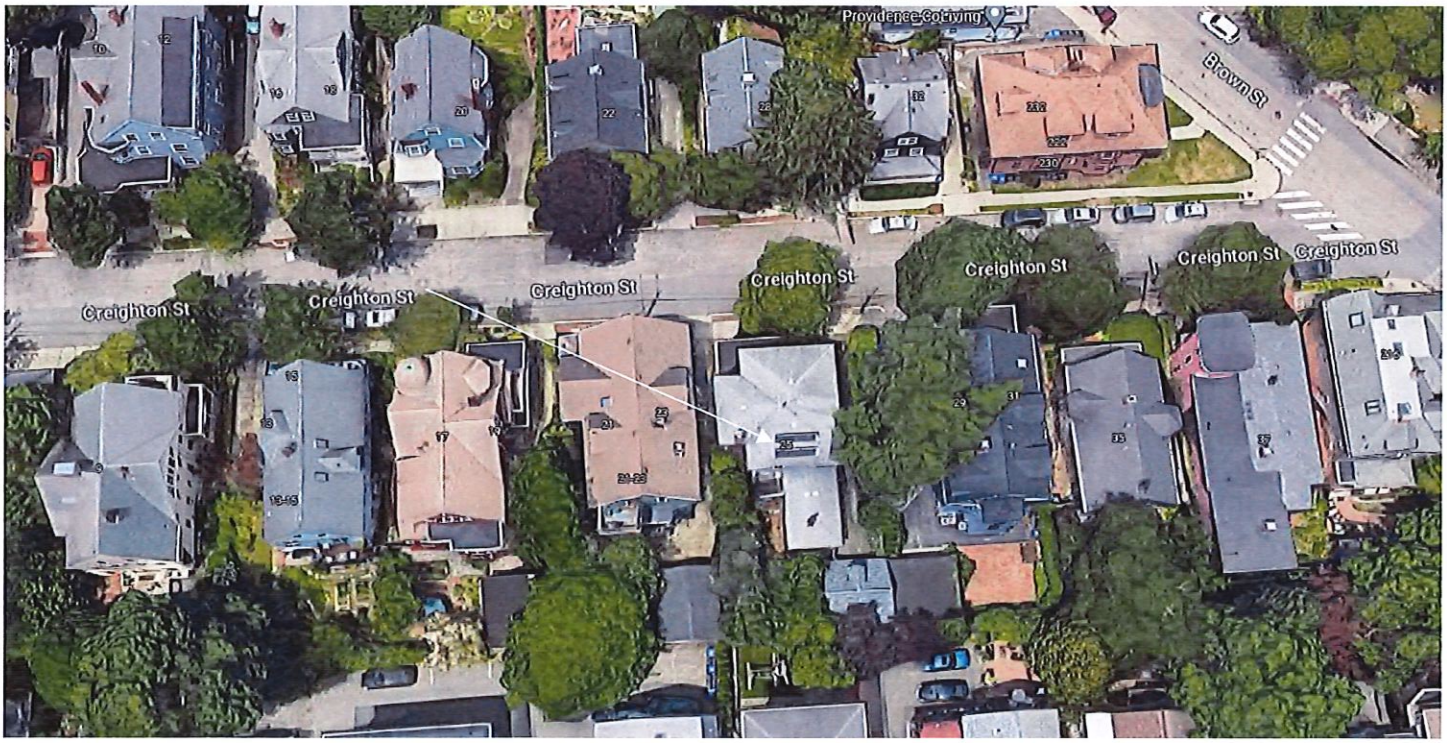
4. CASE 23.098, 25 CREIGHTON STREET, Nelson Brown House, 1855 (COLLEGE HILL)

Italianate; 2 stories; flat; clapboard; L plan with later Colonial Revival porch across front and extending into arms of L where entrance is; molded window caps; deep bracketed eaves; corner boards.

CONTRIBUTING

Arrow indicates 25 Creighton Street.



Arrow indicates project location, looking north.

Applicant/Contractor: Smart Green Solar, 33 Broad St, Ste 500, Providence, RI 02903
Owner: Derek Bradford, 25 Creighton Street, Providence, RI 02906

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

- the installation of four solar panels to the north (front) slope, seven panels to the east slope, one panel to the west slope of the hip roof, with three solar panels to the east slope and two solar panels to the west slope of the rear el 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. A good point of reference is the hot-water system on the rear roof that is partially visible from the public rights-of-way. This system is much taller than the proposed solar system. The siting of the house and the shallowness of the roof pitch keep the main roof slopes out of view. The most visible panels appear to be the set of three proposed for the east slope of the rear el;
- 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) 25 Creighton 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 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. 25 Creighton 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 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.

