914.762.7622
www.sunrisesolarllc.com

AUTHORIZATION TO ACT AS AGENT

RE: Building Department

Village of Hastings — 3/24/2016

Municipality — Date

I, Andrew Zimmerman, authorize Sunrise Solar Solutions, LLC and its employees to act on my behalf with all matters concerning the installation of a solar panel electrical system located at:

Residence of

Commercial Property/Residence of

7 Ridge Street

Street Address

Hastings-on-Hudson, NY 10706

City, State, Zip

(Area Code) Phone Number

I authorize Sunrise Solar Solutions, LLC to file a building permit for this project on my behalf and also give Sunrise Solar Solutions, LLC permission to access a copy of this property's survey, site plans, and building plans.
Please do not hesitate to contact us at 914.762.7622 regarding any questions or if you require additional information.

Andrew Zimmerman (Mar 24, 2016)

Customer Signature

Andrew Zimmerman

Printed Name

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Name of Action or Project:
Zimmerman Solar Project

Project Location (describe, and attach a location map):
7 Ridge Street, Hastings-on-Hudson, NY 10706

Brief Description of Proposed Action:
installation of solar panels on roof of residence

Name of Applicant or Sponsor:	Telephone: 914-762-7622
Sunrise Solar Solutions, LLC	E-Mail: marla@sunrisesolarllc.com

Address:
510 North State Road

City/PO:	State:	Zip Code:
Briarcliff Manor	NY	10510

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: Village of Hastings-on-Hudson building permit	☐	☑

3.a. Total acreage of the site of the proposed action? N/A acres
b. Total acreage to be physically disturbed? N/A acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? N/A acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☑ Residential (suburban)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____
☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☐	☑
b. Consistent with the adopted comprehensive plan?	☐	☐	☑

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?	NO	YES
If Yes, identify: _____	☑	☐
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO	YES
	☑	☐
b. Are public transportation service(s) available at or near the site of the proposed action?	☑	☐
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☑	☐
9. Does the proposed action meet or exceed the state energy code requirements?	NO	YES
If the proposed action will exceed requirements, describe design features and technologies: _____	☐	☑
10. Will the proposed action connect to an existing public/private water supply?	NO	YES
If No, describe method for providing potable water: _____	☑	☐
11. Will the proposed action connect to existing wastewater utilities?	NO	YES
If No, describe method for providing wastewater treatment: _____	☑	☐
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	NO	YES
	☑	☐
b. Is the proposed action located in an archeological sensitive area?	☑	☐
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO	YES
	☑	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:
☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☐ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100 year flood plain?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	NO	YES
If Yes,		
a. Will storm water discharges flow to adjacent properties? ☐ NO ☐ YES	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?		
If Yes, briefly describe: ☐ NO ☐ YES		

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size:	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	☑	☐

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: Douglas Hertz, President, Sunrise Solar Solutions, LLC Date: 6/19/17

Signature:

PRINT FORM

Agency Use Only [If applicable]

Project:

Date:

Short Environmental Assessment Form
Part 2 - Impact Assessment

Part 2 is to be completed by the Lead Agency.
Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

	No, or small impact may occur	Moderate to large impact may occur
1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?	☐	☐
2. Will the proposed action result in a change in the use or intensity of use of land?	☐	☐
3. Will the proposed action impair the character or quality of the existing community?	☐	☐
4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?	☐	☐
5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?	☐	☐
6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?	☐	☐
7. Will the proposed action impact existing: a. public / private water supplies?	☐	☐
b. public / private wastewater treatment utilities?	☐	☐
8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?	☐	☐
9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?	☐	☐
10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage problems?	☐	☐
11. Will the proposed action create a hazard to environmental resources or human health?	☐	☐

PRINT FORM

Agency Use Only [If applicable]

Project:

Date:

Short Environmental Assessment Form
Part 3 Determination of Significance

For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action may result in one or more potentially large or significant adverse impacts and an environmental impact statement is required.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action will not result in any significant adverse environmental impacts.

Name of Lead Agency	Date
Print or Type Name of Responsible Officer in Lead Agency	Title of Responsible Officer
Signature of Responsible Officer in Lead Agency	Signature of Preparer (if different from Responsible Officer)

PRINT FORM

VILLAGE OF HASTINGS-ON-HUDSON

View Preservation Approval Application Requirements Checklist

Items	Item Specifics	Indicate how the checklist items are addressed*
Application	Complete application with supporting documents	..submitted building permit.....
Application Fee	Prescribed fee for the requested review/action	.....
Plans	Plans, Site Plans, Elevations Sections and details as necessary to describe the full scope of proposed work	....submitted - see site plan set..... .....
	A plan showing the location from where the photos were taken and general direction of the field of vision	....submitted - see site plan set.... .....
Photographs	Photographs from various vantage points showing the current views of the Palisades and Hudson river, without the proposed development/work	.....submitted - see ARB set..... .....
	Photographs from various vantage points showing the current views of the Palisades and Hudson river, with the proposed development/work simulated in the photographs	....submitted - see ARB set..... ....
Additional Requirements	Board/s may require a Mock-up at the proposed site simulating the height bulk or outline of the proposed construction/development to help them with their deliberations and decisions	....To be provided as and if needed... .....

*Indicate by notes such as, “see Note/Detail on Dwg #___”, “attached herewith”, or “NA”, etc. where “NA” stands for “Not applicable”.

..... Douglas Hertz President .....

Signature Date Name Title

OFFICE OF THE BUILDING INSPECTOR
Village of Hastings On Hudson
Municipal Building
7 Maple Avenue
Hastings On Hudson, New York 10706
(914) 478-3400 Ext. 613
Fax: (914) 478-4624
BldgInsp@Hastingsgov.org

LICENSED PROFESSIONAL AFFIDAVIT for RESIDENTIAL SOLAR SYSTEMS

TO BE SUBMITTED AS PART OF THE PERMIT APPLICATION

AFFIDAVIT OF ARCHITECT OR ENGINEER

State of New York }
ss.: County of Westchester
}

I the undersigned, under penalty of perjury, do hereby affirm:

1. I am an the (architect)(engineer) duly licensed in the State of New York

a) I am the NYS licensed design professional named in the Application for a Building Permit for a residential solar system located at 7 Ridge Street, Hastings-on-Hudson, New York 10706.

b) I have inspected the existing building and structure and find that the existing structure with the proposed solar panel installation and connections to the existing roof meet the minimum criteria set forth in:

Applicable Codes:	2010 Residential Code of New York State
	2001 Wood Frame Construction Manual
Design Roof Load:	30 psf live load, 115 psf dead load, 45 psf total load
Design Wind Load:	100 mph, 35spf

OR have proposed additional measures to ensure compliance with above.

4. I have reviewed the following submitted drawings and/or manufacturer specifications as part of the submission
List applicable plans with revision dates: _____(rev date)
_____(rev date)
_____(rev date)
_____(rev date)
_____(rev date)
_____(rev date)

5. The plans, drawings and specifications for the Building Permit are requested and listed above, as submitted (a)-were prepared by me or under my supervision, and (b)-to the best of my knowledge comply with the requirements of the Residential Building Code of New York State as adopted by the Village of Hastings-on-Hudson, applicable design loads and all other applicable laws, rules and regulations governing building construction.

