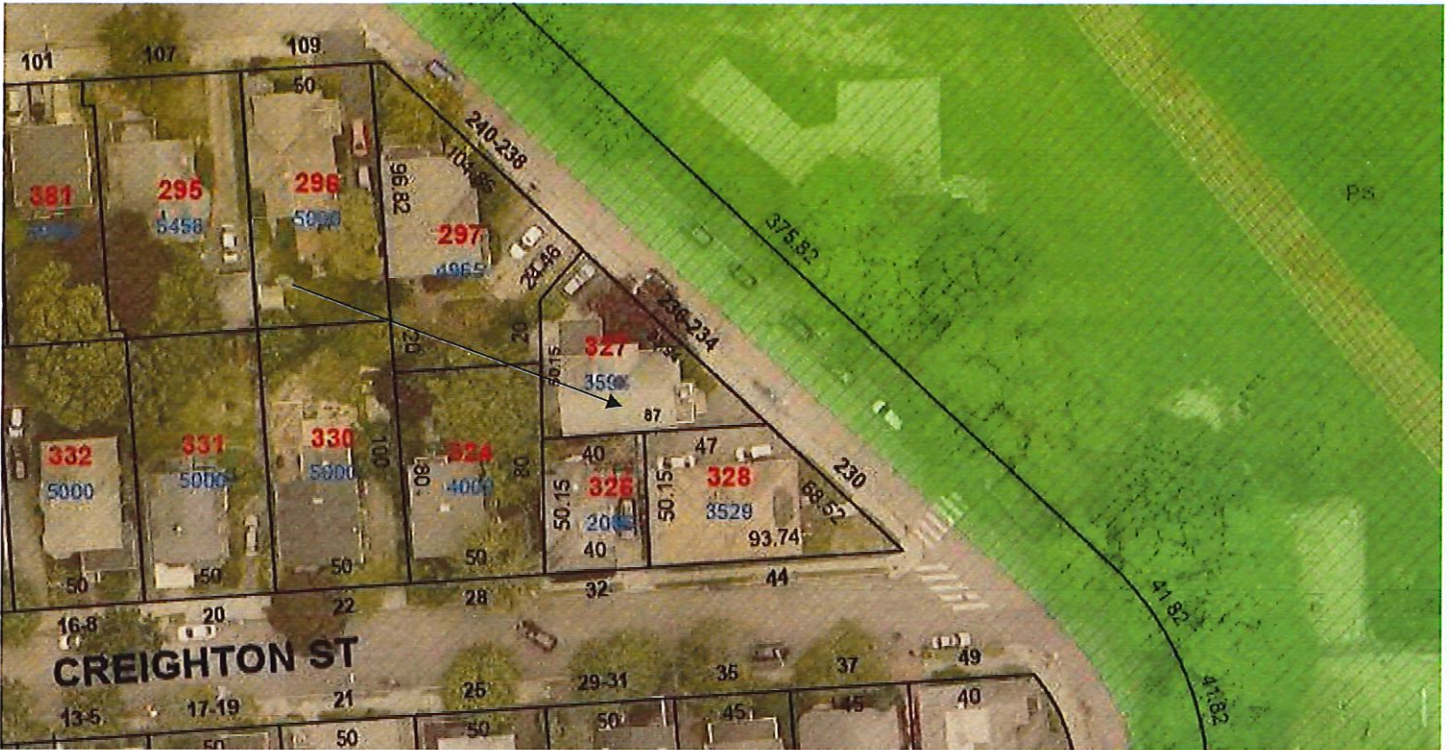


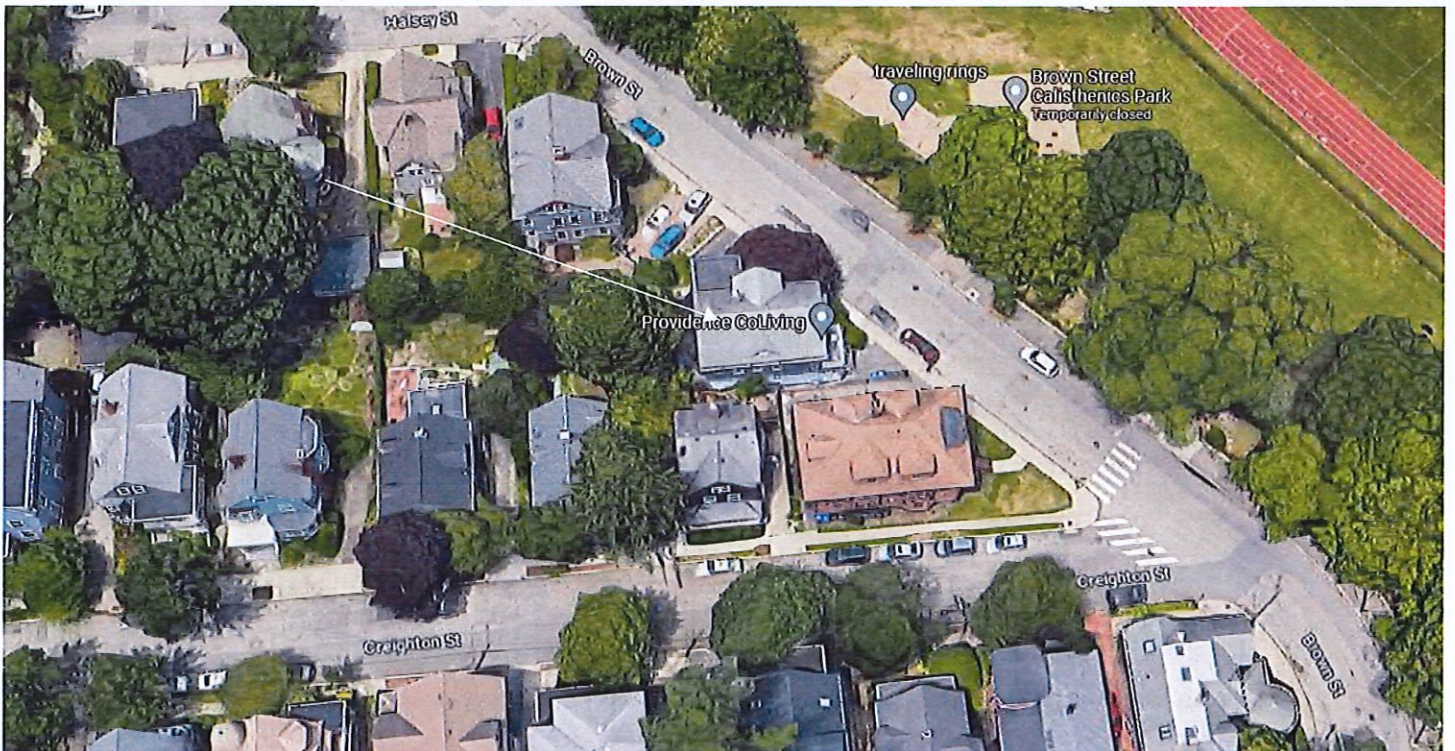
**6. CASE 23.053, 234-236 BROWN STREET, House, 1875-95 (COLLEGE HILL)**

2½ stories; cross gable; asphalt shingle; simple two-family with two-story square-bay next to porch, new vestibule extended into porch for #234. Sawtooth shingles in gable end.

CONTRIBUTING



Arrow indicates 234-236 Brown Street.



Arrow indicates project location, looking north.

**Applicant/Contractor:** Sol Power Solar, Jarad Asselin, 11 Almy Street, Providence, RI 02909

**Owner:** JCV Investments LLC, PO Box 23216, Providence, RI 02903

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

- the installation of seventeen solar panels to the south slope of the gable end 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;
- Staff recommends the three panels at the western side be moved as much as possible to the east to decrease possible visibility;
- 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) 234-236 Brown 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. 234-236 Brown 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.

System:  
 17 – Hanwha 400W modules  
 17 - Enphase IQ8A  
 6.8 kW DC  
 5.933 kW AC



