TOWN OF PENDLETON
6570 Campbell Boulevard
Lockport, NY 14094

Deborah K. Maurer, Town Clerk
Phone: (716) 625-8833
Fax: (716) 625-6295
dmaurer@pendletonny.us

NOTICE IS HEREBY GIVEN that a Public Hearing will be held by the ZONING BOARD OF APPEALS, Town of Pendleton, at the Town Hall, 6570 Campbell Boulevard, Lockport, NY 14094, at 7:00 p.m. on Tuesday, the 28th day of October 2025 for:

James Winkowski
6628 Sheetram Rd.
Lockport, NY 14094

Owner wishes to erect ground mounted solar panels approximately 13' x 47' on the above referenced property. Proposed solar array does not meet the minimum side yard setback of 30 ft per Town Code. A variance of 22'10" for the side yard is being requested.

Town Ordinance Affected: §247-72G(3)(a)[b] Min. Side Yard Setback
Variance Sought: 22 Ft. 10 In. Side Yard
Size of Parcel: 1.5 Acres
Current Zoning: R-2 Residential

Additional information pursuant to this public hearing may be available at https://pendletonny.us/calendar-events/.

Deborah K. Maurer

Deborah K. Maurer, Town Clerk

Dated: October 21, 2025

Please Publish: October 23, 2025

Town of Pendleton
Building Department

6570 Campbell Blvd.
Lockport NY 14094
716-625-8833 Ext. 115 & 114
www.pendletonny.us
rdiedrich@pendletonny.us
tbarnes@pendletonny.us

PUBLIC HEARING REQUEST TO PETITION FOR A VARIANCE

Fee: $125.00

TO BE HELD BY: Zoning Board of Appeals

DATE OF HEARING: Oct. 28th TIME: 7:00 P.M.

REQUESTED BY: James Winkowski PHONE: [redacted]

ADDRESS OF PROPERTY: 6628 Sheetram rd. Lockport

ADDRESS OF OWNER: 6628 Sheetram rd. Lockport

E-MAIL ADDRESS: [redacted]

To Consider the Following Request: For the purpose of, Ground Mounted Solar Panels, Side yard set-backs reduced to 5 Ft minimum, to allow adequate sun light location for optimal PV production. To meet NYSERDA NY-SUN TSRF min. threshold for incentive.

Town Ordinances Affected: 247-72 G (3)(a) [b] MIN. SIDE YARD SETBACK

Variance Sought: 22'-10" SIDE YARD

Size of Parcel: 1.48 ACRES 119x

Current Zoning: R-2 RESIDENTIAL

Kyle R Winkowski 10-14-25

Applicant Signature Date

Notes: This form must be filed with the Town Clerk, along with the filing fee, 10 days before the date of the Public Hearing. Please bring all documents to the Public Hearing including, Denial for Building Application, Site Survey showing proposed variance, documented reasons for the benefit of relief and any other documents that will support your need for relief. Structures over 1800 SF require a full site plan review by the Town Planning Board, per Town Code §247.34.F (4).

Town of Pendleton
Building Department

6570 Campbell Blvd.
Lockport NY 14094
716-625-8833 Ext. 114
www.pendletonny.us
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DENIAL OF BUILDING APPLICATION

PROPERTY LOCATION: 6628 Sheetram Rd

SBL NUMBER: 151.00-1-8.42

OWNER: James Winkowski

OWNER ADDRESS: 6628 Sheetram Road, Lockport, NY 14094

E-MAIL ADDRESS: [redacted]

REASON FOR DENIAL

Owner is proposing to construct a ground mounted solar array with a 7'-2" side yard setback, not meeting the minimum side yard setback of 30' per Town Code 247-72G(3)(a)[b].

NOTE: This form and supporting documentation must be filed with the Board of Appeals

Kyle R Ugenda — Applicant — 10-14-2025 — Date

Tim Barnes — Code Enforcement Officer — 10/14/2025 — Date

Revised 1/14/2025

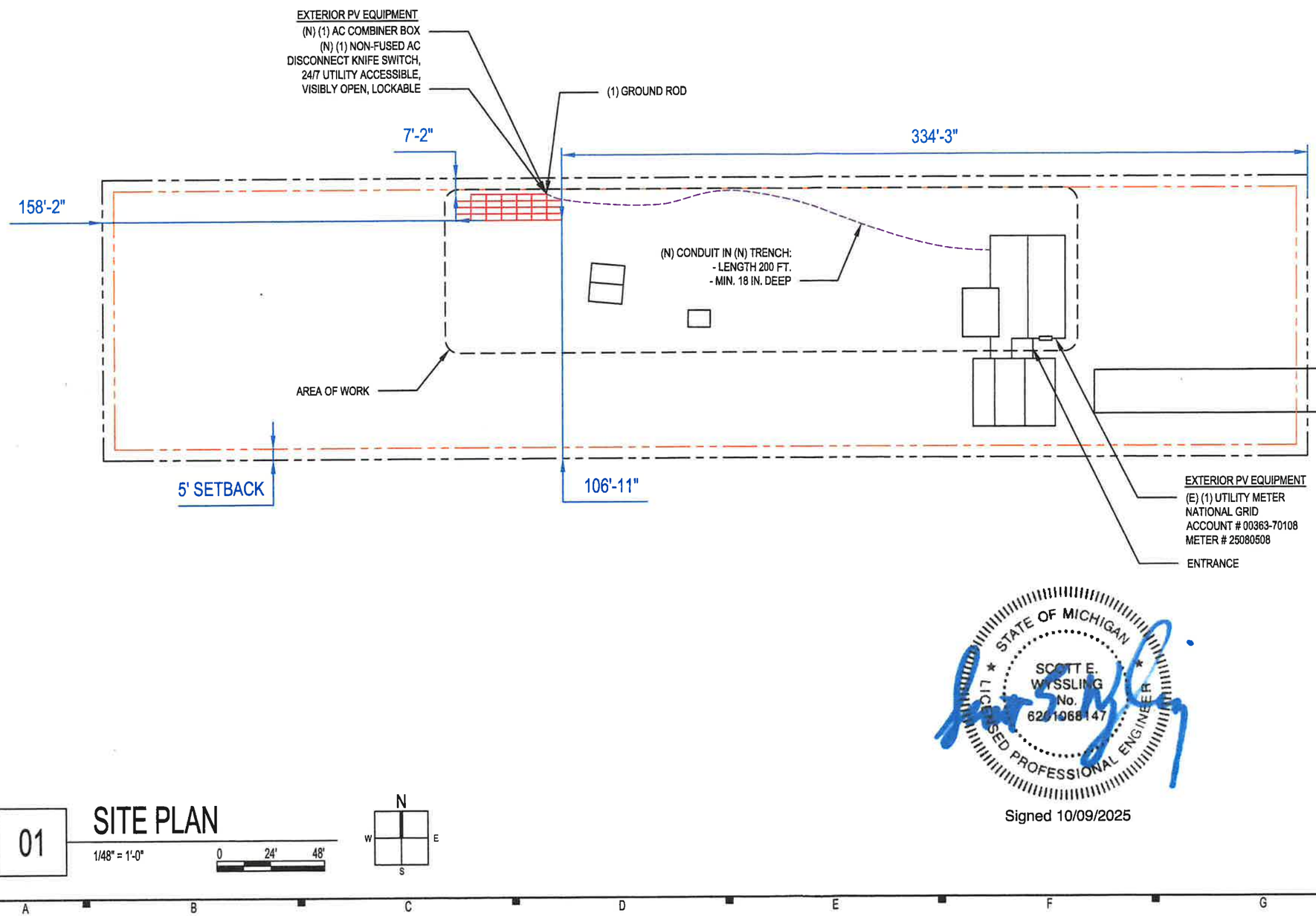
GENERAL NOTES

1. FIELD VERIFY ALL MEASUREMENTS
2. ITEMS BELOW MAY NOT BE ON THIS PAGE

PROPERTY LINE

CONDUIT

SETBACK LINE



STATE OF MICHIGAN
SCOTT E. WYSSLING
No. 6201068147
LICENSED PROFESSIONAL ENGINEER

Signed 10/09/2025

01 SITE PLAN

1/48" = 1'-0"

0 24' 48'

N W E S

VSG POWER INC

NATIONAL SOLAR

CONTRACTOR

VSG POWER

PHONE: 716-777-3015
ADRESS: 73 EUCLID AVENUE, BUFFALO, NY 14211

LIC. NO.:
HIC. NO.:
ELE. NO.:

NEW PV SYSTEM:
10.790 kWP DC / 9.074 kWP AC

WINKOWSKI RESIDENCE

6628 SHEETRAM ROAD,
LOCKPORT, NY 14094
APN: 151.00-1-8.42

ENGINEER OF RECORD

PAPER SIZE: 11" x 17" (ANSI B)

SITE PLAN

DATE: 10.04.2025
DESIGN BY: M.S.
CHECKED BY: M.M.

REVISIONS

A-101.00

Town of Pendleton
Building Department

6570 Campbell Blvd.
Lockport NY 14094
716-625-8833 Ext. 115 & 114
www.pendletonny.us

SOLAR PERMIT APPLICATION

INVOICE # 12500553
CK # 1712

FEE: $150.00

Date: 10-14-25

Jobsite Location: 6628 Sheetram rd.

Contractor/Applicant: VSG Power, inc Phone: [redacted]

Address: 73 Euclid ave. Buffalo

Email: [redacted] License

Property Owner: James Winkowski Phone [redacted]

Address: 6628 Sheetram rd.

Email: [redacted]

BUILDING TYPE X RESIDENTIAL ___ COMMERCIAL ___ OTHER

COST OF PROJECT ZONING CLASSIFICATION

INTENDED USE ~~Ground~~ Roof mounted Solar

NUMBER OF STRUCTURES ON LOT: BUILDING SETBACK REQUIREMENTS:

CURRENT SURVEY IS REQUIRED FOR ALL ACC. STRUCTURES AND ANY WORK IN FRONT OF HOUSE.