_____
_____

Signature

(Architect) (Engineer)

Sworn to before me this
____day of_____, 20___.

_____

Notary Public

VILLAGE OF HASTINGS-ON-HUDSON

Zoning Board of Appeals

Application and Procedure for Application for Variance/Interpretation/View Preservation

Case number: ..... Date of application: 6/19/17

Property owner: Zimmerman

Property address: 7 Ridge Street, Hastings-on-Hudson, NY 10706

Name all streets on which the property is located: .....

Sheet: 4.70 Block: 52 Lot/Parcel: 47.5 Zoning District: .....

Applicant: Sunrise Solar Solutions, LLC

Standing of applicant if not owner: Agent / contractor

Address: 510 North State Road, Briarcliff Manor, NY 10510

Daytime phone number: 914-762-7622 Fax number: .....

E-mail address: marla@sunrisesolarllc.com

ZBA action requested for (See §295-146B & C : ☐ Use Variance/s; ☐ Area Variance/s; ☐ Interpretation; ■ View Preservation (See §295-82)

List code sections & provisions from which the variance or interpretation is requested:

Section*	Code Provision*	Existing Condition*	Proposed Condition*
N/A	N/A	N/A	N/A

*See example below:

295-68F.1a	Front Yard Min. 30 ft. deep	26.5 ft.	19.5 ft.
295-68A	Permitted Principal Use.	Single Family Home	Conversion to Dental Office

VILLAGE OF HASTINGS-ON-HUDSON

Zoning Board of Appeals

Application and Procedure for Application for Variance/Interpretation/View Preservation

- List any previous application or appeal filed with The Zoning Board of Appeals for this premises:

Date of Appeal	Purpose of the Appeal	Resolution if any	Date of Action
N/A			

- List pending violations on this property if any:

N/A

- Is there an approved site plan for this property?: ☐ (Yes) ☐ (No)
- Is there an Accessory Apartment at this property?: ☐ (Yes) ■ (No)
- Does this property have Boarder's Permit?: ☐ (Yes) ☒ (No)
- On a separate typewritten sheet of paper, state the principal points on which you are making this application. Describe the construction, addition or alteration that requires the variance. Explain why a variance is necessary and demonstrate how the variance satisfies the criteria for the type of variance (use or area) sought. The criteria for the two types of variances are attached. (If an interpretation is sought, explain the issue. If you wish you may also state your argument for how the issue should be resolved.)

Site preservation ONLY - installation of solar panels on roof of residence.

Submit a flash drive and a total of three (3) copies (residential) or eight (8) copies (commercial), of the application along with the property survey showing the existing and proposed construction and all other supporting documents (plans, drawings, site maps, photographs, etc. as necessary to describe and support your application) with required fee, to the Office of the Building Inspector, no less than four (4) weeks prior to the date of scheduled meeting of the Zoning Board of Appeals.

STATE OF NEW YORK
COUNTY OF WESTCHESTER ss.:

I hereby depose and say that all of the above statements and statements contained in all papers I have submitted in connection with this application are true:

Applicant

Sworn to before me this 22 day of June, 2017

LEE STREISFELD-LEITNER
Notary Public, State of New York
Reg. No. 01ST6347062
Qualified in Westchester County
My Commission Expires 8/29/2020

Notary Public

VILLAGE OF HASTINGS-ON-HUDSON
Zoning Board of Appeals
Application and Procedure for Application for Variance/Interpretation/View Preservation

STATE OF NEW YORK COUNTY OF
WESTCHESTER VILLAGE OF
HASTINGS ON HUDSON

Name : Andrew Zimmerman, being duly sworn, deposes and says that he/she resides at 7 Ridge Street in the Village of Hastings-on-Hudson in the County of Westchester, in the State of New York, that he/she is the owner of all that certain lot, parcel of land, in fee, lying and being in the Village of Hastings-on-Hudson aforesaid and known and designated as Sheet 4.70 Block 52 and Lot 47.5 of the tax map, and that he/she hereby authorized Sunrise Solar Solutions, LLC to make the annexed application in his/her behalf and that the statement of fact contained in said application are true.

Owner

SWORN TO BEFORE ME THIS 22 DAY
OF June 2017

LEE STREISFELD-LEITNER
Notary Public, State of New York
Reg. No. 01ST6347062
Qualified in Westchester County
My Commission Expires 8/29/2020

Notary Public

NOTICE

This application will not be accepted for filing unless accompanied by all necessary papers, plans and data, in accordance with the foregoing and as required by law.

VILLAGE OF HASTINGS-ON-HUDSON
Zoning Board of Appeals
Zoning Analysis

ZONING REQUIREMENTS:

YARD SETBACKS (Principal Structure)

	REQUIRED	EXISTING	PROPOSED
FRONT	N/A	N/A	N/A
REAR			
SIDE ONE			
SIDE TWO			
TOTAL OF TWO SIDES			

YARD SETBACKS (Accessory Structure)

	REQUIRED	EXISTING	PROPOSED
TO PRINCIPAL BLDG.	N/A	N/A	N/A
REAR			
SIDE			

BUILDING HEIGHT

	PERMITTED	EXISTING	PROPOSED
STORIES	N/A	N/A	N/A
FEET			

LOT COVERAGE

	PERMITTED	EXISTING	PROPOSED
LOT AREA	N/A	N/A	N/A
BLDG. COVERAGE/ % OF LOT AREA			
DEVELOPMENT COVERAGE / % OF LOT AREA			

*See Definitions of Building and Development Coverage in Section 295-5 of the Village code.

