

Mount Joy Township Instructions for Variance & Special Exception Application

Please read the following information carefully prior to completing this application. The following information is to assist you in the process of applying for a Variance and/or a Special Exception from the Mount Joy Township Zoning Ordinance. This information is intended to provide a summary of the hearing process and does not constitute all of the requirements that may be placed on you as the applicant for a Variance and/or Special Exception.

Meeting Dates and Submission Deadlines

The Zoning Hearing Board typically meets the first Wednesday of every month. **Applications are due four (4) weeks prior to the regularly scheduled meetings.** Please confirm the meeting schedule prior to submitting the application in case a holiday interferes with the regularly scheduled meeting.

Completing the Application

The variance and/or special exception application must be completed by the landowner, equitable landowner, tenant, contract purchaser or someone who has a legal or equitable interest in the land. In the case that the applicant is not the landowner, the applicant shall provide proof of consent from the landowner acknowledging his/her awareness that a variance or special exception request has been filed for review by the Township Zoning Hearing Board. The landowner should complete the certification section of this application.

Please answer the questions on the Application fully and to the best of your ability. **Please provide six (6) copies of the application, plans, photographs, charts and any other supporting documentation and a check for \$750.00 for the application fee to the Mount Joy Township Office.** Checks should be made payable to Mount Joy Township. No application shall be complete until a site plan has been submitted. All applications requesting approval to establish or expand a nonresidential use or which concern a residential use containing 10 or more dwelling units shall submit a plan drawn to a scale of not more than 100 feet to the inch in accordance with section 135-284.A of the Zoning Ordinance. **Incomplete Applications will not be accepted by the Township.** Once the application is processed by the Township, the Zoning Officer will prepare a public notice that will be sent to the Lancaster Newspaper for advertisement of the hearing in accordance with the Pennsylvania Municipal Planning Code.

On the date of the hearing, the applicant (and landowner if different) should be prepared to be sworn in by the court reporter. You will be permitted, but not required, to obtain assistance from an attorney, engineer, architect, planner, or other professionals, as the situation warrants, during the hearing process. You and/or your representative need to be in attendance at the Zoning Hearing to present your application in front of the Zoning Hearing Board and be prepared to answer any questions the Board may have. If you or your representative is not present at the scheduled meeting, your application may be denied, or it may be tabled until the next hearing if a written and signed request from the Applicant is received prior to the meeting.

It is the Applicant's responsibility to research property line locations and have property lines verified by a professional registered surveyor prior to submitting the Zoning Hearing Application. Any deed restrictions, easements or other restrictive covenants should also be researched prior to the submission of this application.

The Applicant and/or Landowner agree that by signing this application, they grant the right of the Township Zoning Officer, or other designated Township Official, to investigate, inspect and examine the Property set forth herein, including land and structures, to determine compliance with the Mount Joy Township Zoning Ordinance and to determine the accuracy of the statements contained herein.

General Standards for Variances

There are five (5) criteria that the Zoning Hearing Board will consider, as applicable, when determining whether a Variance to the Township Zoning Ordinance is necessary. These five criteria are located in Section 910.2.a of the Pennsylvania Municipal Planning Code, as well as Section 135-383.C of the Township Zoning Ordinance. The criteria are as follows:

1. That unnecessary hardship exists due to unique physical circumstances of conditions, including irregularity, narrowness or shallowness of lot size, or shape or topographical or other physical conditions peculiar to the particular property, and that unnecessary hardship is due to such conditions and not the circumstances or conditions generally created by the provisions of this chapter in the neighborhood or district in which the property is located;
2. That because of physical circumstances or conditions there is no possibility that the property can be developed in strict conformity with the provisions of this chapter and that authorization of a variance is therefore necessary to enable the reasonable use of the property;
3. That such unnecessary hardship is not created by the applicant;
4. That the variance, if authorized, will not alter the essential character of the neighborhood or district in which the property is located nor substantially or permanently impair the appropriate use of development of adjacent property nor be detrimental to the public welfare; and
5. That the variance, if authorized, will represent the minimum variance that will afford relief and will represent the least modification possible of the regulation in issue.

The Zoning Hearing Board may implement reasonable conditions and safeguards as it may deem necessary to implement the purposes of this act and the zoning ordinance, as is stated in the Pennsylvania Municipal Planning Code, Section 910.2.b.

Guidelines for Special Exceptions

In addition to the Performance Standards of a particular use and/or the Special Exception Standards delineated in Article XXVIII of the Township Zoning Ordinance, the Zoning Hearing Board may attach such reasonable conditions and safeguards as it may deem necessary to implement the purposes of this act and the Zoning Ordinance as enabled by the Pennsylvania Municipal Planning Code (Section 912.1)

ZHB Case # _____

Mount Joy Township
8853 Elizabethtown Rd
Elizabethtown, PA 17022
Phone: (717)367-8917 - Fax: (717)367-9208

Zoning Hearing Board Application

1. Applicant Information

Name: Abundant Solar Energy Inc./SUNN 1020 LLC

Address: 700 West Metro Park City/State/Zip: Rochester, NY 14623

Phone: (437) 505-6010 Fax: _____

E-mail: spencer.leefe@powerbankcorp.com

2. Landowner Information (if different from the Applicant)

Name: Kevin Mummau

Address: 1127 Grandview Road City/State/Zip: Mount Joy, PA 17552

Phone: (XXX) XXX-XXXX Fax: _____

E-mail: _____

3. Property Information

Property Address: 1127 Grandview Road

City/State/Zip: Mount Joy, PA 17552

Existing Use: Agricultural Proposed Use: Agricultural & Solar Energy

Total Property Area (Sq. Ft. or Acres): +56.28 acres

FOR TOWNSHIP USE ONLY

Date Application Received: _____

Date Application to be heard: _____

Tax Parcel #: _____

Zoning District: _____

Application Denied/Approved: _____

4. Request for Special Exception

Section(s) of Zoning Ordinance for which a Special Exception is requested:

Alternative Energy Sources: 135-313.D(1)

Provide an explanation of your proposal, particularly, why you need a special exception and for what type of use the special exception is being requested for:

This project is proposing a 3 MW solar farm where the current zoning is the Agricultural District. Per the Alternative Energy Sources section of the ordinance, a Special Exception is necessary for a large-scale solar energy system. The solar energy system will be used for agrivoltaics

This site is suitable for a Special Exception Use because:

This site is suitable for special exception because it will maintain the characteristics of the current zoning district while abiding by all applicable municipal and state regulations associated with a solar energy facility.

How will the request affect adjacent properties? (Dust, noise, fumes, odors, glare, increased traffic, character of the neighborhood etc.):

There will be no adverse impacts to neighboring properties. Studies may be submitted upon request.

5. Expansion of Special Exception Uses

Are there any existing nonconformities on the lot, if so list them:

N/A

Existing and proposed square footage of the structure:

N/A

Percentage of Expansion:

Existing front, side and rear yard setbacks:

50' 20' 50'

Proposed front, side and rear yard setbacks:

326' 120' 1,406'

6. Request for a Variance

Section(s) of the Zoning Ordinance for which a Variance is requested:

Why do you need a variance and what is your proposed alternative from the requirements of the Township Zoning Ordinance?

What physical characteristics of the property prevent it from being used for any of the permitted uses in your zoning district? (Topography, size and shape of lot, environmental constraints, etc.):"

Explain how the requirements of the Zoning Ordinance would result in difficulties or undue hardships in the use of your property, buildings and/or structures:

Explain how the granting of a variance will not be a substantial detriment to the public good or a substantial impairment of the intent and purpose of the Zoning Ordinance:

7. Certification

I/we, the undersigned, do hereby certify that:

1. The information submitted here in is true and correct to the best of my/our knowledge and upon submittal becomes public record.
2. Fees are not refundable, and payment does not guarantee approval of the Zoning Hearing Board Application.
3. All additional required written graphic materials are attached to this application

Applicant Signature

Date Signed

SAM SUNN
Abundant Solar Power inc (SUNN1020LLC)
Applicant's Name (Printed)

07/07/2026

Kevin L. Mumman
Landowner Sign (if different from Applicant)

7/6/2026
Date Signed

Kevin L. Mumman
Landowner's Name (Printed)



1127 Grandview Road – Proposed Solar Electric Energy Facility Development Project Overview

The applicant, SUNN 1020 LLC, proposes to develop a 3-megawatt AC rated solar electric energy facility. The project is located at 1127 Grandview Road in Mount Joy, Pennsylvania, 17552. The project falls within a property owned by Kevin L. Mummau (tax parcel #461-2308132-296713-0-0000). The subject property is +/-50.28 acres, with the limit of disturbance accounting for approximately 14 of those acres.

The proposed project is Accessory Use to the Principal Use of the property. As to maintain the continued use of farming operations, the agreement between the landlord and tenant allows both parties the right to conduct agrivoltaics on the property within the project area. Agrivoltaics involves active livestock grazing (in this case sheep grazing) to occur within the fenced area of the project. Additionally, the agreement outlines that the solar array will also produce energy for the facilities to use onsite of the property under a net metering, remote net metering or similar program available under Pennsylvania law.

Article IX-A, §135-81 of the Mount Joy Township Code establishes the purpose of the Agricultural (AG) District as encouraging the preservation of productive farmland, protecting farmland from incompatible development, and supporting the long-term economic viability of agricultural operations. Specifically, §135-81(B)(2) seeks to avoid scattered nonagricultural development that interferes with conventional farming operations, while §135-81(C) requires protection of prime agricultural land and encourages the continuity, development, and viability of agricultural uses. Additionally, as provided in Chapter 135, Zoning Code, Article IX-A (Agricultural District), § 135-83(L), which permits "accessory structures and uses customarily incidental to the above special exception uses," we are requesting approval for the proposed accessory structure/use as being incidental and directly related to the principal use permitted under § 135-83(G), "Farm-related business on a farm lot with a minimum lot area of 10 acres." The proposed use is subordinate to and supportive of the farm-related business and is customary to the operation of such use. In addition, Chapter 135, § 135-313(D)(1) provides that:

"Large-scale solar energy systems shall be permitted by special exception as an accessory use to a nonresidential principal use located on the same lot or an adjacent lot owned by the applicant, except that no large-scale solar energy systems shall be permitted within the R-1, R-2, or R-3 Zoning Districts."