Current Survey Supplied	✓ Yes	___ No
Is this a non-conforming lot?	___ Yes	✓ No
*Is variance required for above?	✓ Yes	___ No ZBA APP. ✓ OCT. 28TH PUB. HEARING
*Is lot in a Flood Plain area?	___ Yes	✓ No

*It is the responsibility of the owner to obtain any permits that are needed regarding Wetlands and Floodplains. These Permits are required by the Army Corps of Engineers and/or the Department of Environmental Conservation. If needed, more information can be supplied to you.

PERMIT STATUS (for office use only)

Plans reviewed: ✓ ___ Ready to issue ✓ Not ready to issue

Permit # ___ Total Fees $150 APP. $125 ZBA

WYSSLING CONSULTING
Scott E. Wyssling, PE
Heath J. Harpster, PE, P.Eng
Gregory T. Elvestad, PE

76 North Meadowbrook Drive
Alpine, UT 84004office (201) 874-3483
swyssling@wysslingconsulting.com

October 9, 2025

Greenlancer Energy Inc.
500 Woodward Avenue, Suite 2125
Detroit, MI 48226

Re: Engineering Services
Winkowski Residence
6628 Sheetram Road, Lockport MI
10.790 kW System

To Whom It May Concern:

Pursuant to your request, we have reviewed the following information regarding ground mount solar panel installation at the above referenced location:

1. Product documentation prepared by IronRidge detailing the ground mount system being utilized for the proposed ground mount system.
2. Design drawings of the proposed system including a site plan, and details for the solar panels. This information will be utilized for approval and construction of the proposed system.

Based on our review of the Photovoltaic Array installed at 4 modules high and 7 modules wide, the PV array shall have a maximum screw/auger spacing of 10'-7" east/west and 7'-6" north/south. Based on a wind speed of 110 mph, Exposure B and a ground snow load of 50 PSF, it was determined that the minimum required depth of the auger/screw shall be 80" inches below grade. The augur/screw shall be tested in the field after installation to provide minimum 2,000 lbs pull out and this information shall be provided to this office.

Based on the above evaluation, it is the opinion of this office that with appropriate construction the augur/screw and post assembly will adequately support the proposed solar array. This evaluation is in conformance with the 2020 Building Code of New York State (2018 International Building Code), current industry and standards, and based on information supplied to us at the time of this report.

This certification is specific to the screw/auger for the solar system and does not include the racking system. Racking system and components designed and specified by the manufacturer.

Should you have any questions regarding the above or if you require further information do not hesitate to contact me.

Very truly yours,

Scott E. Wyssling, PE
NY PE License No. 92303
New York COA # 022082

STATE OF MICHIGAN
SCOTT E. WYSSLING
No. 6201068147
LICENSED PROFESSIONAL ENGINEER

Signed 10/09/2025

GENERAL NOTES

1.1.1 PROJECT NOTES:

1.1.2 THIS PHOTOVOLTAIC (PV) SYSTEM SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE (NEC) ARTICLE 690, ALL MANUFACTURERS'S LISTING AND INSTALLATION INSTRUCTIONS, AND THE RELEVANT CODES AS SPECIFIED BY THE AUTHORITY HAVING JURISDICTION'S (AHJ) APPLICABLE CODES.

1.1.3 THE UTILITY INTERCONNECTION APPLICATION MUST BE APPROVED AND PV SYSTEM INSPECTED PRIOR TO PARALLEL OPERATION

1.1.4 ALL PV SYSTEM COMPONENTS; MODULES, UTILITY-INTERACTIVE INVERTERS, AND SOURCE CIRCUIT COMBINER BOXES ARE IDENTIFIED AND LISTED FOR USE IN PHOTOVOLTAIC SYSTEMS AS REQUIRED BY NEC 690.4: PV MODULES: UL1703, IEC61730, AND IEC61215, AND NFPA 70 CLASS C FIRE INVERTERS: UL 1741 CERTIFIED, IEEE 1547, 929, 519 COMBINER BOX(ES): UL 1703 OR UL 1741 ACCESSORY

1.1.5 MAX DC VOLTAGE CALCULATED USING MANUFACTURER PROVIDED TEMP COEFFICIENT FOR VOC. IF UNAVAILABLE, MAX DC VOLTAGE CALCULATED ACCORDING TO NEC 690.7.

1.1.6 ALL INVERTERS, PHOTOVOLTAIC MODULES, PHOTOVOLTAIC PANELS, AND SOURCE CIRCUIT COMBINERS INTENDED FOR USE IN A PHOTOVOLTAIC POWER SYSTEM WILL BE IDENTIFIED AND LISTED FOR THE APPLICATION PER 690.4 (D). SHALL BE INSTALLED ACCORDING TO ANY INSTRUCTIONS FROM LISTING OR LABELING [NEC 110.3].

1.1.7 ALL SIGNAGE TO BE PLACED IN ACCORDANCE WITH 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.

1.2.1 SCOPE OF WORK:

1.2.2 PRIME CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND SPECIFICATIONS OF THE GRID-TIED PHOTOVOLTAIC SYSTEM RETROFIT. PRIME CONTRACTOR WILL BE RESPONSIBLE FOR COLLECTING EXISTING ONSITE REQUIREMENTS TO DESIGN, SPECIFY, AND INSTALL THE GROUND MOUNT ARRAY PORTION OF THE PHOTOVOLTAIC SYSTEMS DETAILED IN THIS DOCUMENT.

1.3.1 WORK INCLUDES:

1.3.2 PV GROUND MOUNT SYSTEM INSTALLATION - IRONRIDGE GROUND MOUNT

1.3.3 PV MODULE AND INVERTER INSTALLATION - LG ELECTRONICS LG415N2W-V5 / ENPHASE IQ8A-72-2-US (240V)

1.3.4 PV EQUIPMENT GROUNDING

1.3.5 PV LOAD CENTERS (IF INCLUDED)

1.3.6 PV METERING/MONITORING (IF INCLUDED)

1.3.7 PV DISCONNECTS

1.3.8 PV GROUNDING ELECTRODE & BONDING TO (E) GEC

1.3.9 PV FINAL COMMISSIONING

1.3.10 (E) ELECTRICAL EQUIPMENT RETROFIT FOR PV

1.3.11 SIGNAGE PLACED IN ACCORDANCE WITH LOCAL BUILDING CODE

1.3.12 TRENCHING (IF NECESSARY)

Signed 10/09/2025

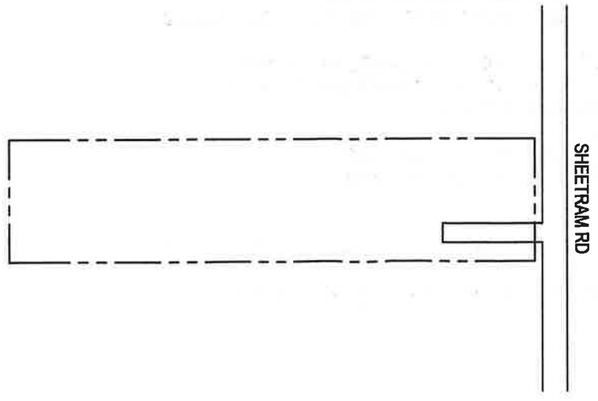
SCOPE OF WORK

SYSTEM SIZE:	STC: 26 X 415W = 10.790KW PTC: 26 X 382.2W = 9.937KW (26) LG ELECTRONICS LG415N2W-V5 (26) ENPHASE IQ8A-72-2-US (240V)
ATTACHMENT TYPE:	IRONRIDGE GROUND MOUNT
MSP UPGRADE:	NO

NEW PV SYSTEM:
10.790 kWp DC / 9.074 kWp AC
WINKOWSKI RESIDENCE
6628 SHEETRAM ROAD, LOCKPORT, NY 14094
ASSESSOR'S #: 151.00-1-8.42

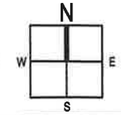
01 AERIAL PHOTO

NOT TO SCALE



02 PLAT MAP

NOT TO SCALE



SHEET LIST TABLE

PROJECT INFORMATION

OWNER
NAME: JAMES WINKOWSKI
PHONE:
E-MAIL:

PROJECT MANAGER
NAME: KYLE WOJEWODA
PHONE: 716-804-4518

CONTRACTOR
NAME: VSG POWER
PHONE: 716-777-3015

AUTHORITIES HAVING JURISDICTION
BUILDING: TOWN OF PENDLETON
ZONING: TOWN OF PENDLETON
UTILITY: NATIONAL GRID

DESIGN SPECIFICATIONS
OCCUPANCY: II
CONSTRUCTION: SINGLE-FAMILY
ZONING: RESIDENTIAL
GROUND SNOW LOAD: 50 PSF
WIND EXPOSURE: B
WIND SPEED: 110 MPH

APPLICABLE CODES & STANDARDS
BUILDING: NYSBC 2020, NYSRC 2020
ELECTRICAL: NEC 2017
FIRE: NYSFC 2020

VSG POWER INC

NATIONAL SOLAR

CONTRACTOR

VSG POWER

PHONE: 716-777-3015
ADRESS: 73 EUCLID AVENUE, BUFFALO, NY 14211

LIC. NO.:
HIC. NO.:
ELE. NO.:

NEW PV SYSTEM:
10.790 kWP DC / 9.074 kWP AC

WINKOWSKI RESIDENCE

6628 SHEETRAM ROAD,
LOCKPORT, NY 14094
APN: 151.00-1-8.42

ENGINEER OF RECORD

PAPER SIZE: 11" x 17" (ANSI B)

COVER PAGE

DATE: 10.04.2025
DESIGN BY: M.S.
CHECKED BY: M.M.

REVISIONS

T-001.00

2.1.1 SITE NOTES:

2.1.2 THE PV MODULES ARE CONSIDERED NON-COMBUSTIBLE AND THIS SYSTEM IS A UTILITY INTERACTIVE SYSTEM WITH NO STORAGE BATTERIES.

2.1.3 THE SOLAR PV INSTALLATION WILL NOT OBSTRUCT ANY PLUMBING OR MECHANICAL.

2.1.4 PROPER ACCESS AND WORKING CLEARANCE AROUND EXISTING AND PROPOSED ELECTRICAL EQUIPMENT WILL BE PROVIDED AS PER SECTION NEC 110.26.