OCCUPANCY AND USE

	PERMITTED	EXISTING	PROPOSED
CURRENT USE**	SINGLE FAMILY	SINGLE FAMILY	SINGLE FAMILY

** Single Family, Two Family, Commercial, Mixed Use etc.

Sunrise Solar SOLUTIONS

914.762.7622
www.sunrisesolarllc.com

Zimmerman Residence
7 Ridge Street
Hastings-on-Hudson, NY 10706

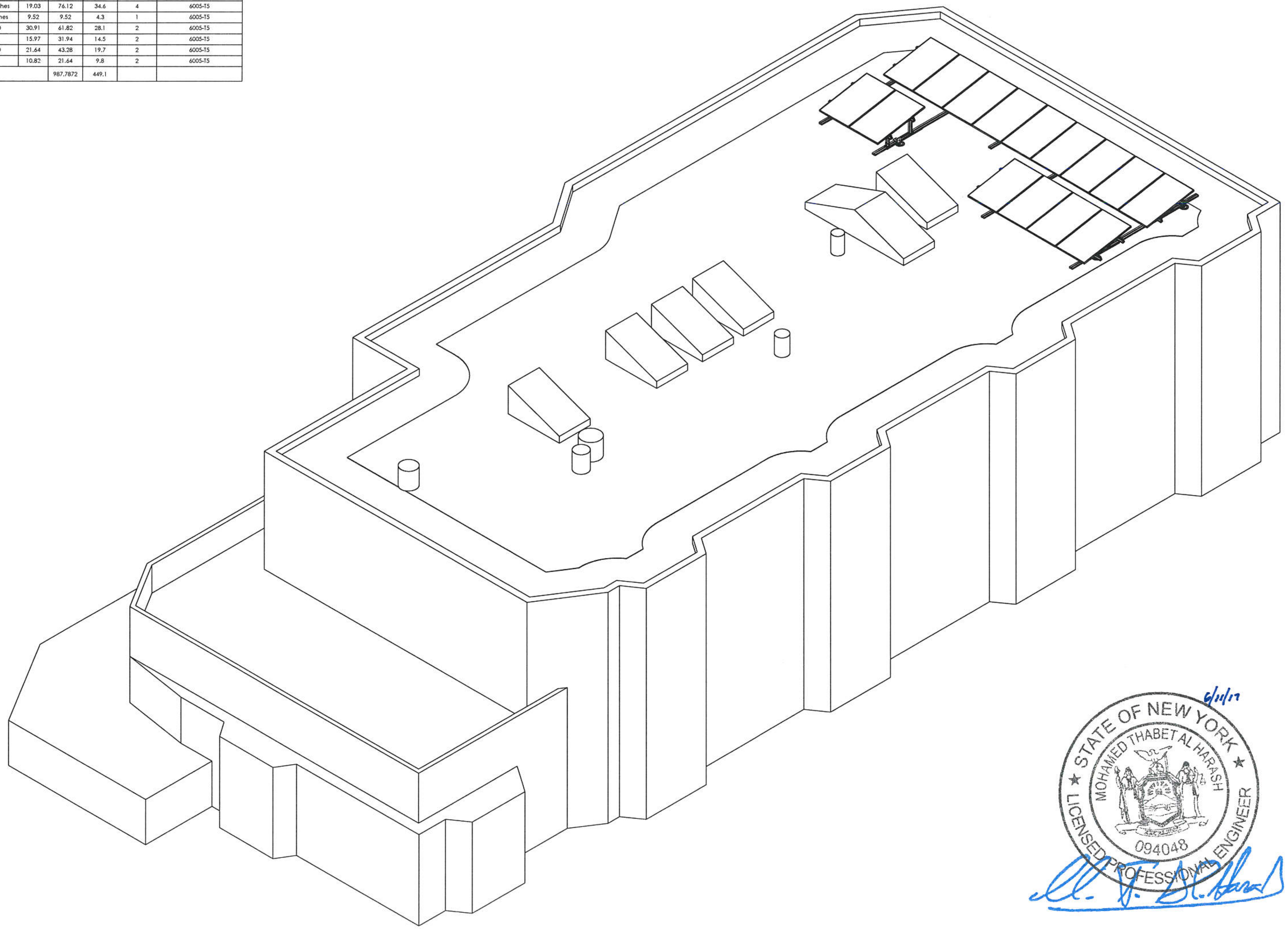
MEMO TO: Village of Hastings-on-Hudson Zoning Board of Appeals

This application to the Zoning Board of Appeals is for a variance for view preservation only for this residence to allow Sunrise Solar Solutions to install solar panels on the roof of said residence.

Yours truly,

Sunrise Solar Solutions, LLC

Project	ITEM NO.	PART NUMBER	DESCRIPTION	WEIGHT BY UNIT	WEIGHT (LBS)	WEIGHT (KG)	QTY.	Material
Bolt&Nuts	1	LN1-AL	Lock Nut; 0.5"x 0.5"	0.03	2.25	1.0	75	6061-T6 (SS)
Bolt&Nuts	2	BL-SS-3/8-16-0.75IN	SS Hex Bolt; 3/8"-16 x 3/4" with Loctite	0.04	1.92	0.9	48	AISI 304
Bolt&Nuts	3	BL-SS-3/8-16-1IN	SS Hex Bolt; 3/8-16 x 1" with Loctite	0.05	2.25	1.0	45	AISI 304
Bolt&Nuts	4	KN-SS-3/8-16	SS Keps Nut; 3/8-16	0.022	0.792	0.4	36	AISI 304
Bolt&Nuts	5	SDS-SS-12-1IN	Self Drilling Screw #12-1"	0.018	0.972	0.4	54	AISI 410 Stainless Steel
Bolt&Nuts	6	SDS-SS-14-1.25IN	Self Drilling Screw #14x1.25in	0.021	0.336	0.2	16	AISI 410 Stainless Steel
Bolt&Nuts	7	BL-SS-3/8-16-1.25IN	SS Hex Bolt; 3/8"x1-1/4" with Loctite	0.0608	0.5472	0.2	9	AISI 304
Bolt&Nuts	8	FW-SS-3/8	Flat Washer 3/8"	0.015	0.27	0.1	18	AISI 304
Burndy	9	WEEB-BDN-JMP-6.7	WEEB Bonding Jumper Type 6.7	0.15	0.15	0.1	1	
Components-SRL	10	SRL-ZC40-ER	SRL Z-Clamp; 40mm, End Row	0.16	1.92	0.9	12	6005-T5
Components-SRL	11	SRL-RL5	SunRail Linker; Type 5	0.72	2.88	1.3	4	6005A-T61
Components-SRL	12	SRL-AC6-3/8H	Aluminum Angle 2"x6"x 3/8"	1.07	19.26	8.8	18	6005-T5
Components-SRS	13	SR-C-SRS-10D	SR to SRS Clamp; 10.00°	1.00	18	8.2	18	6005-T5
Other Hardware	14	SR-RP1	SR Rubber Pad; 4"X48"	4.18	37.62	17.1	9	Recycled Rubber
Other Manufacturer	15	U-Clicloc	Integrated Bonding U-Clicloc	.18	4.32	2.0	24	6063-T5
Other Manufacturer	16	Power Grip Plus	Power Grip Plus		0	0.0	9	
PV-Panel	17	PV-Panel-60M	PV Panel 60Cells	40.8	612	278.2	15	STD
SR	18	SR-CC	Aluminum Angle 2"x3"-1/4"	0.46	8.28	3.8	18	6061-T6 (SS)
SR-Rails	19	SR2-15.25IN	SunRail2 Beam; Length 15.25 Inches STD	1.69	15.21	6.9	9	6005-T5
SR	20	SR-SC	SunRail Structure Side Clamp	0.23	4.14	1.9	18	6005A-T61
SR-Rails	21	SR2-10.375IN	SunRail2 Post; Length 10-3/8 Inches	1.15	10.35	4.7	9	6005-T5
SR-Rails	22	SR2-172IN	SunRail2 Beam; Length 172 Inches	19.03	76.12	34.6	4	6005-T5
SR-Rails	23	SR2-86IN	SunRail2 Beam; Length 86 Inches	9.52	9.52	4.3	1	6005-T5
SRS3-Rail	24	SRS3-240IN	SRS-2.5x3.5; length 240in STD	30.91	61.82	28.1	2	6005-T5
SRS3-Rail	25	SRS3-124IN	SRS-2.5x3.5; length 124in	15.97	31.94	14.5	2	6005-T5
SRS3-Rail	26	SRS3-168IN	SRS-2.5x3.5; length 168in STD	21.64	43.28	19.7	2	6005-T5
SRS3-Rail	27	SRS3-84IN	SRS-2.5x3.5; length 84in	10.82	21.64	9.8	2	6005-T5
TOTAL WEIGHT (WITHOUT BALLAST)					987.7872	449.1		



STATE OF NEW YORK
MOHAMED THABET AL HARASH
094048
LICENSED PROFESSIONAL ENGINEER

6/21/17

Opsun Systems Inc

Project Manager : Frederic Martineau
Phone : 1 (416)-800-1614
E-mail : projects@opsun.com
www.opsun.com

1901 Forbes Street
Whitby, Ontario L1N 9A7
Canada

Note

#	Review/Issue	Date

Array Information

Type of mounting : SunRail Structure
Modules : 60 Cells /270W
Tilt Angle(°) : 10°
Qty Panels: panels
Azimut (°): 0°
Array Size (kW): 12.7kW DC

Client Info

Sunrise Solar Solutions

SunRise Solar Solution LLC
510 North State Road
Briarcliff Manor, NY, USA
Contact : Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Title

BILL OF MATERIAL

Project Info

Ridge St.