Because the proposed solar energy system will function as an accessory to an existing nonresidential farm-related business located on the property, it satisfies the criteria established in § 135-313(D)(1). Accordingly, the proposed use is consistent with both the intent of the AG District and Mount Joy's specific regulations governing accessory large-scale solar energy system.

The proposed solar array is consistent with these priorities. The project is designed to allow the land to remain in agricultural production and does not permanently remove the property from farming use. By preserving the farmland and allowing continued agricultural activity, the project supports the long-term viability of the farm while avoiding incompatible scattered development mentioned in §135-81(B)(2). Rather than introducing residential, commercial, or industrial uses that could permanently alter the character of the land, the solar array is compatible with the agricultural character of the property introducing a proven and innovative agricultural dual-use. No major grading is proposed as part of the development of the solar electric energy facility, and no soils will be removed from the property as part of construction, which along with the proposed livestock grazing will maintain agricultural soil

quality. The solar electric energy facility will be decommissioned at the end of its life with the land being completely restored to its current state, allowing other agricultural uses to resume.

The proposed solar array advances the stated purposes of the AG District by preserving productive farmland, protecting agricultural resources, and supporting the continued economic viability of the farm.

The modules are to be installed on a ground mounted racking system, connected in parallel to the inverter(s). The inverter(s) shall convert the photovoltaic output power from DC to AC. There is one (1) central equipment pad for the site, estimated to be approximately 660 sq. ft. The solar electric energy facility shall be interconnected with the existing site electrical system in accordance with the applicable electrical code and PPL requirements.

In the procurement and construction phases of the project, Abundant Solar Power Inc., parent company of the Applicant, will act as the General Contractor for the project. Abundant Solar will source American-made solar panels and American-made structural steel and iron for the construction of the solar electric energy facility. Onsite labor will be paid Prevailing Wage and will employ Apprentices in addition to certified tradespersons for all trades work.

System Description:

	System Specifications
Modules	Silfab-SIL-580-XM+ Bifacial
Module Dimensions	89.7 in x 44.6 in x 1.4 in
System Size (kW AC)	3,000 kW AC
Number of Modules	7,280
STC Rating (W)	580 W(DC)
Inverter(s)	Sunny Highpower PEAK3-US
Racking	Fixed Tilt
CEC Efficiency	98.5%
Azimuth (degree)	0
Tilt Angle (degree)	± 30
Max. Panel Height (ft.)	3-10 ft.

Public Utility Commission recommendation of approval and interconnection agreement for the project are included herein. The project will also comply with all other applicable federal, state, and local laws, including but not limited to: Chapter 102 and 105 requirements (PADEP and Lancaster County Conservation District, and Mount Joy Township Subdivision and Land Development and Zoning Ordinances.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		SUBJECT PROPERTY LINE
		PROPERTY LINE
		SETBACK LINE
		EDGE OF PAVEMENT
		ACCESS ROAD
		BUILDING
		AGRICULTURAL FENCE
		STREAM
		WETLAND
		WETLAND BUFFER
		UTILITY POLE
		UNDERGROUND ELECTRIC
		OVERHEAD ELECTRIC



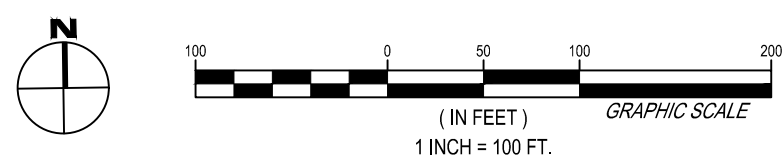
PARCEL INFORMATION		
PARCEL NUMBER	PARCEL ID NUMBER	OWNER
1	461-2308926-295874-0-0000	JERALD L. RUHL
2	461-2308780-295905-0-0000	ANDREW M. GOODMAN
3	461-2308636-295928-0-0000	KEITH A. RENNER
4	461-2308492-295952-0-0000	MATTHEW L. NISSLEY
5	461-2308347-295976-0-0000	CHRIS KALEY
6	461-2308203-296000-0-0000	STEPHEN M. COOK
7	461-2308059-296023-0-0000	JEANNE M. TODD
8	461-2307915-296055-0-0000	WILLIAM L. TALMADGE JR.
9	461-2307803-296123-0-0000	MARK A. MAGRECKI
10	461-2307720-296183-0-0000	SHAWN M. BRENNEMAN
11	461-2307617-296197-0-0000	WILLIAM N. & LORIE A. ROHRER
12	461-2307516-296212-0-0000	PHILIP E. & MELINDA R. ERB
13	461-2307414-296227-0-0000	RANDY R. & LORI A. STEVENS
14	461-2307311-296241-0-0000	BENJAMIN S. HEISEY
15	461-2307160-296257-0-0000	ANDRE M. & JACQUELINE M. RESSLER
16	461-2306941-296350-0-0000	RONI K. CLARK
17	461-2306730-296512-0-0000	TERRENCE P. RYAN
18	461-2306526-296312-0-0000	DAVID F. FISHER
19	461-2306112-296461-0-0000	MARC T. MYERS
20	461-2305899-298422-0-0000	FRANKLIN B. GREINER JR.
21	461-2307478-297357-0-0000	KENT E. MUMMAU
22	461-2308517-297808-0-0000	DANIEL E. MILLER
23	461-2308627-297811-0-0000	RYAN P. MCKERNAN
24	461-2308737-297814-0-0000	KENNETH R. & AUDREY J. LANDVATER
25	461-2308847-297815-0-0000	DEAN M. & HELEN S. HERTZLER
26	461-2308966-297817-0-0000	LAWRENCE VANDERSCHAAF II
27	461-2309165-297816-0-0000	JACOB M. & JEAN S. SAYLOR
28	461-2309407-297805-0-0000	LESTER F. REINER
29	461-2309530-296748-0-0000	MARK E. & LINDA M. BRUBAKER

1 SITE PLAN
C-100 SCALE: 1"=100'

PROJECT DATA	
PARCEL INFORMATION	
APPLICANT	ABUNDANT SOLAR POWER, INC.
OWNER	KEVIN L. MUMMAU
PARCEL ADDRESS	1127 GRANDVIEW RD, MOUNT JOY, PA 17552
PARCEL ID	461-1321300000
PARCEL AREA (TOTAL)	56.28 ACRES
TOTAL PROJECT AREA	±14.28 ACRES
EXISTING IMPERVIOUS WITHIN PROJECT AREA	0.34 ACRES
PROPOSED IMPERVIOUS WITHIN PROJECT AREA	±4.29 ACRES
PANEL COVERAGE	7.62%
TOTAL DISTURBANCE AREA	±14.28 ACRES

SYSTEM SUMMARY	
System DC Size (kW)	4,222.4
System AC Size (kW)	3,000
DC/AC	1.4075
NUMBER OF MODULES	7,280
MODULE TYPE	SILFAB SIL-580 XM+ (580 W)
STRING COUNT	280
TILT (DEGREE)	30
PITCH (FT)	31
AZIMUTH (DEGREE)	0
FENCED AREA FOOTPRINT (ACRE)	12.9
POI GPS COORDINATES	40.142008, -76.531866

ZONING INFORMATION		
CLASSIFICATION	AGRICULTURAL DISTRICT (A)	
ZONING ORDINANCE (MOUNT JOY TOWNSHIP, PA)		
CLASSIFICATION	SOLAR ENERGY SYSTEMS AS ACCESSORY USE	
PRINCIPLE USE	AGRICULTURAL (FARM)	
ACCESSORY USE	SOLAR ENERGY SYSTEMS	
	REQUIRED	PROVIDED
FRONT SETBACK	100 FT	326 FT
SIDE SETBACK	50 FT	117 FT
REAR SETBACK	50 FT	1,406 FT



1000 Dunham Drive
Dunmore, PA 18512
570-342-3101
labellapc.com

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ABUNDANT SOLAR
POWER, INC.

700 WEST METRO PARK
ROCHESTER, NY 14623



ABUNDANT
Solar Power Inc.

PA-1127 GRANDVIEW RD

1127 GRANDVIEW RD, MOUNT JOY, PA 17552

NO.	DATE:	DESCRIPTION:

Revisions

PROJECT NUMBER: 2263503

DRAWN BY: LSN

REVIEWED BY: CJR

ISSUED FOR: SPECIAL EXCEPTION

DATE: 07/07/2026

DRAWING NAME:

SITE PLAN

DRAWING NUMBER:

C-100



/ SHP 125-US-21 / SHP 150-US-21 / SHP 165-US-21 / SHP 172-US-21



Sunny Highpower PEAK3-US

125 / 150 / 165 / 172

A superior distributed generation
solution for large-scale power plants

25 YEAR
DESIGN LIFE



SMA
Smart Connected



Cost effective

- Modular architecture reduces BOS and maximizes system uptime
- Compact design and high power density maximize transportation and logistical efficiency

Maximum flexibility

- Scalable 1,500 VDC building block with best-in-class performance
- Flexible architecture creates scalability while maximizing land usage

Simple install, commissioning

- Ergonomic handling and simple connections enable quick installation
- Centralized commissioning and control with SMA Data Manager

Highly innovative

- SMA Smart Connected reduces O&M costs and simplifies field-service
- Powered by award winning ennexOS cross sector energy management platform

The Sunny Highpower PEAK3 1,500 VDC inverter offers high power density in a modular architecture that achieves a cost-optimized solution for large-scale PV integrators.

With fast, simple installation and commissioning, the PEAK3 is accelerating the path to energization. SMA has also brought its field-proven Smart Connected technology to the PEAK3, which simplifies O&M and contributes to lower lifetime service costs. The PEAK3 power plant solution is powered by the ennexOS cross sector energy management platform, 2018 winner of the Intersolar smarter E AWARD.

