

# SHEPHERDSTOWN HISTORIC LANDMARKS COMMISSION

Monday, October 14, 2024

6:00 p.m.

TOWN HALL

104 NORTH KING STREET, SHEPHERDSTOWN

1. **Call to Order:**
2. **Approval of Previous Months' Minutes:**      September 9, 2024
3. **Visitors:**
4. **Conflicts of Interest:**
5. **Applications:**

**24-23 102 / 104 S. King Street**

Construction of a 32' x 23' two-story addition to the south side of the existing structure, attached by an enclosed 4' breezeway.

**24-27 312 W. German Street**

Addition of a south facing 24 panel roof-mounted solar array.

6. **Workshop Sessions:**
7. **Ongoing Business:**
8. **New Business:**
9. **Adjournment:**

# SHEPHERDSTOWN HISTORIC LANDMARKS COMMISSION (DRAFT)

Monday, September 9, 2024

6:00 p.m.

TOWN HALL

104 NORTH KING STREET, SHEPHERDSTOWN

**1. Call to Order: 5:32 p.m.**

Commissioners Present:

Keith Alexander; Carmen Slater; Rebecca Bicker; Nicole Saunders-Meske

Commissioners Absent:

Tom Mayes

Staff Present:

Andy Beall

Professional Consultant:

Jim King

**2. Approval of Previous Months' Minutes: 8/12/24      Approved**

**3. Vistors:** Jim Auxer; Edith Thompson; Jeff Gunther; Jenny Haynes; Shannon Holiday;  
Karen Hacker Kinnett

**4. Conflicts of Interest:      None**

**5. Applications:**

24-22      Applicant:      Edith Thompson  
                 Address:      407 E. German Street  
                 Description:      Replace south-facing upper roof 4" gutter w/ 6" half-round gutter.  
                                                      Also replace SW corner downspout.

*The applicant is present and describes the need to replace gutters and downspouts as she is getting significant water damage to the home. K. Alexander refers to page 50 (A-D) of the Historic District Design Guidelines for door gutters and downspouts stating the primary purpose is to prevent water damage.*

C. Slater motions to approve application 24-22 pursuant to page 50 (A-D) of the Historic District Design Guidelines; R. Bicker seconds the motion to approve. There are no objections, and the motion passes unanimously.

**6. Workshop Sessions:**

**a. War Memorial Building**

Ms. Holiday and Ms. Kinnett describe the need to shore up the small annex at the rear of the building as it is leaning. They also desire to replace the rotting wood siding with Hardie Board and replace the non-historic windows. The commissioners

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state the proposals comply with the Historic District Design Guidelines and ask that when they come back with an application that there are detailed window plans.

**b. 102 / 104 S. King Street**

Mr. Gunther presents plans for a two-story addition off the south end of the existing structure. The commissioners unanimously disapprove of the scale and placement of the proposed addition which is an extension of the existing structure. N. Saunders-Meske suggests the addition be hyphenated by an enclosed breezeway much like the approved addition across the street at 105 S. King Street. The commissioners agree to visit the site with the owner directly following the meeting to discuss.

- 7. **Ongoing Business:** N/A
- 8. **New Business:** N/A
- 10. **Adjournment:** 7:15 p.m.



Application Number 24.23

# Application for Certificate of Appropriateness & Project Permit

## Corporation of Shepherdstown, West Virginia

Should you have any questions regarding this application, please contact:  
Andy Beall (Phone 304-876-6858, E-Mail [abeall@shepherdstown.us](mailto:abeall@shepherdstown.us))

PLEASE PRINT OR TYPE CLEARLY

Applicant's Name: JEFFREY H. GUNTHER  
(Must be Property Owner)

Mailing Address: 112 RUKITAN ROAD STERLING, VA, 20164

Day Time Telephone Number: 703 473 1013 / Lance: Lgunther1@yahoo.com

E-Mail Address: SUGARFOOT 44 @ AOL.COM.

Street Address of Proposed Work: 102.104 KING STREET

Lot Number/Legal Description: LT#2 PT#1 GERMAN @ KING STS.  
(If no address exists)

Current Zoning: \_\_\_\_\_ Current Land Use: \_\_\_\_\_

Note: See zoning maps at Town Hall for correct zoning classification

Description of Work: BUILD ADDITION TO EXISTING STRUCTURE AS PER PLAN SPECIFICATIONS. ADDITION TO BE 36' LONG BY 24' 32'x23' DEEP. STRUCTURE TO INCLUDE LOUVER PORCH/BALCONY ALONG KING STREET. STRUCTURE TO HAVE STANDING SEAM METAL ROOF SYSTEM (AS PER EXISTING STRUCTURE) ~~EX.~~ FASCIA & SOFFIT TO MATCH DIMENSIONS OF EXISTING BUILDING. HARDIPLANK SIDING WITH 2 OVER 2 WINDOWS (AS PER EX. STRUCTURE). INTERIOR SPACES ARE AS PER PLANS PROVIDED

ADD 130K BLD.

Cost Estimate: 150,000 Project Category (Descriptions on Next Page): \_\_\_\_\_

Contractor performing work: GREAT FALLS LANDSCAPES INC. DESIGN & BUILD

Contractor's Business License #: B116423

A copy of the contractor's Shepherdstown business license or license application **MUST** be attached. The applicant is responsible for making sure all contractors working on this project have a Shepherdstown business license (which can be applied for at town hall). Work started without a business license could result in a stop work order on the project.



Application Number \_\_\_\_\_ - \_\_\_\_\_

**Application for Project Permit  
(Checklist of Required Information for Applications)**

Provide information required for appropriate category of work. Staff will ensure completion of checklist material prior to applications' inclusion on meeting agenda.

**Category I- Minor Projects such as awnings, porch railings, window boxes, satellite dishes, solar panels, signs, fences, non-permanent storage sheds and other minor changes.**

\_\_\_\_\_  
PHOTOGRAPHS OR DRAWN ELEVATION VIEWS OF THE PROPOSED WORK SITES (clearly labeled), at reasonable scales, of the parts of the structure to be altered (again, clearly labeled in terms of which side of the structure, etc.) are needed.

\_\_\_\_\_  
MATERIAL AND COLOR SAMPLES for exterior finishes

**Category II- Driveways, decks, carports, porch enclosures and window, roof or siding replacement.**

**Category III- New construction of and/or additions to residential, commercial, and industrial structures.**

**Category IV- Demolition or Relocation of a Structure**

**(Categories II and III):**

\_\_\_\_\_  
SITE PLAN is required at common engineering (1" = 10' or 1" = 20', etc.) or architectural scales (1/4" = 1' or 1/8" = 1'). Specifically, these drawings shall include: North point, scale, date, property boundaries (lot lines), existing trees and/or significant planting (if work will disturb surroundings), street & parking lighting. (SAMPLE ATTACHED)

5671' Gross & net land area of property **NET 3631'**  
28' x 22' Setback from property boundaries

- Existing & proposed topography (only if regrading of the property is required) Ben. Moore
- Existing & proposed accessory structures. DOOR @ Newbury Blue HC-155
- Existing & proposed street right-of-way & entrance TRIMS
- Sidewalk, handicap access, Category IV only CLOUD COVER OC-25 Ben. Moore

\_\_\_\_\_  
MATERIAL AND COLOR SAMPLES for exterior finishes SIDING SOFT GREEN JH-60-10

\_\_\_\_\_  
ELEVATIONS, drawings indicating height of proposed structures, materials, and window and door arrangements

\_\_\_\_\_  
ZONING INFORMATION shall be defined in the application as required:

- \_\_\_\_\_  
Dwelling density- net (residential application only)
- \_\_\_\_\_  
Flood plain designation if any (mapping available in Town Hall)
- \_\_\_\_\_  
Cost estimates and property appraisals for applications seeking exemptions from Chapter 12- Floodplain provisions

**Category IV- Demolitions:**

- \_\_\_\_\_  
Historic designation of structures to be demolished (documents available in Town Hall)
- \_\_\_\_\_  
Complete description of structure(s) or part(s) of structure(s) to be demolished.
- \_\_\_\_\_  
At least one (1) structural report by a certified structural engineer. Applies to demolition requests for structures fifty (50) years or older.



Application Number \_\_\_\_\_ - \_\_\_\_\_

**Checklist of Required Information for Applications Continued**

**All Categories:**

\_\_\_\_\_ Copy of general contractor's Shepherdstown business license or license application.

**Section 9-905 Remedies and penalties**

The owner or agent of a building or premises in or upon which a violation of any provision of the Planning and Zoning Title has been committed or shall exist, or the leasee or tenant of an entire building or entire premise in or upon which violation has been committed or shall exist, or the agent, architect, building contractor or any other person who commits, takes part or assists in any violation or who maintains any building or premises in or upon which such violation shall exist, shall be guilty of a misdemeanor and shall be punished by a fine not to exceed one hundred (100) dollars. Each and every day that such violation continues may constitute a separate offense.