Contact: Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Date: 14/02/2017

Project ID: RSE-161116-1

Draft : FM | Check : FGG

Scale : 1:50 | Page NO. PV01-1/14

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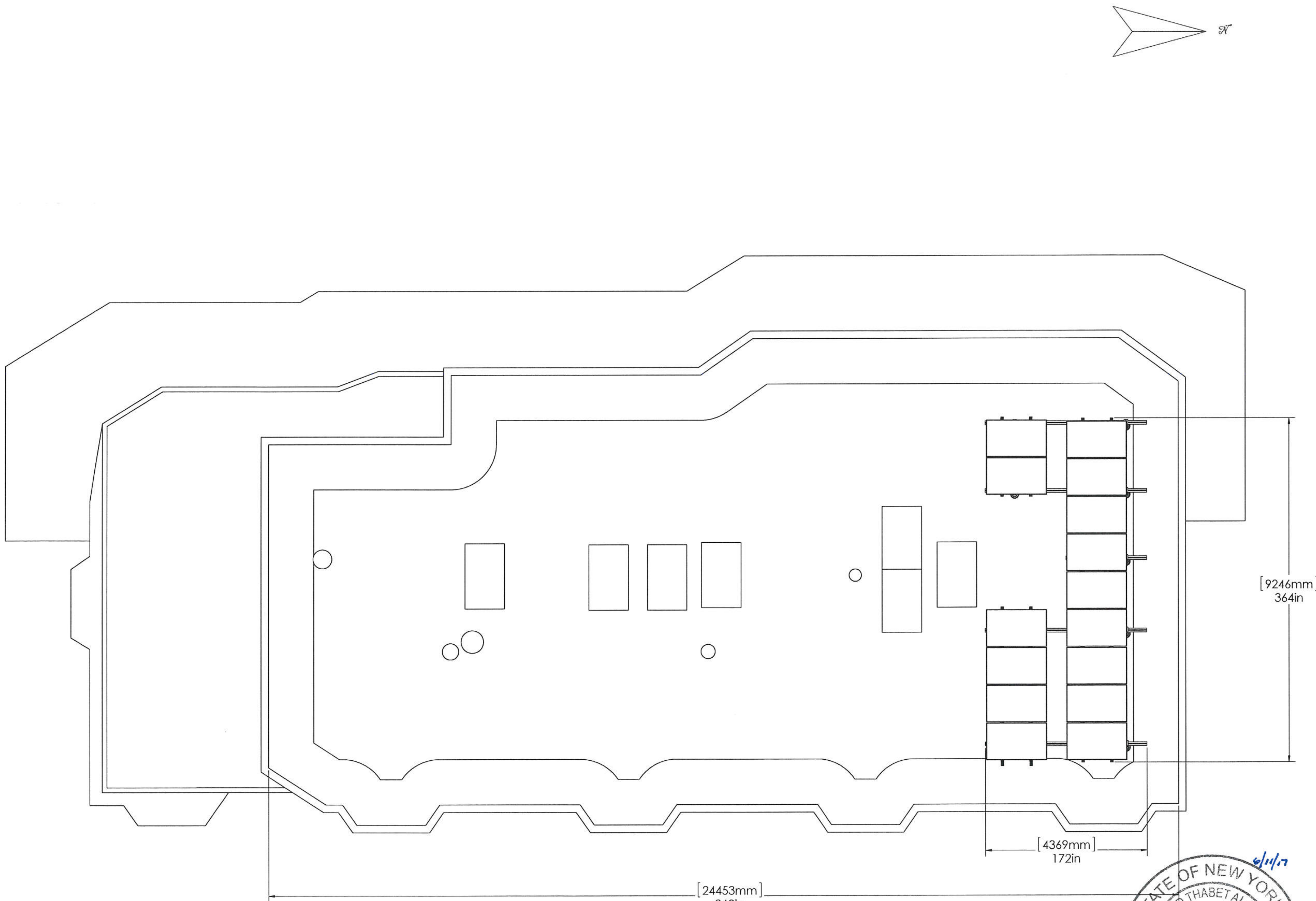

STATE OF NEW YORK
MOHAMED THABET AL HARASH
094048
LICENSED PROFESSIONAL ENGINEER
6/11/17

opsun systems inc
Project Manager : Frederic Martineau
Phone : 1 (416)-800-1614
E-mail : projects@opsun.com
www.opsun.com

1901 Forbes Street
Whitby, Ontario L1N 9A7
Canada

Note

#	Review/Issue	Date

Array Information

Type of mounting : SunRail Structure
Modules : 60 Cells /270W
Tilt Angle(°) : 10°
Qty Panels: panels
Azimut (°): 0°
Array Size (kW): 12.7kW DC

Client Info

Sunrise Solar Solutions
SunRise Solar Solution LLC
510 North State Road
Briarcliff Manor, NY, USA
Contact : Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Title

TOP ELEVATION

Project Info

Ridge St.