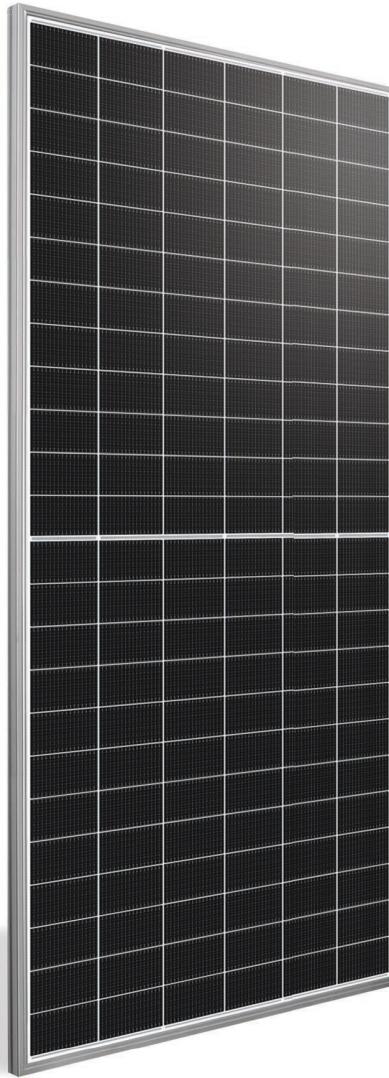
bring the neutral conductor back from transformer to SMA inverter through AC recombiner? Please advise, thanks.

	Sunny Highpower PEAK3 125-US	Sunny Highpower PEAK3 150-US	Sunny Highpower PEAK3 165-US	Sunny Highpower PEAK3 172-US
	250 kWp	300 kWp	330 kWp	344 kWp
Maximum system voltage	1500 Vdc			
Rated MPP voltage range	705 V ... 1450 V	880 V ... 1450 V	924 V ... 1450 V	968 V ... 1450 V
MPPT operating voltage range	684 V ... 1500 V	855 V ... 1500 V	898 V ... 1500 V	941 V ... 1500 V
MPP trackers	1			
Maximum operating input current	180 A			
Maximum input short-circuit current	325 A			
Output (AC)				
Nominal AC power	125 kW	150 kW	165 kW	172 kW
Maximum apparent power	125 kVA	150 kVA	165 kVA	172 kVA
Output phases / line connections	3 / 3-PE			
Nominal AC voltage	480 V	600 V	630 V	660 V
Compatible transformer winding configuration	Wye-grounded			
Maximum output current	151 A			
Rated grid frequency	60 Hz			
Grid frequency / range	50 Hz, 60 Hz / -6 Hz ... +6 Hz			
Power factor at rated power / adjustable displacement	1 / 0.8 leading ... 0.8 lagging			
Harmonics (THD)	<3%			
Efficiency				
CEC efficiency	98.5 %	99.0 %	99.0 %	99.0 %
Protection and safety features				
Ground fault monitoring: Riso / Differential current	● / ●			
DC reverse polarity protection	●			
AC short circuit protection	●			
Monitored surge protection (Type 2): DC / AC	● / ●			
Protection class / overvoltage category (as per UL 840)	I / IV			
General data				
Device dimensions (W / H / D)	770 / 830 / 462 mm (30.3 / 32.7 / 18.2 in)			
Device weight	99 kg (218 lbs)			
Operating temperature range	-25 °C ... +60 °C (-13 °F ... +140 °F)			
Storage temperature range	-40 °C ... +70 °C (-40 °F ... +158 °F)			
Audible noise emission (full power @ 1m and 25 °C)	< 69 dB(A)			
Internal consumption at night	< 5 W			
Topology	Transformerless			
Cooling concept	OptiCool (forced convection, variable speed fans)			
Enclosure protection rating	Type 4X			
Maximum permissible relative humidity (non-condensing)	100%			
Additional information				
Mounting	Rack mount			
DC connection	Terminal lug (up to 600 kcmil CU/AL)			
AC connection	Screw terminal (up to 300 kcmil CU/AL)			
LED indicators (Status/Fault/Communication)	●			
SMA Speedwire (Ethernet network interface)	● (2 x RJ45 ports)			
Data protocols: SMA Modbus / SunSpec Modbus	● / ●			
Integrated Plant Control / Q on Demand 24/7	● / ●			
Off-grid capable / SMA Hybrid Controller compatible	- / ●			
Monitoring				
SMA Sunny Portal (monitoring portal)	No cost for the lifetime of the system			
SMA Smart Connected (monitoring and remote O&M service)	No cost on inverters under warranty			
Supported protocols for outbound data	SMA external API, Modbus, FTP			
Certifications				
Certifications and approvals (pending)	UL 62109, UL 1998, CAN/CSA-C22.2 No.62109			
Manufacturer's Declaration of Design Life	25 years			
FCC compliance	FCC Part 15, Class A			
Grid interconnection standards	IEEE 1547:2018, UL 1741-SA - CA Rule 21, HECO Rule 14H, UL1741SB			
Advanced grid support capabilities	L/HFRT, L/HVRT, Volt-VAr, Volt-Watt, Frequency-Watt, Ramp Rate Control, Fixed Power Factor			
Warranty				
Standard	5 years			
Optional extensions (total warranty coverage cannot exceed 25 years)	+5 / +10 / +15 / +20 years			
1) Higher DC array power permitted via site inverter load modeling in SMA Sunny Design				
Type designation	SHP 125-US-21	SHP 150-US-21	SHP 165-US-21	SHP 172-US-21
● Standard features ○ Optional features – Not available				

SILFAB
COMMERCIAL **NTC**

SIL-580 XM+
BIFACIAL

SILFAB
SOLAR®



• NEXT-GENERATION N-TYPE CELL TECHNOLOGY

Manufactured exclusively in the USA.

- Improved Shade Tolerance
- Improved Low-Light Performance
- Increased Performance in High Temperatures
- Efficient Bifacial Energy Yield
- Enhanced Durability
- Reduced Degradation Rate
- 25-Year Product Warranty/
30-Year Performance Warranty



SILFABSOLAR.COM



ELECTRICAL SPECIFICATIONS		580		
Test Conditions		STC	BSTC	NOCT
Module Power (Pmax)	Wp	580	632.8	428.2
Maximum power voltage (Vpmax)	V	44.27	44.27	40.73
Maximum power current (Ipmax)	A	13.10	14.29	10.51
Open circuit voltage (Voc)	V	52.27	52.32	48.08
Short circuit current (Isc)	A	13.85	15.11	11.12
Module efficiency	%	22.4%		
Maximum system voltage (VDC)	V	1500		
Series fuse rating	A	30		
Power Tolerance	Wp	0 to +10		
Bifaciality Factor	%	80 ± 10		

Performance conditions: Measurement tolerance ≤ 3% • Standard Test Conditions (STC): 1000 W/m², AM 1.5, Temperature 25 °C • Nominal Operating Cell Temperature (NOCT): 800 W/m², AM 1.5 • Bifacial Standard Test Conditions (BSTC): 1000 W/m² + ϕ × 135 W/m², ϕ = 80 %, AM 1.5 • Electrical characteristics may vary by ±5%.

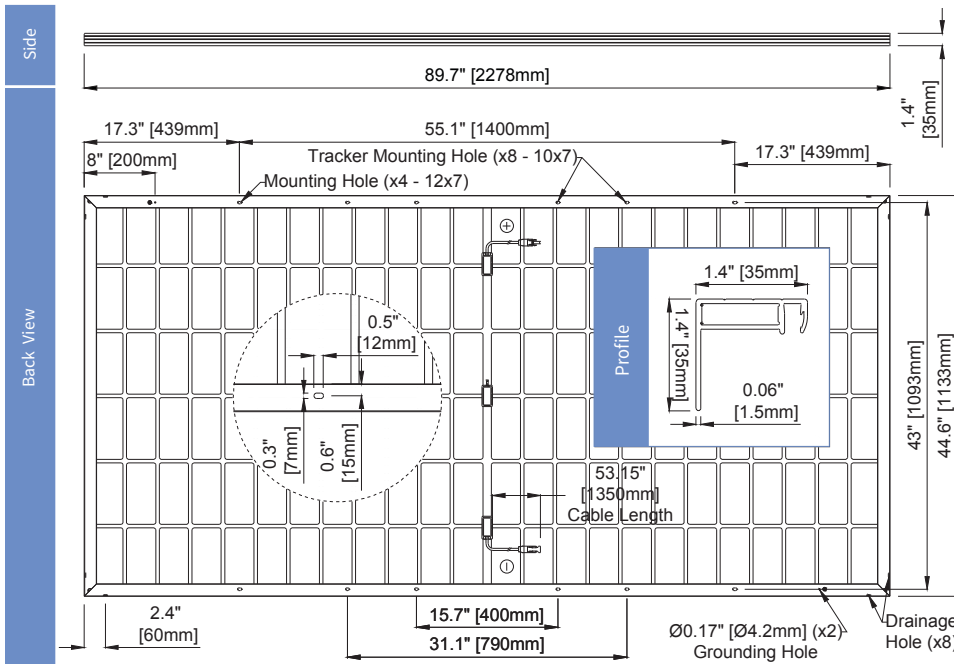
MECHANICAL PROPERTIES / COMPONENTS	METRIC	IMPERIAL
Module weight	28.5 kg ± 0.2 kg	62.8 lbs ± 0.4 lbs
Dimensions (H x L x D)	2278 mm x 1133 mm x 35 mm	89.7 in x 44.6 in x 1.4 in
Maximum surface load (wind/snow)*	2400 Pa rear load / 5400 Pa front load	50.1 lb/ft ² rear load / 112.8 lb/ft ² front load
Hail impact resistance	ø 25 mm at 83 km/h	ø 1 in at 51.6 mph
Cells	144 Half cells - N-Type Silicon solar cell 182 mm x 91 mm	144 Half cells - N-Type Silicon solar cell 7.16 in x 3.58 in
Glass	3.2 mm high transmittance, tempered, anti-reflective coating	0.126 in high transmittance, tempered, anti-reflective coating
Cables and connectors (refer to installation manual)	1350 mm, ø 5.7 mm, EVO2 from Staubli	53.1 in, ø 0.22 in (12 AWG), EVO2 from Staubli
Backsheet	High durability, superior hydrolysis and UV resistance, multi-layer dielectric film, transparent PV backsheet	
Frame	Anodized Aluminum (Silver)	
Junction Box	UL 3730 Certified, IEC 62790 Certified, IP68 rated, 3 diodes	

TEMPERATURE RATINGS		WARRANTIES	
Temperature Coefficient Isc	0.04 %/°C	Module product workmanship warranty	25 years**
Temperature Coefficient Voc	-0.24 %/°C	Linear power performance guarantee	30 years
Temperature Coefficient Pmax	-0.29 %/°C		≥ 98% end 1st yr ≥ 94.7% end 12th yr ≥ 90.8% end 25th yr ≥ 89.3% end 30th yr
NOCT (± 2°C)	45 °C		
Operating temperature	-40/+85 °C		

CERTIFICATIONS		SHIPPING SPECS	
Product	UL 61215, UL 61730, CSA C22.2#61730, IEC 61215, IEC 61730, IEC 61701 (Salt Mist Corrosion), IEC 62716 (Ammonia Corrosion), CEC Listed, UL Fire Rating: Type 1	Modules Per Pallet:	29
Factory	ISO9001:2015	California (Pallets per load)	21
		Others (Pallets per load)	22

* ⚠ Warning. Read the Safety and Installation Manual for mounting specifications and before handling, installing and operating modules.

