



AGENDA - TROY PLANNING COMMISSION MEETING
WEDNESDAY, JULY 26, 2023, 3:30 P.M.
CITY HALL, COUNCIL CHAMBERS

1. Roll Call
2. Minutes - July 12, 2023
3. Request for approval of solar panels at 1551 Creekwood Drive. The panels were installed without a Zoning Permit.
Owner - Patricia L. Smith
Applicant - Solar Power & Light
-Commission to make a decision
4. Adjourn

Next Meeting -- August 9, 2023

Note to Commission members:

If you will not be attending, please email or call Sue.

July 12, 2023

A regular meeting of the Troy Planning Commission was held in Council Chambers, City Hall on Wednesday, July 12, 2023, at 3:30 p.m. with Vice-Chairman N. Lawrence Wolke presiding. ATTENDING: Members – Oda, Ehrlich, Westmeyer, Wolke, Emerick and Titterington; Development Staff – Eidemiller and Bruner.

APPROVAL OF MINUTES: Upon motion of Mrs. Ehrlich, seconded by Mr. Emerick, the minutes of the June 28, 2023 meeting were approved by unanimous voice vote.

DEDICATION OF RIGHT-OF-WAY, 0.848 ACRES OF INLOT 11561, ALONG 2980 FENNER ROAD (SWANK DEVELOPMENT PLAT). Staff reported: the right-of-way to be dedicated is 0.847 acres of Part Inlot 11561; this is part of a replat that is considered a minor subdivision; the replat can be approved by the City Engineer and does not require Planning Commission approval; however, the dedication of right-of-way and easements requires a recommendation of the Planning Commission and approval by Council; the replat is for one parcel along Fenner Road, totaling 5.009 acres of the total 28.75 acres that was part of the recently accepted Swank Annexation; and staff recommends approval.

In response to Mr. Titterington, staff advised that the Swank Annexation is located north of the Edgewater Subdivision and it is anticipated that there will be a request in the near future for the rezoning of that annexed property from County zoning to the City Agricultural-Residential (AR) Zoning District.

A motion was made by Mr. Titterington, seconded by Mr. Westmeyer, that the Troy Planning Commission recommends to Troy City Council that the dedication of Right-of-Way for the Swank Development Plat (an area of 0.847 acres of Part of Inlot 11561, along 2980 Fenner Road) be accepted by Troy City Council.

MOTION ADOPTED, UNANIMOUS ROLL CALL VOTE

There being no further business, the meeting adjourned at 3:34 p.m. upon motion of Mr. Emerick, seconded by Mr. Westmeyer, and approved by unanimous voice vote.

Respectfully submitted,

Chairman

Secretary

MEMORANDUM

TO: City of Troy Planning Commission Members

FROM: Austin Eidemiller, Planning & Zoning Manager

DATE: July 26, 2023

SUBJECT: Planning Commission Review – 1551 Creekwood Drive

PROPOSAL:

A request by applicant Solar Power & Light, is requesting review from the Planning Commission to consider the installation of solar panels facing the public right of way on the home located at 1551 Creekwood Drive. The solar panels were installed without a Zoning Permit.

DISCUSSION:

The home is located on a corner lot on Creekwood Drive and Duke Court. The proposed solar panels would be located in three separate roof lines on the structure. One set of panels front Creekwood Drive and is the reason for the Planning Commission review as described in Section 1151.14 (f)(2). Section 1151.14 (f)(2) states: Roof mounted systems shall be located so not to be visible from the public right of way fronting the property except as otherwise approved by Planning Commission.