Contact: Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Date 14/02/2017

Project ID RSE-161116-1

Draft : FM	Check : FGG
Scale : 1:50	Page NO. PV01-2/14

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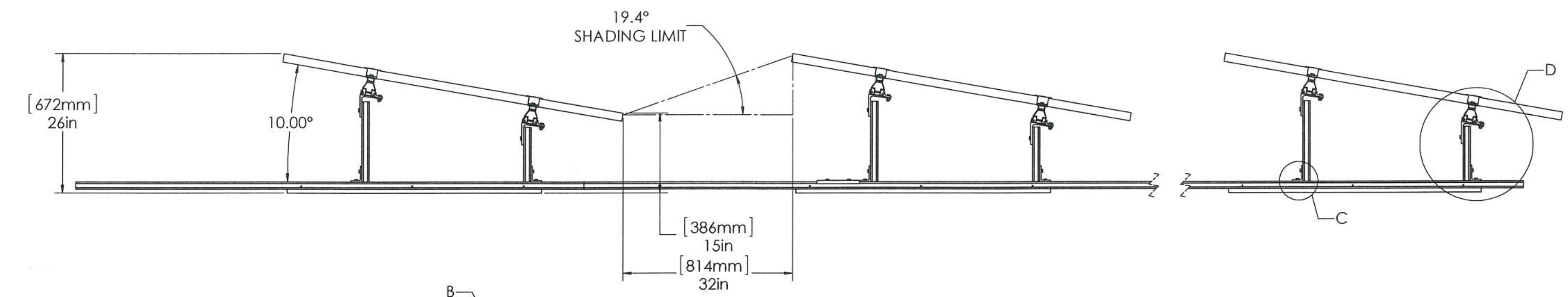
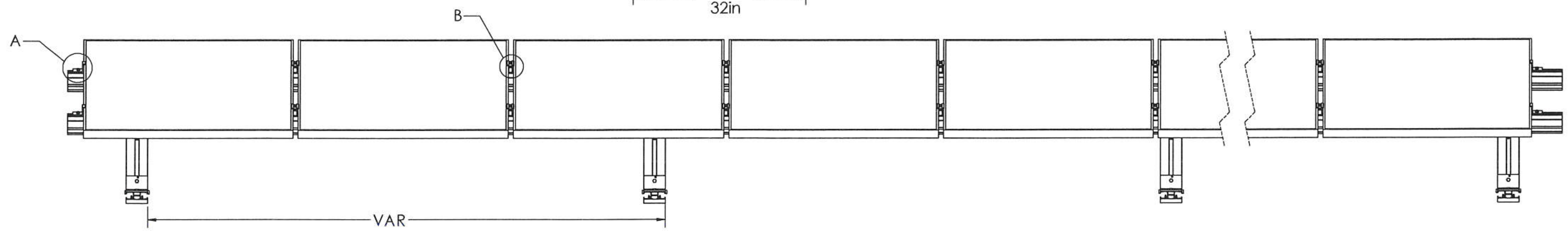
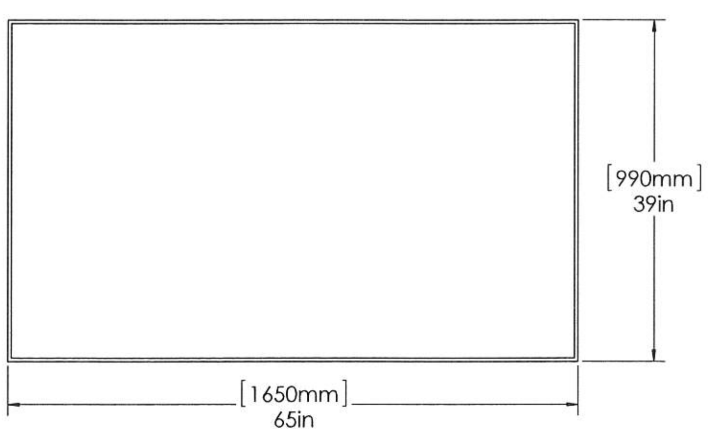




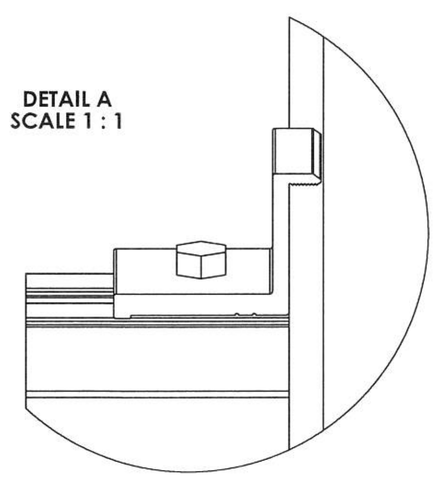
PV Panel Dimension

Model : 60 cells

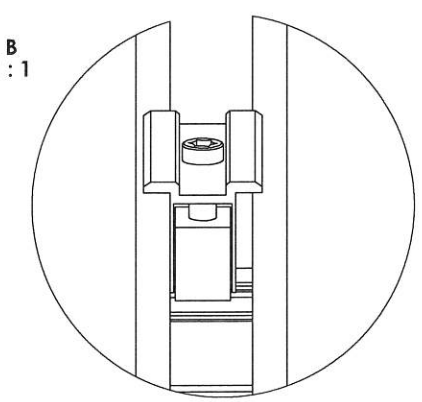
Panel Area : 17.6ft² (1.63 m²)



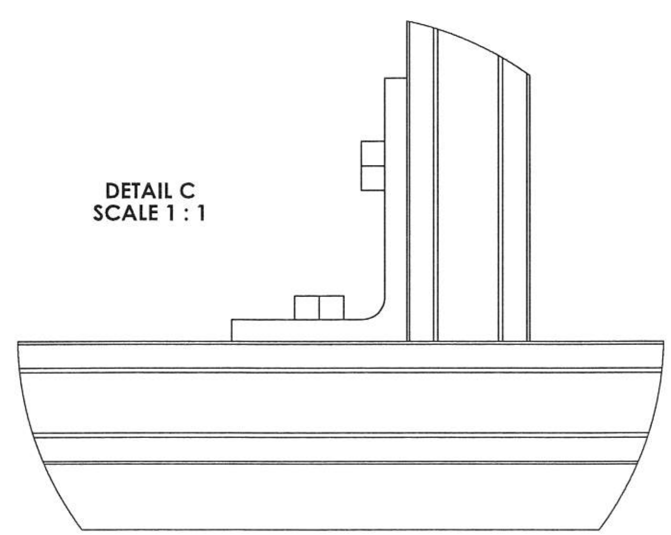
DETAIL A
SCALE 1 : 1

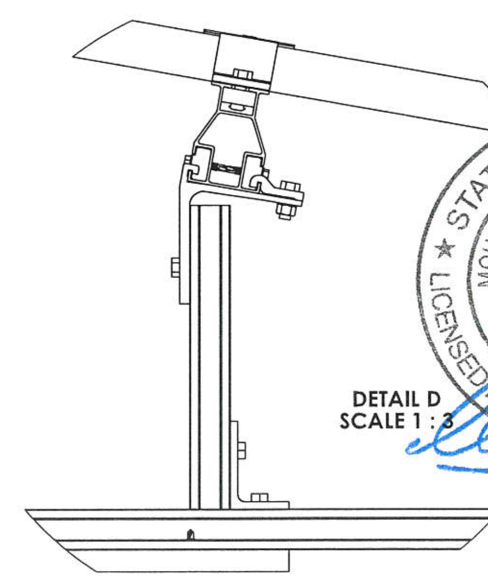


DETAIL B
SCALE 1 : 1



DETAIL C
SCALE 1 : 1





DETAIL D
SCALE 1 : 3

NOTES:

DESIGN COMPLY TO NBCC 2010 & CSA 157-05

ALL FIXTURES ARE MADE OF ALUMINUM (6005-T5 OR 6061-T6 ALLOY)

BOLTS AND NUTS ARE MADE OF STAINLESS STEEL (ASTM 304)

ALL BOLTS (BL-SS-3/8-XX) MUST BE TORQUED AT 20 LB-FT

ALL BOLT AND NUTS Ø1/2" BUST BE TORQUED AT 43 LB-FT

ALL TORX SCREW MUST BE TORQUED AT 8-10 N-M (6-7 LBS-FT)USING A TORX T40 TOOL

STATE OF NEW YORK
MOHAMED THABET AL HARASH
094048
LICENSED PROFESSIONAL ENGINEER
6/11/17

opsun systems inc

Project Manager : Frederic Martineau
Phone : 1 (416)-800-1614
E-mail : projects@opsun.com
www.opsun.com

1901 Forbes Street
Whitby, Ontario L1N 9A7
Canada

Note

#	Review/Issue	Date

Array Information

Type of mounting : SunRail Structure
Modules : 60 Cells /270W
Tilt Angle(°) : 10°
Qty Panels: panels
Azimut (°): 0°
Array Size (kW): 12.7kW DC

Client Info

Sunrise Solar SOLUTIONS
SunRise Solar Solution LLC
510 North State Road
Briarcliff Manor, NY, USA
Contact : Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Title

SYSTEM DETAILS

Project Info

Ridge St.

