



# Town of Simsbury

Office of Community Planning and Development - Inland Wetlands Permit Application

OCT 05 2022  
TOWN OF SIMSBURY  
PLANNING DEPARTMENT

DATE: 10/5/22 FEE: \$ 240.00 CK #: 427 APP #: 22-23

PROPERTY ADDRESS: 191 Hoskins Rd. Simsbury, CT 06070

NAME OF APPLICANT: Leon B. Barrett

MAILING ADDRESS: 191 Hoskins Rd. Simsbury, CT 06070

EMAIL ADDRESS: lbarrett@bcg.name TELEPHONE # 860.651.9123

NAME OF OWNER: Leon B. Barrett

MAILING ADDRESS: 191 Hoskins Rd. Simsbury, CT

EMAIL ADDRESS: lbarrett@bcg.name TELEPHONE # 860.651.9123

NOTE: ATTACH A WRITTEN LETTER OF AGENCY, DULY ACKNOWLEDGED, TO ACT FOR THE OWNER, INCLUDING THE ABILITY TO CARRY OUT ACTIVITIES SET FORTH HEREIN.

DESCRIBE THE SPECIFIC ACTIVITY(ies) FOR WHICH A PERMIT IS SOUGHT AS IT RELATES TO "REGULATED ACTIVITIES" AS DEFINED IN SECTION 6 OF THE SIMSBURY INLAND WETLANDS REGULATIONS, SUCH AS: A) REMOVE MATERIAL FROM; B) DEPOSIT MATERIAL IN OR DISCHARGE TO; C) CONSTRUCT ON; D) OBSTRUCT; E) ALTER; F) POLLUTE; OR G) OTHERWISE ADVERSELY AFFECT A REGULATED AREA:

(C) Construct on; The request is to construct a solar rack on 191 Hoskins Rd. Residential property abutting wetlands and under the boundary requirements.

### CERTIFICATIONS AND PERMISSIONS:

As owner, I hereby give permission to the Town of Simsbury's Conservation Commission Inland Wetlands Watercourses Agency, their Agents, or Town Staff to enter upon my land to make observations and tests as may be necessary to evaluate this application and ongoing work, subject to twenty-four hours notice of such entry/testing.

I hereby certify that all statements herein are true to the best of my knowledge, whether made by me or my agents. Any permit issued shall be contingent upon field conditions and activities being substantiated as indicated herein. A changed situation shall require reconsideration of the permit by the Commission upon discovery by either party.

I certify that I have the authority to sign this application.

Leon Barrett 10/5/22  
Signature of Owner Date

Leon Barrett Homeowner 10/5/22  
Signature and Title of Applicant Date

Telephone (860) 658-3245  
Facsimile (860) 658-3206

[www.simsbury-ct.gov](http://www.simsbury-ct.gov)

933 Hopmeadow Street  
Simsbury, CT 06070  
CHECK 240.00

## INSTRUCTIONS FOR APPLICANT

Any person seeking a permit to carry out a regulated activity on property which has been designated an inland wetland or watercourse by the Conservation Commission or within the 100-foot regulated buffer area of a designated inland wetland or watercourse must complete and submit the Inland Wetlands Permit Application to the Planning Department.

Submission shall occur by the day before a regular meeting of the Conservation Commission. (See Section 5 of the Inland Wetlands and Watercourses Regulations of the Town of Simsbury.) Application will be heard at the following meeting, after petition period.

The original application shall be submitted with eleven (11) copies. Maps on sheets larger than 11"x14" shall be submitted in at least three (3) copies. Additional copies of site plans may be required. PDFs of the maps, if available, should be submitted, as well. PDFs can be emailed to [lbarkowski@simsbury-ct.gov](mailto:lbarkowski@simsbury-ct.gov).

A filing fee shall accompany the application, as required by the Land Use Application Fees schedule. Please consult with the Planning Office for specific fee determination.

The following information shall be provided on white paper (8 ½"x11") and typewritten. Reproduce the following questions along with the answer and attach to the application.

1. *In the case of a public hearing or map amendment*, list on a separate sheet of paper the names and addresses of all abutting property owners and property owners within 100 feet of all property lines. Identify on one of the attached maps.
2. Describe the site and the regulated area or wetlands/watercourses involved:
  - a. General site conditions, including vegetation and general soil conditions.
  - b. Size of wetland within site or distance of the activity from the wetland.
  - c. Size of total contiguous wetland.
  - d. Position relative to other wetlands on site.
  - e. Type of wetland characterized by vegetative and soil type and/or watercourse, such as: 1) open/deep fresh water pond or lake; 2) shallow marsh; 3) seasonally flooded basins and flats; 4) meadow; 5) shrub swamp; 6) wooded swamp; 7) bog; 8) kettle; 9) stream type; 10) other.