At the June 28, 2023 Planning Commission meeting, the Planning Commission recommended a Zoning Code amendment for solar panels. The recommended changes to the Zoning Code from the June 28, 2023 Planning Commission state the following:

Roof-Mounted. Roof mounted solar energy systems shall be located in the least visibly obtrusive location where they would be functional and subject to the following requirements:

- A. All solar energy systems shall have a non-reflective coating to minimize glare.
- B. Roof-mounted solar energy systems shall be installed on the same plane of the roof material (flush mounted) or shall be made a part of the roof design.
- C. Roof-mounted solar energy systems shall not extend above the ridgeline of the roof to which they are attached and they may not extend below the roof line.
- D. Mounting brackets and panels for roof-mounted solar energy systems shall not extend more than 8 inches above the roof surface and shall be covered in a manner architecturally compatible with the building to which is attached to minimize visibility from the right-of-way or adjoining properties.
- E. All building-mounted solar energy systems shall be installed in a manner so they have a rectangular configuration.
- F. Wiring and other appurtenances associated with roof-mounted solar energy systems shall be installed in a manner not visible from the right-of-way.

- G. Roof penetration shall be used to conceal electrical wiring and electrical components from the public right-of-way.
- H. Solar energy systems shall be located in a manner that provides a three (3) foot wide clear access pathway from the eave to the ridge for each roof where panels are located.
- I. Panels shall be located in one general area on the same roof plane.
- J. Panels installed on a roof facing the public right-of-way shall not exceed 25 percent of that roof area.
- K. Solar energy systems may be mounted on flat roofs provided there is a parapet wall or other architectural feature that screens the view of the panels. Such panels may be mounted on an angle provided they do not extend more than five feet above the roof surface.
- L. Solar energy systems located on the roof shall provide, as part of their permit application, evidence of design review and structural certification signed by an engineer.
- M. Solar energy systems shall be accessory to a principally permitted use. Solar panels are not permitted on a vacant lot.

When using the recommended changes as guidelines, the proposed solar panels do not meet item E., F., and H as outlines above, however, it would appear that the application can be altered to meet the guidelines as stated above by removing two sections of solar panels.

Chapter 13, Visioning, of the current Comprehensive Plan under the heading of Neighborhoods and Housing goal #7 states the following: “the city shall encourage new construction and renovation to take advantage of the “green movement” to support energy efficiency and renewable energy uses. These alternative energy sources can be implemented during new construction phases, in-fill projects, as well as, home renovation projects.”

While the City supports the use of solar panels, the panels installed on the south facing roof along Creekwood are not rectangular and wiring is visible from the right-of-way. Should the applicant consider the removal or relocation of the panels, Staff would be supportive.

RECOMMENDATION:

Staff recommends denial for the installation of roof mounted solar panels, based on the following:

- The solar panels do not meet the recommended guidelines (items E., F., and H.) as outlined in the June 28, 2023 Planning Commission meeting.

