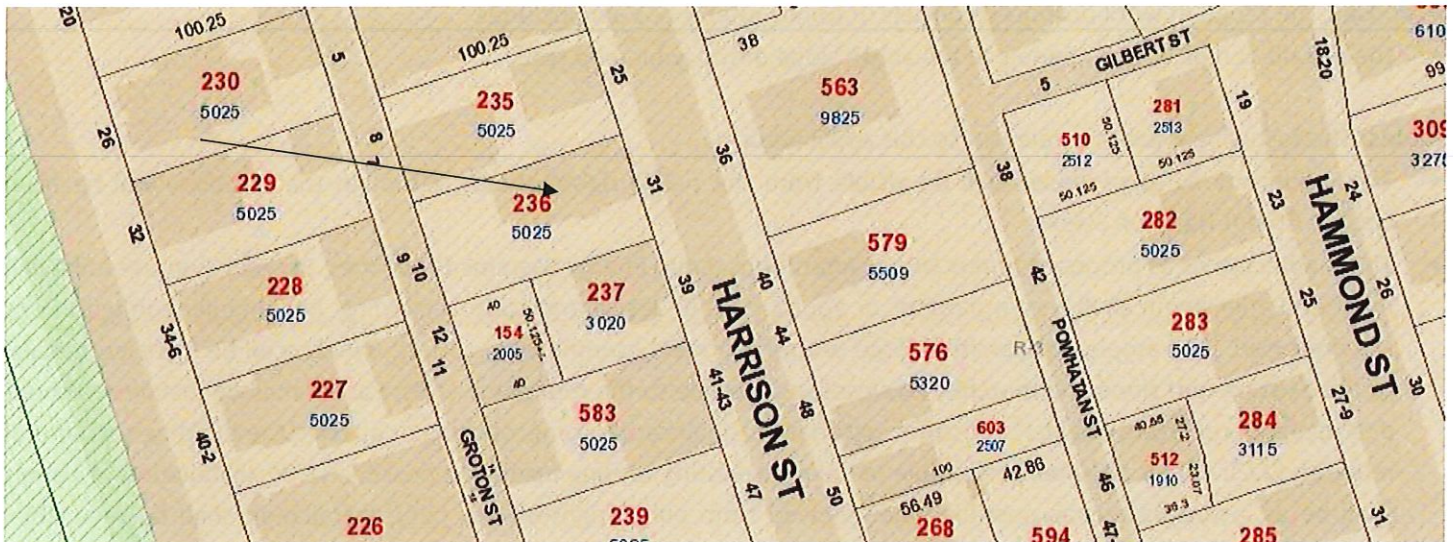
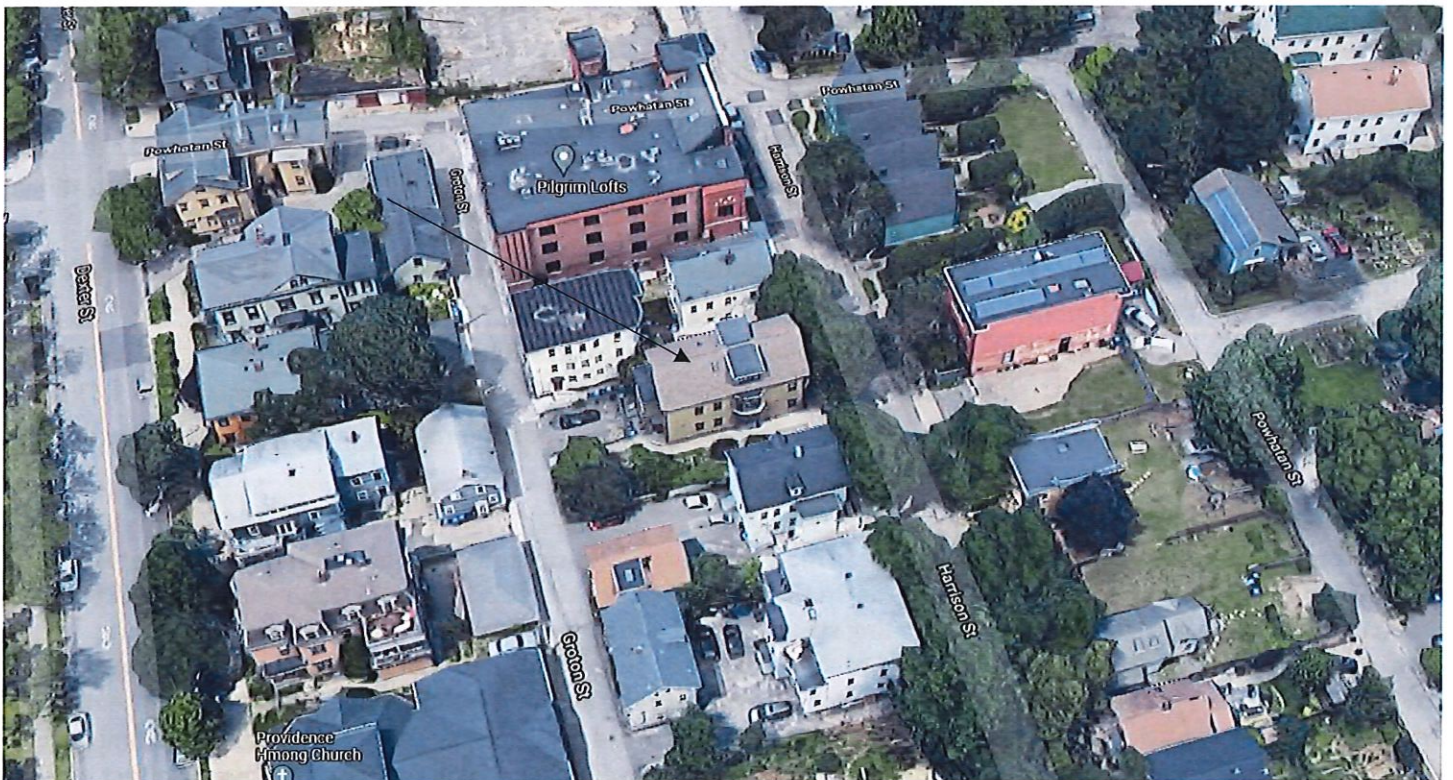