**Please read the following paragraph carefully and sign.**

**Attach documents specified in the checklist on the back of this application. I hereby certify that all information herein provided is true and accurate. I hereby authorize the inspection of the above premises by authorized agents of the Shepherdstown Planning Commission at any reasonable time in order to determine compliance with the Commission's approval. I understand that my presence at the assigned application review meeting is required. Application must be signed by owner or his/her agent.**

Date: AUGUST 5, 2024

Owner's Signature: 

Print Name: JEFFREY H GUNTHER

**Fees shall be paid to the Town Treasurer/Clerk and must accompany the application. If work begins without the required permit, double the cost of said permit will be applied.**

Zoning Officer Comments:

Fee Paid \$ 1,164.00  
Date Paid 8/6/24



Application Number \_\_\_\_\_ - \_\_\_\_\_

**THE SHEPHERDSTOWN TOWN COUNCIL ORDAINS:**

Section 9-902 of Chapter 8 paragraph XIV be amended as follows:

*Please check all boxes that may apply (Application Fees Due Upon Submittal):*

	<p><b><u>Category I:</u></b></p> <p>Minor projects such as murals, awnings, porch railings, window boxes, satellite dishes, solar panels, gutters &amp; downspouts, patios, sidewalks, hardscaping, signs, fences, storage sheds (not attached to the ground) and other minor changes and permit extensions.</p> <p style="text-align: right;"><b>\$50.00</b></p>
	<p><b><u>Category II:</u></b></p> <p>Window replacement, roof replacement, siding replacement, porch enclosure, driveways, carports, and decks.</p> <p style="text-align: right;"><b>\$100.00</b></p>
	<p><b><u>Category III:</u></b></p> <p>New construction of and/or additions to residential, commercial, and industrial structures.</p> <p style="text-align: right;"><b>\$300 + \$0.50 per sq. ft.</b></p> <p>New construction of garages &amp; other accessory buildings (permanently attached to the ground).</p> <p style="text-align: right;"><b>\$50 + \$0.10 per sq. ft.</b></p>
	<p><b><u>Category IV:</u></b></p> <p><b>Demolition or Relocation of a Structure:</b> Removal of any building feature(s) or razing of any structure(s) or relocation of a structure to new location. For either project, the applicant must submit the following in writing (in addition to an application):</p> <ol style="list-style-type: none"> <li>1. Reason for the demolition/relocation (including historic documentation).</li> <li>2. Describe the structure's condition in detail.</li> <li>3. Describe the proposed reuse of the site, including full drawings of new structure &amp; landscaping.</li> <li>4. Evidence of relevant funding or financial concerns.</li> <li>5. Timeframe for project</li> </ol> <p><b>\$50.00</b>      Accessory Buildings  <b>\$150.00</b>     Non-Contributing Structures (&lt; 50 years old)  <b>\$500.00</b>     Contributing Structures (≥ 50 years old)</p>
<p>Certificate of Appropriateness Advertisement Fee: <span style="float: right;"><b>\$15</b></span></p>	

AUG. 10, 2024

# SHEPARDSTOWN

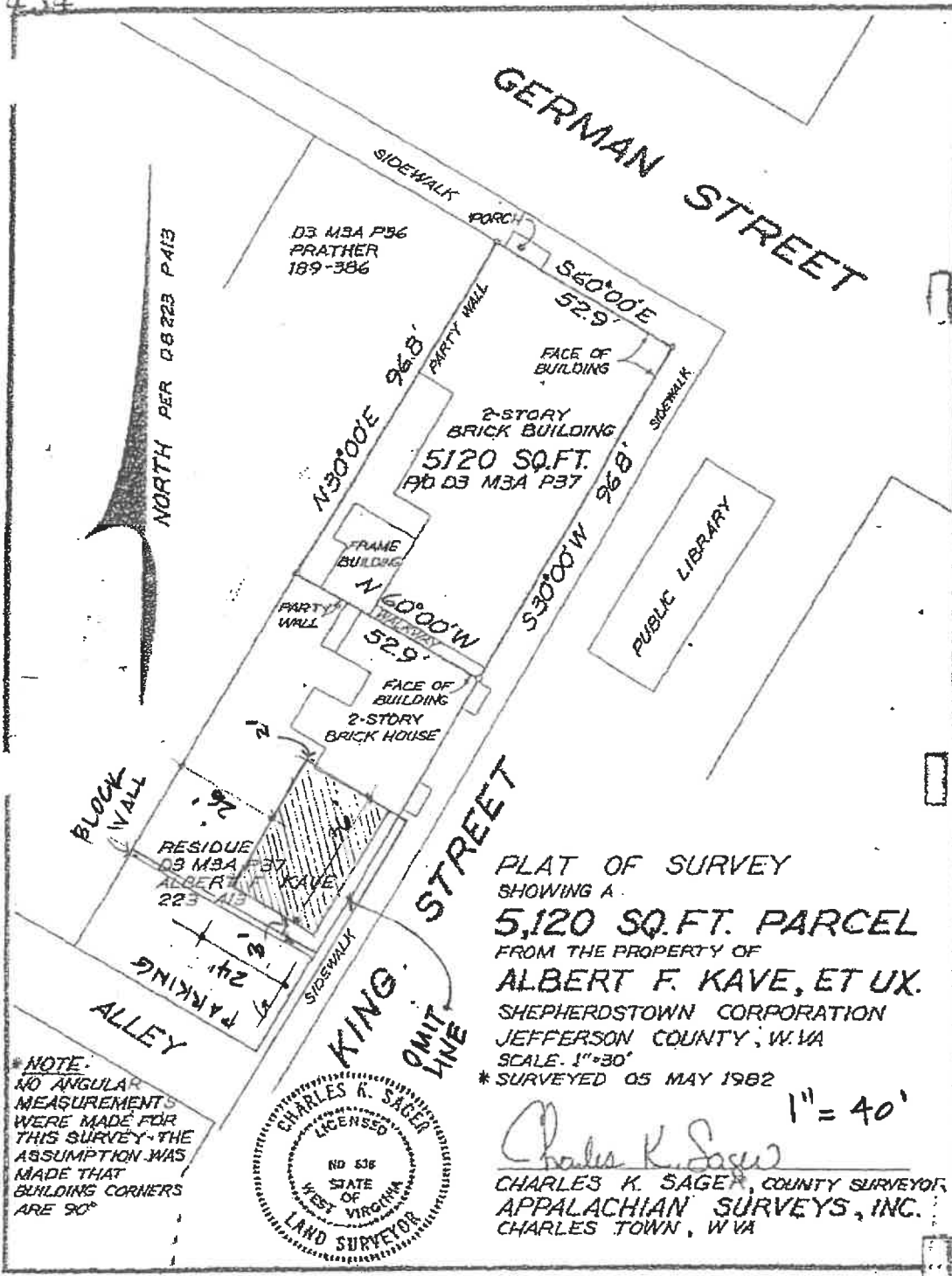
TOTAL LOT COV  
3200<sup>sq ft</sup>

RUZING COV.  
678<sup>sq ft</sup>

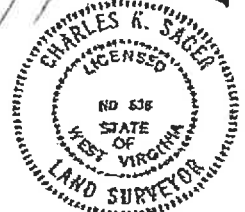
PARKING AREA  
300<sup>sq ft</sup>

TOT. AVAIL SF  
1722<sup>sq ft</sup>

{678}  
{300}



PLAT OF SURVEY  
SHOWING A  
**5,120 SQ. FT. PARCEL**  
FROM THE PROPERTY OF  
**ALBERT F. KAVE, ET UX.**  
SHEPHERDSTOWN CORPORATION  
JEFFERSON COUNTY, W. VA  
SCALE: 1"=30'  
\* SURVEYED 05 MAY 1982



*Charles K. Sager*  
1" = 40'  
CHARLES K. SAGER, COUNTY SURVEYOR,  
APPALACHIAN SURVEYS, INC.  
CHARLES TOWN, W VA

\* NOTE:  
NO ANGULAR  
MEASUREMENTS  
WERE MADE FOR  
THIS SURVEY. THE  
ASSUMPTION WAS  
MADE THAT  
BUILDING CORNERS  
ARE 90°

State of West Virginia, County of Jefferson, Sct.  
IN THE CLERK'S OFFICE OF COUNTY COMMISSION:  
On SEP 2 1982, at 1:10 P.M., the foregoing  
Deed of B. & S. was received in my said office and duly ad-  
mitted to record.

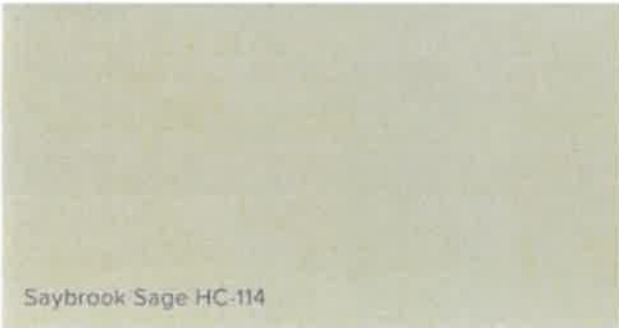
Test,  
John E. Ott  
Clerk of County Commission



102-104 SOUTH KING ST  
SHEPARDSTOWN, W. VA.  
COLOR SELECTION . . .