CLIENT NAME & ADDRESS	PHOTOVOLTAIC SYSTEM SUMMARY	APPLICABLE CODES																	
Patricia L. Smith 1551 CREEKWOOD DR, TROY, OH 45373	SYSTEM SIZE DC STC: 12.6 KW SYSTEM SIZE AC: 11.4 KW SOLAR MODULES: (35) TALESUN SOLAR 360W MODEL: TP6L60M INVERTER: (1) SOLAR EDGE 11.4KW MODEL: SE11400H-USSNBBL ENERGY HUB MOUNTING SYSTEM: SUNMODO ROOF MOUNT	2019 (RCO) RESIDENTIAL CODE OF OHIO 2017 (IMC) INTERNATIONAL MECHANICAL CODE 2017 (IPC) INTERNATIONAL PLUMBING CODE 2017 (IFC) INTERNATIONAL FIRE CODE 2017 (NEC) NATIONAL ELECTRIC CODE																	
PROPERTY INFORMATION	GENERAL NOTES	PHOTOVOLTAIC NOTES																	
BUILDING INFORMATION: NUMBER OF STORIES: 1 CONSTRUCTION TYPE: V-B OCCUPANCY: R ROOF: COMPOSITION SHINGLE TRUSSES: 2"X4"@24" O.C. AHJ:CITY OF TROY UTILITY: AES ELECTRICAL INFORMATION: EXISTING MAIN SERVICE PANEL BUS SIZE:200A MAIN SERVICE BREAKER SIZE:200A SATELLITE VIEW SCALE: NTS 	1. ALL ELECTRICAL MATERIALS SHALL BE NEW AND LISTED BY RECOGNIZED ELECTRICAL TESTING LABORATORY CUSTOM MADE EQUIPMENT SHALL HAVE COMPLETE TEST DATA SUBMITTED BY THE MANUFACTURER ATTESTING TO ITS SAFETY. 2. OUTDOOR EQUIPMENT SHALL BE AT LEAST NEMA 3R RATED. 3. ALL METALLIC EQUIPMENT SHALL BE GROUNDED. 4. ALL SPECIFIC WIRING IS BASED ON THE USE OF COPPER. 5. CONTRACTOR SHALL OBTAIN ELECTRICAL PERMITS PRIOR TO INSTALLATION AND SHALL COORDINATE ALL INSPECTIONS, TESTING COMMISSIONING AND ACCEPTANCE WITH THE CLIENT, UTILITY CO. AND CITY INSPECTORS AS NEEDED. 6. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS OF SERVICE POINTS AND SERVICE SIZES WITH THE SERVING UTILITY COMPANY AND COMPLY WITH ALL UTILITY COMPANIES REQUIREMENTS. IF THE SOLAR BACK FED BREAKER IS OVER THE BUS SIZE 20% LIMIT , CONTRACTOR SHALL INCLUDE THE COST TO REPLACE MAIN BREAKER OR ENLARGE MAIN CAPACITY. 7. DRAWINGS ARE DIAGRAMMATIC ONLY, ROUTING OF RACEWAYS SHALL BE OPTION OF THE CONTRACTOR UNLESS OTHERWISE NOTED AND SHALL BE COORDINATED WITH OTHER TRADES. 8. IF THE ROOF MATERIAL OR ROOF STRUCTURE NOT ADEQUATE FOR PV INSTALLATION , CALL ENGINEER PRIOR TO INSTALL. THE CONTRACTOR IS RESPONSIBLE TO VERIFY THAT THE ROOF IS CAPABLE OF WITHSTANDING THE EXTRA WEIGHT. 9. IF THE DISTANCES FOR CABLE RUNS ARE DIFFERENT THAN SHOWN, THE CONTRACTOR SHALL NOTIFY THE ELECTRICAL ENGINEER TO VALIDATE THE WIRE SIZE. FINAL DRAWINGS WILL BE RED-LINED AND UPDATED AS APPROPRIATE. 10. WHENEVER A DISCREPANCY IN QUALITY OF EQUIPMENT ARISES ON THE DRAWING OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIAL AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS TO ENSURE COMPLETE COMPLIANCE AND LONGEVITY OF THE OPERABLE SYSTEM REQUIRED BY THE ARCHITECT / ENGINEERS. 11. ALL BROCHURES, OPERATION MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE HANDED OVER TO OWNER`S REPRESENTATIVE AT THE COMPLETION OF WORK.  651 W. CALENA PARK BLVD. STE. 101 DRAPER, UTAH 84020 PHONE (801) 997-1775 WWW.VECTORSE.COM	1. ROOFTOP MOUNTED PHOTOVOLTAIC PANELS AND MODULES SHALL BE TESTED, LISTED AND IDENTIFIED UL 1703. 