6. CASE 21.126, 31 HARRISON STREET, House, 1860s (ARMORY)

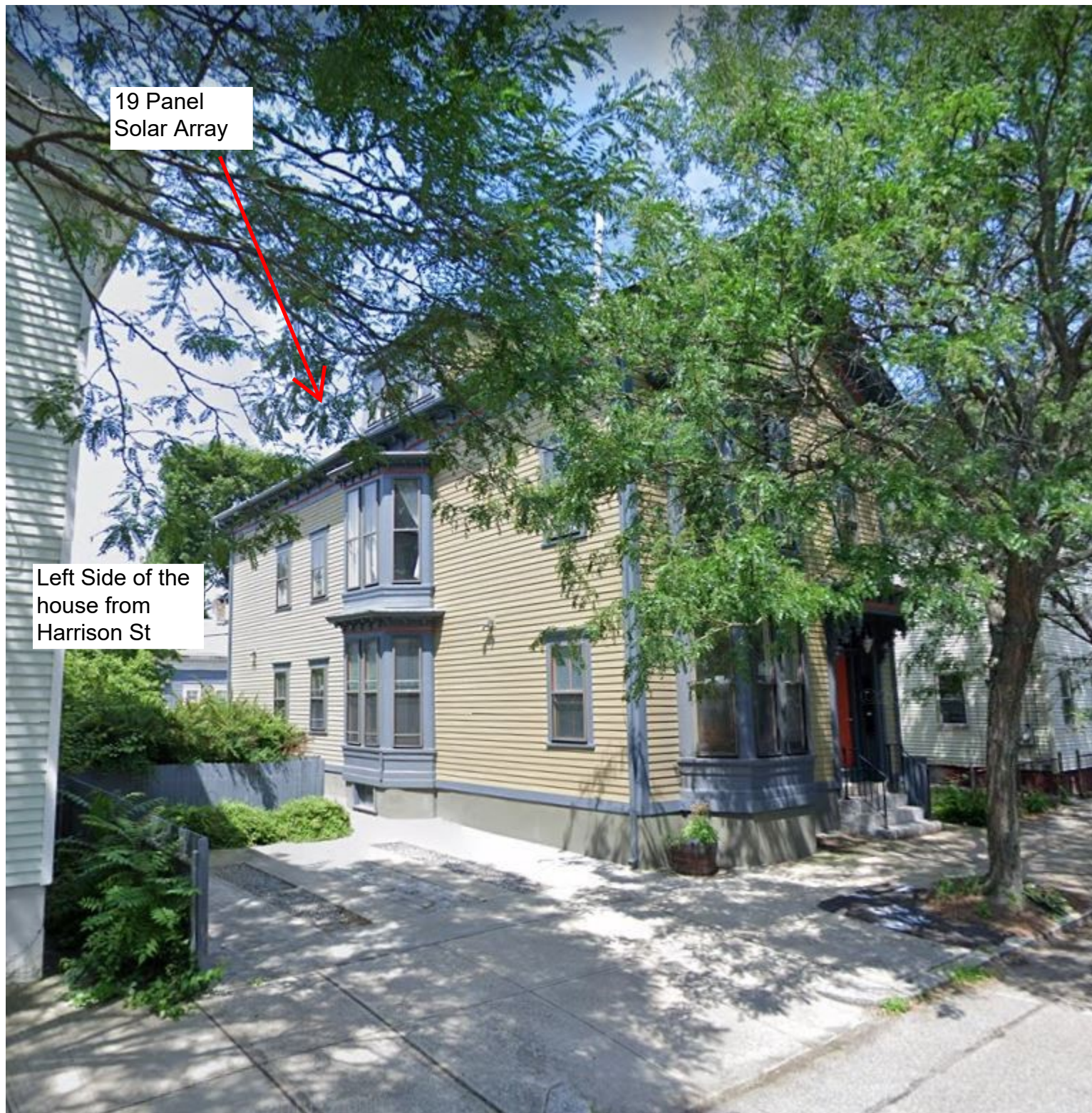
2½-story; end-gable; typical house; with bracketed cornice, 2-story bay and sidehall entry hood.
CONTRIBUTING