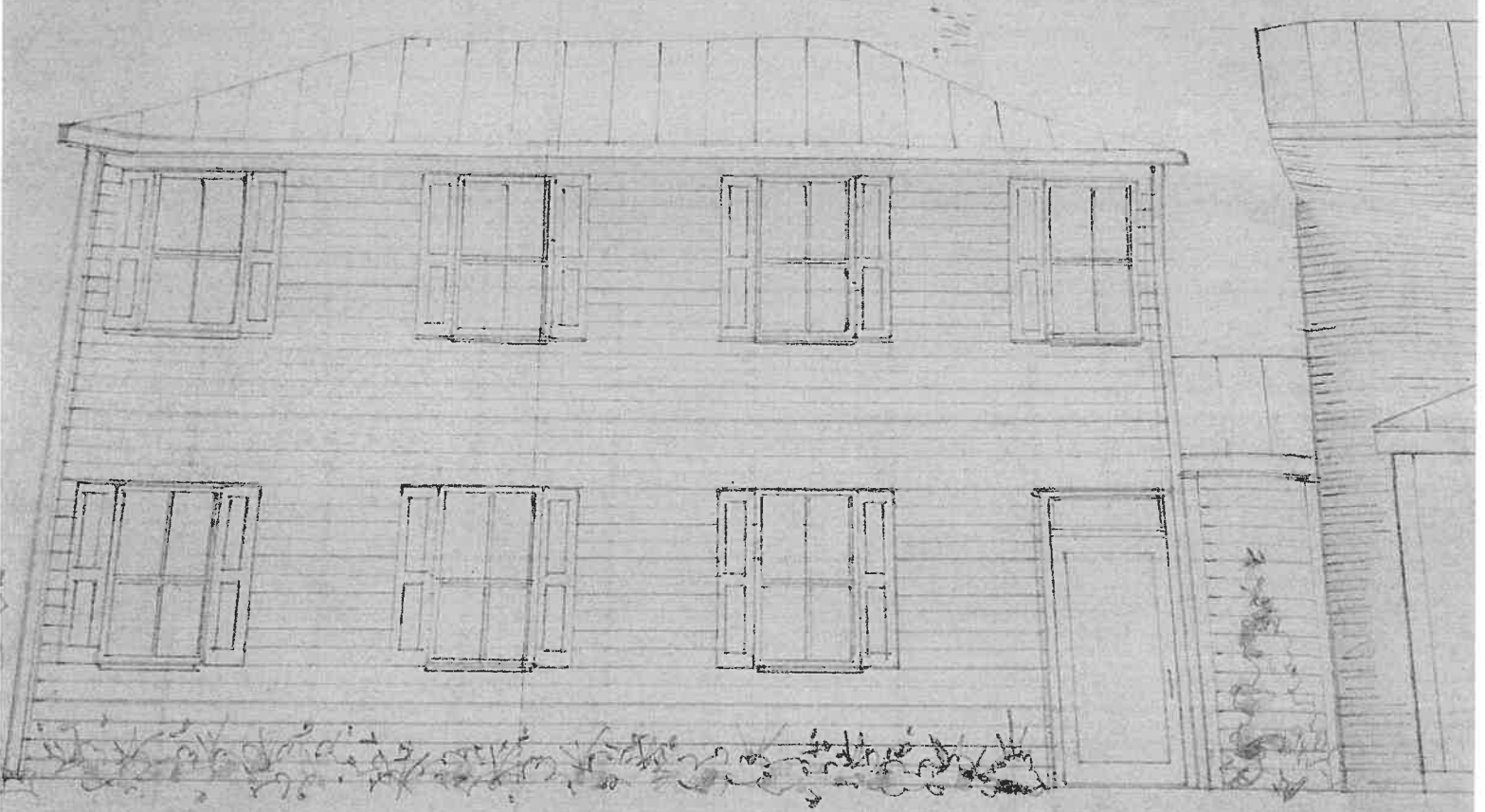


SAYBROOK SAGE	H.C. - 114	SIDING
CLOUD COVER	O.C. - 25	TRIM
HEWRYRT BLUE PORT	H.C. - 155	DOORS



Cloud Cover OC-25

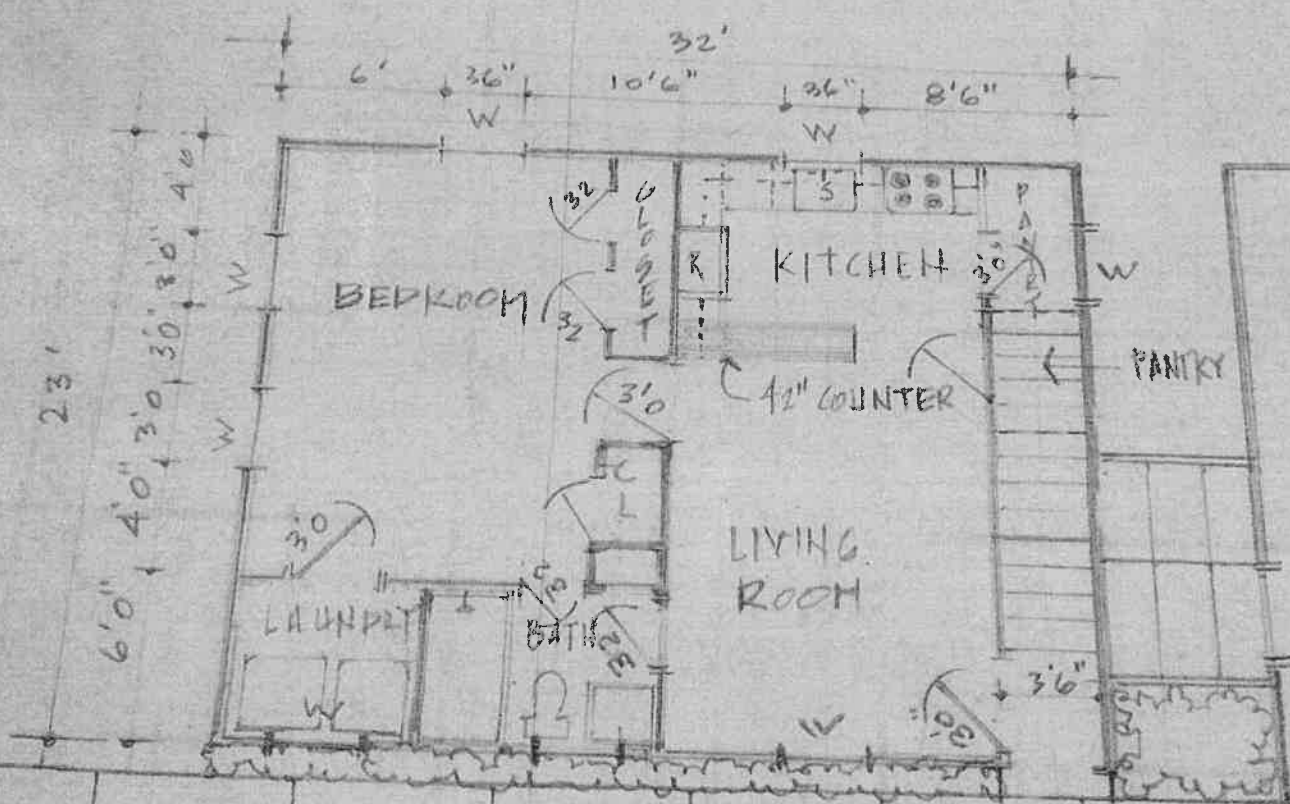
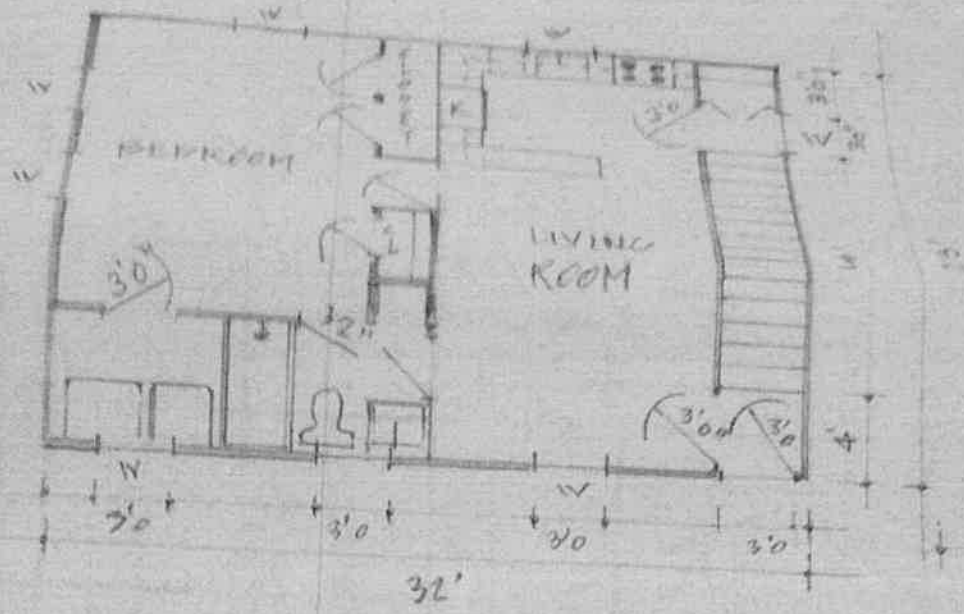
2-204 SOUTH KING ST  
SHEPARDSTOWN W. VA  
1/4" = 1' 8-11-2024



32'