** 12 year extendable to 25 years subject to registration and conditions outlined under "Warranty" at silfabsolar.com.
PAN files generated from 3rd party performance data are available for download at: silfabsolar.com/downloads.



SILFAB SOLAR INC.

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T +1 360.569.4733
info@silfabsolar.com
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Fort Mill SC 29715 USA
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Grandview Road
Solar will have a total
of 2,795' of Deer
Fence as noted
below. This project
will come with (01)
20' wide Manual
Double Swing Gate.



 **BEKAERT**

better together

Durable. Reliable.
Lasting.
Don't settle for less.

FENCING FOR THE LONG RUN.

Fencing For the Long Run

Forget constant repairs and replacements. When you put up a Bekaert fence, you're **FENCING FOR THE LONG RUN**. Whether you need a fence for your cattle, horses, sheep, goats, fields, or need to keep unwanted animals out, Bekaert's highly-durable, long-lasting wire fence can meet your unique needs. Designing and manufacturing agricultural fence products since 1880, we focus on delivering dynamic solutions and pride ourselves on manufacturing fences that are ready for a lifetime of challenges.

Each type of fence has an impact on the cost per foot, total cost, and annual ownership cost. Bekaert's team of experts offer unparalleled service to help you determine which fence is right for you as well as answer any questions about your fence project.

Bekaert Fencing System

Additionally, we've proudly partnered with quality companies to bring you tools to help ease and speed up the fence installation process. The Bekaert Fencing System pairs the highest quality fence on the market with innovative products such as pre-installed joiners on select products, brace kits, wire joiners, and various tools. These partnerships help to simplify the entire process of installing, maintaining, and repairing your wire fence.

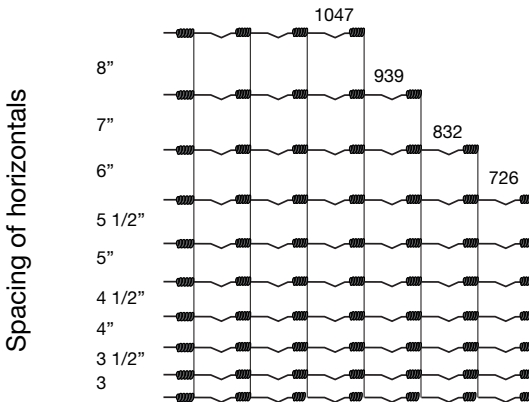


Find our partners on page 30.

Reading a Fence Design

Woven wire is available in a variety of heights and configurations. All Bekaert fence products feature a fence design number. Understanding the components of the design number helps you better understand the product specifications of the design.

How to read a fence design number:



Verticals spaced 6" or 12"

1047-6 12.5g 330' Class 3

- 10 = number of line wires
- 47 = height of fence in inches
- 6 = stay wire (horizontal) spacing in inches
- 12.5g = diameter of wire
- 330' = length of fence roll
- Class 3 = galvanization coating

Why Use High-Tensile Wire?

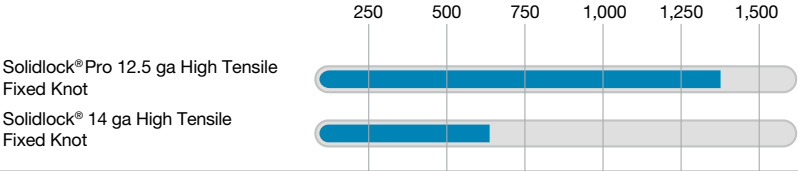
With an increased carbon content, high-tensile wire is stronger and less prone to elongation and sagging than its lower-carbon counterpart, which means less maintenance and repairs down the road. Plus, high-tensile wire is easy to install saving you money and time in your busy day. Bekaert offers several methods of fighting back that shield your fence from elements, increase its longevity and protect your investment for up to 40+ years.

Professional Strength

When you need the strongest wire on the market, our professional products Gaucho® Pro, Solidlock® Pro and Cattleman® Pro are the way to go. These high quality products offer peak performance, minimal maintenance, and have superior breaking strength. They are perfect for large or more aggressive livestock that are prone to rub against it, root under it or run into it at high speeds.

- High tensile wire
- Highest breaking strength
- Lowest total cost of ownership per foot
- Least sag and stretch compared to standard low carbon fencing wire
- Longest lasting, fewer repairs, and less maintenance

Fixed Knot Breaking Strength (in pounds)



Protection For Your Fence: Coating

Fencing is an investment, and like any investment, you want to get everything you can out of it for as long as possible. However, there are many factors that can reduce the lifespan of your fence. Everything from rain and snow to humidity, salt, chemicals and even sand can damage your wire. Bekaert offers several methods of fighting back that shield your fence from elements, increase its longevity and protect your investment for up to 40+ years.

Bezinal®

Guaranteed to protect your fence wire for at least 30 years on many of our products. Refer to specific product specifications for coating offerings.



Bezinal® was designed, developed, and produced exclusively by Bekaert. Consisting of advanced zinc-aluminum, Bezinal® outperforms galvanized coatings by at least 3 to 1 (for the same coating weight).

Knots

One knot does not function the same as another. That's why Bekaert offers a variety of knots. So whether you need to keep livestock in, keep other animals out or are looking for something based on aesthetics, you'll get just the right fit for your project.

Fixed Knot

Fixed knots are tough enough to stand up to animal damage, and durable enough to last through increased pressure, high winds and snow loads. That's why it's the number one choice for professional installers, but easy enough to install for all. The fixed knot utilizes a third wire that is formed around the crossover points of the horizontal line and the one-piece vertical stay wires for added strength. Fixed knot provides superior strength and allows for increased post spacing. It's the best choice for an all-around, all-animal application.



Fixed Knot Fence



Fixed Knot

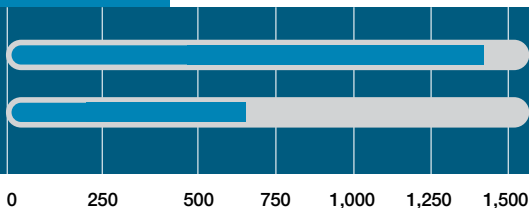
Benefits

- best option for nearly all animal applications
- maximum strength: the knot firmly ties the line and stay wires together
- smaller openings at the bottom designed to prevent predator entry and small animal escape
- increased post spacing thanks to the solid vertical wire design combined with a high strength-to-weight ratio

Fixed Knot Breaking Strength (in pounds)

Solidlock® Pro 12.5 ga
High Tensile Fixed Knot

Solidlock® 14 ga
High Tensile Fixed Knot



Select Solidlock® products include pre-installed Gripple joiners.
Check with your local dealer or Bekaert Sales Representative for details.

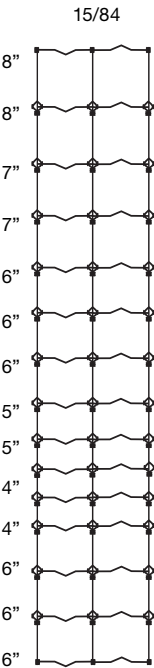
Solidlock® Pro Fixed Knot Game Fence



Part #	Fence Design	Height	Vertical Spacing	Roll Length	Wire Gauge	Roll Weight	Coating
656445	1584-6	84"	6"	330'	12.5 ga	310 lbs	Bezinal®

Solidlock® Pro 12.5 ga Game Fence

Available in 6" stay spacing; select sizes available with 3" stay spacing.



Staples / Fasteners



Bekaert Barbed Staples

Part #	Description	Wire Diameter	Coating	Package
162837	2" double barbed	8 ga	Bezinal®	50 lb bucket

Brace Kits

Part #	Product	Description	# of pieces	# of pieces in Case Qty	Box Weight (lbs)
288591	BeFAST Brace Kit, 16.5ft (Bulk)	16.5' of 5/32" thick, 1x19 strand cable with pre-ferruled loop and Large Gripple. Designed for high load vineyard and H-Brace fencing applications.	1	40	35

At Bekaert, it's our ambition to be your preferred supplier of steel wire products and solutions. Together with you, we look how we can create more value to make your business grow. With over 140 years of experience and 27 000 skilled employees, you can rely on us to meet your needs. Our global presence and activities in mobility, construction, energy & utilities, lifting and agriculture mean we are always within reach to offer a solution that is innovative, durable and cost efficient.

FENCING FOR THE LONG RUN.

 / bekaertfencing
 YouTube.com/BekaertFencing



More
information?

fencing.bekaert.com

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Marietta, GA 30067
1-800-241-4126

Bekaert Van Buren
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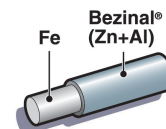
Responsible editor:
SA Bekaert NV - 05 2021



Bekaert®

Bezinal® Coated

High Tensile Fixed Knot Fencing



Features

- Solid vertical stay wires
- Bezinal® coating
- High tensile steel wires

Benefits

- Locks together line and stay wires for maximum strength.
- Superior corrosion resistance (2x better than class 3 galvanized wire)
- Maximum strength
Reduced sagging and elongation
Easier installation
Increased post spacing
Lower maintenance

Bekaert Corporation
1395 South Marietta Pkwy
Building 500, Suite 100
Marietta, GA 30067

bekaertfence.com



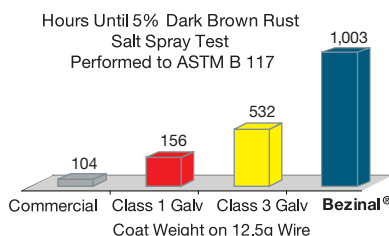
MADE IN THE USA

Superior Coating Technology

Initially developed for the telecom industry in the 1990's due to demand for a longer lasting coating. Bekaert Bezinal® Coating stands up better than any other coating, including Class 3 Galvanized. You never have to be concerned on how Bezinal Coating will perform. Bezinal will outperform Class 3 galvanization in all areas where coating is important:

- ✓ More Corrosion Resistant
- ✓ Better Self-Healing
- ✓ Higher Resistance to Chipping and Flaking
- ✓ Maintains Appearance

In other words, it last longer, looks better, and is more cost effective (less money per foot of wire).