3. Depth to water table, depth to mottled soil, and seasonal variation of water table.
4. Describe the immediate impact on the wetlands and watercourses, including, but not limited to:
  - a. Quantities, by volume and area disturbed, of materials to be removed, deposited, or altered.
  - b. Kinds of materials by soil types and vegetative classifications, and materials classification to be removed, deposited, or altered.
  - c. Percent of wetlands/watercourses disturbed or altered to total area of wetlands/watercourses on the parcel.
5. Describe the related construction activities and their impact on:
  - a. Area and location of wetlands and watercourses.
  - b. Types and amounts of vegetation.
  - c. Surface and groundwater.
  - d. Visual impacts.
  - e. Wildlife habitats.
6. Describe the long term or permanent impact of the activity(ies) on environmental aspects, such as the surface and groundwater quality, storm water runoff, visual impact(s), or wildlife habitats on:
  - a. Wetlands and/or watercourses.
  - b. Abutting riparian properties and/or wetlands and/or watercourses.
7. Identify sedimentation and erosion control measures to be used.
8. Identify alternatives to the proposed activity that were considered, including alternative sites and why this one was chosen.
9. Estimate cost of work and time for completion.
10. Attach drainage calculations and other reports as indicated to substantiate the statements made above.
11. **REQUIRED MAPS**
  - a. Attach a vicinity map on an 8 ½"x11" sheet at scale 1"=200' or 1"=800' (depending upon the size of the parcel) showing the general location of the area in which the regulated activity is proposed. The map should be in sufficient detail to allow the identification of the property on the official Inland Wetlands and Watercourses map. A guide to the kinds of information to be shown is available in the Planning Department at the Town Hall.

**b. Site Plan(s) showing:**

- i. The topography showing contours at intervals of not more than two (2) feet and a minimum of two (2) contour marks per ten (10) acres at a scale of 1"=100' or 1"=40' (whichever is more appropriate).
- ii. Location of existing watercourses and/or ponds.
- iii. Location of regulated activity.
- iv. Proposed grading and/or filling.
- v. Proposed drainage, site utilities, wells, etc.
- vi. Sedimentation and erosion control measures.

**12. The Applicant shall certify whether:**

- a. Any portion of the property on which the regulated activity is proposed is located within 500 feet of the boundary of an adjoining municipality.
- b. Traffic attributable to the completed project on the site will use streets within the adjoining municipality to enter or exit the site.
- c. Sewer or water drainage from the project site will flow through and affect the sewage or drainage system within the adjoining municipality or
- d. Water runoff from the improved site will affect streets or other municipal or private property within the adjoining municipality.
- e. Documentation that notice of the pending application was provided to the adjacent municipality (certified mail, return receipt requested) on the same day of filing an inland wetland permit application with the Town of Simsbury.
- f. The property is subject to a conservation restriction or preservation restriction, and, if so, what party or parties are holders thereof or intended to be benefitted thereby.

**ALL INFORMATION MUST BE COMPLETED TO THE EXTENT INDICATED BY THE COMMISSION BEFORE ANY ACTION IS TAKEN ON THE PERMIT APPLICATION. INCOMPLETE APPLICATIONS WILL BE DENIED. ADDITIONAL INFORMATION MAY BE REQUIRED BY THE COMMISSION.**

**THE APPLICANT AND/OR AUTHORIZED AGENT SHOULD ATTEND THE CONSERVATION COMMISSION/INLAND WETLANDS & WATERCOURSES AGENCY MEETING IN ORDER FOR A DECISION TO BE RENDERED. IF APPLICANT OR AGENT DOES NOT ATTEND, AND QUESTIONS ARISE, DECISION ON APPLICATION MAY BE DEFERRED OR DENIED.**



L. Barrett Solar Design  
 191 Hoskins Rd. Simsbury, CT 06070  
 860.651.9123  
 10/4/22

Estimated savings

## Welcome to your future with solar, Lee

191 Hoskins Rd. Simsbury, CT 06070, USA

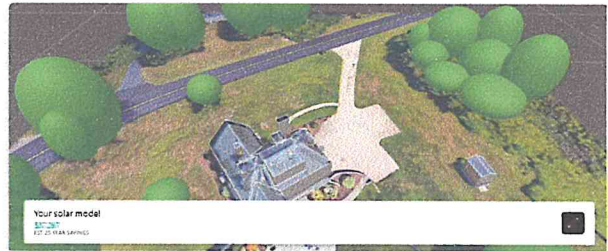
View your personalized proposal



## Your solar model breakdown



See your savings



## Your estimated savings with solar

How much will you save with solar?