4'

PLANS for 102-104 SHEPARD



1st FLOOR



Application Number 24 - 27

**Application for Project Permit**  
**Corporation of Shepherdstown, West Virginia**

Should you have any questions regarding this application, please contact:  
**Andy Beall** (Phone 304-876-6858, E-Mail [abeall@shepherdstown.us](mailto:abeall@shepherdstown.us))

PLEASE PRINT OR TYPE CLEARLY

**Applicant's Name:** Sean Porter  
*(Must be Property Owner)*

**Mailing Address:** PO Box 64, Hickory, PA 15340

**Day Time Telephone Number:** 412.999.0529

**E-Mail Address:** sporler@petromaxltd.com

**Street Address of Proposed Work:** 312 West German Street, Shepherdstown, WV 25443

**Lot Number/Legal Description:** PT LT #144  
*(If no address exists)*

**Current Zoning:** R - Residential      **Current Land Use:** 100 - Residential Vacant

Note: See zoning maps at Town Hall for correct zoning classification

**Description of Work:** Roof Mounted Solar Array consisting of (24) 395W Modules, (1) 7.6kW Inverter and all the electrical components

**Cost Estimate:** 30,307      **Project Category** (Descriptions on Next Page): Category 1

**Contractor performing work:** Mountain View Solar and Wind, LLC (mtvSolar)

**Contractor's Business License #:** WV045349

A copy of the contractor's Shepherdstown business license or license application **MUST** be attached. The applicant is responsible for making sure all contractors working on this project have a Shepherdstown business license (which can be applied for at town hall). Work started without a business license could result in a stop work order on the project.



Application Number \_\_\_\_\_ - \_\_\_\_\_

**Application for Project Permit**  
**(Checklist of Required Information for Applications)**

Provide information required for appropriate category of work. Staff will ensure completion of checklist material prior to applications' inclusion on meeting agenda.

**Category I- Minor Projects such as awnings, porch railings, window boxes, satellite dishes, propane tanks, solar panels, signs or other minor changes.**

- X PHOTOGRAPHS OR DRAWN ELEVATION VIEWS OF THE PROPOSED WORK SITES (clearly labeled), at reasonable scales, of the parts of the structure to be altered (again, clearly labeled in terms of which side of the structure, etc.) are needed.
- X MATERIAL AND COLOR SAMPLES for exterior finishes

**Category II- Accessory Buildings, sidewalks, driveways, decks, garages, storage buildings, or carports.**

**Category III- Major changes including roof, window or siding changes but excluding additions.**

**Category IV- New Construction Commercial/Industrial, Residential and/or additions.**

**(Categories II thru IV):**

- \_\_\_\_\_ SITE PLAN is required at common engineering (1" = 10' or 1" = 20', etc.) or architectural scales (1/4" = 1' or 1/8" = 1'). Specifically, these drawing shall include: North point, scale, date, property boundaries (lot lines), existing trees and/or significant planting (if work will disturb surroundings), street & parking lighting. (SAMPLE ATTACHED)
- \_\_\_\_\_ Gross & net land area of property
- \_\_\_\_\_ Setback from property boundaries
- \_\_\_\_\_ Existing & proposed topography (only if regrading of the property is required)
- \_\_\_\_\_ Existing & proposed accessory structures
- \_\_\_\_\_ Existing & proposed street right-of-way & entrance
- \_\_\_\_\_ Sidewalk, handicap access, Category IV only
- \_\_\_\_\_ MATERIAL AND COLOR SAMPLES for exterior finishes
- \_\_\_\_\_ ELEVATIONS, drawings indicating height of proposed structures, materials, and window and door arrangements
- \_\_\_\_\_ ZONING INFORMATION shall be defined in the application as required:
  - \_\_\_\_\_ Dwelling density- net (residential application only)
  - \_\_\_\_\_ Flood plain designation if any (mapping available in Town Hall)
  - \_\_\_\_\_ Cost estimates and property appraisals for applications seeking exemptions from Chapter 12- Floodplain provisions

**Category V- Demolitions:**

- \_\_\_\_\_ Historic designation of structures to be demolished (documents available in Town Hall)
- \_\_\_\_\_ Complete description of structure(s) or part(s) of structure(s) to be demolished.
- \_\_\_\_\_ At least one (1) structural report by a certified structural engineer. Applies to demolition requests for structures fifty (50) years or older.



Application Number \_\_\_\_\_ - \_\_\_\_\_

**Checklist of Required Information for Applications Continued**

**All Categories:**

**X** \_\_\_\_\_ Copy of general contractor's Shepherdstown business license or license application.


**Section 9-905 Remedies and penalties**

The owner or agent of a building or premises in or upon which a violation of any provision of the Planning and Zoning Title has been committed or shall exist, or the leasee or tenant of an entire building or entire premise in or upon which violation has been committed or shall exist, or the agent, architect, building contractor or any other person who commits, takes part or assists in any violation or who maintains any building or premises in or upon which such violation shall exist, shall be guilty of a misdemeanor and shall be punished by a fine not to exceed one hundred (100) dollars. Each and every day that such violation continues may constitute a separate offense.

**Please read the following paragraph carefully and sign.**

Attach documents specified in the checklist on the back of this application. I hereby certify that all information herein provided is true and accurate. I hereby authorize the inspection of the above premises by authorized agents of the Shepherdstown Planning Commission at any reasonable time in order to determine compliance with the Commission's approval. **I understand that my presence at the assigned application review meeting is required.** Application must be signed by owner or his/her agent.

Date: 9/5/2024

Owner's Signature:   
Signed by: C9E7F7E1C1EE4FF...

Print Name: Sean Porter

**Fees shall be paid to the Town Treasurer/Clerk and must accompany the application. If work begins without the required permit, double the cost of said permit will be applied.**

Zoning Officer Comments:

Fee Paid \_\_\_\_\_  
Date Paid \_\_\_\_\_



Application Number \_\_\_\_\_ - \_\_\_\_\_

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	<p><b><u>Category II:</u></b></p> <p>Window replacement, roof replacement, siding replacement, porch enclosure, driveways, carports and decks.</p> <p style="text-align: right;"><b>\$100.00</b></p>
	<p><b><u>Category III:</u></b></p> <p>New construction of and/or additions to residential, commercial, and industrial structures.</p> <p style="text-align: right;"><b>\$300 + \$0.50 per sq. ft.</b></p> <p>New construction of garages &amp; other accessory buildings (permanently attached to the ground).</p> <p style="text-align: right;"><b>\$50 + \$0.10 per sq. ft.</b></p>
	<p><b><u>Category IV:</u></b></p> <p><b>Demolition or Relocation of a Structure:</b> Removal of any building feature(s) or razing of any structure(s) or relocation of a structure to new location. For either project, the applicant must submit the following in writing (in addition to an application):</p> <ol style="list-style-type: none"> <li>1. Reason for the demolition/relocation (including historic documentation).</li> <li>2. Describe the structure's condition in detail.</li> <li>3. Describe the proposed reuse of the site, including full drawings of new structure &amp; landscaping.</li> <li>4. Evidence of relevant funding or financial concerns.</li> <li>5. Timeframe for project</li> </ol> <p><b>\$50.00</b> Accessory Buildings  <b>\$150.00</b> Non-Contributing Structures (&lt; 50 years old)  <b>\$500.00</b> Contributing Structures (≥ 50 years old)</p>
<p style="text-align: center;">The Planning &amp; Zoning Administrator shall categorize any request not specifically listed in the above categories.</p>	



# PHOTOVOLTAIC ROOF MOUNT SYSTEM

24 MODULES-ROOF MOUNTED - 9.480 kW DC, 7.600 kW AC  
312 WEST GERMAN STREET, SHEPHERDSTOWN, WV 25443



DESCRIPTION	DATE	REV
INITIAL DESIGN	08/10/2024	

## VICINITY MAP



## HOUSE PHOTO



## CODE REFERENCES

PROJECT TO COMPLY WITH THE FOLLOWING:  
WEST VIRGINIA RESIDENTIAL CODE 2021 (WVRC)  
2020 NATIONAL ELECTRICAL CODE (NEC)  
WEST VIRGINIA FIRE PREVENTION CODE 2021 (WVFC)