2.2.1 EQUIPMENT LOCATIONS

2.2.2 ALL EQUIPMENT SHALL MEET MINIMUM SETBACKS AS REQUIRED BY NEC 110.26.

2.2.3 WIRING SYSTEMS INSTALLED IN DIRECT SUNLIGHT MUST BE RATED FOR EXPECTED OPERATING TEMPERATURE AS SPECIFIED BY NEC 690.31 (A),(C) AND NEC TABLE 310.15 (B)(2)(A).

2.2.4 JUNCTION AND PULL BOXES PERMITTED INSTALLED UNDER PV MODULES ACCORDING TO NEC 690.34.

2.2.5 ADDITIONAL AC DISCONNECT(S) SHALL BE PROVIDED WHERE THE INVERTER IS NOT WITHIN SIGHT OF THE AC SERVICING DISCONNECT.

2.2.6 ALL EQUIPMENT SHALL BE INSTALLED ACCESSIBLE TO QUALIFIED PERSONNEL ACCORDING TO NEC APPLICABLE CODES.

2.2.7 ALL COMPONENTS ARE LISTED FOR THEIR PURPOSE AND RATED FOR OUTDOOR USAGE WHEN APPROPRIATE.

2.2.8 SOLAR ARRAY LOCATION SHALL BE ADJUSTED ACCORDINGLY TO MEET LOCAL SETBACK REQUIREMENTS.

2.3.1 STRUCTURAL NOTES:

2.3.2 RACKING SYSTEM & PV ARRAY WILL BE INSTALLED ACCORDING TO CODE-COMPLIANT INSTALLATION MANUAL. TOP CLAMPS REQUIRE A DESIGNATED SPACE BETWEEN MODULES, AND RAILS MUST ALSO EXTEND A MINIMUM DISTANCE BEYOND EITHER EDGE OF THE ARRAY/SUBARRAY, ACCORDING TO RAIL MANUFACTURER'S INSTRUCTIONS.

2.3.3 JUNCTION BOX WILL BE INSTALLED PER MANUFACTURERS' SPECIFICATIONS. IT SHALL BE SEALED PER LOCAL REQUIREMENTS.

2.3.4 ALL PV RELATED ATTACHMENTS TO BE SPACED NO GREATER THAN THE SPAN DISTANCE SPECIFIED BY THE RACKING MANUFACTURER.

2.4.1 GROUNDING NOTES:

2.4.2 GROUNDING SYSTEM COMPONENTS SHALL BE LISTED FOR THEIR PURPOSE, AND GROUNDING DEVICES EXPOSED TO THE ELEMENTS SHALL BE RATED FOR SUCH USE.

2.4.3 PV SYSTEMS REQUIRE AN EQUIPMENT GROUNDING CONDUCTOR. ALL METAL ELECTRICAL EQUIPMENT AND STRUCTURAL COMPONENTS BONDED TO GROUND, IN ACCORDANCE WITH 250.134 OR 250.136(A). ONLY THE DC CONDUCTORS ARE UNGROUNDED.

2.4.4 PV EQUIPMENT SHALL BE GROUNDED ACCORDING TO NEC 690.43 AND MINIMUM NEC TABLE 250.122.

2.4.5 METAL PARTS OF MODULE FRAMES, MODULE RACKING, AND ENCLOSURE CONSIDERED GROUNDED IN ACCORD WITH 250.134 AND 250.136(A).

2.4.6 EACH MODULE WILL BE GROUNDED USING WEEB GROUNDING CLIPS AS SHOWN IN MANUFACTURER DOCUMENTATION AND APPROVED BY THE AHJ. IF WEEBS ARE NOT USED, MODULE GROUNDING LUGS MUST BE INSTALLED AT THE SPECIFIED GROUNDING LUG HOLES PER THE MANUFACTURERS' INSTALLATION REQUIREMENTS.

2.4.7 THE GROUNDING CONNECTION TO A MODULE SHALL BE ARRANGED SUCH THAT THE REMOVAL OF A MODULE DOES NOT INTERRUPT A GROUNDING CONDUCTOR TO ANOTHER MODULE.

2.4.8 GROUNDING AND BONDING CONDUCTORS, IF INSULATED, SHALL BE COLORED GREEN OR MARKED GREEN IF #4 AWG OR LARGER [NEC 250.119]

2.4.9 THE GROUNDING ELECTRODE SYSTEM COMPLIES WITH NEC 690.47 AND NEC 250.50 THROUGH 250.106. IF EXISTING SYSTEM IS INACCESSIBLE, OR INADEQUATE, A GROUNDING ELECTRODE SYSTEM PROVIDED ACCORDING TO NEC 250, NEC 690.47 AND AHJ.

2.4.10 DC PV ARRAYS SHALL BE PROVIDED WITH DC GROUND-FAULT PROTECTION MEETING THE REQUIREMENTS OF 690.41(B)(1) AND (2) TO REDUCE FIRE HAZARDS.

2.5.1 INTERCONNECTION NOTES:

2.5.2 LOAD-SIDE INTERCONNECTION SHALL BE IN ACCORDANCE WITH [NEC 705.12 (B)]

2.5.3 THE SUM OF 125 PERCENT OF THE POWER SOURCE(S) OUTPUT CIRCUIT CURRENT AND THE RATING OF THE OVERCURRENT DEVICE PROTECTING THE BUSBAR SHALL NOT EXCEED 120 PERCENT OF THE AMPACITY OF THE BUSBAR, PV DEDICATED BACKFEED BREAKERS MUST BE LOCATED OPPOSITE END OF THE BUS FROM THE UTILITY SOURCE OCPD [NEC 705.12(B)(2)(3)].

2.5.4 AT MULTIPLE ELECTRIC POWER SOURCES OUTPUT COMBINER PANEL, TOTAL RATING OF ALL OVERCURRENT DEVICES SHALL NOT EXCEED AMPACITY OF BUSBAR. HOWEVER, THE COMBINED OVERCURRENT DEVICE MAY BE EXCLUDED ACCORDING TO NEC 705.12 (B)(2)(3)(C).

2.5.5 FEEDER TAP INTERCONNECTION (LOAD SIDE) ACCORDING TO NEC 705.12 (B)(2)(1)

2.5.6 SUPPLY SIDE TAP INTERCONNECTION ACCORDING TO NEC 705.12 (A) WITH SERVICE ENTRANCE CONDUCTORS IN ACCORDANCE WITH NEC 230.42

2.5.7 BACKFEEDING BREAKER FOR ELECTRIC POWER SOURCES OUTPUT IS EXEMPT FROM ADDITIONAL FASTENING [NEC 705.12 (B)(5)].

2.6.1 DISCONNECTION AND OVER-CURRENT PROTECTION NOTES:

2.6.2 DISCONNECTING SWITCHES SHALL BE WIRED SUCH THAT WHEN THE SWITCH IS OPENED THE CONDUCTORS REMAINING ENERGIZED ARE CONNECTED TO THE TERMINALS MARKED "LINE SIDE" (TYPICALLY THE UPPER TERMINALS).

2.6.3 DISCONNECTS TO BE ACCESSIBLE TO QUALIFIED UTILITY PERSONNEL, BE LOCKABLE, AND BE A VISIBLE-BREAK SWITCH.

2.6.4 BOTH POSITIVE AND NEGATIVE PV CONDUCTORS ARE UNGROUNDED. THEREFORE BOTH MUST OPEN WHERE A DISCONNECT IS REQUIRED, ACCORDING TO NEC 690.13.

2.6.5 ISOLATING DEVICES OR EQUIPMENT DISCONNECTING MEANS SHALL BE INSTALLED IN CIRCUITS CONNECTED TO EQUIPMENT AT A LOCATION WITHIN THE EQUIPMENT, OR WITHIN SIGHT AND WITHIN 10 FT. OF THE EQUIPMENT. AN EQUIPMENT DISCONNECTING MEANS SHALL BE PERMITTED TO BE REMOTE FROM THE EQUIPMENT WHERE THE EQUIPMENT DISCONNECTING MEANS CAN BE REMOTELY OPERATED FROM WITHIN 10 FT. OF THE EQUIPMENT, ACCORDING TO NEC 690.15 (A).

2.6.6 PV SYSTEM CIRCUITS INSTALLED ON OR IN BUILDINGS SHALL INCLUDE A RAPID SHUTDOWN FUNCTION TO REDUCE SHOCK HAZARD FOR EMERGENCY RESPONDERS IN ACCORDANCE WITH 690.12(A) THROUGH (D)

2.6.7 ALL OCPD RATINGS AND TYPES SPECIFIED ACCORDING TO NEC 690.8, 690.9, AND 240.

2.6.8 BOTH POSITIVE AND NEGATIVE PV CONDUCTORS ARE UNGROUNDED, THEREFORE BOTH REQUIRE OVER-CURRENT PROTECTION, ACCORDING TO NEC 240.21. (SEE EXCEPTION IN NEC 690.9)

2.6.9 IF REQUIRED BY AHJ, SYSTEM WILL INCLUDE ARC-FAULT CIRCUIT PROTECTION ACCORDING TO NEC 690.11 AND UL1699B.

2.7.1 WIRING & CONDUIT NOTES:

2.7.2 ALL CONDUIT AND WIRE WILL BE LISTED AND APPROVED FOR THEIR PURPOSE. CONDUIT AND WIRE SPECIFICATIONS ARE BASED ON MINIMUM CODE REQUIREMENTS AND ARE NOT MEANT TO LIMIT UP-SIZING.

2.7.3 ALL CONDUCTORS SIZED ACCORDING TO NEC 690.8, NEC 690.7.

2.7.4 EXPOSED PV SOURCE CIRCUITS AND OUTPUT CIRCUITS SHALL USE WIRE LISTED AND IDENTIFIED AS PHOTOVOLTAIC (PV) WIRE [690.31 (C)]. PV MODULES WIRE LEADS SHALL BE LISTED FOR USE ON PV ARRAYS, ACCORDING TO NEC 690.31 (A).