Arrow indicates 31 Harrison Street




Arrow indicates project location, looking north.



19 Panel
Solar Array

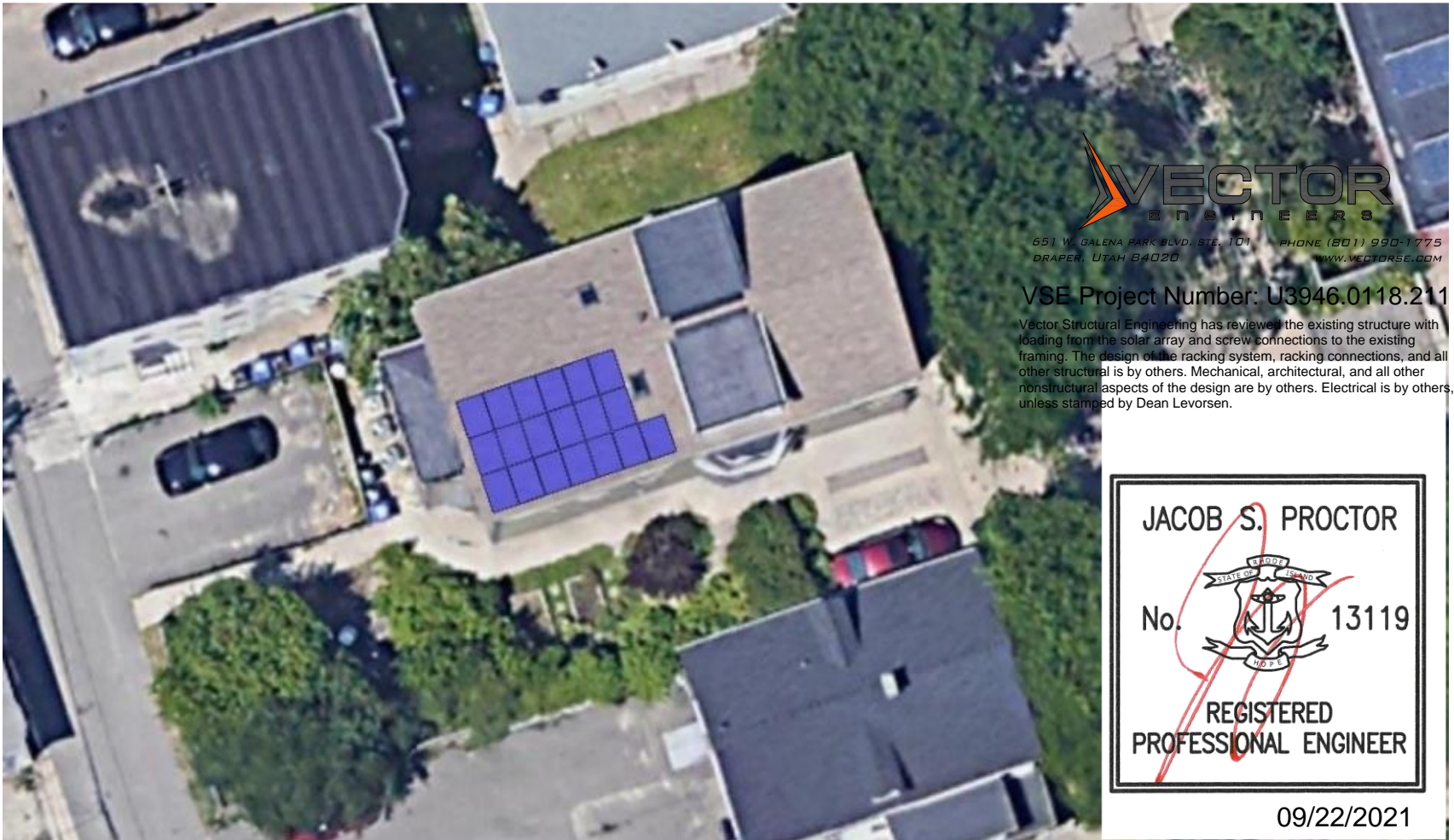
Left Side of the
house from
Harrison St



Back right side of
the house from
Harrison St

New conduit run
from lowest part
of the attic to
meter, run next to
existing electrical
wire / gutter

New exterior
disconnect for
utility and first
responders



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

VSE Project Number: U3946.0118.211

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.