## GENERAL NOTES

- ALL COMPONENTS ARE UL LISTED AND NEC CERTIFIED, WHERE WARRANTED.
- THE SOLAR PV SYSTEM WILL BE INSTALLED IN ACCORDANCE WITH ARTICLE 690 OF THE NEC 2020.
- THE UTILITY INTER-CONNECTION APPLICATION MUST BE APPROVED AND PV SYSTEM INSPECTED PRIOR TO PARALLEL OPERATION.
- ALL CONDUCTORS OF A CIRCUIT, INCLUDING THE EGC, MUST BE INSTALLED IN THE SAME RACEWAY, OR CABLE, OR OTHERWISE RUN WITH THE PV ARRAY. CIRCUIT CONDUCTORS WHEN THEY LEAVE THE VICINITY OF THE PV ARRAY.
- WHERE METALLIC CONDUIT CONTAINING DC CONDUCTORS IS USED INSIDE THE BUILDING, IT SHALL BE IDENTIFIED AS "CAUTION: SOLAR CIRCUIT" EVERY 10FT.
- HEIGHT OF THE AC DISCONNECT SHALL NOT EXCEED 6'-7" PER NEC CODE 240.24.
- A GROUNDING ELECTRODE SYSTEM IN ACCORDANCE WITH NEC 250.47 AND 250.50 THROUGH 60 AND 250-186 SHALL BE PROVIDED. PER NEC GROUNDING SYSTEM OF EXISTING BUILDING MAY BE USED AND BONDED TO THE SERVICE ENTRANCE. IF EXISTING SYSTEM IS INACCESSIBLE OR INADEQUATE A SUPPLEMENTAL GROUNDING ELECTRODE WILL BE USED AT THE INVERTER LOCATION CONSISTING OF A UL LISTED 3 FT. GROUND ROD WITH ACORN CLAMP. GROUNDING ELECTRODE CONDUCTORS SHALL BE NO LESS THAN #6 AWG AND NO LARGER THAN #6 AWG COPPER AND BONDED TO THE EXISTING GROUNDING ELECTRODE TO PROVIDE FOR A COMPLETE SYSTEM.
- PHOTOVOLTAIC MODULES ARE TO BE CONSIDERED NON-COMBUSTIBLE.
- PHOTOVOLTAIC INSTALLATION WILL NOT OBSTRUCT ANY PLUMBING, MECHANICAL, OR BUILDING ROOF VENTS.
- ALL WIRING MUST BE PROPERLY SUPPORTED BY DEVICES OR MECHANICAL MEANS DESIGNED AND LISTED FOR SUCH USE. WIRING MUST BE PERMANENTLY AND COMPLETELY HELD OFF THE ROOF SURFACE.
- ALL SIGNAGE TO BE PLACED IN ACCORDANCE WITH THE LOCAL BUILDING CODE. IF EXPOSED TO SUNLIGHT, IT SHALL BE UV RESISTANT. ALL PLAQUES AND SIGNAGE WILL BE INSTALLED AS REQUIRED BY THE NEC AND AHJ.
- INVERTER(S) USED IN UNGROUNDED SYSTEM SHALL BE UL 1741 LISTED.
- THE INSTALLATION OF EQUIPMENT AND ALL ASSOCIATED WIRING AND INTERCONNECTION SHALL BE PERFORMED ONLY BY QUALIFIED PERSONS [NEC 690.4(C)]
- ALL OUTDOOR EQUIPMENT SHALL BE NEMA 3R RATED (OR BETTER), INCLUDING ALL ROOF MOUNTED TRANSITION BOXES AND SWITCHES.
- ALL EQUIPMENT SHALL BE PROPERLY GROUNDED AND BONDED IN ACCORDANCE WITH NEC ARTICLE 250.
- SYSTEM GROUNDING SHALL BE IN ACCORDANCE WITH NEC 690.41.
- PV SYSTEM CIRCUITS INSTALLED ON OR IN BUILDINGS SHALL INCLUDE A RAPID SHUTDOWN FUNCTION IN ACCORDANCE WITH NEC 690.12
- DISCONNECTING MEANS SHALL BE LOCATED IN A VISIBLE, READILY ACCESSIBLE LOCATION WITHIN THE PV SYSTEM EQUIPMENT OR A MAXIMUM OF 10 FEET AWAY FROM THE SYSTEM [NEC 690.15(B)]
- ALL WIRING METHODS SHALL BE IN ACCORDANCE WITH NEC 690.31
- WORK CLEARANCES AROUND ELECTRICAL EQUIPMENT WILL BE MAINTAINED PER NEC 110.28(A)(1), 110.28(A)(2) AND 110.28(A)(3).
- ROOFTOP MOUNTED PHOTOVOLTAIC PANELS AND MODULES SHALL BE TESTED, LISTED & IDENTIFIED IN ACCORDANCE WITH UL-1703
- ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT EXPANSION JOINTS AND ANCHOR CONDUIT RUNS AS REQUIRED PER NEC.
- IN ACCORDANCE WITH 2021 IFC 1205.5, 2018 IFC 1204.4, AND 2015 IFC 605.11.2 A CLEAR, BRUSH-FREE AREA OF 10 FEET(3048 MM) SHALL BE REQUIRED FOR GROUND-MOUNTED PHOTOVOLTAIC ARRAYS.
- PANEL LAYOUT ORIENTATION IS SUBJECT TO CHANGE ON DESIGNED MOUNTING PLANES.

## PROJECT DATA

PROJECT ADDRESS: 312 WEST GERMAN STREET, SHEPHERDSTOWN, WV 25443  
OWNER: SEAN PORTER  
DESIGNER: ESR  
SCOPE: 9.480 KW DC ROOF MOUNT SOLAR PV SYSTEM WITH 24 MISSION SOLAR MSE396SX9R 395W PV MODULES WITH 24 SOLAREDGE S6440 POWER OPTIMIZERS 01 SOLAREDDGE TECHNOLOGIES LTD. SE7600H-US (240V) INVERTER  
AUTHORITIES HAVING JURISDICTION: BUILDING: JEFFERSON COUNTY ZONING: JEFFERSON COUNTY

## SHEET INDEX

- PV-1 COVER SHEET
- PV-2 SITE PLAN
- PV-3 ROOF PLAN AND MODULES
- PV-4 ELECTRICAL PLAN
- PV-5 STRUCTURAL DETAIL
- PV-6 ELECTRICAL LINE DIAGRAM
- PV-7 WIRING CALCULATIONS
- PV-8 LABELS
- PV-9 PLACARD
- PV-10 MICRO INVERTER CHART
- PV-11+ EQUIPMENT SPECIFICATIONS

## SIGNATURE



PROJECT NAME & ADDRESS  
SEAN PORTER RESIDENCE  
312 WEST GERMAN STREET,  
SHEPHERDSTOWN, WV 25443



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ESR

SHEET NAME  
COVER SHEET

SHEET SIZE  
ANSI B  
11" X 17"

SHEET NUMBER  
PV-1

**PROJECT DESCRIPTION:**

- 24 X MISSION SOLARMS365SX8R 365W MONO MODULES
- ROOF MOUNTED SOLAR PHOTOVOLTAIC MODULES
- DC SYSTEM SIZE: 24 X 365 = 8,760 KW/DC
- AC SYSTEM SIZE: 01 X 7600 = 7,600 KW/AC
- EQUIPMENT SUMMARY
- 24 REC SOLAR REC360NP2 BLACK 360W MONO MODULES
- 24 SOLAREDEGE S440 POWER OPTIMIZERS
- 01 SOLAREDEGE TECHNOLOGIES LTD. SE7600H-JUS (240V) INVERTER

NOTE: VISIBLE, LOCKABLE, LABELED AC DISCONNECT LOCATED WITHIN 10' OF UTILITY METER

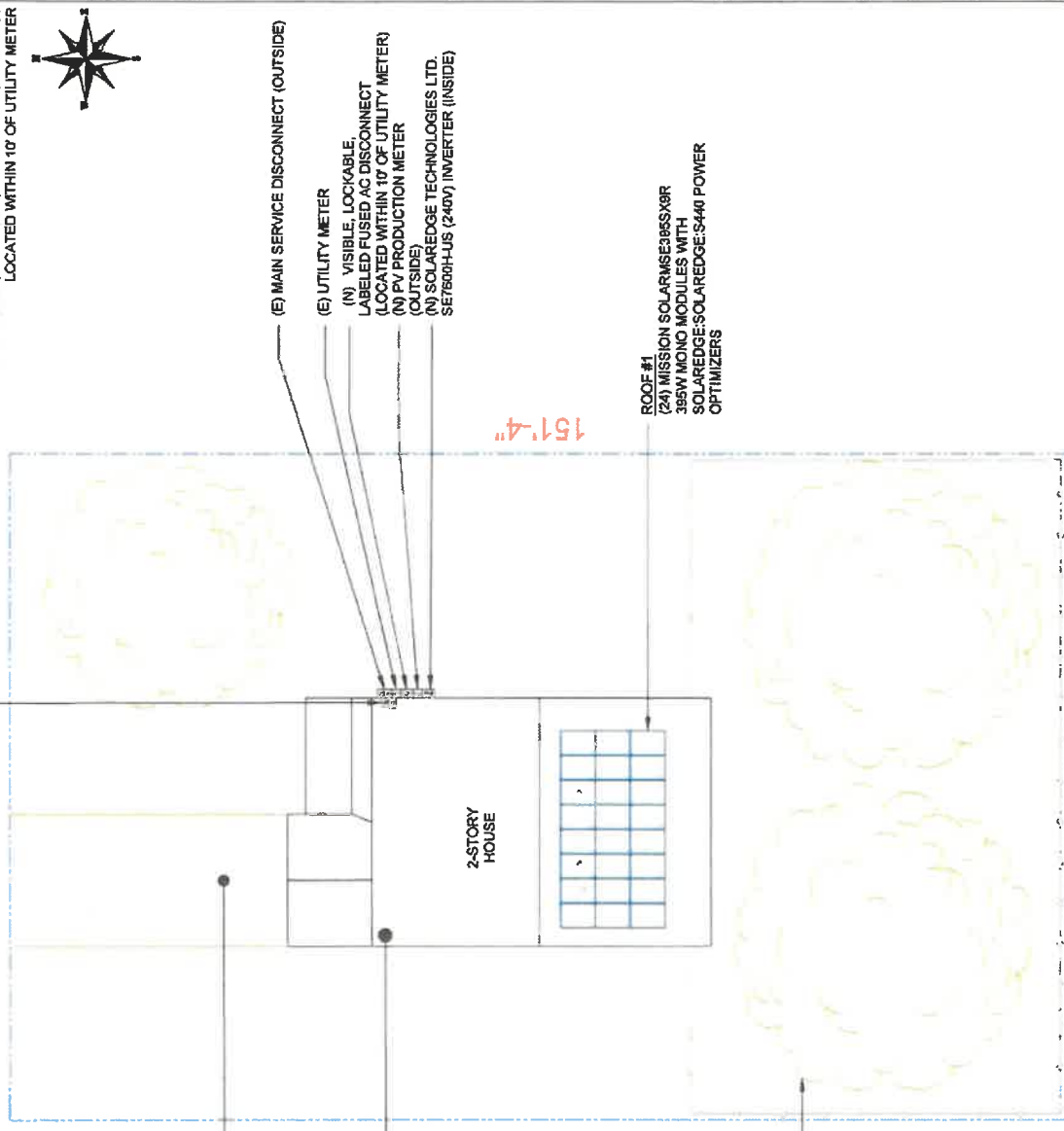
(E) MAIN SERVICE PANEL (INSIDE)