2. SOLAR SYSTEM SHALL NOT COVER ANY PLUMBING OR MECHANICAL VENTS. 3. MODULES AND SUPPORT STRUCTURES SHALL BE GROUNDED. 4. SOLAR INVERTER MUST HAVE A MANUFACTURE INSTALLED DISCONNECTING MEANS THAT PREVENTS PARALLEL FEEDING UTILITY LINES DURING POWER OUTAGE. 5. REMOVAL OF AN INTERACTIVE INVERTER OR OTHER EQUIPMENT SHALL NOT DISCONNECT THE BONDING CONNECTION BETWEEN THE GROUNDING ELECTRODE CONDUCTOR AND THE PHOTOVOLTAIC SOURCE AND/OR OUTPUT CIRCUIT GROUNDED CONDUCTORS. 6. ALL PV MODULES AND ASSOCIATED EQUIPMENT AND WIRING SHALL BE PROTECTED FROM ANY PHYSICAL DAMAGE. 7. LIVE PARTS OF PV SOURCE CIRCUITS AND PV OUTPUT CIRCUITS OVER 150V TO GROUND SHALL NOT BE ACCESSIBLE TO OTHER THAN QUALIFIED PERSONS WHILE ENERGIZED. 8. INVERTER IS EQUIPPED W / INTEGRATED GFDI , THUS PROVIDING GROUND FAULT PROTECTION. 9. ALL CONDUCTORS SHALL BE COPPER AND 90 DEG RATED. 10. ALL ELECTRICAL EQUIPMENT SHALL BE LISTED BY A RECOGNIZED ELECTRICAL TESTING LABORATORY OR APPROVED BY THE DEPARTMENT. 11. ALL WORK SHALL BE IN ACCORD WITH THE 2017 NEC WITH SPECIAL EMPHASIS ON ARTICLE 690. 12. THE OUTPUT OF A UTILITY INTERACTIVE-INVERTER SHALL BE PERMITTED TO BE CONNECTED TO THE SUPPLY SIDE OF THE SERVICE DISCONNECTING MEANS AS PER 230.82(6). 13. A SINGLE CONDUCTOR SHALL BE PERMITTED TO BE USED TO PERFORM THE MULTIPLE FUNCTIONS OF DC GROUNDING, AC GROUNDING AND BONDING BETWEEN AC AND DC SYSTEMS AS PER NEC 690.47(C) AND SIZED AS PER SEC 250.166. 14. EQUIPMENT GROUND CONDUCTOR REQUIRED IN RACEWAYS SIZED PER. 15. PER ART 250.92 NON-CURRENT CARRYING METAL PARTS OF EQUIPMENT SHALL BE EFFECTIVELY BONDED TOGETHER . BOND BOTH ENDS OF RACEWAYS.																	
VICINITY MAP	SHEET INDEX	CONTRACTOR																	
SCALE: NTS	1. SCOPE OF WORK, GOVERNING CODES 2. ROOF PLAN 3. THREE LINE DIAGRAM 4. ELECTRICAL CALCULATION 5. CODE REQUIRED SIGNAGE 6. STRUCTURAL DETAILS 7. INVERTER DATA SHEET 8. OPTIMIZER DATA SHEET 9. MODULE DATA SHEET 10. RACKING DATA SHEET 11. GROUNDING DATA SHEET 12. RACKING CERTIFICATION 13. ATTACHMENT DATA SHEET 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.  VSE Project Number: U4194.0087.231 Firm License Number: 03392 06/14/2023 Solar Power & Light Address: 2411 Crosspointe Drive Miamisburg, OH 45342 Phone Number: (937) 247-9468 info@splsolar.com  SOLAR POWER & LIGHT Putting Power in Your Hands™ <table><tr><th>No.</th><th>Revision Notes</th><th>Date</th><th>Drawn by: Vahan M.</th><th>Sheet Number</th></tr><tr><td></td><td></td><td></td><td>Scale:As Indicated</td><td rowspan="3">1</td></tr><tr><td></td><td></td><td></td><td>Project:PV System</td></tr><tr><td></td><td></td><td></td><td>Date: 06.06.23</td></tr></table>	No.	Revision Notes	Date	Drawn by: Vahan M.	Sheet Number				Scale:As Indicated	1				Project:PV System				Date: 06.06.23
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			Scale:As Indicated	1															
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PHOTOVOLTAIC ARRAY