Contact: Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Date 14/02/2017

Project ID RSE-161116-1

Draft : FM	Check : FGG
Scale : 1:12	Page NO. PV01-3/14

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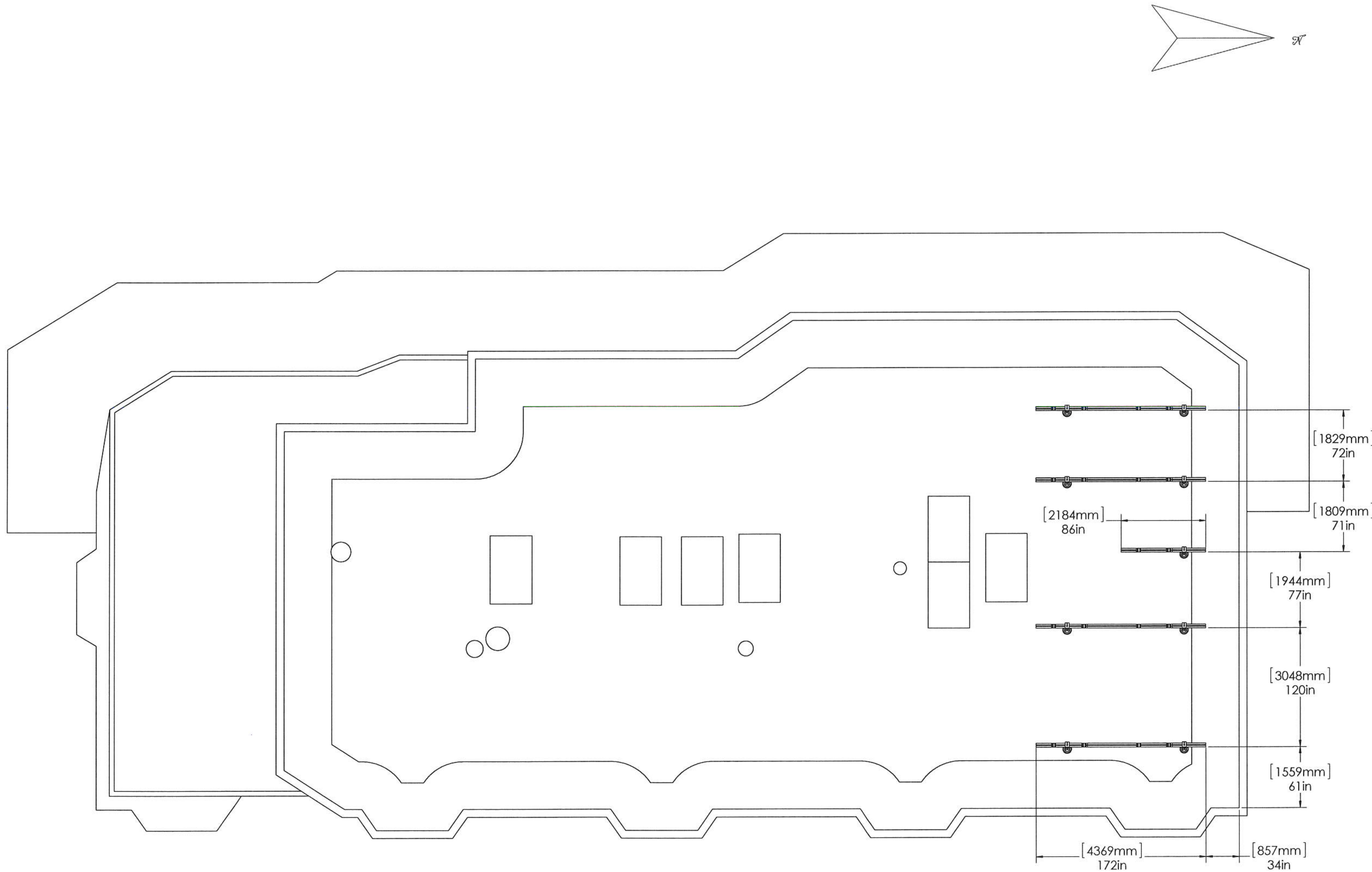

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SunRise Solar Solution LLC
510 North State Road
Briarcliff Manor, NY, USA
Contact : Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Title

GROUND RAIL

Project Info

Ridge St.

Contact: Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Date 14/02/2017
Project ID RSE-161116-1
Draft : FM
Check : FGG
Scale : 1:50
Page NO. PV01-4/14

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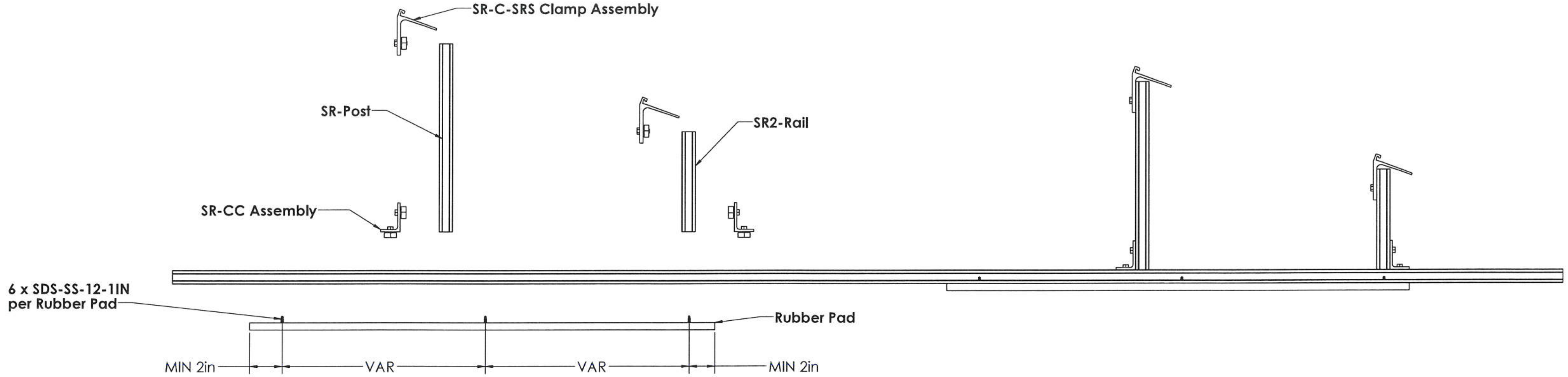