WEST GERMAN STREET 94'-6"

EXISTING DRIVEWAY

ROOF ACCESS POINT

(E) TREES



(E) MAIN SERVICE DISCONNECT (OUTSIDE)

(E) UTILITY METER

(N) VISIBLE, LOCKABLE, LABELED FUSED AC DISCONNECT (LOCATED WITHIN 10' OF UTILITY METER)

(N) PV PRODUCTION METER (OUTSIDE)

(N) SOLAREDEGE TECHNOLOGIES LTD. SE7600H-JUS (240V) INVERTER (INSIDE)

ROOF #1 (24) MISSION SOLARMS365SX8R 365W MONO MODULES WITH SOLAREDEGE SOLAREDEGE S440 POWER OPTIMIZERS

151'-4"

151'-4"

94'-6"



REVISIONS	DATE	REV
INITIAL DESIGN	08/02/2024	

DESCRIPTION	DATE	REV
INITIAL DESIGN	08/02/2024	

PROJECT NAME & ADDRESS  
**SEAN PORTER RESIDENCE**  
 312 WEST GERMAN STREET,  
 SHEPHERDSTOWN, WV 25443

**SnapTrack**  
 Solar Mounting Solutions  
 775 FIERO LANE SUITE #200  
 SAN LUIS OBISPO, CA 93401  
 +1 (877) 792-2880

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**ESR**

SHEET NAME  
**SITE PLAN**

SHEET SIZE  
**ANSI B  
 11" X 17"**

SHEET NUMBER  
**PV-2**

DESIGN SPECIFICATION  
 OCCUPANCY: II  
 CONSTRUCTION:  
 ZONING:  
 GROUND SNOW LOAD: REFER STRUCTURAL LETTER  
 WIND EXPOSURE: REFER STRUCTURAL LETTER  
 WIND SPEED: REFER STRUCTURAL LETTER

**1 SITE PLAN**  
 PV-2 SCALE: 1/16" = 1'-0"



**MODULE TYPE, DIMENSIONS & WEIGHT**  
 NUMBER OF MODULES = 24 MODULES  
 MODULE TYPE = MISSION SOLAR MSE36SX9R 395W MONO MODULES  
 MODULE WEIGHT = 48.50 LBS / 22.0KG.  
 MODULE DIMENSIONS = 75.07" x 41.49" = 21.62 SF

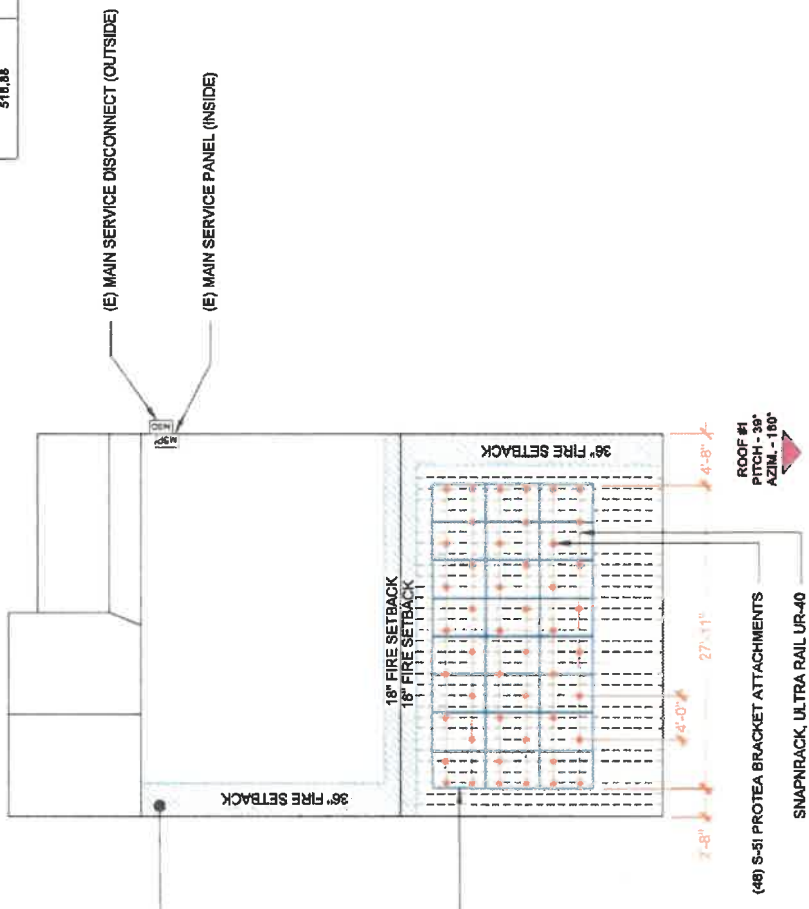
**LEGEND**

- ACD - AC DISCONNECT
- UM - UTILITY METER
- MSP - MAIN SERVICE PANEL
- MSD - MAIN SERVICE DISCONNECT
- SEAM
- VENT. ATTIC FAN (ROOF OBSTRUCTION)
- ROOF ATTACHMENT
- PV PRODUCTION METER
- INVERTER

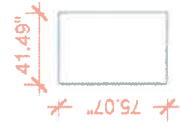
ROOF DESCRIPTION						
ROOF TYPE	METAL ROOF					
ROOF LAYER	1 LAYER					
ROOF #1	# OF MODULES	ROOF PITCH	ROOF AZIMUTH	TRUSS SIZE	TRUSS SPACING	SEAM SPACING
	24	39°	180°	2"x4"	24"	1"

ARRAY AREA & ROOF AREA CALC'S		
TOTAL PV ARRAY AREA (SQ. FT.)	2095.23	
TOTAL ROOF AREA (SQ. FT.)	2095.23	
ROOF AREA COVERED BY ARRAY (%)		25



MISSION SOLAR  
 MSE36SX9R  
 395W MODULES



REVISIONS	DESCRIPTION	DATE	REV
	INITIAL DESIGN	06/02/2024	

PROJECT NAME & ADDRESS  
**SEAN PORTER RESIDENCE**  
 312 WEST GERMAN STREET,  
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**SnapNrack**  
 Solar Mounting Solutions  
 775 FIERO LANE SUITE #200  
 SAN LUIS OBISPO, CA 93401  
 \*1 (877) 732-2860

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**ESR**

SHEET NAME  
**ROOF PLAN AND MODULES**

SHEET SIZE  
**ANSI B  
 11" X 17"**

SHEET NUMBER  
**PV-3**

**1** ROOF PLAN AND MODULES  
 PV-3  
 SCALE: 3/32" = 1'-0"

DC SYSTEM SIZE: 24 x 395 = 9,480 kW DC  
 AC SYSTEM SIZE: 01 x 7500 = 7,500 kW AC  
 (24) MISSION SOLARMBE395SUR 395W MONO MODULES  
 (01) SOLARBE395SUR 7500W MONO INVERTER  
 (01) SOLARBE395SUR 7500W MONO INVERTER

**STRING LEGENDS**  
 STRING #1  
 STRING #2

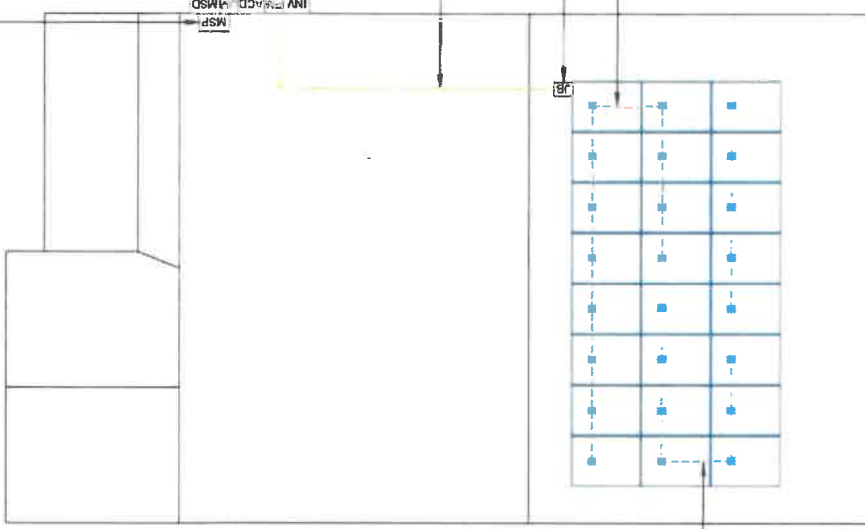


**WEST GERMAN STREET**

(E) MAIN SERVICE PANEL (INSIDE)