(35) Talesun Solar 360Watt Modules (TP6L60M(H))
(1) Solar Edge 11.4 KW Inverter (SE11400H-USSNBBL Energy Hub)
(35) Solar Edge S440 Power Optimizers

UNIT INDEX

- (MSP) (E) 200A Main Service Panel (Inside the basement)
(UM) (E) Utility Meter (On the exterior wall)
(INV) (N) Solar Edge 11.4KW Inverter (Inside the basement)
(ACD) (N) 60A Non-Fused AC Disconnect (On the exterior wall)
(JB) (N) SolaDeck Junction Box (On the Rooftop)

EMT Type Conduit

Vent Pipe

Solar Module

Chimney

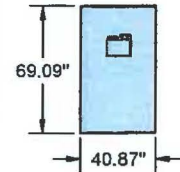
B.O.M.

Module: x35 Talesun Solar 360W
Model #: TP6L60M
Inverter: x1 Solar Edge 11.4KW
Model #: SE11400H-USSNBBL Energy Hub
Optimizers: x35 S440 Power Optimizers
60A Non-Fused AC Disconnect: x1
Attachment Q-ty: x74 Sunmodo NanoMount
Ground Lug Q-ty: x6
End Clamp Q-ty: x24
Mid Clamp Q-ty: x58
Rails: x18 168" Sunmodo SMR100

NOTE

FROM JUNCTION BOX TO ROOF EAVE
EMT OR LFMC TYPE CONDUIT WILL
RUN AT 3 1/2" DISTANCE FROM ROOF
DECK, THEN UNDER THE EAVE TO PV
EQUIPMENT

TALESUN
SOLAR 360W



Solar PV Array #3
8 Talesun 360W Modules
8 S440 Optimizers
Roof Slope: 20 Deg
Azimuth: 240 Deg

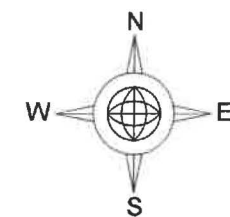
Solar PV Array #2
8 Talesun 360W Modules
8 S440 Optimizers
Roof Slope: 20 Deg
Azimuth: 150 Deg

Solar PV Array #1
19 Talesun 360W Modules
19 S440 Optimizers
Roof Slope: 20 Deg
Azimuth: 240 Deg



Firm License Number: 03392
VSE Project Number: U4194.0087.231

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.



CONTRACTOR

Firm name and address

Solar Power & Light
Address:
2411 Crosspointe Drive
Miamisburg, OH 45342
Phone Number:
(937) 247-9468
info@splsolar.com



CLIENT

Project name and address

Patricia L. Smith
1551 CREEKWOOD DR,
TROY, OH 45373

Parcel #: D08106656

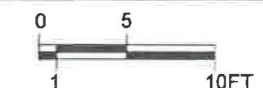
No.	Revision Notes	Date

Description

DRAWING TITLE:

ROOF PLAN

SCALE



Date: 06.06.23

Sheet Number

Scale: As Indicated

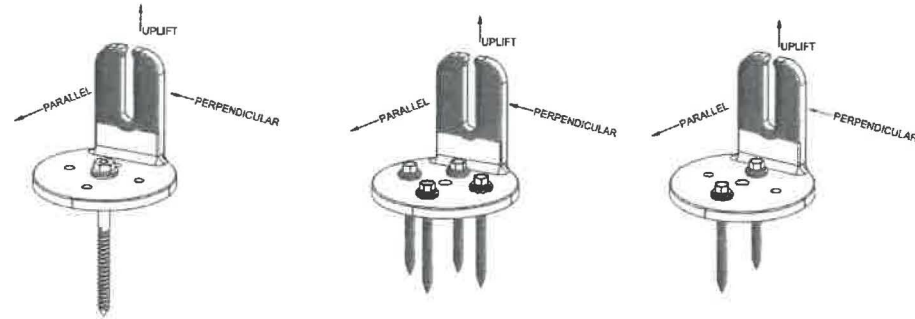
Project: PV System

Drawn by: Vahan M.

2

NOTES

1. 5/16 Lag in 2X4 Lumber.
2. Values valid only when product is used in accordance with SunModo installation and other technical documentation.