**\$37,267** Over 25 years

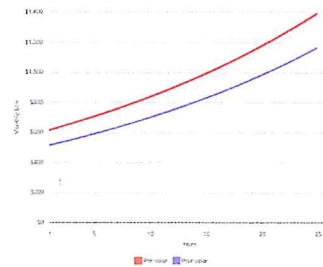
Pre solar	Post solar
\$0.25	\$0.06

**YEAR 10 ANNUAL SAVINGS**  
\$1,021

**PAYBACK PERIOD**  
6 years

## Compare energy bills over the next 25 years

Estimated average bills



# Your proposal details

## ACCOUNTS

Federal ITC - 20%

up to \$2,418

## ACCOUNTS

SolarEdge System

XR1500 Racking Upgrade from XR1100

Ground Mount Racking Upgrade from XR1100

Shipping - Zone 3

Plan Set, Grid Tie

## SYSTEM

Heliose 520V Black

421.56

4.43 kW

## TOTAL

Cash Payment

\$5,686.00

## Financing offer

Cash Payment	
TOTAL COST	\$5,686.00
INCLUDES FEDERAL ITC	
NET COST	\$7,167.64
FINANCING FROM 2025-2030	

## Ready to schedule?







Item code	Brand name	Model number	Volts	Watts	Cell Tech	Connector Type
HEL320HSPE320B	Heliene Inc	HSPE_60M_G1_320BLK	20V	320W	Monocrystalline	MC4

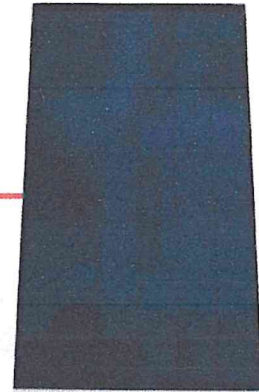
## Heliene Solar Panels

Heliene's fully automated manufacturing facilities with state-of-the-art robotics and computer aided inspection systems ensure the highest level of product quality and consistency. Established in 2010, Heliene is recognized by Bloomberg New Energy Finance (BNEF) as Tier 1 manufacturer of solar modules and has been approved for use by the U.S. Department of Defense, U.S. Army Corps of Engineers and from numerous top tier utility scale project debt providers.



### FEATURES:

- Advanced cell technology (HJT) provides super high efficiency
- Extremely low LID & PID reduces annual degradation, ultimately yielding more power
- HJT cell technology excels in low light and high temperature conditions
- Optimized electrical design lowers hot spot risk and operating current
- PID resistant
- IP68 Rated junction box



### ELECTRICAL CHARACTERISTICS:

Performance at STC	HSPE_60M_G1_320BLK	HSPE_66M_M2_HJT_360BLK
Nominal Max Power (Pmax)	320 Watts	360 Watts
Max Power Voltage (Vmp)	34.10V	40.45V
Max Power Current (Imp)	9.37A	8.9A
Open Circuit Voltage (Voc)	40.50V	48.62V
Short Circuit Current (Isc)	10.20A	9.41A
Module Efficiency	19.21%	20.0%
Fire Rating	TYPE 1 (UL 61730)	
Temperature Coefficient (Pmax)	-0.36%/°C	-0.29%/°C



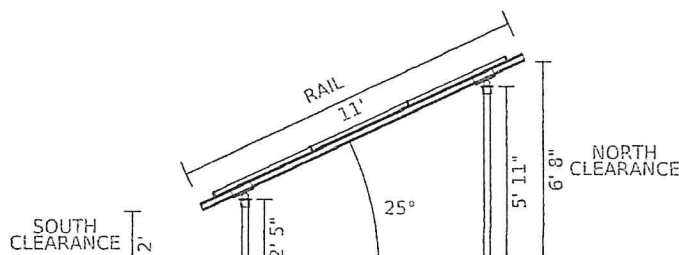
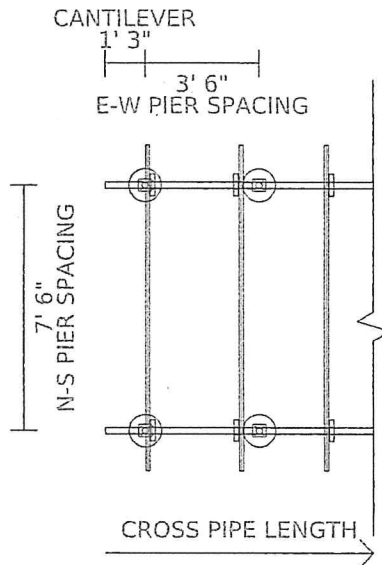
Operating Temperature	-40° to 85°C (-40° to 185°F)	
Maximum System Voltage	1500V	1000V
Maximum Series Fuse Rating	20A	15A
Cell Type	Monocrystalline	
Cell Arrangement	60	66 (6 x 11 cells)
Dimensions	65.5 x 39.4 x 1.6in (1666 x 1001 x 40mm)	71.18 x 39.29 x 1.6in (1808 x 998 x 40mm)
Weight	41.9 lbs (19kg)	44.9 lbs (20.4kg)
Cable Length and Connectors	47" cables Staubli MC4	
Static Wind/Snow Load	2400 Pa/ 5400 Pa	
Frame	Black	
Warranty	15 Year Workmanship 25 Year Performance	25 Year Workmanship 25 Year Performance