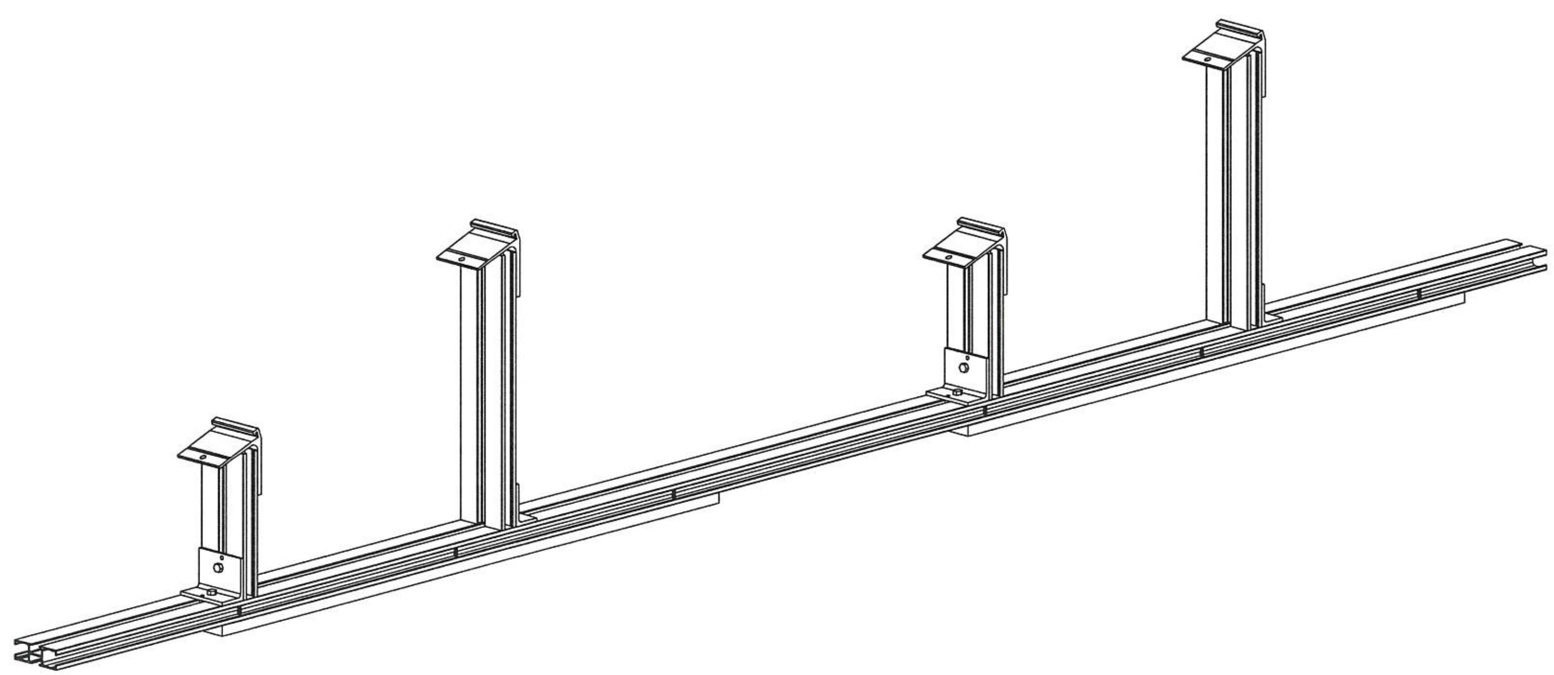

GROUND BEAM ASSEMBLY INSTRUCTIONS

1. Hammer-in six (6) self-drilling screws (SDS-SS-12-1IN) into the rubber pad (SR-RP1) using the given patern. Make sure to hammer the screws in the groves of the pad. This will ensure that the screw head will not be in contact with the roof once screwed in.

2. Position the rubber pad on the SRS-Rail. Screw in place.

3. Mount up the front clamp assembly, SR-CC, then post, then SR-C-SRS.

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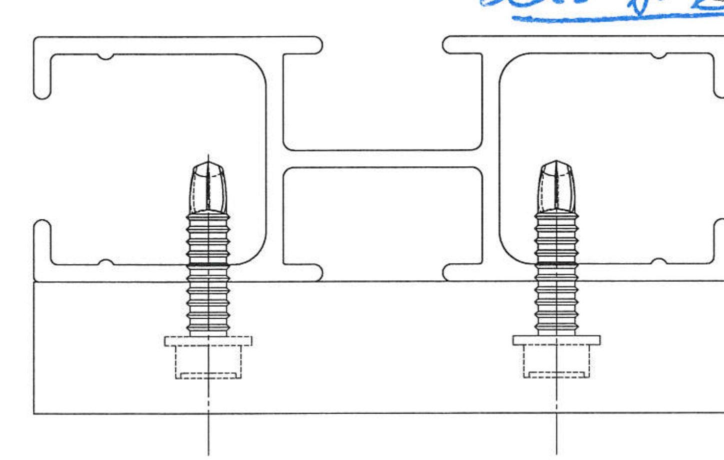

SCALE 2:1

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Notice

Note

#	Review/Issue	Date

Array Information

Type of mounting : SunRail Structure
Modules : 60 Cells /270W
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Qty Panels: panels
Azimut (°): 0°
Array Size (kW): 12.7kW DC

Client Info

Sunrise Solar SOLUTIONS

SunRise Solar Solution LLC
510 North State Road
Briarcliff Manor, NY, USA
Contact : Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Title

GROUND RAIL PREASSEMBLY-1

Project Info

Ridge St.

Contact: Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Date 14/02/2017	
Project ID RSE-161116-1	
Draft : FM	Check : FGG
Scale : 1:10	Page NO. PV01-5/14

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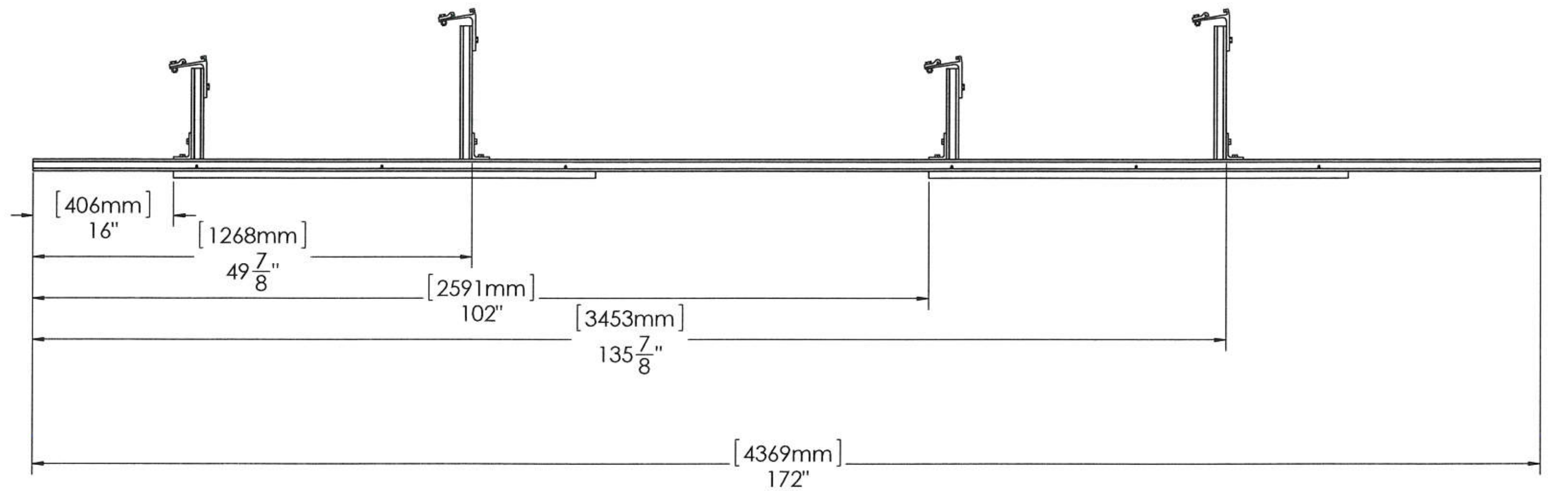