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All Bekaert plants that produce Bekaert® Bezinal® coated fixed knot fences hold an ISO 9001 certificate.

Wood Treated Right



Build a dependable fence with a dependable product!

Committed to Quality

Wolmanized® wood is poles, piles, timbers, posts, or plywood that is pressure treated with CCA preservative to provide structural protection from termites and fungal decay. For 75 years, CCA treated wood has been specified in a wide variety of applications.

Keystone Fence Supplies is committed to producing quality treated products that meet AWPA standards. A strict quality control program and on site lab ensure correct chemical penetration and retention. Available support from Arch Wood Protection guarantees accuracy.

CCA treated wood products, when used as directed, offers decades of service, is safe to handle, safe to work with, safe for animals, and safe for the environment.

Forest to Fence Line

Keystone Fence Supplies controls the entire manufacturing process of their agricultural fence posts. This allows them to provide a top of the line product.

The process starts by selecting southern yellow pine trees in the forest. Keystone Fence Supplies then cuts the trees to length and runs them through a specialized post peeler. After being examined for quality, they are set aside to air season until dry.

The fence posts are then sent to a CCA wood preserving facility. After pressure treatment, the fence posts are ready to be installed in agricultural fencing applications.

Post Specifications

- Species: Southern Yellow Pine
- Chemical: CCA-C
- Retention: .40pcf ground contact
- Treated to AWWA Standards
- Approximate 30 year service life

Loblolly Pine vs. Other Pine Species

Loblolly Pine is one of several pines native to the Southeastern United States. The wood industry classifies Loblolly Pine as a southern yellow pine. Loblolly Pine is the preferred choice for fence post manufacturing because it is easy to peel, easy to treat, and the strength characteristics exceed those of other popular tree species. Other species of trees also have symmetrical knots which cause the fence post to fail while driving it into the ground during installation.

Tree Species	Static Bending Modulus of Elasticity (E)	Compress. Parallel to Grain, Max Crushing Strength	Compress. Perpen. to Grain, Fiber Stress at Prop. Limit	Shear Parallel to Grain, Max Shear Strength
	10^6 psi	psi	psi	psi
Pine, Loblolly	1.79	7,130	790	1,390

Line & Brace Posts will be 4"-5" x 14' long and Drive 4' into the ground.
Terminal & Gate Posts will be 5" - 6" x 14' long and set in 4' concrete foundation.

Source: U.S. Forest Products Laboratory

What is CCA and How Does It Work?

Chemical Composition of CCA-C

All Wolmanized® Heavy Duty™ wood is treated with CCA-Type C, which is composed of the following:

Hexavalent Chromium (CrO ₃)	47.5%
Copper (CuO)	18.5%
Arsenic (As ₂ O ₅)	34.0%

The chemical used to preserve Wolmanized® pressure treated wood is a mixture of copper oxides, chromium, and arsenic, and is known as CCA. The preservative has been formulated to render wood useless as a food substance for termites and fungi while keeping the wood attractive, clean, odorless, non-staining, and safe to handle when used as directed.

Unlike commercially produced trivalent arsenic, the arsenic in Wolman® CCA is in the form of inorganic pentavalent arsenate, a naturally occurring trace element. In the treatment process, the pentavalent arsenate becomes fixed, or chemically bound, in the wood cells as highly leach-resistant insoluble precipitates.

Wood and Metal Gates

KEYSTONE FENCE SUPPLY CO

Office: (717) 949-8170

Email: sales@keystonefencesupplies.com

Internet: www.keystonefencesupplyco.com

280 North Locust Street - Schaefferstown, PA 17088

Heavy Duty 2x4 Wire Filled Gates

The Heavy Duty 2x4 Wire Filled Gate is coated with a zinc rich primer and has a black powder coat finish. Constructed with 1.9" 14 gauge tubing. 50" Height. 2x4 wire fill. Made in the USA.

Includes heavy duty hinges, two ¾" HDG bolt hooks, and a locking spring loaded latch.



Constructed 4" short of stated length to accommodate mounting hardware.

Heavy Duty Deer and Game Gates

The Heavy Duty Deer and Game Gate is coated with a zinc rich primer and has a black powder coat finish. Constructed with 1.9" 14 gauge tubing. 98" Height. 4x4 wire fill. Made in the USA.

This style gate includes an easy to operate door within the gate for easy access.

Includes heavy duty hinges, two ¾" HDG bolt hooks, and a locking spring loaded latch.

Gate Sizes:

Pair of
10' - 810G44



Constructed 4" short of stated length to accommodate mounting hardware.

Total of (01) 20' wide
Manual Double
Swing Gate.

DECOMMISSIONING PLAN AND AGREEMENT

WHEREAS, Abundant Solar Power, Inc. (SUNN 1020 LLC) ("Abundant" or "Current Owner") applied to construct a 3 MW AC Photovoltaic Array ("Solar Energy Facility" or "Facility") on land in Mount Joy Township ("Township") at 1127 Grandview Road ("Land"). The Land is currently owned by Kevin L. Mummau ("Current Landowner"); and

WHEREAS, the Owner has agreed to submit a final decommissioning plan and Decommissioning Bond (as defined below) providing Mount Joy Township and Landowner (as defined below), or any of Landowner's heirs, successors or assigns, with access to funds for the Decommissioning (as defined below) of the Facility on the terms and conditions set forth under this Agreement; and

WHEREAS, the Parties now desire to enter into this Agreement and to agree upon the obligation to decommission the Facility and the terms and conditions of the financial surety provided to Mount Joy Township for the purpose of Decommissioning the Facility.

Exhibit A. SITE DEVELOPMENT PLAN

Exhibit B. DECOMMISSIONING BOND

Exhibit C. SCHEDULE OF ANNUAL REQUIRED AMOUNT OF DECOMMISSIONING BOND and; it is

NOW, THEREFORE in consideration of the foregoing and the mutual covenants herein contained and the municipal approvals from the Township, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Abundant, and Kevin L. Mummau, hereby agree to be legally bound by the obligations set forth in this Agreement and the attached Exhibits.

- A. The terms of this Decommissioning Plan ("Plan") and Agreement ("Agreement") shall run with the Land and apply to the Current Owner and all future owners of the Solar Energy Facility ("Owner") and Current Landowner and all future owners of the Land ("Landowner").
- B. At all times, the Owner and the Landowner shall be bound by the Agreement, and the Owner of the Solar Energy Facility shall maintain a Decommissioning Bond in the form attached hereto as Exhibit D or a Letter of Credit approved by the Township.
- C. In the event that a Decommissioning Event set forth in Section G occur, the Facility shall be removed and the Land restored by the Owner pursuant to the provisions of this Plan.
- D. The activities involved in decommissioning the Facility include removal of the above-ground components of the Facility: solar modules, racking, foundations and piles (pulled out), inverters, transformers, perimeter fencing, and electrical cabling and conduits. Restoration activities include re-grading project areas that have been excavated or back filled and reseeding of affected areas.

Solar PV Decommissioning Plan



PA-1127 Grandview Road Solar – Mount Joy, PA

E. Primary Components of Solar Energy Facility to be Decommissioned

1. Solar Modules: 7,280 (approximate)
2. Transformers: 1
3. Inverters: 20
4. Removal of all steel piles
5. Removal of all medium voltage lines and poles
6. Electrical Cables and Conduits: 494 Linear Feet (estimated)
7. Perimeter Fencing: 2,795 Linear Feet (estimated)

G. The Owner's obligation to decommission the Solar Energy Facility shall occur if any of the following events ("Decommissioning Events") occur:

1. Commercial operation has not started within 12 months of completion of construction; or
2. The Owner has failed to annually renew the Decommissioning Bond or secure a new Bond or Letter of Credit in a form that has been approved by the Township and provided same to the Township; after written notice to Owner has been received and a 30-day cure period has expired or
3. The Facility is deemed inoperable or abandoned for more than one hundred and eighty days after written notice to Owner has been received and a 30-day cure period has expired; or
4. The Owner or Landowner has transferred the property without notifying the Township or otherwise failed to comply with section K of this Agreement after written notice to Owner has been received and a 30-day cure period has expired.
5. The Facility has completed its 30th year of operation (computed from the date on which the Facility commenced energy production) and the Owner has not obtained an extension from the Township to extend its obligation to decommission the Facility.

Solar PV Decommissioning Plan



PA-1127 Grandview Road Solar – Mount Joy, PA

H. Default.

1. If the Owner's obligation to decommission the Solar Energy Facility has been triggered by a condition set forth in Section G above, the Owner shall, within thirty (30) days of a Decommissioning Event, provide both the Township Supervisor and the Code Enforcement Officer a Notice specifying the Decommissioning Event that has occurred ("Notice of Decommissioning Event").
2. The Owner is in default of this Plan if the Owner does not complete Decommissioning of the Facility within 180 days after the Owner has served a Notice of Decommissioning Event or after Owner has received a Notice of Decommissioning Event from the Township.
3. Upon default that has not been cured in accordance with this Section H., Mount Joy Township will, at its discretion, have the right to fully decommission the Project through the use of the Decommissioning Bond upon providing written notice to Owner (or its successor in title) and to the Landowner (or any of Landowner's heirs, successors or assigns) in accordance with the approved Decommissioning Plan.

I. The Owner shall complete the following as a minimum to decommission the Solar Energy Facility:

1. Decommissioning — Phase 1. The Owner of the Solar Energy Facility shall:
 - a. Obtain a Demolition Permit from Mount Joy Township.
 - b. Obtain an Erosion & Sediment Control Permit if required at the time of decommissioning. Coverage under the PADEP may be required if disturbances are greater than 1 acre. Construction storm water permits will also be obtained, and an Erosion and Sediment Control Plan will be prepared describing the protection needed to reflect conditions present at the time of decommissioning. BMPs may include: construction entrances, temporary seeding, permanent seeding, mulching (in non-agricultural areas), erosion control matting, and compost filter socks.
 - c. Remove all above-ground and below-ground equipment, structures and foundations. Equipment removal includes the following structures, which will tentatively be removed in the order below:

Solar PV Decommissioning Plan

PA-1127 Grandview Road Solar – Mount Joy, PA

I. Fence & Gate removal:

1. Agricultural fence
2. Double swing chain-link security gate

II. Solar System:

1. Solar modules
2. Solar panel racking system
3. Solar panel racking system foundation posts or screws

III. Electric equipment

1. Inverters
2. Main switch gear and foundation pad
3. Transformer and foundation pad
4. Disconnection of array from public utility

IV. Sitework and Landscaping:

1. Removal of landscaping as desired/requested by Township and/or Site Owner
2. Gravel access roadway
3. Installation and removal of erosion & sediment control measures

Note that the sequence of the removal of the above items shall depend on weather and site conditions at the time.