2.7.5 PV WIRE BLACK WIRE MAY BE FIELD-MARKED WHITE [NEC 200.6 (A)(6)].

2.7.6 MODULE WIRING SHALL BE LOCATED AND SECURED UNDER THE ARRAY.

2.7.7 ACCORDING TO NEC 200.7, UNGROUNDED SYSTEMS DC CONDUCTORS COLORED OR MARKED AS FOLLOWS:

DC POSITIVE- RED, OR OTHER COLOR EXCLUDING WHITE, GRAY AND GREEN

DC NEGATIVE- BLACK, OR OTHER COLOR EXCLUDING WHITE, GRAY AND GREEN

2.7.8 AC CONDUCTORS COLORED OR MARKED AS FOLLOWS:

PHASE A OR L1- BLACK

PHASE B OR L2- RED, OR OTHER CONVENTION IF THREE PHASE

PHASE C OR L3- BLUE, YELLOW, ORANGE*, OR OTHER CONVENTION

NEUTRAL- WHITE OR GRAY

* IN 4-WIRE DELTA CONNECTED SYSTEMS THE PHASE WITH HIGHER VOLTAGE TO BE MARKED ORANGE [NEC 110.15].

2.7.9 ELECTRICAL WIRES IN TRENCH SHALL BE AT LEAST 18IN. BELOW GRADE (RESIDENTIAL).

STATE OF MICHIGAN
SCOTT E. WYSSLING
No. 6201068147
LICENSED PROFESSIONAL ENGINEER

Signed 10/09/2025

VSG POWER INC

NATIONAL SOLAR TECHNOLOGIES

CONTRACTOR

VSG POWER

PHONE: 716-777-3015
ADRESS: 73 EUCLID AVENUE, BUFFALO, NY 14211

LIC. NO.:
HIC. NO.:
ELE. NO.:

NEW PV SYSTEM:
10.790 kWP DC / 9.074 kWP AC

WINKOWSKI RESIDENCE

6628 SHEETRAM ROAD,
LOCKPORT, NY 14094
APN: 151.00-1-8.42

ENGINEER OF RECORD

PAPER SIZE: 11" x 17" (ANSI B)

NOTES

DATE: 10.04.2025
DESIGN BY: M.S.
CHECKED BY: M.M.

REVISIONS

G-001.00

GENERAL NOTES

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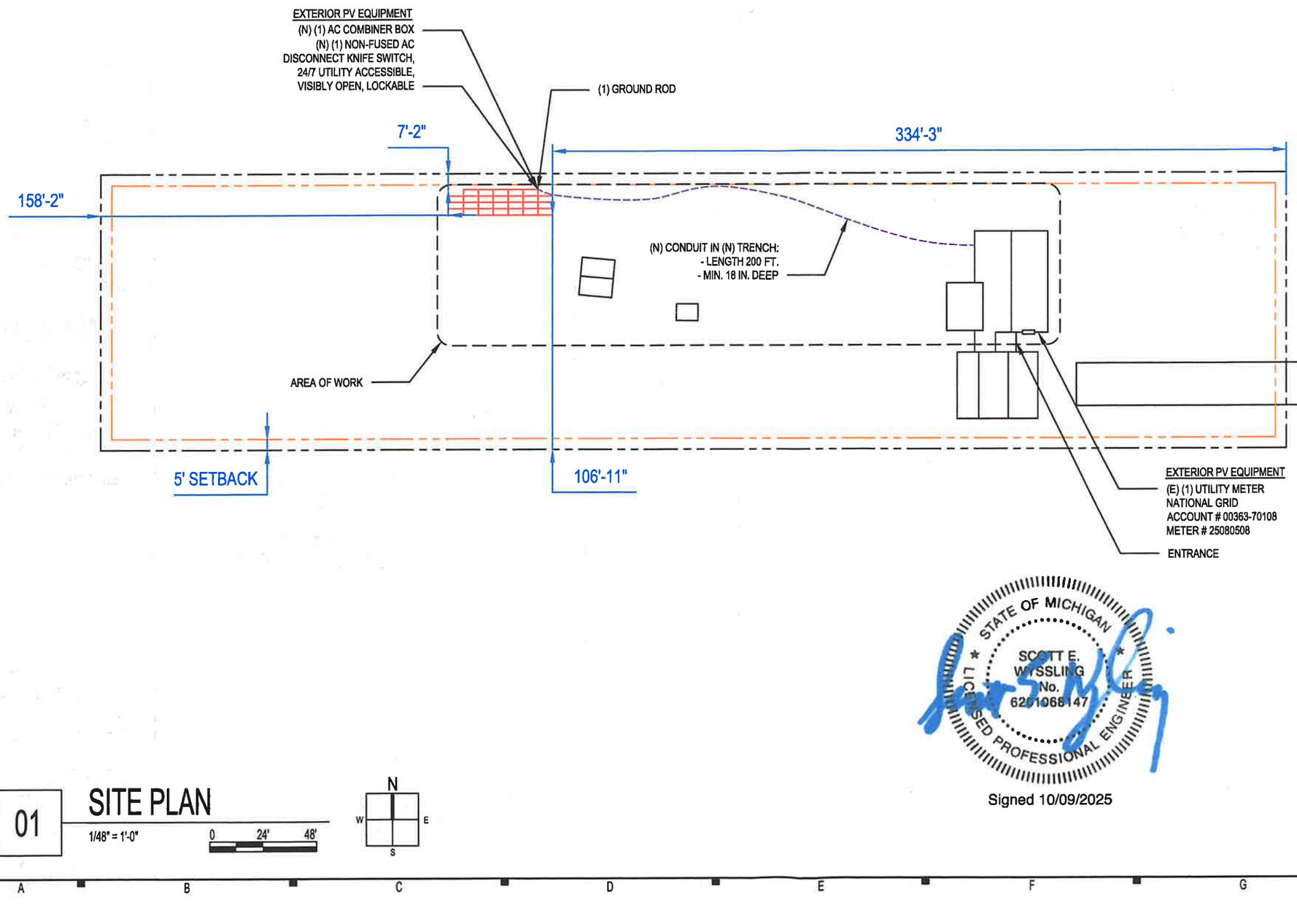
PROPERTY LINE

CONDUIT

SETBACK LINE



STATE OF MICHIGAN
SCOTT E. WYSSLING
No. 6201068147
LICENSED PROFESSIONAL ENGINEER

Signed 10/09/2025

01 SITE PLAN

1/48" = 1'-0"

0 24' 48'

N W E S

VSG POWER INC

NATIONAL SOLAR

CONTRACTOR

VSG POWER

PHONE: 716-777-3015
ADRESS: 73 EUCLID AVENUE, BUFFALO, NY 14211

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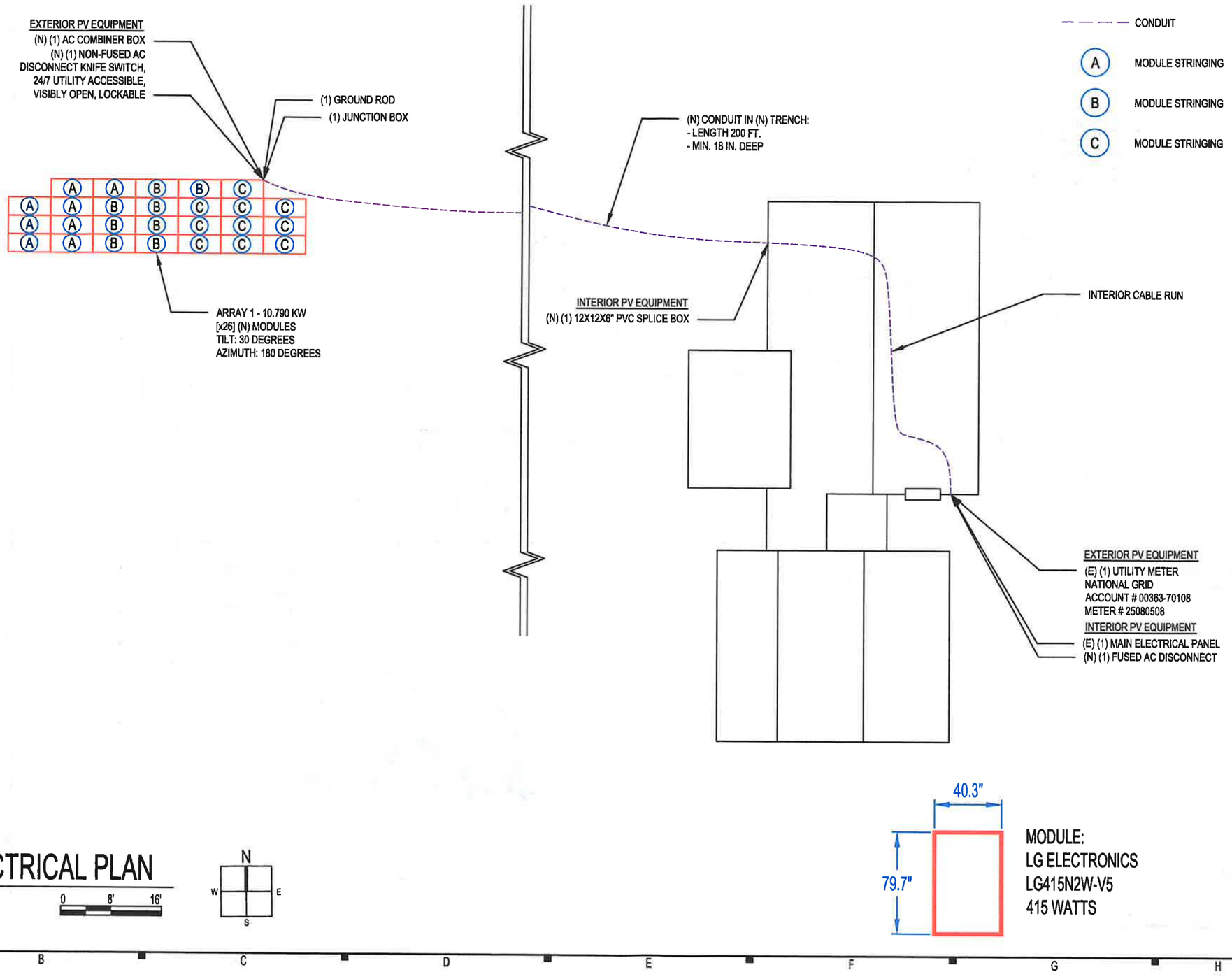