DESIGN SPECIFICATION	
RISK CATEGORY:	II
CONSTRUCTION:	SFD
ZONING:	RESIDENTIAL
SNOW LOAD (ASCE7-16):	30 PSF
EXPOSURE CATEGORY:	C
WIND SPEED (ASCE7-16):	125 MPH

MODULE TYPE, DIMENSIONS & WEIGHT	
NUMBER OF MODULES:	17 MODULES
MODULE TYPE:	REC REC405AA PURE BLACK
MODULE WEIGHT:	45 LBS
MODULE DIMENSIONS:	71.7" X 40" = 19.92 SF
UNIT WEIGHT OF AREA:	2.26 PSF

ROOF DESCRIPTION					
ROOF	ROOF TILT	AZIMUTH	RAFTER SIZE	RAFTER SPACING	ROOF MATERIAL
#1	16°	85°	2" x 6"	24" o.c.	COMP SHINGLE
#2	21°	85°	2" x 6"	24" o.c.	COMP SHINGLE
#3	21°	355°	2" x 6"	24" o.c.	COMP SHINGLE
#4	21°	265°	2" x 6"	24" o.c.	COMP SHINGLE
#5	16°	265°	2" x 6"	24" o.c.	COMP SHINGLE

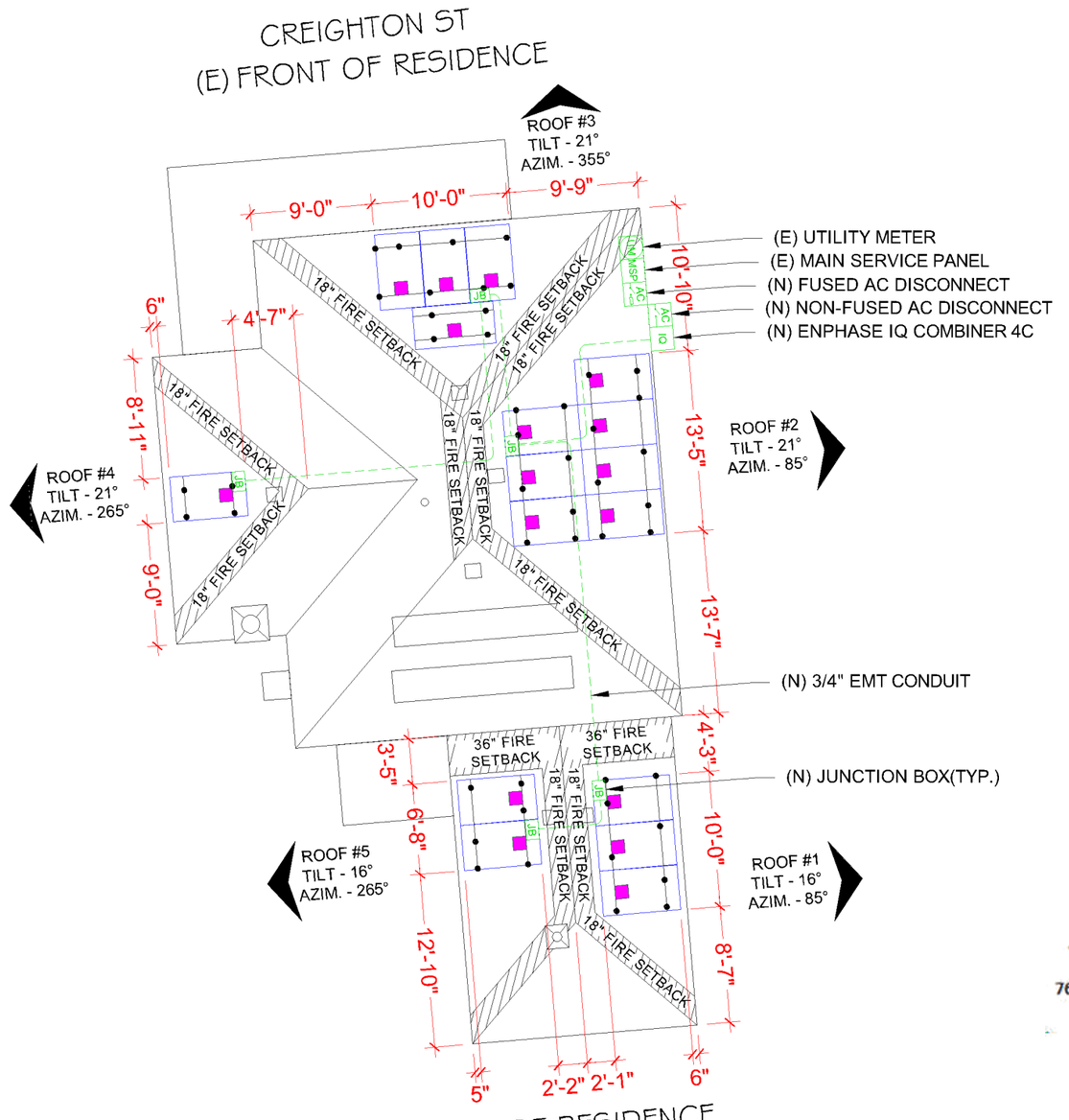
ARRAY AREA & ROOF AREA CALC'S		
ROOF	# OF MODULES	ARRAY AREA (Sq. Ft.)
#1	3	59.75
#2	7	139.42
#3	4	79.67
#4	1	19.92
#5	2	39.84
(TOTAL ARRAY AREA/TOTAL ROOF AREA) X 100%		
= (338.59/1997) X 100% = 16.96%		