Project Details			
Name	Lee Barrett	Date	10/04/2022
Location	Simsbury, CT 06070	ASCE code	7.16
Total modules	9	Wind speed	110 mph
Module	Heliene: 60MBLK HOMEPV 320W (40mm)	Snow load	40 psf
Dimensions	Dimensions: 65.59" x 39.41" x 1.57" (1666.0mm x 1001.0mm x 40.0mm)	Wind exposure	D
Total watts	2,880 kW	Piers	10
		Concrete	1.31 yd <sup>3</sup>

Substructure & Foundation			
Tilt	25°	South facing grade	0°
Pipe/tubing diameter	2"	Soil class	4
Foundation type	Concrete	Hole diameter	12"

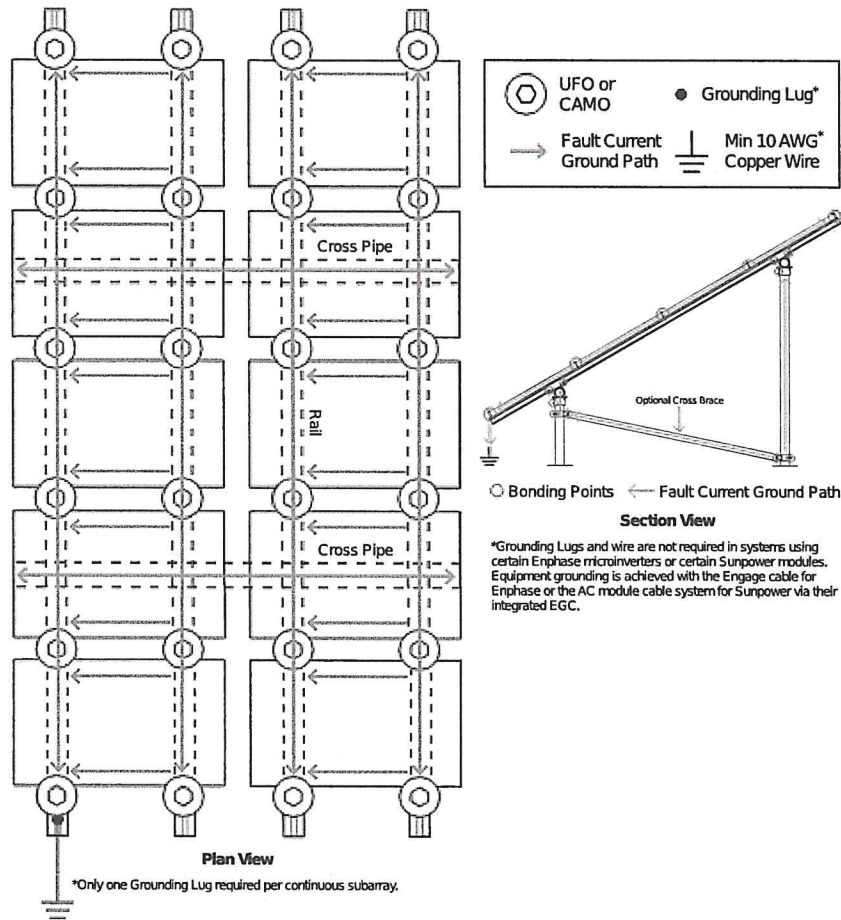
Sub array #1					
Rows	3	Columns	3	# Arrays	1
Area	16' 6" (EW) x 10' 1" (NS)	Rail type	XR1000	Diagonal bracing	no
E/W spacing	3' 6"	Rail cantilever	1' 4"	Pipe cantilever	1' 3"
Piers/array	10	Total south piers	5 (5' 5")	Total north piers	5 (8' 11")
Total cross pipes	2 (16' 6")	Total pipe length	104' 5"	Uplift	-656 lbs
Shear	500 lbs	Moment	1,250 ft-lbs		

*Solar rack size*





**Grounding Diagram**



\*Grounding Lugs and wire are not required in systems using certain Enphase microinverters or certain Sunpower modules. Equipment grounding is achieved with the Engage cable for Enphase or the AC module cable system for Sunpower via their integrated EGC.