GENERAL NOTES

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CONDUIT

A — MODULE STRINGING

B — MODULE STRINGING

C — MODULE STRINGING

40.3"

79.7"

MODULE:
LG ELECTRONICS
LG415N2W-V5
415 WATTS

01 ELECTRICAL PLAN

1/16" = 1'-0"

0 8' 16'

N W E S

VSG POWER INC

NATIONAL SOLAR

CONTRACTOR

VSG POWER

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WINKOWSKI RESIDENCE

6628 SHEETRAM ROAD,
LOCKPORT, NY 14094
APN: 151.00-1-8.42

ENGINEER OF RECORD

PAPER SIZE: 11" x 17" (ANSI B)

ELECTRICAL PLAN

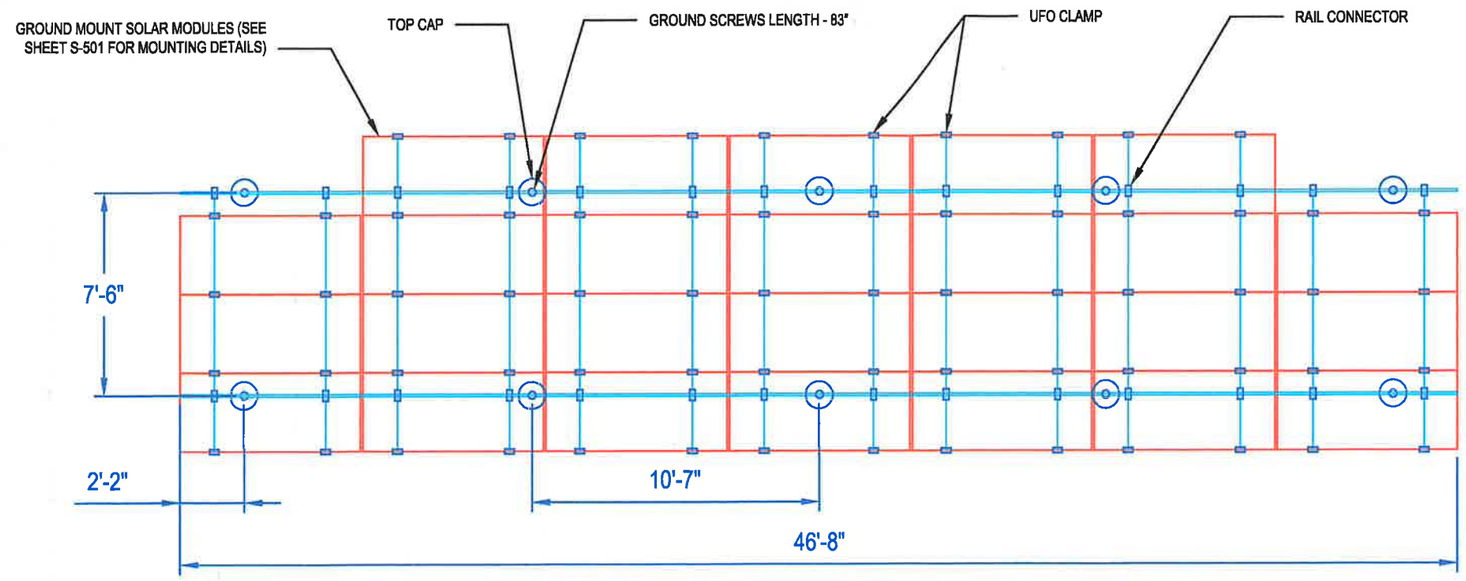
DATE: 10.04.2025
DESIGN BY: M.S.
CHECKED BY: M.M.

REVISIONS

A-102.00

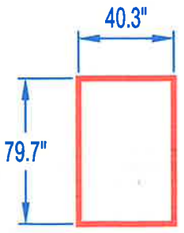
GENERAL NOTES

1. FIELD VERIFY ALL MEASUREMENTS
2. ITEMS BELOW MAY NOT BE ON THIS PAGE



STATE OF MICHIGAN
SCOTT E. WYSSLING
No. 6201068147
LICENSED PROFESSIONAL ENGINEER

Signed 10/09/2025



MODULE:
LG ELECTRONICS
LG415N2W-V5
415 WATTS

01 SOLAR ATTACHMENT PLAN

3/16" = 1'-0"

0 2'-8" 5'-4"

N
W E
S

VSG POWER INC

NATIONAL SOLAR

CONTRACTOR

VSG POWER

PHONE: 716-777-3015
ADRESS: 73 EUCLID AVENUE, BUFFALO, NY 14211

LIC. NO.:
HIC. NO.:
ELE. NO.:

NEW PV SYSTEM:
10.790 kWP DC / 9.074 kWP AC

WINKOWSKI RESIDENCE

6628 SHEETRAM ROAD,
LOCKPORT, NY 14094
APN: 151.00-1-8.42

ENGINEER OF RECORD

PAPER SIZE: 11" x 17" (ANSI B)

SOLAR ATTACHMENT PLAN

DATE: 10.04.2025
DESIGN BY: M.S.
CHECKED BY: M.M.

REVISIONS

A-103.00

GENERAL NOTES

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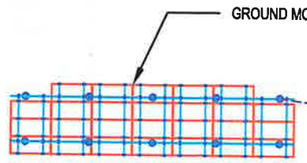
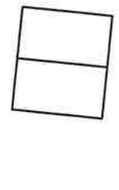
— — — — TRENCH

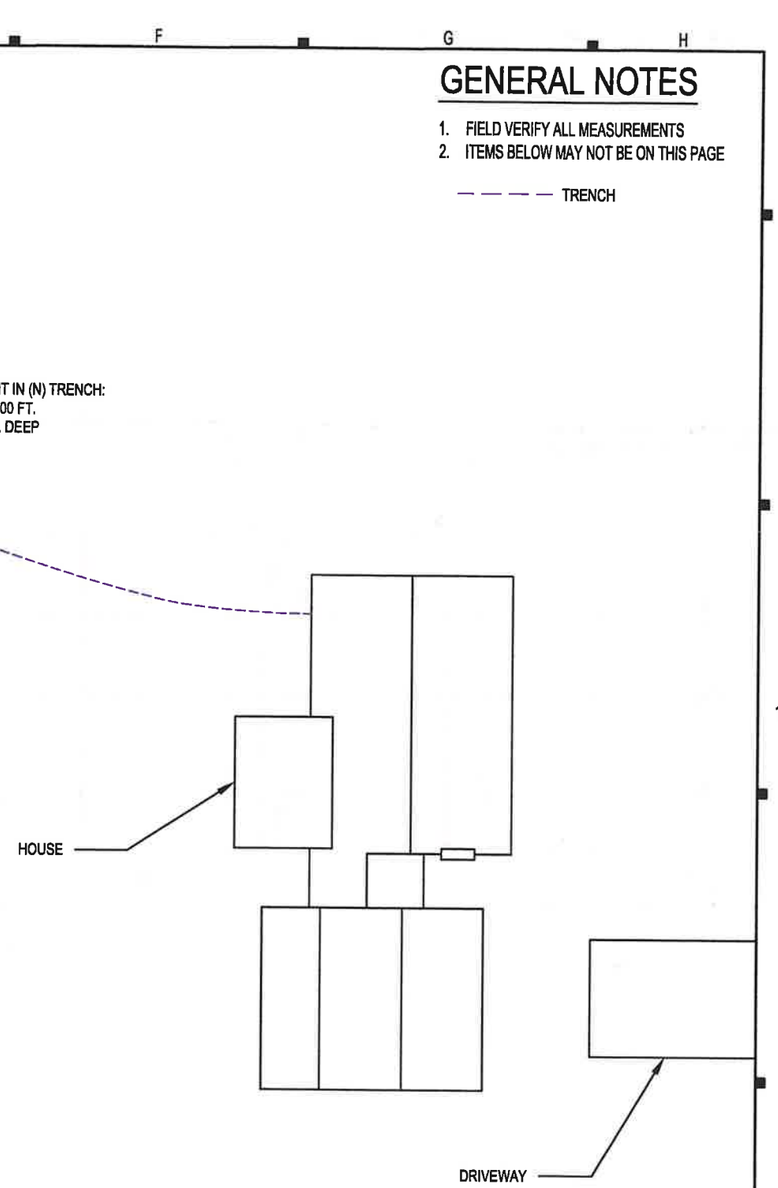


GROUND MOUNT PV MODULES

NOTE: THE SOUTHERN CLEARANCES NEEDS TO BE AT MINIMUM OF 30" OFF THE GROUND FOR SNOW SHED

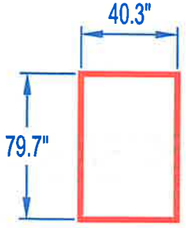
(N) CONDUIT IN (N) TRENCH:
- LENGTH 200 FT.
- MIN. 18 IN. DEEP





HOUSE

DRIVEWAY



MODULE:
LG ELECTRONICS
LG415N2W-V5
415 WATTS

01 TRENCH PLAN

1/24" = 1'-0"

0 12' 24'

N
W E
S

VSG POWER INC.

NATIONAL SOLAR TECHNOLOGY

CONTRACTOR

VSG POWER

PHONE: 716-777-3015
ADRESS: 73 EUCLID AVENUE, BUFFALO, NY 14211

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HIC. NO.:
ELE. NO.:

NEW PV SYSTEM:
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WINKOWSKI RESIDENCE

6628 SHEETRAM ROAD,
LOCKPORT, NY 14094
APN: 151.00-1-8.42

ENGINEER OF RECORD

PAPER SIZE: 11" x 17" (ANSI B)

TRENCH PLAN

DATE: 10.04.2025
DESIGN BY: M.S.
CHECKED BY: M.M.