	FOS=2	FOS=3
UPLIFT(LBF)	370	245
PERPENDICULAR(LBF)	275	185
PARALLEL(LBF)	230	150

K50053-XX1 NANO MOUNT WITH LAG[®] SCREW

	FOS=2	FOS=3
UPLIFT(LBF)	250	165
PERPENDICULAR(LBF)	145	95
PARALLEL(LBF)	260	185

K50053-XX3 NANO DECK MOUNT
(IN 1/2" PLYWOOD)

	FOS=2	FOS=3
UPLIFT(LBF)	840	425
PERPENDICULAR(LBF)	205	135
PARALLEL(LBF)	275	185

K50053-XX3 NANO DECK MOUNT
(IN RAFTER)

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Firm License Number: 03392
VSE Project Number: U4194.0087.231

Attachment

Solar Module

Roof Trusses
2"x4"@24" O.C.

6"

20"

20°

TALESUN
SOLAR 360W

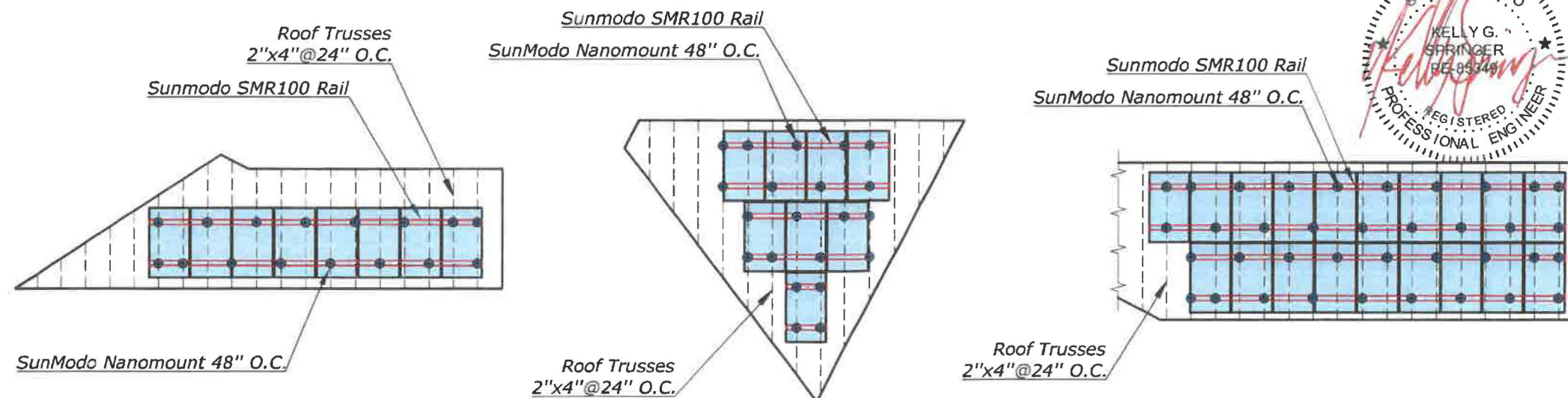
69.09"

40.87"

MODULE WEIGHT (lbs)	42.99
# OF MODULES	35
TOTAL MODULE WEIGHT (lbs)	1505
RACK WEIGHT (lbs)	300
MICRO-INVERTERS WEIGHT (lbs)	60
TOTAL SYSTEM WEIGHT (lbs)	1865
# OF STANDOFFS	74
MAX SPAN BETWEEN STANDOFFS (in)	48
LOADING PER STANDOFF (lbs)	25.2
TOTAL AREA (sq.ft.)	686
LOADING (PSF)	2.71

NOTE: MOUNTS ARE STAGGERED

06/14/2023



ROOF MATERIAL: COMPOSITION SHINGLE

Firm name and address

Solar Power & Light
Address:
2411 Crosspointe Drive
Miamisburg, OH 45342
Phone Number:
(937) 247-9468
info@splsolar.com



Project name and address

Patricia L. Smith
1551 CREEKWOOD DR,
TROY, OH 45373

Parcel #: D08106656

[illegible]

Description

STRUCTURAL DETAILS

NTS

Date:06.06.23	Sheet Number 6
Scale: As Indicated	
Project:PV System	
Drawn by:Vahan M.	

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