LEGEND

- JB — (N) JUNCTION BOX
- UM — (E) UTILITY METER
- MSP — (E) MAIN SERVICE PANEL
- IQ — (N) ENPHASE IQ COMBINER
- AC — (N) FUSED AC DISCONNECT
- AC — (N) NON FUSED AC DISCONNECT
- VENT, ATTIC FAN (ROOF OBSTRUCTION)
- ROOF ATTACHMENT
- CONDUIT
- ENPHASE IQ8PLUS -72-2-US (240V) MICROINVERTER
- REC REC405AA PURE BLACK MODULES
- XR-10-168B RAIL
- TRENCH

PANEL HEIGHT OFF ROOF	4"

DEAD LOAD CALCULATION			
EQUIPMENT'S DESCRIPTIONS	QTY	LBS/UNIT	TOTAL WEIGHT
MODULES	17	45	765
MID CLAMP	20	0.3	6
END CLAMP	28	0.31	8.68
XR-10-168B RAIL	11	5.95	65.45
SPLICE BAR	0	0.65	0
HALO ULTRAGRIP - BLACK (QM-HUG-01-B1)	47	0.57	26.79
SELF DRILLING SCREW, #14, WOOD TIP WITH WASHER, EPDM BACKED	47	0.1	4.70
TOTAL WEIGHT OF THE SYSTEM (LBS)			876.62
TOTAL ARRAY AREA ON THE ROOF (SQ. FT.)			338.59
WEIGHT PER SQ. FT. (LBS)			2.59
WEIGHT PER PENETRATION (LBS)			9.33



SCALE: 3/32"= 1'-0"

SCOTT E. WYSSLING
No. PE13286
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

Wyssling Consulting, PLLC
76 N Meadowbrook Drive, Alpine UT 84004
Rhode Island COA #9333
Signed 6/23/2023

METER NO#: 55887615

SmartGreenSolar
SMART GREEN
33 BROAD ST SUITE 500,
PROVIDENCE, RI 02903, USA
PH# : (774) 502-5948

SYSTEM INFO
(17) REC REC405AA PURE BLACK
(17) ENPHASE IQ8PLUS -72-2-US (240V)
DC SYSTEM SIZE: 6.885 kWDC
AC SYSTEM SIZE: 4.930 kWAC
METER: 55887615

REVISIONS		
DESCRIPTION	DATE	REV

PROJECT NAME & ADDRESS

DEREK BRADFORD
RESIDENCE
25 CREIGHTON ST, PROVIDENCE, RI 02906, USA
EMAIL ID: SBRADFORDLA@COX.NET
PHONE NO. (401) 996-9529

DATE: 6/22/2023

SHEET NAME
ROOF PLAN

SHEET SIZE
ANSI B
11" X 17"

SHEET NUMBER
PV-3


Now
Leasing
401-680-0509


25
3VCR 20