REVISIONS

A-104.00

CONDUCTOR AND CONDUIT SCHEDULE W/ELECTRICAL CALCULATIONS

ID	TYPICAL	CONDUCTOR	CONDUIT	CURRENT-CARRYING CONDUCTORS IN CONDUIT	OCPD	EGC	NEUTRAL	TEMP. CORR. FACTOR	CONDUIT FILL FACTOR	CONT. CURRENT	MAX. CURRENT (125%)	BASE AMP.	DERATED AMP.	TERM. TEMP. RATING	AMP. @ TERMINAL	VOLTAGE DROP
1	1	10 AWG THWN-2, COPPER	1" DIA PVC-40	6	20A	10 AWG THWN-2, COPPER	-	0.96 (30.1 °C)	0.8	14.5A	18.13A	40A	30.72A	75°C	35A	0.2%
2	1	6 AWG THWN-2, COPPER	1" DIA PVC-40	2	N/A	10 AWG THWN-2, COPPER	10 AWG THWN-2, COPPER	0.96 (30.1 °C)	1	37.7A	47.13A	75A	72A	75°C	65A	0.07%
3	1	1/0 AWG URD QUADPLEX, ALUMINUM	2" DIA PVC-40	2	N/A	2 AWG URD QUADPLEX, ALUMINUM	1/0 AWG URD QUADPLEX, ALUMINUM	0.96 (30.1 °C)	1	37.7A	47.13A	200A	192A	75°C	200A	1.31%
4	1	1/0-1/0-1/0 AWG SER, ALUMINUM	N/A	2	60A	2 AWG SER, ALUMINUM	1/0 AWG SER, ALUMINUM	-	1	37.7A	47.13A	135A	135A	75°C	135A	0.26%
5	1	6 AWG THWN-2, COPPER	0.75" DIA EMT	2	N/A	6 AWG THWN-2, COPPER	10 AWG THWN-2, COPPER	-	1	37.7A	47.13A	75A	72A	75°C	65A	0.14%
																1.98%

A MODULE STRINGING

B MODULE STRINGING

C MODULE STRINGING

(N) 125A AC COMBINER BOX
120/240V, 1Ø, 3W
ENPHASE IQ COMBINER 5
(X-IQ-AM1-240-5)

ENPHASE ENSEMBLE COMMUNICATION KIT

ENPHASE ENVOY COMMUNICATIONS GATEWAY

CB4 15A

MAX. CONTINUOUS CURRENT: 64A
MAX. OCPD: 80A / 95A WITH IQ GATEWAY BREAKER

PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN DISCONNECT PER NEC 690.12
SYSTEM COMPLIANT WITH NEC 690.13

NOTE: AC DISCONNECT IS 24/7 UTILITY ACCESSIBLE, VISIBLY OPEN, LOCKABLE

TO UTILITY GRID (OH)

L1
N
L2

NATIONAL GRID
ACCOUNT # 00363-70108
METER # 25080508

(E) UTILITY METER

COLD WATER PIPE

(E) GROUNDING ELECTRODE

GROUND ROD

(E) GROUNDING ELECTRODE

TAP

(E) MAIN 150A

N G

TO (E) LOADS
TO (E) ATS

(E) 100A

(E) MAIN ELECTRICAL PANEL
240/120V, 1Ø, 3W
MAIN BUSS: 200A

(N) (26) LG ELECTRONICS
LG415N2W-V5
415W
(N) (26) ENPHASE
IQ8A-72-2-US (240V)
RATED POWER: 349W

(N) JUNCTION BOX

C 10 IN BRANCH

B 8 IN BRANCH

A 8 IN BRANCH

RED
BLACK

CB3 20A
CB2 20A
CB1 20A

L1 N L2 G

CONDUCTOR: ENPHASE Q CABLE
EGC: 6 AWG BARE, COPPER

(N) (1) GROUND ROD

(N) (1) GROUNDING ELECTRODE

100A RATED
(N) NON-FUSED AC DISCONNECT
KNIFE SWITCH,
24/7 UTILITY ACCESSIBLE, VISIBLY OPEN, LOCKABLE, 100A

SW1

GROUND MOUNTED AT ARRAY

(N) (1) 12X12X6" PVC SPLICE BOX

BASEMENT NEAR PUNCH OUT

(N) AC FUSED DISCONNECT, 60A WITH FUSES, 60A

F1-2 SW2

BASEMENT NEXT TO MSP

L2 L1 N

CONDUIT RUN IN 6X6X24" WIREWAY

1 2 3 4 5

A B C D E F G H

1 2 3 4 5 6

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NATIONAL SOLAR

CONTRACTOR

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PHONE: 716-777-3015
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WINKOWSKI RESIDENCE

6628 SHEETRAM ROAD,
LOCKPORT, NY 14094
APN: 151.00-1-8.42

ENGINEER OF RECORD

PAPER SIZE: 11" x 17" (ANSI B)

LINE DIAGRAM

DATE: 10.04.2025
DESIGN BY: M.S.
CHECKED BY: M.M.

REVISIONS

E-601.00

SYSTEM SUMMARY			
	BRANCH #1	BRANCH #2	BRANCH #3
INVERTERS PER BRANCH	8	8	10
MAX AC CURRENT	11.6A	11.6A	14.5A
MAX AC OUTPUT POWER	2,792W	2,792W	3,490W
ARRAY STC POWER	10,790W		
ARRAY PTC POWER	9,937W		
MAX AC CURRENT	37.700000A		
MAX AC POWER	9,074W		
DERATED (CEC) AC POWER	9,074W		

MODULES

REF.	QTY.	MAKE AND MODEL	PMAX	PTC	ISC	IMP	VOC	VMP	TEMP. COEFF. OF VOC	FUSE RATING
PM1-26	26	LG ELECTRONICS LG415N2W-V5	415W	382.2W	10.59A	9.94A	49.6V	41.8V	-0.129V/°C (-0.26%/°C)	20A

INVERTERS

REF.	QTY.	MAKE AND MODEL	AC VOLTAGE	GROUND	OCPD RATING	RATED POWER	MAX OUTPUT CURRENT	MAX INPUT CURRENT	MAX INPUT VOLTAGE	CEC WEIGHTED EFFICIENCY
I1-26	26	ENPHASE IQ8A-72-2-US	240V	FLOATING	20A	349W	1.45A	20A	60V	97.5%

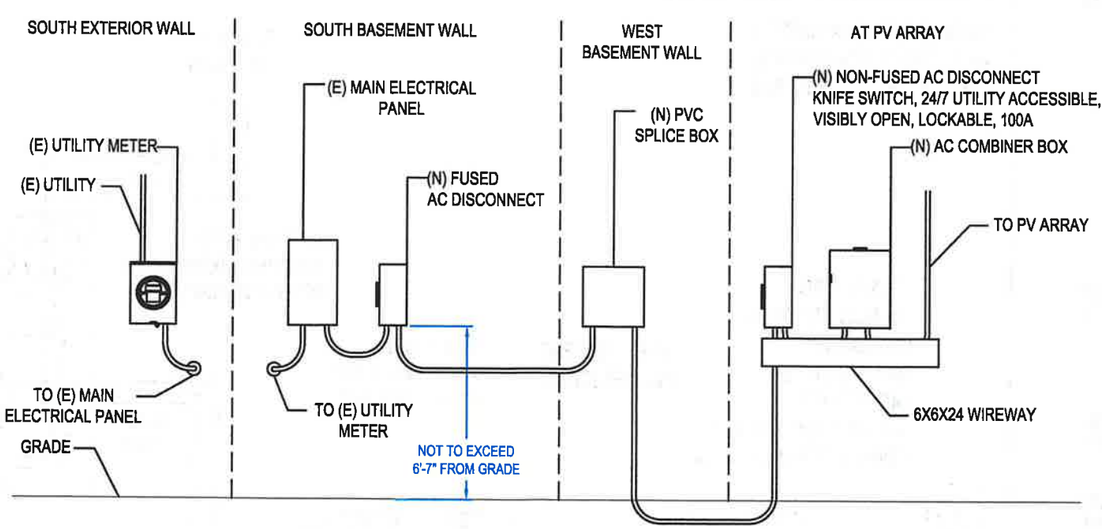
DISCONNECTS

REF.	QTY.	MAKE AND MODEL	RATED CURRENT	MAX RATED VOLTAGE
SW1	1	EATON DG223URB OR EQUIV.	100A	240VAC
SW2	1	EATON DG222NRB OR EQUIV.	60A	240VAC

OCPDS

REF.	QTY.	RATED CURRENT	MAX VOLTAGE
CB1-3	3	20A	240VAC
CB4	1	15A	240VAC
F1-2	2	60A	240VAC

ASHRAE EXTREME LOW	-22.5°C (-8.5°F), SOURCE: GREATER BUFFALO INT (42.94°; -78.74°)
ASHRAE 2% HIGH	30.1°C (86.2°F), SOURCE: GREATER BUFFALO INT (42.94°; -78.74°)



01 **EQUIPMENT ELEVATION**

NOT TO SCALE

VSG POWER INC.

NATIONAL SOLAR

CONTRACTOR

VSG POWER

PHONE: 716-777-3015

ADRESS: 73 EUCLID AVENUE, BUFFALO, NY 14211

LIC. NO.:
HIC. NO.:
ELE. NO.:

NEW PV SYSTEM:
10.790 kWP DC / 9.074 kWP AC

WINKOWSKI RESIDENCE

6628 SHEETRAM ROAD,
LOCKPORT, NY 14094
APN: 151.00-1-8.42

ENGINEER OF RECORD

PAPER SIZE: 11" x 17" (ANSI B)

DESIGN TABLES

DATE: 10.04.2025
DESIGN BY: M.S.
CHECKED BY: M.M.

REVISIONS

E-602.00

LABELING NOTES
1.1 LABELING REQUIREMENTS BASED ON THE 2017 NATIONAL ELECTRICAL CODE, INTERNATIONAL FIRE CODE 605.11, OSHA STANDARD 1910.145, ANSI Z535
1.2 MATERIAL BASED ON THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
1.3 LABELS TO BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.
1.4 LABELS TO BE A MINIMUM LETTER HEIGHT OF 3/8" AND PERMANENTLY AFFIXED.
1.5 ALERTING WORDS TO BE COLOR CODED. "DANGER" WILL HAVE RED BACKGROUND; "WARNING" WILL HAVE ORANGE BACKGROUND; "CAUTION" WILL HAVE YELLOW BACKGROUND. [ANSI Z535]

⚠ WARNING
ELECTRICAL SHOCK HAZARD
TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

LABEL 1
AT EACH DISCONNECTING MEANS FOR PHOTOVOLTAIC EQUIPMENT (2" X 4").
[NEC 690.13].