EQUIPMENT	QTY	DESCRIPTION
SOLAR PV MODULES	24	MISSION SOLARMBE395SUR 395W MONO MODULE
INVERTERS	1	MISSION SOLARBE395SUR 7500W MONO INVERTER
OPTIMIZERS	24	SOLARBE395SUR 395W MONO OPTIMIZERS
JUNCTION BOX	1	JUNCTION BOX
AC DISCONNECT	1	VISIBLE LOCKABLE, LABELED FUSED AC DISCONNECT (LOCATED WITHIN 10' OF UTILITY METER)
ATTACHMENTS	48	3-1/2" PROTA BRACKET ATTACHMENTS
END CAP	12	3/4" END CAP (2424R52)
RAIL	12	3/4" END CAP (2424R52)
SPICE	6	3/4" END CAP (2424R52)
WIRE CLAMP	42	3/4" END CAP (2424R52)
FIELD CAP	12	3/4" END CAP (2424R52)
CHIMNEL	3	3/4" END CAP (2424R52)

- (E) MAIN SERVICE DISCONNECT (OUTSIDE)
- (E) UTILITY METER
- (N) VISIBLE LOCKABLE, LABELED FUSED AC DISCONNECT (LOCATED WITHIN 10' OF UTILITY METER)
- (N) PV PRODUCTION METER (OUTSIDE)
- (N) SOLAREDGE TECHNOLOGIES LTD. SE7800H-US (240V) INVERTER (INSIDE)
- (N) CONDUIT
- (N) JUNCTION BOX
- STRING #1 (12 MODULES)
- STRING #2 (12 MODULES)



**LEGEND**

[MSD]	- MAIN SERVICE DISCONNECT
[ACD]	- AC DISCONNECT
[JM]	- UTILITY METER
[MSP]	- MAIN SERVICE PANEL
[JB]	- JUNCTION BOX
[PV]	- PV PRODUCTION METER
[INV]	- INVERTER
	- CONDUIT



**REVISIONS**

DESCRIPTION	DATE	REV
INITIAL DESIGN	08/10/2024	REV

**PROJECT NAME & ADDRESS**  
 SEAN PORTER  
 RESIDENCE  
 312 WEST GERMAN  
 STREET,  
 SHEPHERDSTOWN,  
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**SnapNrack**  
 Solar Mounting Solutions  
 776 FIERO LANE SUITE #200  
 SAN LUIS OBISPO, CA 93401  
 \*1 (877) 732-2880

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SHEET NAME  
**ELECTRICAL PLAN**

SHEET SIZE  
**ANSI B  
 11" X 17"**

SHEET NUMBER  
**PV-4**

**1 ELECTRICAL PLAN**  
 SCALE: 1/8" = 1'-0"



MOUNTAIN STATE SOLAR, LLC  
 8000 W. 29th Ave., Suite 111  
 Denver, CO 80231  
 Phone: 303.751.1111  
 Email: sales@mtvsolar.com  
 2021.03.12.005 (7/23), 09/16/2020

REVISIONS	DATE	REV
DESCRIPTION		
INITIAL DESIGN		08/18/2024


**PROJECT NAME & ADDRESS**  
 SEAN PORTER  
 RESIDENCE  
 312 WEST GERMAN  
 STREET,  
 SHEPHERDSTOWN,  
 WV 25443

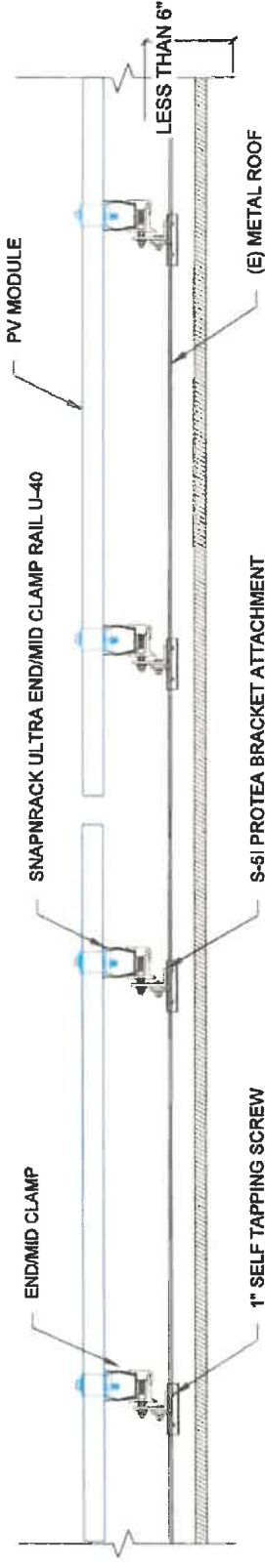
**SnapRack**  
 Solar Mounting Solutions  
 775 FIERO LANE SUITE #200  
 SAN LUIS OBISPO, CA 93401  
 +1 (877) 732-2880

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 ESR

SHEET NAME  
 STRUCTURAL DETAIL

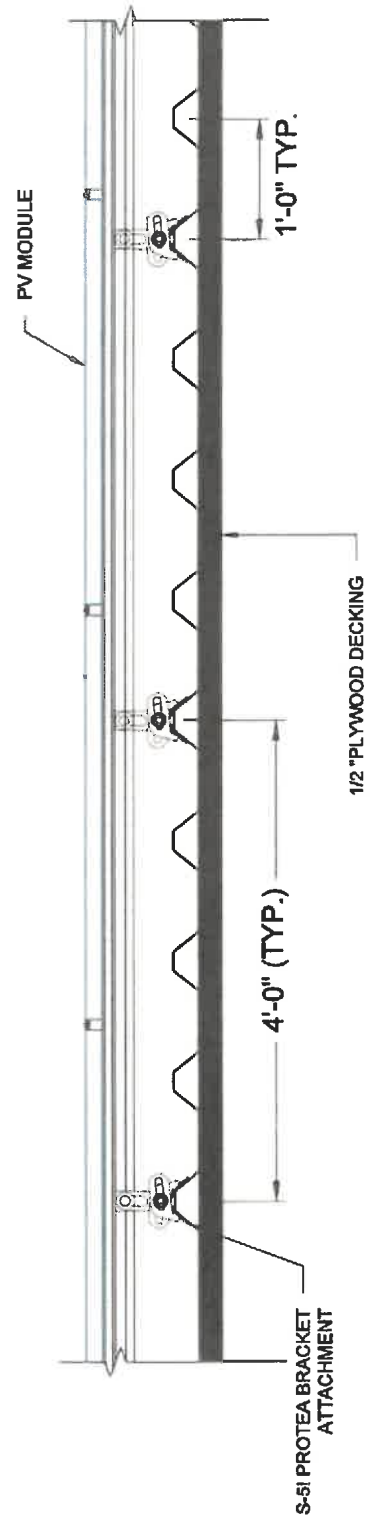
SHEET SIZE  
 ANSI B  
 11" X 17"

SHEET NUMBER  
 PV-5



**1 ATTACHMENT DETAIL (SIDE VIEW)**  
 SCALE: N.T.S.

PV-5



**2 ATTACHMENT DETAIL (FRONT VIEW)**  
 SCALE: N.T.S.

PV-5



REVISIONS	DESCRIPTION	DATE	REV
	INITIAL DESIGN	04/01/2024	

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PROJECT NAME & ADDRESS  
**SEAN PORTER  
 RESIDENCE**  
 312 WEST GERMAN  
 STREET,  
 SHEPHERDSTOWN,  
 WV 25443

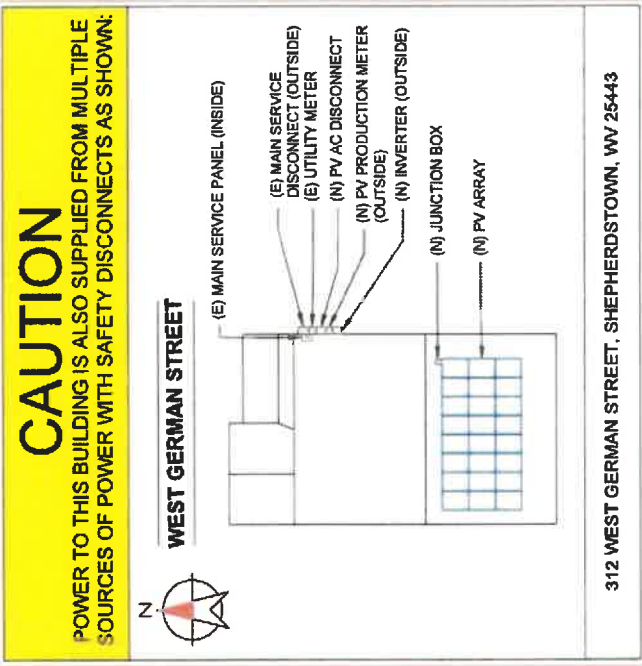
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 +1 (877) 732-2860