2. Decommissioning — Phase 2. The Owner of the Solar Energy Facility shall:

- a. Restore the surface grade and soil after removal of equipment to the condition in which it existed before construction of the Solar Array.
- b. Establish vegetative ground cover on the site utilizing specifications found in PennDOT's Publication 408, Section 804.

J. Decommissioning Bond

1. The Owner of the Solar Energy Facility shall purchase and maintain consecutive "A Rated" "T-listed" 5-year Solar Decommissioning Bonds for 30-years (renewable annually) with a value increase every year for 25 years, per the schedule attached hereto as Exhibit E. Failure to provide the Township a copy of the renewed bond to the Township or a New Bond that has been approved by the Township or Township-approved Letter of Credit annually prior to the expiration of the Bond or Letter of Credit in place constitutes a Decommissioning Event as set forth in G.4. of this Agreement after written notice to Owner has been received and a 30-day cure period has expired.

K. Change of Ownership.

1. The obligation to comply with the Decommissioning Plan and the obligation to maintain the Decommissioning Bond shall be included in any and all agreements to purchase the Land or the Solar Energy Facility. In the event that a change of ownership of the Land or the Solar Energy Facility is proposed, the Owner and Landowner agree to provide the Township documentation 30 days prior to the transfer indicating that the subsequent Owner and subsequent Landowner have agreed (a) to comply with the respective obligations of the Current Owner and Current Landowner in the Agreement and (b) to obligate future Owners and Landowners to the terms of the Agreement and (c) to obligate future Owners of the Facility to maintain the Decommissioning Bond. Failure to provide said documentation will constitute a Decommissioning Event after written notice to Owner has been received and a 30-day cure period has expired. Owner has, as set forth in G. 6. of this Agreement.

L. General Provisions

1. Any notice, demand, request or other communication required or permitted under this Agreement shall be in writing and shall be deemed to have been properly given if delivered personally, or sent by United States registered or certified mail, return receipt requested, postage prepaid, or by a nationally recognized overnight courier service to the applicable Party at its respective address as set forth above. Either Party hereto by written notice to the other may change the address or the persons to whom notices or copies thereof will be directed. Notices sent by a Party's attorney shall have the same force and effect as if sent by the Party itself.

2. In the event any provision of this Agreement is held to be invalid, illegal or unenforceable for any reason or in any respect, such invalidity, illegality or unenforceability will in no event affect, prejudice or disturb the validity of the remainder of this Agreement, which will be and remain in full force and effect, enforceable in accordance with its terms.
3. This Agreement shall be governed by and construed in accordance with the laws of the State of Pennsylvania, without regard to conflicts of laws provisions thereof. In the event it becomes necessary for either Party to bring an action to enforce any provision of this Agreement, the prevailing Party in such action shall be entitled to recover all costs associated with the bringing of such an action, including reasonable attorney fees and court costs, as the same may be determined by the court.
4. This Agreement may be executed and delivered in any number of counterparts, each of which so executed and delivered shall be deemed to be an original and all of which shall constitute one and the same instrument. All signatures of the Parties to this Agreement may be provided or executed by manual, facsimile or electronic signatures, which shall expressly include images of manually executed signatures transmitted by facsimile or any other electronic format (including, without limitation, “pdf”, “tif” or “jpg”), each of which will for all purposes be deemed to be the original signature of such Party whose signature it reproduces, and will be binding upon such Party.
5. This Agreement and the schedules and exhibits attached hereto constitute the sole and complete agreement and understanding of the Parties hereto with respect to the rights granted herein and supersede all prior written or oral agreements and understandings with respect to the rights granted herein.

Solar PV Decommissioning Plan

PA-1127 Grandview Road Solar – Mount Joy, PA



[Landlord]

By: _____

Abundant Solar Power, Inc. (SUNN 1020 LLC)

By: _____

[TOWNSHIP]

By: _____

DRAFT

Solar PV Decommissioning Plan



PA-1127 Grandview Road Solar – Mount Joy, PA

Exhibit E

SUMMARY OF DECOMMISSIONING FUND

A decommissioning fund to guarantee that monies are available to perform the facility decommissioning will be created. The funds will be established as a bond, and will remain available to the Municipality to perform the decommissioning if needed. At the start of construction a bond will be established in the total amount of the project's 30-year maturity with a 2.5% inflation rate. The landowner may choose to keep the trees or road following the decommissioning of the site with the written approval from the Town. The bond shall be in place for the full life of the project (30 years).

YEAR	BOND VALUE
1	\$ 116,000
2	\$ 118,900
3	\$ 121,873
4	\$ 124,919
5	\$ 128,042
6	\$ 131,243
7	\$ 134,524
8	\$ 137,888
9	\$ 141,335
10	\$ 144,868
11	\$ 148,490
12	\$ 152,202
13	\$ 156,007
14	\$ 159,907
15	\$ 163,905
16	\$ 168,003
17	\$ 172,203
18	\$ 176,508
19	\$ 180,920

YEAR	BOND VALUE
20	\$ 185,443
21	\$ 190,080
22	\$ 194,831
23	\$ 199,702
24	\$ 204,695
25	\$ 209,812
26	\$ 215,058
27	\$ 220,434
28	\$ 225,945
29	\$ 231,593
30	\$ 237,383

This Decommissioning Estimate has been prepared by LaBella Associates D.P.C. in an attempt to predict the cost associated with removal of the proposed solar facility. The primary cost of decommissioning is the labor to dismantle and load as the cost of trucking and equipment. All material will be removed from the site, including any concrete foundations, which will be broken up at the site and hauled to the nearest transfer station.

The following values were used in this Decommissioning Estimate

SYSTEM SPECIFICATIONS

Number of Modules		7,280
Number of Racks		380
Number of Inverters		20
Number of Transformers		1
Number of Switchboards		1
Number of Batteries		0
Number of Trees		0
Electrical Wiring Length	ft	494
Number of Foundation Screws		1520
Length of Perimeter Fence	ft	2795
Number of Power Poles		3
Access Rd Material Volume	CY	237
Total Disturbed Area	AC	13.7
Length of Wetland Fencing	LF	0
Length of Storm Piping	LF	0
Access Road Fill Material Volume	CY	20

LABOR AND EQUIPMENT COSTS

Labor Rate	\$/hr	\$	28.00
Bobcat Cost	\$/hr	\$	85.00
Front End Loader Cost	\$/hr	\$	125.00
Excavator Cost	\$/Day	\$	1,000.00
Trucking Cost	\$/hr	\$	130.00
Backhoe Cost	\$/hr	\$	105.00
Power Pole Removal Cost	\$/pole	\$	1,500.00
Grader Cost	\$/Day	\$	1,800.00
Gravel Export Cost	\$/CY	\$	8.00
Loam Import Cost*	\$/CY		
Seeding Cost	\$/AC	\$	2,500.00
Fuel Cost	\$/mile	\$	0.65
Tree Removal Labor Rate	\$/Tree	\$	100.00
Tree Removal Equipment Cost	\$/Tree	\$	120.00
Silt/Wetland Fence Install Cost	\$/LF	\$	1.25
Silt/Wetland Fence Removal Cost	\$/LF	\$	1.25
SWPPP Report	LS	\$	2,500.00
Const. Support, Inspections, Permitting	LS	\$	3,500.00
Battery Removal Cost	LS/Bat	\$	-
Pipe Removal Cost	\$/LF	\$	5.00
Access Road Fill Removal Cost	\$/CY	\$	10.15

EQUIPMENT & MATERIAL REMOVAL RATES

Module Removal Rate	min/module	2
Rack Wiring Rem. Rate	min/module	0.6
Racking Dismantling Rate	min/rack	60
Inverter Removal Rate	units/hr	1
Transformer Removal Rate	units/hr	2
Switchboard Removal Rate	units/hr	1
Battery Removal Rate	units/hr	0
Rack Loading Rate	hr/rack	0.2
Elect. Wiring Removal Rate	hr/LF	0.05
Screw Rem. Rate	screws/hr	27
Fence Removal Rate	min/LF	2
Bridge Removal/Dismantle Rate	hr	0
Days req to remove skids		1
Days req. with Rough Grader		1
Days req. with Fine Grade		1
Total Truckloads to Modern Landfill		15
Total Truckloads to Recycle Center		65
Total Truckloads for Scrap		10
Total Truckloads to Transfer Station		2
Round-Trip Dist. to Scrap Yard	mile	20
Round-Trip Time to Scrap Yard	hr	0.683
Round-Trip Dist. to Transfer Sta	mile	35
Round-Trip Time to Transfer Sta	hr	0.767
Round-Trip Dist. to Recycle Center	mile	35
Round-Trip Time to Recycle Center	hr	0.767
Cost/LB for Disposal to Recycle	\$/lb	0.04
Concrete Disposal to Recycle Center	Lump Sum	2000
Combined weight to Transfer Sta	lb	10110
Round-Trip Dist. to Modern Landfill	mile	35
Round-Trip time to Modern Landfill	hr	1
Panel Weight to Modern Landfill	lb	457184
Combined weight to Scrap Yard	lb	243831
Value/lb for scrap metal**	\$/lb	0.05
Value/lb for tracker wire**	\$/lb	2.5

*Undetermined quantity

**Scrape values obtained are subject to change

LABOR, MATERIAL, AND EQUIPMENT COSTS

1. REMOVE MODULES

The solar modules are fastened to racking with clamps. They slide in a track. A laborer needs on unclamp the module and reach over and slide the module out of the track.

$$(Module\ Removal\ Rate \times Total\ Number\ of\ Solar\ Modules \times Labor\ Rate) = Module\ Removal\ Cost$$