⚠ WARNING
POWER SOURCE OUTPUT CONNECTION DO NOT RELOCATE THIS OVERCURRENT DEVICE

LABEL 2
AT POINT OF INTERCONNECTION OVERCURRENT DEVICE (2" X 4").
[NEC 705.12(B)(2)(3)(B)].

PHOTOVOLTAIC SYSTEM AC DISCONNECT
RATED AC OUTPUT CURRENT 37.7 A
NOMINAL OPERATING AC VOLTAGE 240 V

LABEL 3
AT POINT OF INTERCONNECTION, MARKED AT DISCONNECTING MEANS (4" X 2").
[NEC 690.54]

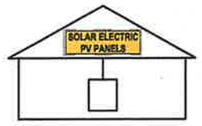
PHOTOVOLTAIC SOLAR AC DISCONNECT

LABEL 4
AT EACH AC DISCONNECTING MEANS (4" X 1").
[NEC 690.13(B)].

RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM

LABEL 5
AT RAPID SHUTDOWN DISCONNECT SWITCH (5 1/4" X 2").
[NEC 690.56(C)(3)].

SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN



TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN ARRAY

LABEL 6
AT RAPID SHUTDOWN SYSTEM (3 3/4" X 5 1/4"). [NEC 690.56(C)(1)(A)].

⚠ WARNING
DUAL POWER SUPPLY
SOURCES: UTILITY GRID AND PV SOLAR ELECTRIC SYSTEM

LABEL 7
AT POINT OF INTERCONNECTION (2 3/4" X 1 5/8").
[NEC 705.12(B)(3)]

⚠ WARNING
SOLAR ELECTRIC CIRCUIT BREAKER IS BACKFED

LABEL 8
AT POINT OF INTERCONNECTION (2" X 1").
[NEC 705.12(B)(3)]

INTERACTIVE PHOTOVOLTAIC SYSTEM CONNECTED
PHOTOVOLTAIC SYSTEM DISCONNECT LOCATED ON THE GROUND MOUNT

DIRECTORY
PERMANENT PLAQUE OR DIRECTORY PROVIDING THE LOCATION OF THE SERVICE DISCONNECTING MEANS AND THE PHOTOVOLTAIC SYSTEM DISCONNECTING MEANS IF NOT IN THE SAME LOCATION (5 3/4" X 1 1/8").
[NEC 690.56(B)]
WHERE THE PV SYSTEMS ARE REMOTELY LOCATED FROM EACH OTHER, A DIRECTORY IN ACCORDANCE WITH 705.10 SHALL BE PROVIDED AT EACH PV SYSTEM DISCONNECTING MEANS.
PV SYSTEM EQUIPMENT AND DISCONNECTING MEANS SHALL NOT BE INSTALLED IN BATHROOMS
[NEC 690.4(D),(E)]

WARNING: PHOTOVOLTAIC POWER SOURCE

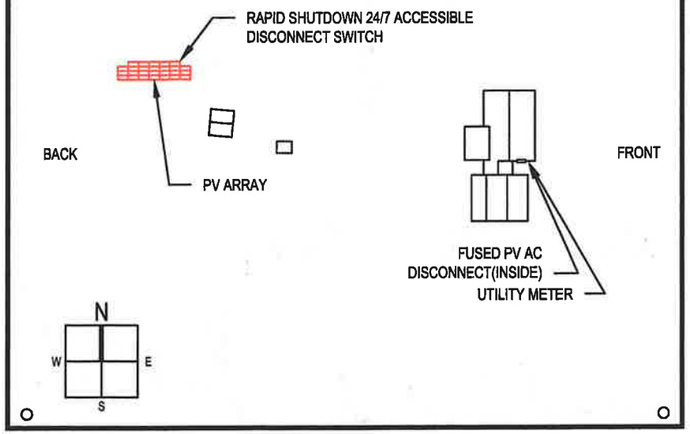
LABEL 9
AT EXPOSED RACEWAYS, CABLE TRAYS, AND OTHER WIRING METHODS; SPACED AT MAXIMUM 10 FT SECTION OR WHERE SEPARATED BY ENCLOSURES, WALLS, PARTITIONS, CEILINGS, OR FLOORS (5 3/4" X 1 1/8").
[NEC 690.31(G)]
LETTERS AT LEAST 3/8 INCH; WHITE ON RED BACKGROUND; REFLECTIVE
[IFC 605.11.1.1]

⚠ CAUTION
SOLAR ELECTRIC SYSTEM CONNECTED

LABEL 10
AT UTILITY METER (5 3/4" X 1 1/8")
[NEC 690.56(B)]

!CAUTION!

POWER TO THIS BUILDING IS ALSO SUPPLIED FROM GROUND MOUNTED SOLAR ARRAYS WITH SAFETY DISCONNECTS AS SHOWN:



VSG POWER INC.
NATIONAL SOLAR

CONTRACTOR

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PHONE: 716-777-3015
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APN: 151.00-1-8.42

ENGINEER OF RECORD

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PLACARDS

DATE: 10.04.2025
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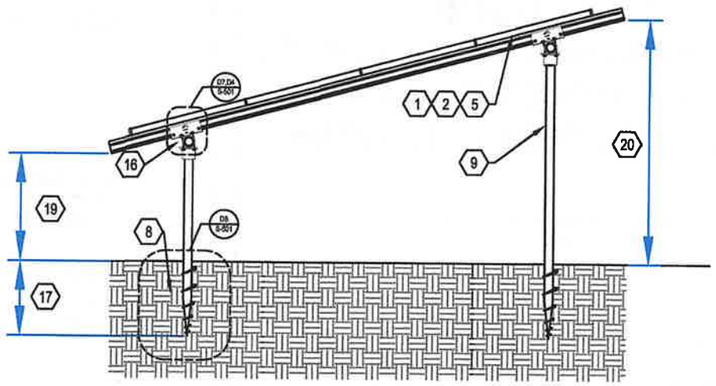
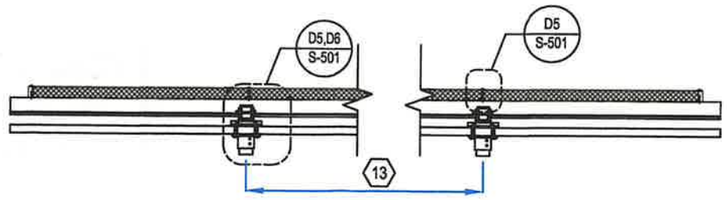
REVISIONS

E-603.00



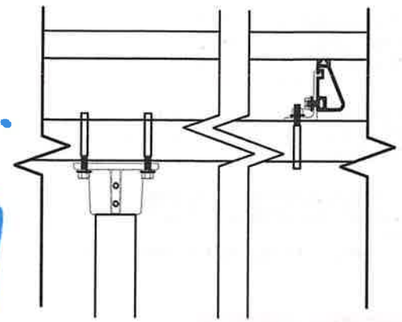
D1 RACKING DETAIL (TRANSVERSE)

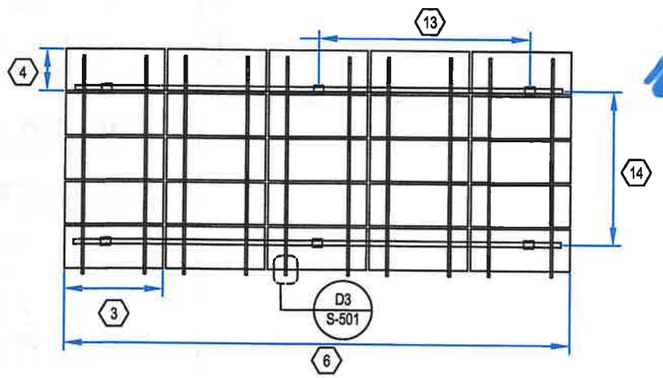
NOT TO SCALE



D2 RACKING DETAIL (LONGITUDINAL)

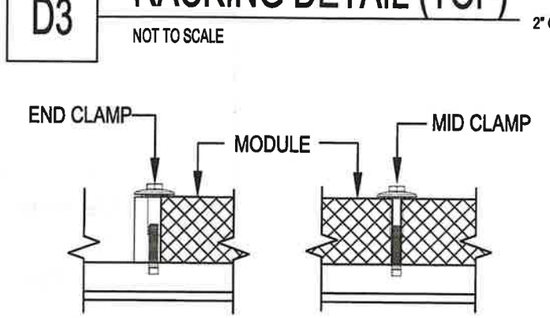
NOT TO SCALE

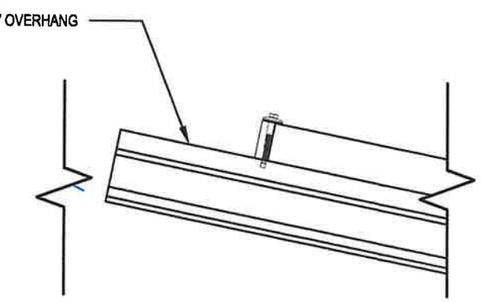




D3 RACKING DETAIL (TOP)

NOT TO SCALE





D4 DETAIL (TRANSVERSE)

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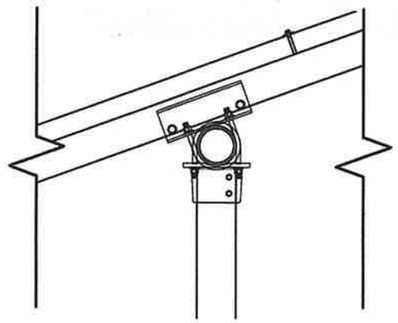

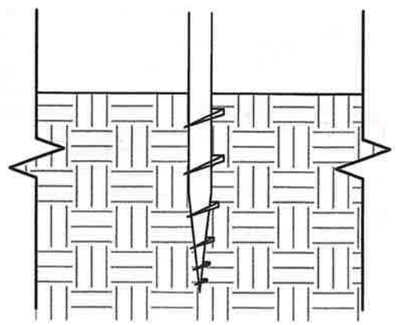

D5 DETAIL (TRANSVERSE)

