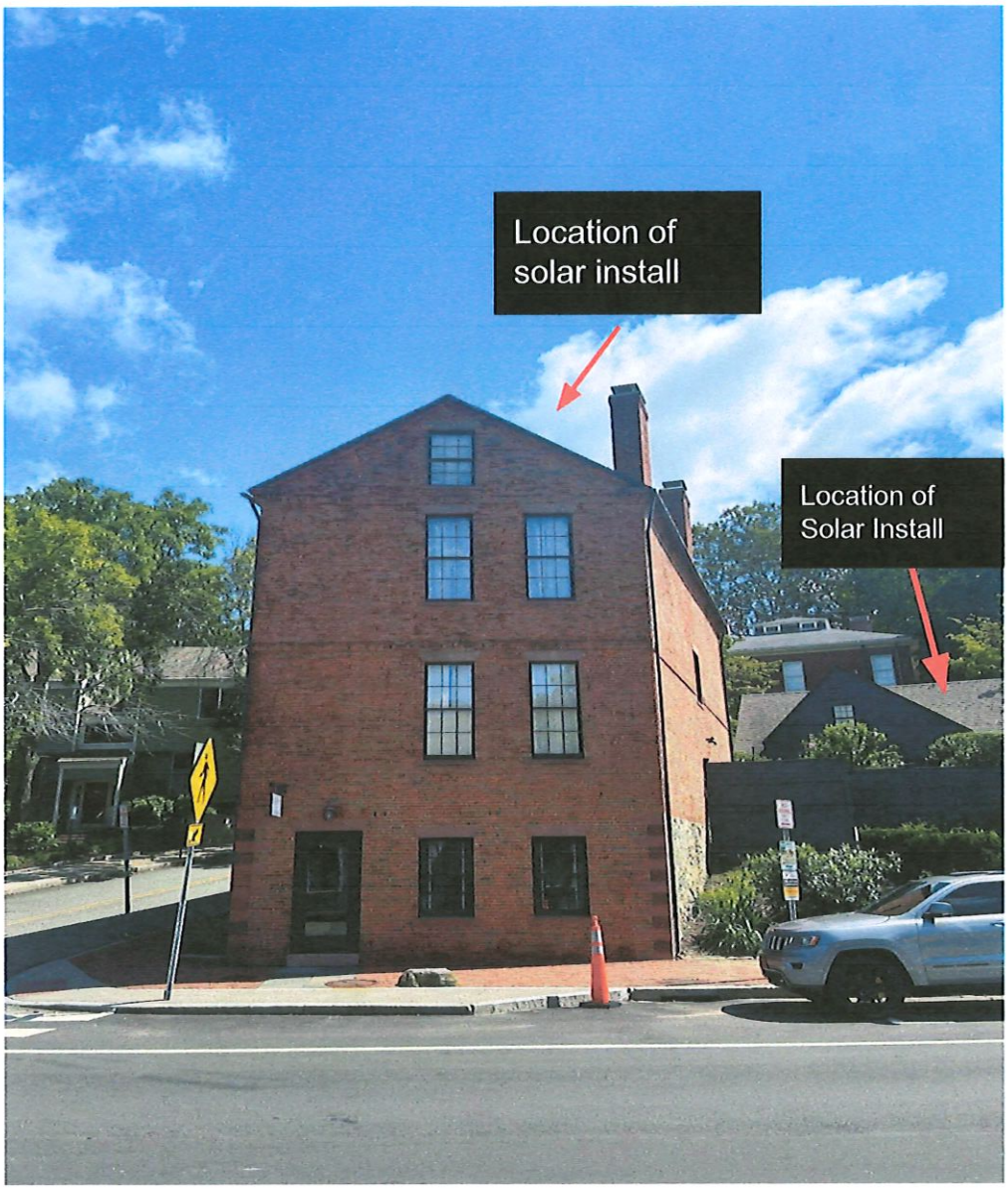
KEVIN E. BEHAN
No. 8437
REGISTERED PROFESSIONAL ENGINEER

ATTACHMENT DETAILS

DOC ID: 4BF9DC-1
DATE: 6/20/23
CREATOR: K.B.
REVIEWER:

REVISIONS

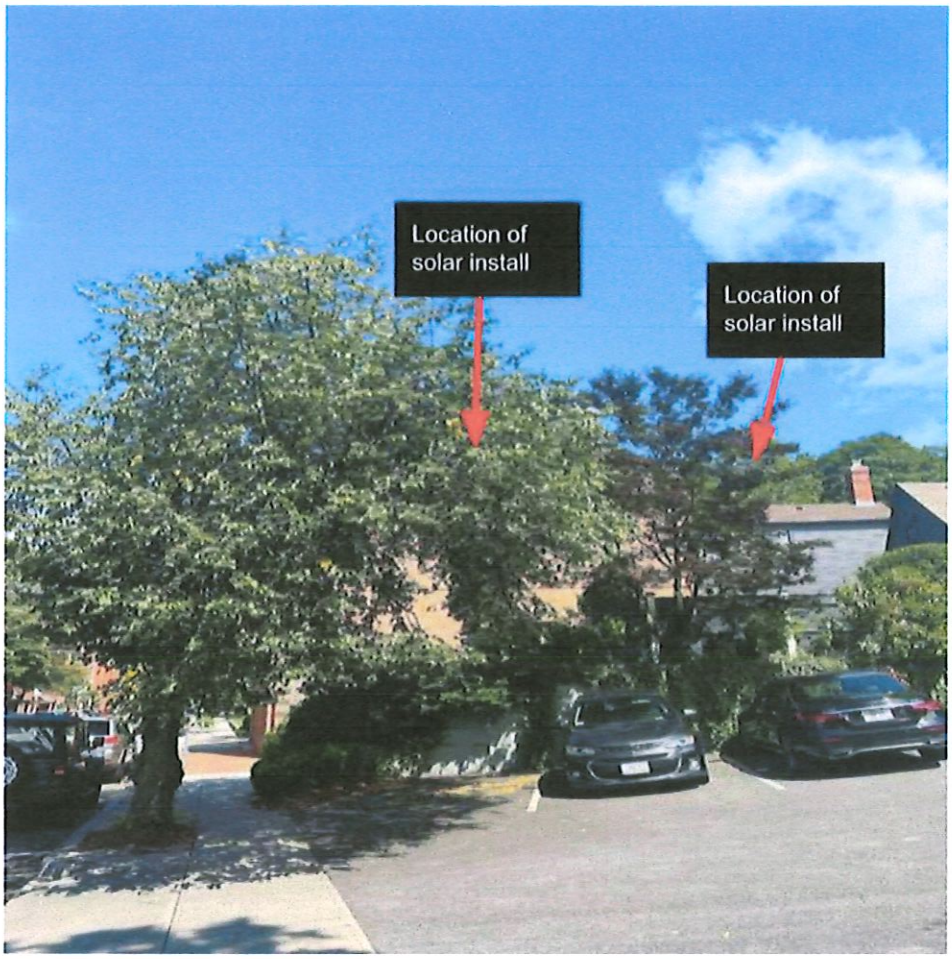
PV-6



Front on facing view from opposite side side-walk showing back structure from opposite sidewalk

South-side of the property from right below from the sidewalk.

South-side facing view of property on opposite side walk



South-side of property showing tree obscuring view of solar panels of passer byers


Google Street View
Nov 2022
See more dates
S Main St