Total = \$ 6,794.67

2. REMOVE RACK WIRING

The modules are plugged together in the same manner as most electronics. The string wires are in a tray. A laborer only needs to unplug the module, reach into the array and remove the strands of wire.

$$Wire\ Removal\ Rate \times Total\ Number\ of\ Solar\ Modules \times Labor\ Rate = Rack\ Wiring\ Removal\ Cost$$

Total = \$ 2,038.40

3. DISMANTLE RACKS

The racking is supported by ground screw foundations. The racking will be disconnected from the foundation and removed separately.

$$Number\ of\ Racks \times Rack\ Dismantling\ Rate \times Labor\ Rate = Rack\ Dismantling\ Cost$$

Total = \$ 10,640.00

4. REMOVE AND LOAD ELECTRICAL EQUIPMENT

Inverters, transformers, and all other electrical equipment.

$$((Number\ of\ Inverters \times inverter\ Removal\ Rate) + (Number\ of\ Transformers \times Transformer\ Removal\ Rate) + (Number\ of\ Switchboards \times Switchboard\ Removal\ Rate) \times (Labor\ Rate + Front\ End\ Loader)) + (Number\ of\ Batteries \times Battery\ Removal\ Cost) = Remove\ And\ Load\ Electrical\ Equipment\ Cost$$

Total = \$ 3,519.00

5. LOAD RACKS

Once the racks have been dismantled, they will be loaded onto trucks for removal from the site. The cost for the trucking to a disposal facility is included in a later item in this estimate

$$Number\ of\ Racks \times Rack\ Loading\ Rate \times (Labor\ Rate + Front\ End\ Loader\ Cost) = Total\ Rack\ Removal\ Cost$$

Total = \$ 11,628.00

6. REMOVE LOW VOLTAGE ELECTRICAL WIRING

Electrical wiring will be removed from all underground conduits

$$Cable\ Length \times Cable\ Removal\ Rate \times (Labor\ Cost + Backhoe\ Cost) = Total\ Cable\ Removal\ Cost$$

Total = \$ 2,404.70

LABOR, MATERIAL, AND EQUIPMENT COSTS

7. REMOVE FOUNDATION SCREWS

Foundation screws will be backed out of the ground and loaded onto a truck to be removed from the site.

$$\text{Number of Screws} \times \text{Screw Removal Rate} \times \text{Labor Rate} = \text{Screw Removal Cost}$$

Total = \$ 1,576.30

8. REMOVE FENCING

Fencing posts, fabric, and foundations will be loaded onto a truck and removed from the site. Trucking to a disposal facility included in a later line item.

$$(\text{Total Length of Fence} \times \text{Fence Removal Rate}) \times (\text{Labor Rate} + \text{Bobcat Cost} + \text{Trucking Cost}) = \text{Fence Removal Cost}$$

Total = \$ 10,527.83

9. REMOVE UTILITY POLES

Power poles will be removed and shipped off site.

$$\text{Number of Power Poles} \times \text{Pole Removal Cost} = \text{Total Power Pole Removal Cost}$$

Total = \$ 4,500.00

10. GRAVEL ROAD RECLAMATION

Reclamation of the gravel access road will entail removing the gravel material and exporting it off site. The area will then be backfilled with loam and graded.

$$((\text{Days with Rough Grader} + \text{Days with Fine Grader}) \times \text{Grader Cost per Day}) + (\text{Roadway Material Volume} \times (\text{Gravel Export Cost} + \text{Loam Import Cost}) + (\text{Imported Fill Export Cost} \times \text{Imported Fill Volume}) + (\text{Pipe Removal Cost} \times \text{LF of Storm Pipe})) = \text{Gravel Road Reclamation Cost}$$

Total = \$ 5,699.00

11. SEED DISTURBED AREAS

Seeding cost includes seed and materials for reseeding all disturbed areas including the reclaimed gravel road area, former electrical areas, and areas disturbed by racking foundation removal.

$$\text{Seeding Cost} \times \text{Disturbed Area} = \text{Total Seeding Cost}$$

Total = \$ 34,125.00

12. TRUCK TO SCRAP YARD

All metal material will be trucked to the nearest scrap yard that accepts metal material. These materials include the racking, fences, electrical wiring, and ground screws. The value of the scrap will be deducted from this cost. The nearest scrap yard that accepts these materials is Sahd Metal Recycling, located at 1045 Lancaster Ave, Columbia, PA 17512.

$$(\text{Total Truckloads to Scrap} \times \text{Roundtrip Distance} \times \text{Fuel Cost}) + (\text{Total Truckloads to Scrap} \times \text{Round Trip Time} \times \text{Trucking Cost}) - (\text{Weight of Scrap} \times \text{Value of Scrap}) = \text{Total Trucking Cost to Transfer Scrap}$$

Total = \$ (11,173.65)

13. TRUCK TO TRANSFER STATION

All construction material excluding the electrical components, metal, and gravel/fill will be trucked to the nearest transfer station that accepts that material. These materials include the utility poles, storm piping, and geoweb. The transfer station that accepts this material is the Lancaster County Solid Waste Management Authority's Transfer Station Complex located at 1299 Harrisburg Pike, Lancaster, PA 17603. Frey Farm Landfill also accepts this material.

$$(\text{Total Truckloads to Transfer Station} \times \text{Roundtrip Distance} \times \text{Fuel Cost}) + (\text{Total Truckloads to Transfer Station} \times \text{Round Trip Time} \times \text{Trucking Cost}) + (\text{Weight} \times \text{Cost/lb}) = \text{Total Trucking Cost to Transfer Station}$$



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PROJECT	Abundant Solar Power, Inc (SUNN 1020, LLC)			
PROJECT NO.	2263503	SHEET	4	OF 5
SUBJECT	Decommissioning Estimate			
	CALC. BY	LSN	DATE	6/16/2026
	CKD. BY		DATE	

LABOR, MATERIAL, AND EQUIPMENT COSTS

14 TRUCK TO RECYCLE CENTER

Construction materials such as gravel, access road fill material, and concrete pads shall be transported to the Lancaster County Solid Waste Management Authority's Transfer Station Complex located at 1299 Harrisburg Pike, Lancaster, PA 17603. There is no fee for disposal of the fill material or the gravel, but there is a lump sum cost \$2,000 for the concrete material being disposed.

$$(Total\ Truckloads\ to\ Recycle\ Center \times Roundtrip\ Distance \times Fuel\ Cost) + (Total\ Truckloads\ to\ Recycle\ Center \times Round\ Trip\ Time \times Trucking\ Cost) + (Lump\ Sum\ Concrete\ Removal\ Cost) = Total\ Truckng\ Cost\ to\ Victor\ Recycle\ Center$$

Total = \$ 9,959.90

15 TRUCK TO ELECTRONIC WASTE CENTER

All electrical materials including panels, transformers, inverters, combiner boxes, etc. shall be delivered to Modern Landfill located at 4400 Mt Pisgah Rd, Yorkana, PA 17406. There is no fee for disposal, however there is a cost to deliver to Modern Landfill, and Modern Landfill will not provide payment towards the valuable materials (such as copper) associated with the electronic waste that is delivered.

$$(Total\ Truckloads\ to\ Modern\ Landfill \times Roundtrip\ Distance \times Fuel\ Cost) + (Total\ Truckloads\ to\ Modern\ Landfill \times Round\ Trip\ Time \times Trucking\ Cost) = Total\ Truckng\ Cost\ to\ Modern\ Landfill$$

Total = \$ 8,791.25

16 TREE REMOVAL

Removal of screening plants including tree, stump, and reclamation of the soil impacted.

$$Total\ Number\ of\ Trees \times (Labor\ Rate + Equipment\ Rate) = Tree\ Removal\ Cost$$

Total = \$ -

17 MISCELANEOUS ITEMS

Fee for permitting, inspections, etc

$$(Construuction\ Support, permitting, inspections) = Misc\ Cost$$

Total = \$ 3,500.00



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PROJECT	Abundant Solar Power, Inc (SUNN 1020, LLC)		
PROJECT NO.	2263503	SHEET	5 OF 5
SUBJECT	Decommissioning Estimate		
CALC. BY	LSN	DATE	6/16/2026
CKD. BY		DATE	

SUMMARY OF DECOMMISSIONING COSTS

The costs below are the current estimated costs to decommission a 5.0 MWAC Solar Facility, based on guidance from NYSDERDA and estimates from the New York solar market. The salvage values of valuable recyclable materials (aluminum, steel, copper, ect) are not factored into the below costs below. The scrap value is considered below, but will be determined on current market rates at the time of salvage.

LINE ITEM	TASK	COST
1	Remove Modules	\$ 6,794.67
2	Rack Wiring Removal	\$ 2,038.40
3	Rack Dismantling	\$ 10,640.00
4	Electrical Equipment Loading and Removal	\$ 3,519.00
5	Load Racks	\$ 11,628.00
6	Electrical Wiring Removal	\$ 2,404.70
7	Foundation Screw Removal	\$ 1,576.30
8	Fence Removal	\$ 10,527.83
9	Power Pole Removal	\$ 4,500.00
10	Gravel Road Reclamation*	\$ 5,699.00
11	Seed Disturbed Areas	\$ 34,125.00
12	Salvage to Scrap Yard	\$ (11,173.65)
13	Trucking to Transfer Station	\$ 649.32
14	Trucking to Victor Recycle Center	\$ 9,959.90
15	Trucking to EWASTE+	\$ 8,791.25
16	Tree Removal*	\$ -
19	Misc. Items	\$ 3,500.00
Subtotal =		\$ 105,179.72
8% Inspection & Permitting Contingency =		\$ 8,414.38
2% Legal Contingency =		\$ 2,103.59
Total =		\$ 115,697.69
Rounded Total =		\$ 116,000.00

* Refer to 'Summary of Decommissioning Fund' for contingency.

SUMMARY OF DECOMMISSIONING FUND

A decommissioning fund to guarantee that monies are available to perform the facility decommissioning will be created. The funds will be established as a bond, and will remain available to the Municipality to perform the decommissioning if needed. At the start of construction a bond will be established in the total amount of the project's 30-year maturity with a 2.5% inflation rate. The landowner may choose to keep the trees or road following the decommissioning of the site with the written approval from the Town. The bond shall be in place for the full life of the project (30 years).