NOT TO SCALE

D6 DETAIL (TRANSVERSE)

NOT TO SCALE

D7 DETAIL (LONGITUDINAL)

NOT TO SCALE

D8 DETAIL (TRANSVERSE)

NOT TO SCALE

STATE OF MICHIGAN
SCOTT E. WYSSLING
No. 6201068147
LICENSED PROFESSIONAL ENGINEER

Signed 10/09/2025

GENERAL NOTES

1. FIELD VERIFY ALL MEASUREMENTS
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SHEET KEYNOTES

1. MODULE MANUFACTURER: LG ELECTRONICS
2. MODULE MODEL: LG415N2W-V5
3. MODULE LENGTH: 79.7"
4. MODULE WIDTH: 40.3"
5. MODULE WEIGHT: 44.75 LBS.
6. SEE SHEET A-103 FOR DIMENSION(S)
7. MIN. SETBACK REQUIREMENT: 5 FT.
8. FOUNDATION/ANCHOR TYPE: GROUND SCREWS
9. TOTAL # OF FOUNDATION / SCREW: 10
10. TOTAL AREA: 579.93 SQ. FT.
11. TOTAL WEIGHT: 1225.38 LBS.
12. WEIGHT PER FOUNDATION/ANCHOR: 122.54 LBS
13. EAST/WEST SPACING: 10'-7"
14. NORTH/SOUTH SPACING: 7'-6"
15. RACKING MANUFACTURER (OR EQUIV.): IRONRIDGE XR-1000
16. RACKING MODEL (OR EQUIVALENT): GROUND MOUNT SYSTEM
17. SCREW EMBEDMENT DEPTH: 6'-8"
18. FOOTING DIAMETER: N/A.
19. FRONT CLEARANCE: 30"
20. REAR CLEARANCE: 115"
21. WIND EXPOSURE: B
22. WIND SPEED: 110 MPH
23. ARRAY TILT: 30 DEGREES
24. DIAGONAL BRACING: NO

NOTE: THE SOUTHERN CLEARANCES NEEDS TO BE AT MINIMUM OF 30" OFF THE GROUND FOR SNOW SHED

VSG POWER INC.

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ASSEMBLY DETAILS

DATE: 10.04.2025
DESIGN BY: M.S.
CHECKED BY: M.M.

REVISIONS

S-501.00

Datasheet

IRONRIDGE

Ground Mount System

All-Terrain Mounting

The IronRidge® Ground Mount System combines our XR100® or XR1000® rails with locally-sourced steel pipes or mechanical tubing, to create a cost-effective structure capable of handling any site or terrain challenge.

Installation is simple with only a few structural components and no drilling, welding, or heavy machinery required. In addition, the system works with a variety of foundation options—including concrete piers, ground screws, helical or driven piles, and above-ground ballast blocks.

Rugged Construction
Engineered steel and aluminum components ensure durability.

PE Certified
Pre-stamped engineering letters available in most states.

UL 2703 Listed System
Meets newest effective UL 2703 standard.

Design Software
Online tool generates engineering values and bill of materials.

Flexible Architecture
Multiple foundation and array configuration options.

25-Year Warranty
Products guaranteed to be free of impairing defects.

Datasheet

360° Product Tour
Visit ironridge.com

Substructure

Top Caps

Connect vertical piers with cross pipes or tubing.

Bonded Rail Connectors

Attach and bond XR Rails® to cross pipes or tubing.

Diagonal Braces

Optional brace provides additional support.

Cross Pipe & Piers

Steel pipes or mechanical tubing for substructure.

Rail Assembly

XR100® & XR1000® Rails

Curved XR Rails® increase spanning capabilities.

UFO®

Universal Fastening Objects bond modules to rails.

Stopper Sleeves

Snap onto the UFO® to turn into a bonded end clamp.

CAMO

Bond modules to rails while staying completely hidden.

Resources

Design Assistant
Go from rough layout to fully engineered system. For free.
Go to ironridge.com/design

NABCEP Certified Training
Earn free continuing education credits, while learning more about our systems.
Go to ironridge.com/training

VSG POWER INC.

NATIONAL SOLAR

CONTRACTOR

VSG POWER

PHONE: 716-777-3015
ADRESS: 73 EUCLID AVENUE, BUFFALO, NY 14211

LIC. NO.:
HIC. NO.:
ELE. NO.:

NEW PV SYSTEM:
10.790 kWP DC / 9.074 kWP AC

WINKOWSKI RESIDENCE

6628 SHEETRAM ROAD,
LOCKPORT, NY 14094
APN: 151.00-1-8.42

ENGINEER OF RECORD

PAPER SIZE: 11" x 17" (ANSI B)

RESOURCE DOCUMENT

DATE: 10.04.2025
DESIGN BY: M.S.
CHECKED BY: M.M.

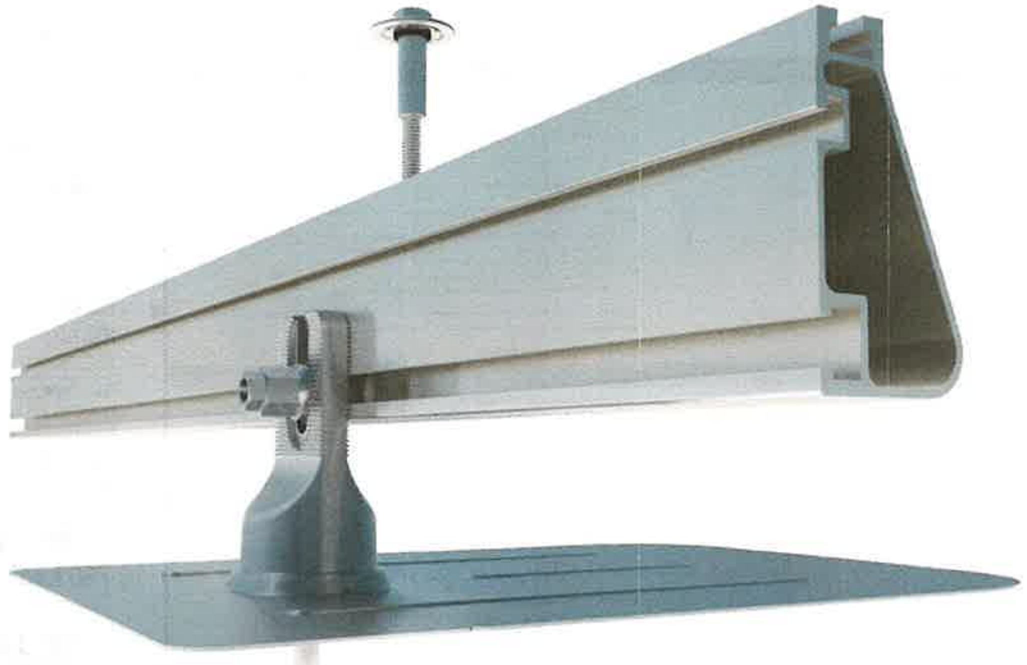
REVISIONS

R-005.00

A B C D E F G H

Datasheet

IRONRIDGE Flush Mount System



Built for solar's toughest roofs.

IronRidge builds the strongest mounting system for pitched roofs in solar. Our components have been tested to the limit and proven in extreme environments, including Florida's high-velocity hurricane zones.

Our rigorous approach has led to unique structural features, such as curved rails and reinforced flashings, and is also why our products are fully certified, code compliant and backed by a 25-year warranty.

Strength Tested
All components evaluated for superior structural performance.

PE Certified
Pre-stamped engineering letters available in most states.

Class A Fire Rating
Certified to maintain the fire resistance rating of the existing roof.

Design Assistant
Online software makes it simple to create, share, and price projects.

UL 2703 Listed System
Entire system and components meet newest effective UL 2703 standard.

25-Year Warranty
Products guaranteed to be free of impairing defects.

Datasheet

XR Rails

XR10 Rail

A low-profile mounting rail for regions with light snow.
- 6' spanning capability
- Moderate load capability
- Clear and black finish

XR100 Rail

The ultimate residential solar mounting rail.
- 8' spanning capability
- Heavy load capability
- Clear and black finish

XR1000 Rail

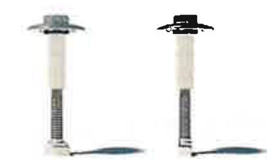
A heavyweight mounting rail for commercial projects.
- 12' spanning capability
- Extreme load capability
- Clear anodized finish

BOSS™ Bonded Splices

Bonded Structural Splices connect XR Rails together.
- Integrated bonding
- No tools or hardware
- Self-centering stop tab

Clamps & Grounding

UFO™



Universal Fastening Objects bond modules to rails.
- Fully assembled & lubed
- Single, universal size
- Clear and black finish

Stopper Sleeves

Snap onto the UFO to turn into a bonded end clamp.
- Bonds modules to rails
- Sized to match modules
- Clear and black finish

CAMO™

Bond modules to rails while staying completely hidden.
- Universal end-cam clamp
- Tool-less installation
- Fully assembled

Bonding Hardware

Bond and attach XR Rails to roof attachments.
- T & Square Bolt options
- Nut uses 7/16" socket
- Assembled and lubricated

Attachments

FlashFoot2™

Flash and mount XR Rails with superior waterproofing.
- Twist-on Cap eases install
- Wind-driven rain tested
- Mill and black finish

FlashVue™

Flash and mount conduit, strut, or junction boxes.
- Twist-on Cap eases install
- Wind-driven rain tested
- Secures ¾" or 1" conduit

Knockout Tile

Replace tiles and ensure superior waterproofing.
- Flat, S, & W tile profiles
- Form-fit compression seal
- Single-lag universal base

All Tile Hook

Mount on tile roofs with a simple, adjustable hook.
- Works on flat, S, & W tiles
- Single-socket installation
- Optional deck flashing

Resources

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Go to IronRidge.com/design

Endorsed by FL Building Commission
Flush Mount is the first mounting system to receive Florida Product approval for 2017 Florida Building Code compliance.
Learn More at bit.ly/floridacert

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