DRAWN BY  
**ESR**

SHEET NAME  
**PLACARD**

SHEET SIZE  
**ANSI B  
 11" X 17"**

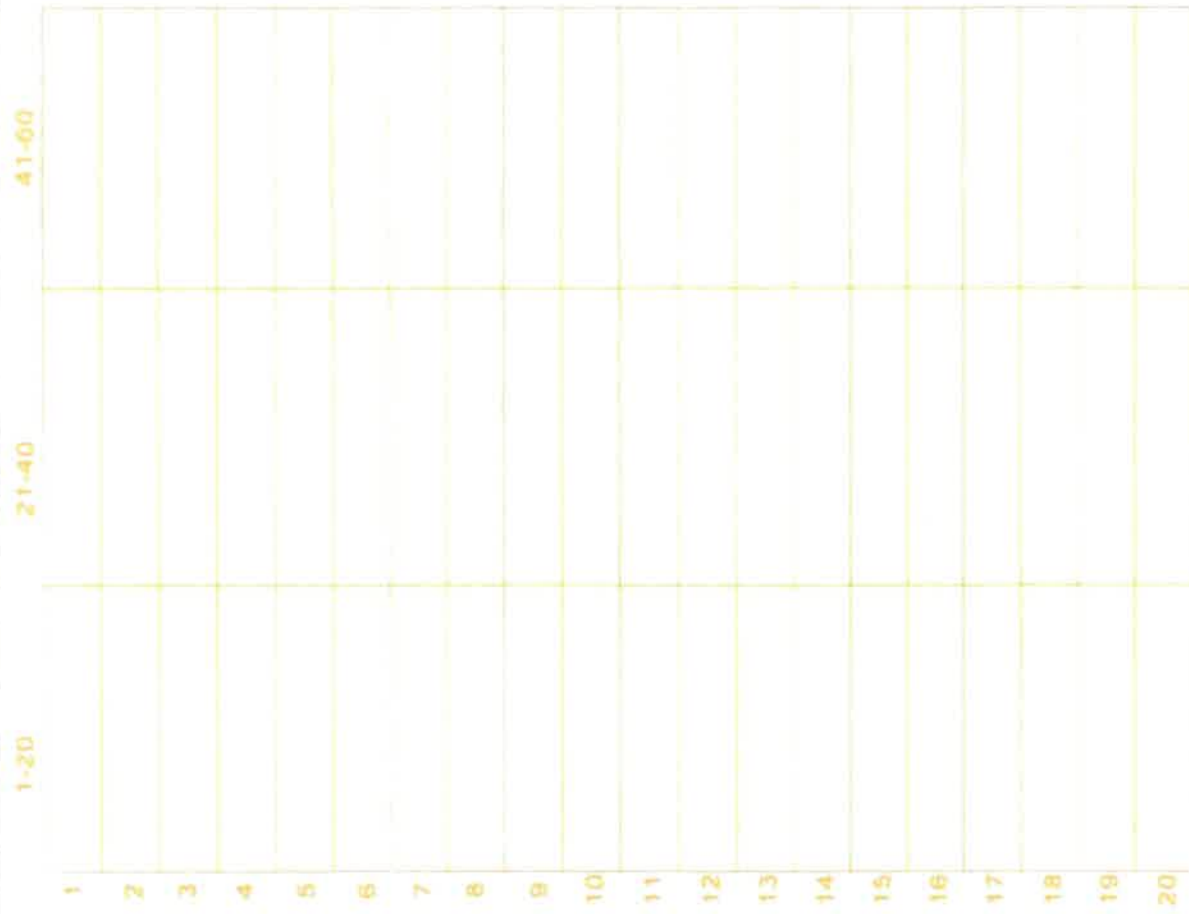
SHEET NUMBER  
**PV-10**



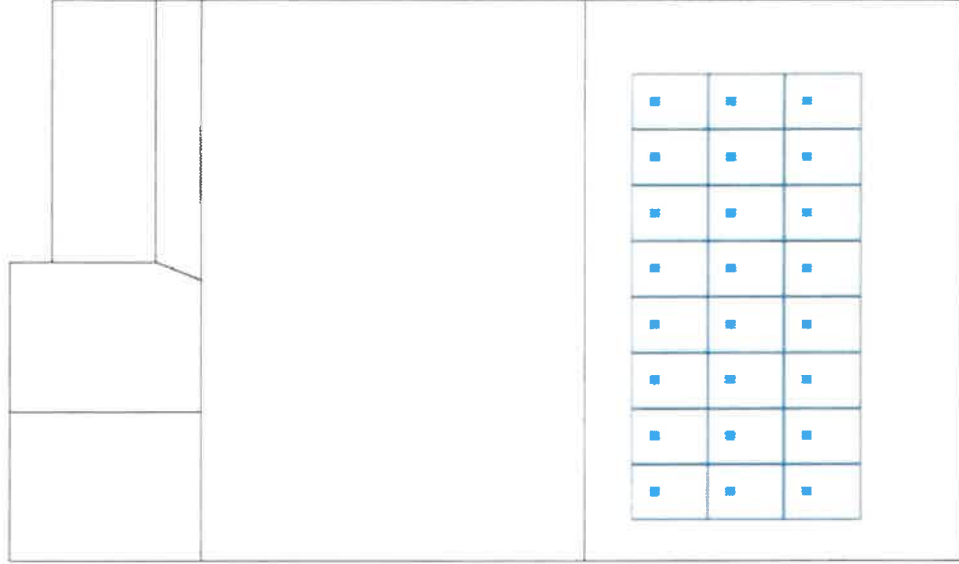
**DIRECTORY**  
 PERMANENT PLAQUE OR DIRECTORY PROVIDING THE LOCATION OF THE SERVICE DISCONNECTING MEANS AND THE PHOTOVOLTAIC SYSTEM.

(ALL PLAQUES AND SIGNAGE WILL BE INSTALLED AS OUTLINED WITHIN:  
 NEC 690.56(A)(8), NEC 705.10)

- LABELING NOTES:**
1. LABELS CALLED OUT ACCORDING TO ALL COMMON CONFIGURATIONS. ELECTRICIAN TO DETERMINE EXACT REQUIREMENTS IN THE FIELD PER CURRENT NEC AND LOCAL CODES AND MAKE APPROPRIATE ADJUSTMENTS.
  2. LABELING REQUIREMENTS BASED ON THE 2020 NATIONAL ELECTRIC CODE, OSHA STANDARD 1910.146, ANSI Z535.
  3. MATERIAL BASED ON THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
  4. LABELS TO BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED [NEC 110.21]
  5. LABELS TO BE A MINIMUM LETTER HEIGHT OF 3/8", WHITE ON RED BACKGROUND, REFLECTIVE, AND PERMANENTLY



# MICRO INVERTER CHART



REVISIONS	DATE	REV
DESCRIPTION		
INITIAL DESIGN	04/12/2024	

PROJECT NAME & ADDRESS

SEAN PORTER  
RESIDENCE  
312 WEST GERMAN  
STREET,  
SHEPHERDSTOWN,  
WV 25443

**SnapNrack**  
Solar Mounting Solutions

775 FIERRO LANE SUITE #200  
SAN LUIS OBISPO, CA 95401  
+1 (877) 732-2860

DRAWN BY  
**ESR**

SHEET NAME  
**MICRO INVERTER  
CHART**

SHEET SIZE  
**ANSI B  
11" X 17"**

SHEET NUMBER  
**PV-11**

MSE PERC 66

MISSION SOLAR ENERGY



395W

Class leading power output

Positive Power Tolerance

-0 to +3%



# True American Quality True American Brand

Mission Solar Energy is headquartered in San Antonio, Texas where we manufacture our modules. We produce American, high-quality solar modules ensuring the highest-in-class power output and best-in-class reliability. Our product line is tailored for residential, commercial and utility applications. Every Mission Solar Energy solar module is certified and surpasses industry standard regulations, proving excellent performance over the long term.

**Demand the best. Demand Mission Solar Energy.**



### Certified Reliability

- Tested to UL 61730 & IEC Standards
- PID resistant
- Resistance to salt mist corrosion



### Advanced Technology

- 9 Busbar
- Passivated Emitter Rear Contact
- Ideal for all applications



### Extreme Weather Resilience

- Up to 5,400 Pa front load & 3,600 Pa back load
- Tested load to UL 61730
- 40 mm frame



### BAA Compliant for Government Projects

- Buy American Act
- American Recovery & Reinvestment Act

### FRAME-TO-FRAME WARRANTY

Degradation guaranteed not to exceed 2% in year one and 0.58% annually from years two to 30 with 84.08% capacity guaranteed in year 25.

For more information, visit [www.missionsolar.com/warranty](http://www.missionsolar.com/warranty)

### CERTIFICATIONS

CEC



If you have questions or concerns about certification of our products in your area, please contact Mission Solar Energy.

UL 61730 / IEC 61215 / IEC 61730 / IEC 61701