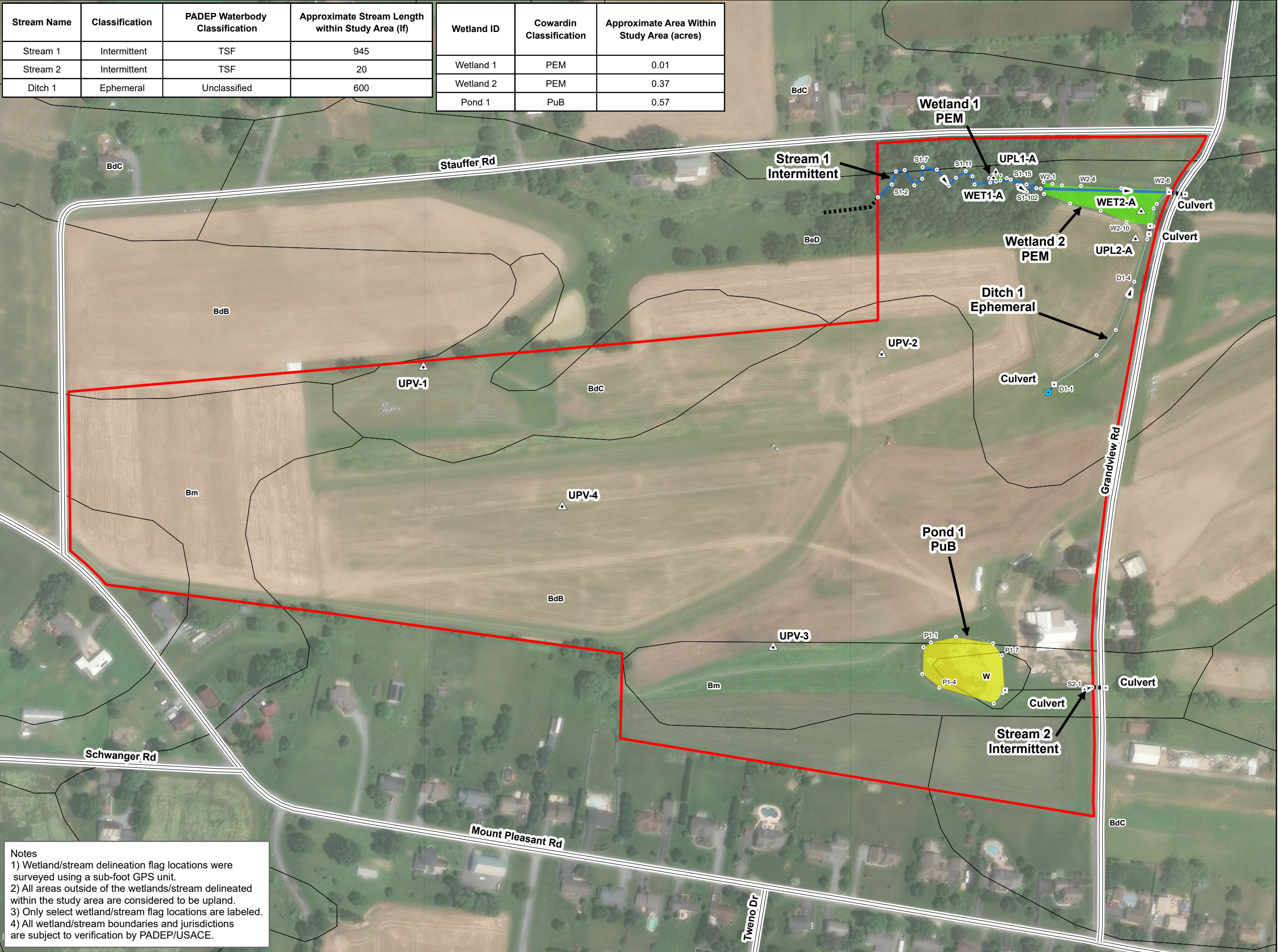
YEAR	BOND VALUE
1	\$ 116,000
2	\$ 118,900
3	\$ 121,873
4	\$ 124,919
5	\$ 128,042
6	\$ 131,243
7	\$ 134,524
8	\$ 137,888
9	\$ 141,335
10	\$ 144,868
11	\$ 148,490
12	\$ 152,202
13	\$ 156,007
14	\$ 159,907
15	\$ 163,905
16	\$ 168,003
17	\$ 172,203
18	\$ 176,508
19	\$ 180,920

YEAR	BOND VALUE
20	\$ 185,443
21	\$ 190,080
22	\$ 194,831
23	\$ 199,702
24	\$ 204,695
25	\$ 209,812
26	\$ 215,058
27	\$ 220,434
28	\$ 225,945
29	\$ 231,593
30	\$ 237,383

Creator: VB Reviewer: LD

Path: B:\GLOBAL\Projects\Abundant Solar Power\2263503 - Grandview Rd Solar Permitting\06_Drawings\Environmental\Wetland Delineation\Grandview Road Solar.aprx

Stream Name	Classification	PADEP Waterbody Classification	Approximate Stream Length within Study Area (lf)	Wetland ID	Cowardin Classification	Approximate Area Within Study Area (acres)
Stream 1	Intermittent	TSF	945	Wetland 1	PEM	0.01
Stream 2	Intermittent	TSF	20	Wetland 2	PEM	0.37
Ditch 1	Ephemeral	Unclassified	600	Pond 1	PuB	0.57

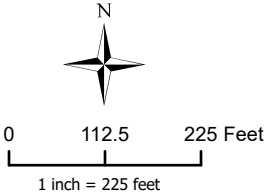


Notes
1) Wetland/stream delineation flag locations were surveyed using a sub-foot GPS unit.
2) All areas outside of the wetlands/stream delineated within the study area are considered to be upland.
3) Only select wetland/stream flag locations are labeled.
4) All wetland/stream boundaries and jurisdictions are subject to verification by PADEP/USACE.



Abundant Solar Power
Wetland and Stream
Delineation Report

1127 Grandview Road
Mount Joy, PA



- Legend**
- Study Area
 - Data Point Location
 - Wetland/Stream Flag Location
 - Culvert
 - Drain Tile
 - Emergent Wetland (PEM)
 - Pond (PuB)
 - Intermittent Stream
 - Ephemeral Ditch
 - Culvert Area
 - Approximate Offsite Wetland/Stream Boundary
 - Stream Flow Direction
 - Road
 - Soil

Sources:
1. Study Area: Created by LaBella using information provided by the client.
2. Basemap: Microsoft, Vantor, 2025
3. Mapped soils data were obtained from the NRCS online Soil Data (soildatamart.nrcs.usda.gov).

Wetland and Stream
Delineation Survey

FIGURE 4

SUBJECT PARCEL INFORMATION				
PARCEL NUMBER	PARCEL ID NUMBER	AREA (ACRE)	OWNER	ADDRESS
-	461-2308132-296713-0-0000	57	Kevin L. Mummau	1127 Grandview Rd

ADJOINING PARCEL INFORMATION				
PARCEL NUMBER	PARCEL ID NUMBER	AREA (ACRE)	OWNER	ADDRESS
1	461-2308926-295874-0-0000	0.1	Jerald L. Ruhl	2319 Mount Pleasant Rd
2	461-2308780-295905-0-0000	0.1	Andrew M. Goodman	2337 Mount Pleasant Rd
3	461-2308636-295928-0-0000	0.1	Keith A. Renner	2355 Mount Pleasant Rd
4	461-2308492-295952-0-0000	0.1	Matthew L. Nissley	2373 Mount Pleasant Rd
5	461-2308347-295976-0-0000	0.1	Chris Kaley	2391 Mount Pleasant Rd
6	461-2308203-296000-0-0000	0.1	Stephen M. Cook	2427 Mount Pleasant Rd
7	461-2308059-296023-0-0000	0.1	Jeanne M. Todd	2443 Mount Pleasant Rd
8	461-2307915-296055-0-0000	0.1	William L. Talmadge Jr.	2459 Mount Pleasant Rd
9	461-2307803-296123-0-0000	1.3	Mark A. Magrecki	2473 Mount Pleasant Rd
10	461-2307720-296183-0-0000	0.9	Shawn M. Breneman	2487 Mount Pleasant Rd
11	461-2307617-296197-0-0000	1.2	William N. & Lorie A. Rohrer	2505 Mount Pleasant Rd
12	461-2307516-296212-0-0000	1.1	Philip E. & Melinda R. Erb	2523 Mount Pleasant Rd
13	461-2307414-296227-0-0000	1.1	Randy R. & Lori A. Stevens	2541 Mount Pleasant Rd
14	461-2307311-296241-0-0000	1.2	Benjamin S. Heisey	2553 Mount Pleasant Rd
15	461-2307160-296257-0-0000	2.2	Andre M. & Jacqueline M. Ressler	2577 Mount Pleasant Rd
16	461-2306941-296350-0-0000	1.4	Roni K. Clark	2603 Mount Pleasant Rd
17	461-2306730-296512-0-0000	1.4	Terrence P. Ryan	2657 Mount Pleasant Rd
18	461-2306526-296312-0-0000	3.8	David F. Fisher	2658 Mount Pleasant Rd
19	461-2306112-296461-0-0000	4.9	Marc T. Myers	2706 Mount Pleasant Rd
20	461-2305899-298422-0-0000	106.5	Franklin B. Greiner Jr.	2843 Mount Pleasant Rd
21	461-2307478-297357-0-0000	25	Kent E. Mummau	2494 Stauffer Rd
22	461-2308517-297808-0-0000	0.5	Daniel E. Miller	2403 Stauffer Rd
23	461-2308627-297811-0-0000	0.5	Ryan P. McKernan	2389 Stauffer Rd
24	461-2308737-297814-0-0000	0.5	Kenneth R. & Audrey J. Landvater	2373 Stauffer Rd
25	461-2308847-297815-0-0000	0.5	Dean M. & Helen S. Hertzler	2357 Stauffer Rd
26	461-2308966-297817-0-0000	0.4	Lawrence Vanderschaaf II	2341 Stauffer Rd
27	461-2309165-297816-0-0000	1.2	Jacob M. & Jean S. Saylor	2305 Stauffer Rd
28	461-2309407-297605-0-0000	1	Lester F. Reiner	1296 Grandview Rd
29	461-2309530-296748-0-0000	32.9	Mark E. & Linda M. Brubaker	1112 Grandview Rd

***Parcel Numbers correspond with numbers shown on C-200 Site Plan.**