09/22/2021



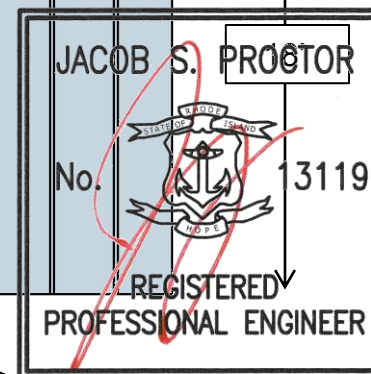
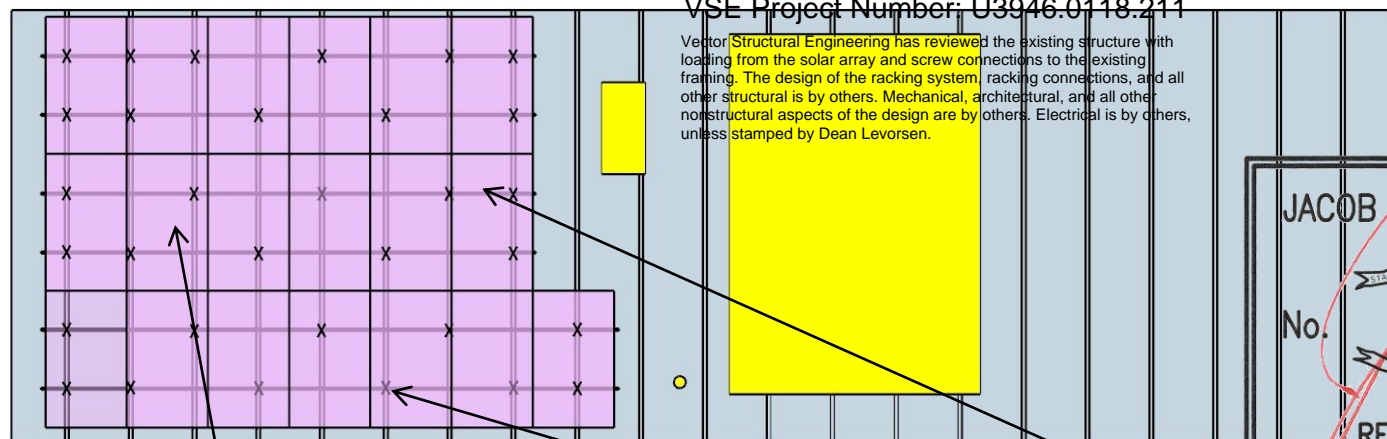
Site Location: Seth Zeren
31 Harrison Street, Apt 2
Providence, RI. 02909

Structural Layout Drawing
Created By: Abel Collins
Date: 9/21/2021

Sol Power
11 Almy Street
Providence, RI. 02909

VSE Project Number: U3946.0118.211

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Hanwha 340 Watt solar panels (40mm frame)

3 x 5/16 Lag Bolts into Rafters
IronRidge Flashings

IronRidge XR100 Rails

09/22/2021

Array area (square ft): 372.9
Hurricane ties present: No
Flush Roof Mount PV Array
Roof Type: Asphalt Shingle
Roof Rafters: 2x6" rafters 32" OC sistered with 2x6" boards
Roof Pitch: 34 degrees
Roof Orientation: 161
Mean Roof Height: 28'

Loading, 133 mph wind, 30 psf snow:
Total Weight (lbs): 1067.1
Weight/Attachment (lbs): 33.3
Distributed Weight (psf): 2.9
Max Downforce at Attachment (lbs): 234
Max Uplift at Attachment (lbs): -182
Lateral Reaction at Attachment (lbs): 100
Max Cantilever: 2'2"
Max attachment span: 5'4"
Total # of Attachments: 32



Site Location: Seth Zeren
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Reaction Forces:

Reaction Forces	Down (lbs)	Uplift (lbs)	Lateral (lbs)
Zone 1	234	148	100
Zone 2	234	182	100
Zone 3	234	182	100

Rafter Span: 16'

Wind Zone: 3



Notes: Seth Zeren
31 Harrison Street, Apt 2
Providence, RI. 02909

Structural Layout Drawing

Sol Power
11 Almy Street
Providence, RI. 02909