**Bill of Materials**

**Part**

**Spares      Total Qty**

**Rails**

XR-1000-132A XR1000, Rail 132" (11 Feet) Clear * [Custom Length] Please check with your distributor for availability.	0	6
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**Clamps & Grounding**

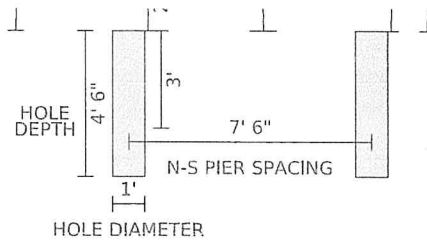
UFO-CL-01-A1 Universal Module Clamp, Clear	0	24
UFO-STP-40MM-M1 Stopper Sleeve, 40MM, Mill	0	12
XR-LUG-03-A1 Grounding Lug, Low Profile	0	1

**Substructure**

70-0200-SGA SGA Top Cap at 2"	0	10
GM-BRC-002 Ground Mount Bonded Rail Connector - 2"	0	12

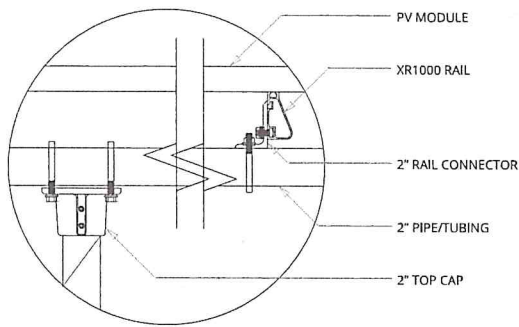




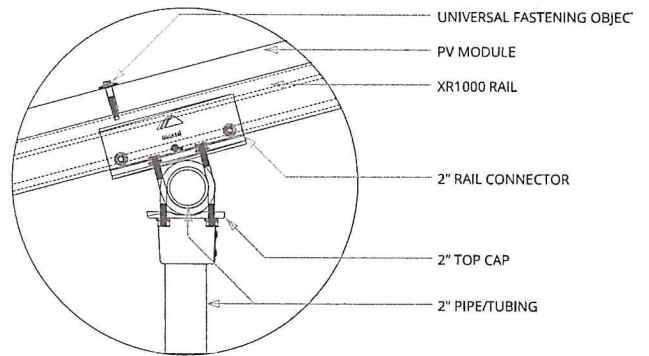


**Pipe Fitting Detail**

**XR1000 Rail**

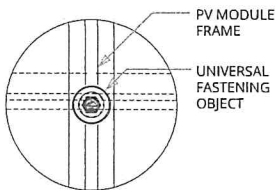


Front View

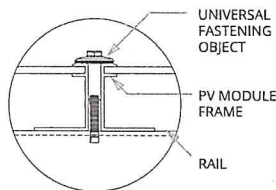


Side View

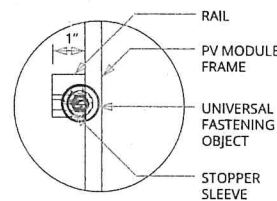
**Clamp Detail**



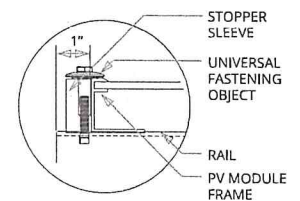
Mid Clamp, Plan



Mid Clamp, Front



End Clamp, Plan



End Clamp, Front

Project Details			
<b>Name</b>	Lee Barrett	<b>Date</b>	10/04/2022
<b>Location</b>	Simsbury, CT 06070	<b>ASCE code</b>	7.16
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<b>Module</b>	Heliene: 60MBLK HOMEPV 320W (40mm)	<b>Snow load</b>	40 psf
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<b>Total watts</b>	2,880 kW	<b>Piers</b>	10
		<b>Concrete</b>	1.31 yd <sup>3</sup>

Substructure & Foundation			
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<b>Total cross pipes</b>	2 (16' 6")	<b>Total pipe length</b>	104' 5"		
<b>Shear</b>	500 lbs	<b>Moment</b>	1,250 ft-lbs	<b>Uplift</b>	-656 lbs