651 W. GALENA PARK BLVD. STE. 101 DRAPER, UTAH 84020  
 PHONE (801) 990-1775  
 WWW.VECTORSE.COM

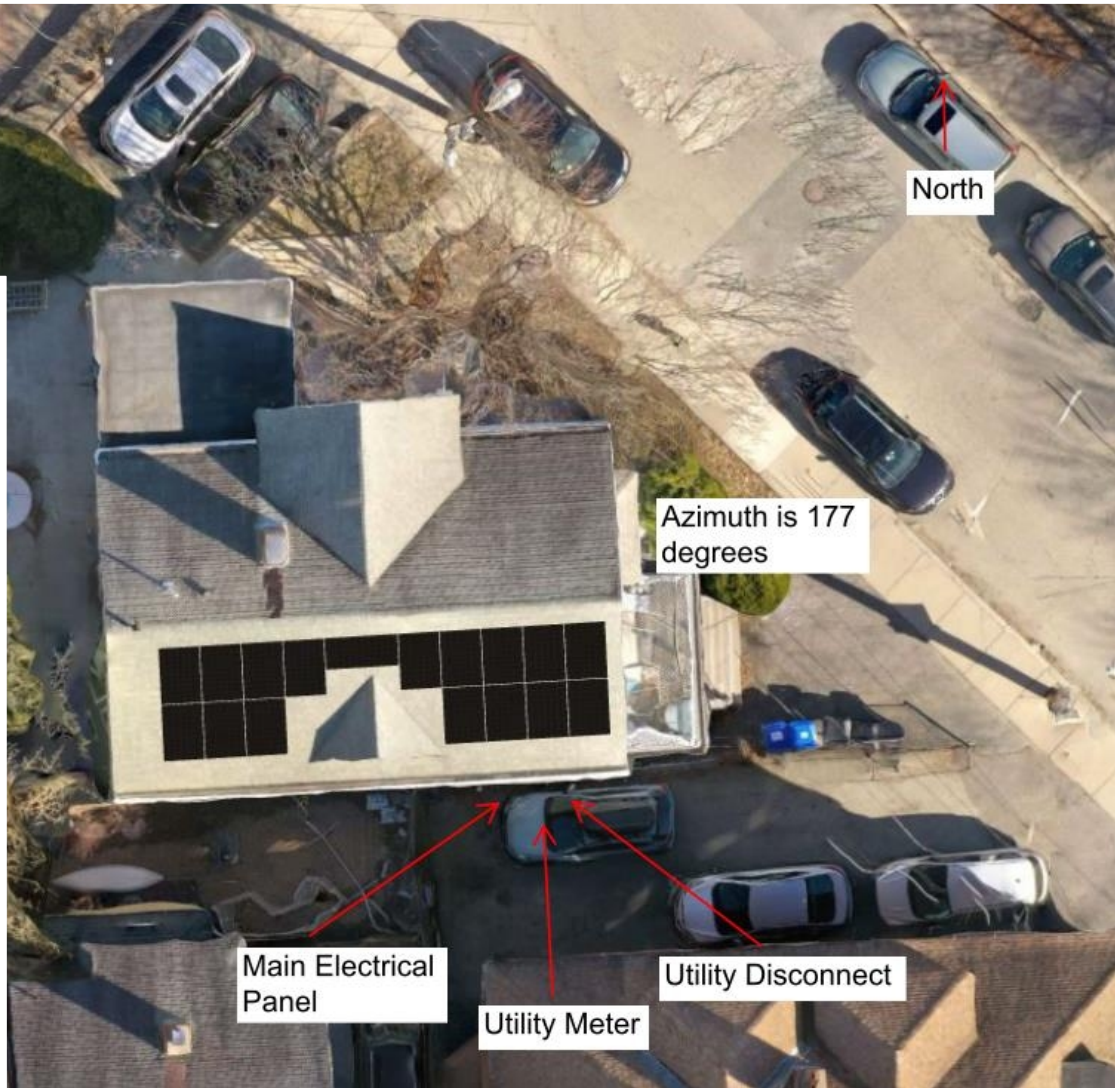


01/20/2023

Firm License Number: PE.00LLC86-COA

VSE Project Number: U3946.0280.231

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 racking system, racking connections, and all other structural is by others. Mechanical, architectural, and all other nonstructural aspects of the design are by others. Electrical is by others, unless stamped by Dean Levorsen.



North

Azimuth is 177 degrees

Main Electrical Panel

Utility Meter

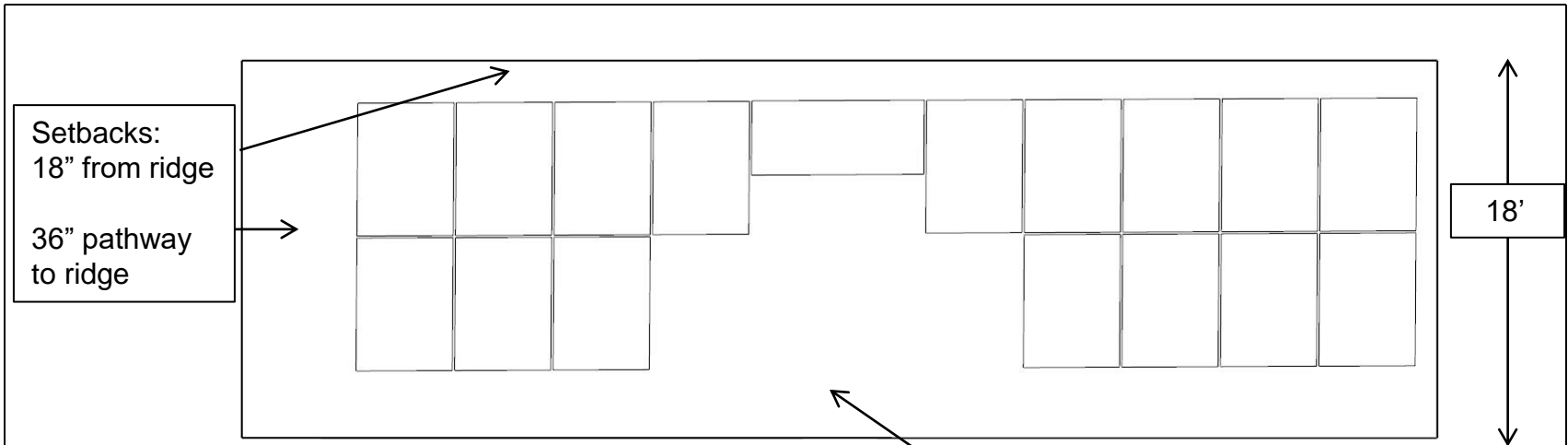
Utility Disconnect



Site Location: Carlos Varum  
 234 Brown St  
 Providence, RI 02906

Aerial Layout  
 Created By: Abel Collins

Sol Power  
 11 Almy Street  
 Providence, RI. 02909



Setbacks:  
18" from ridge

36" pathway  
to ridge

18'

Roof surface: 409 square feet

Module: Hanwha 400 Watt (32mm frame)  
 Array area (square ft): 344.4  
 Total Weight (lbs): 959.5  
 Weight/Attachment (lbs): 30.0  
 Distributed Weight (psf): 2.6  
 Max Downforce at Attachment (lbs): 228  
 Max Uplift at Attachment (lbs): -223  
 Lateral Reaction at Attachment (lbs): 94  
 Max Cantilever: 1'7"  
 Max attachment span: 4'  
 Total # of Attachments: 32

Reaction Forces	Down (lbs)	Uplift (lbs)	Lateral (lbs)
Zone 1	228	182	94
Zone 2	228	223	94
Zone 3	228	223	94



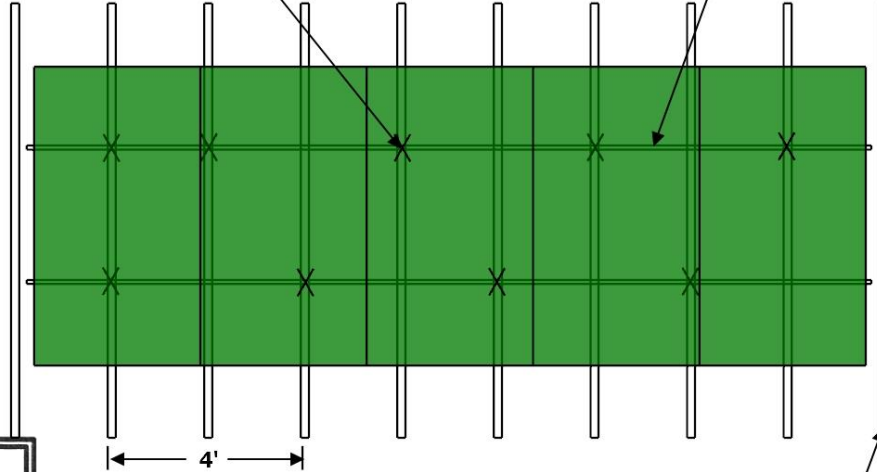
Site Location: Carlos Varum  
 234 Brown St  
 Providence, RI 02906

Structural Layout Drawing  
 Created By: Abel Collins  
 Date: 1/20/2023

Sol Power  
 11 Almy Street  
 Providence, RI. 02909

IronRidge Flashfoot attachments  
3 x 5/16 lag bolts into rafters

IronRidge XR100 Rails



Structural framing 24" O.C.



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JACOB S. PROCTOR  
No. 13119  
REGISTERED PROFESSIONAL ENGINEER  
01/20/2023

Loading, 134mph wind, 35 psf snow:  
Hurricane ties present: No  
Flush Roof Mount PV Array  
Roof Type: Asphalt Shingle  
Roof Rafters: true 2x6" rafters 24" OC  
Roof Pitch: 40 degrees  
Roof Orientation: 177  
Mean Roof Height: 30'

Firm License Number: PE.00LLC86-COA  
VSE Project Number: U3946.0280.231

	<p>Notes: Carlos Varum 234 Brown St Providence, RI 02906</p>	<p>Structural Layout Drawing</p>	<p>Sol Power 11 Almy Street Providence, RI. 02909</p>
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