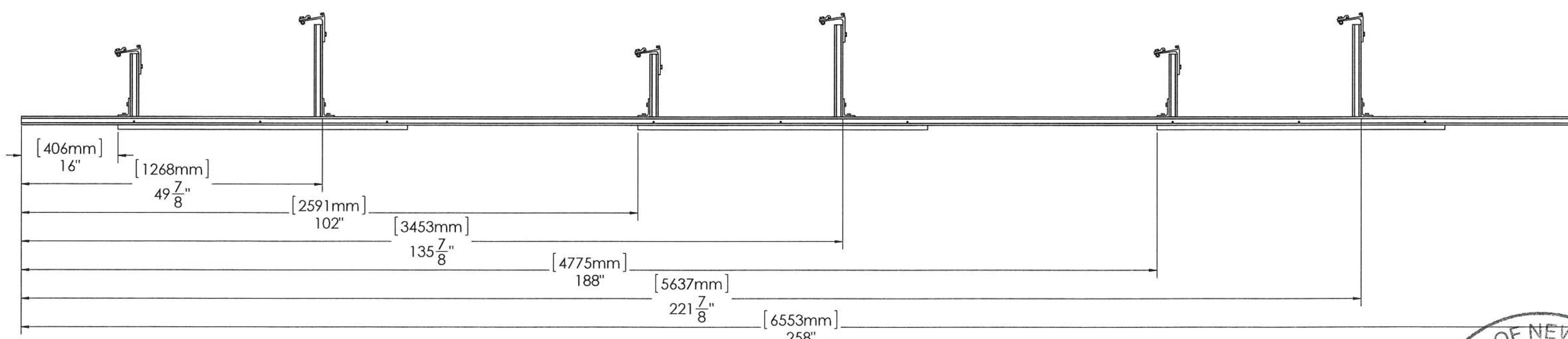

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Note

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Azimut (°): 0°
Array Size (kW): 12.7kW DC

Client Info

Sunrise Solar Solutions
SunRise Solar Solution LLC
510 North State Road
Briarcliff Manor, NY, USA
Contact : Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Title
GROUND RAIL PREASSEMBLY-2

Project Info

Ridge St.

Contact: Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Date: 14/02/2017
Project ID: RSE-161116-1
Draft : FM
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Scale : 1:10
Page NO. PV01-6/14

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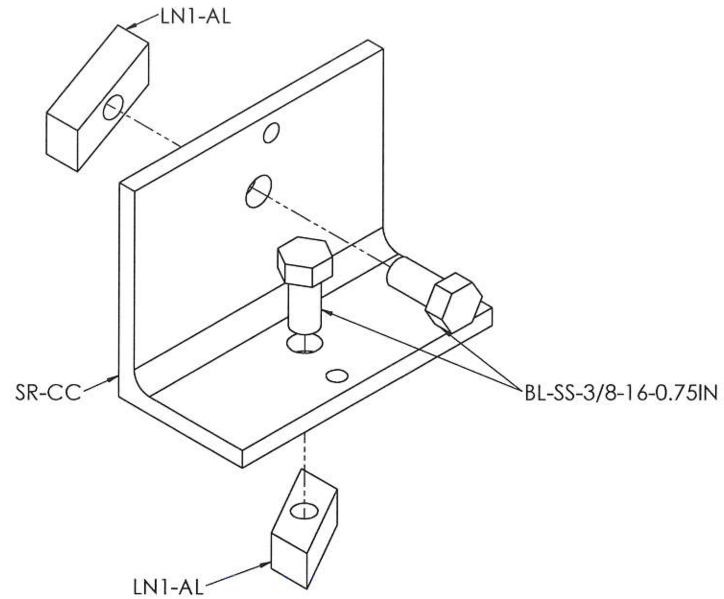
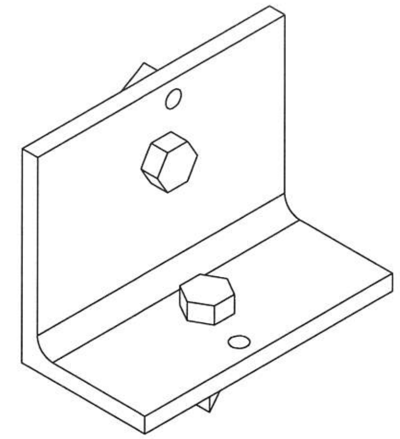
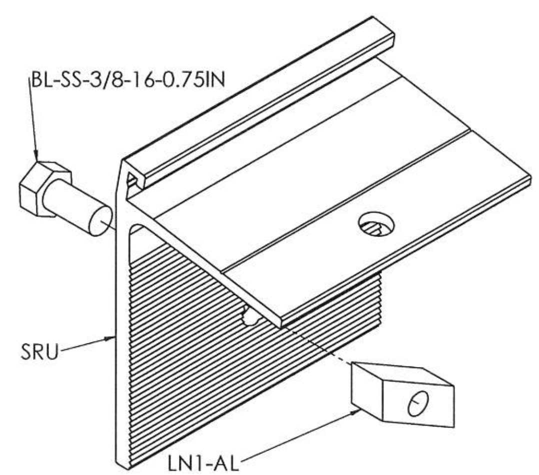
COMPONENTS PREASSEMBLY

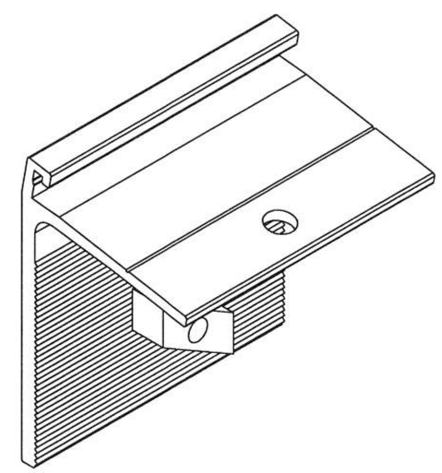
SR-CC Assembly





SRU Assembly





NOTES : FOR EACH LOCK NUTS (LNS-SS),
ONLY BOLT IN 2-3 THREADS .

FOR ALL KEPS NUTS, HAND TIGHTEN THE NUT.

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Canada

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Azimut (°): 0°

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Client Info

Sunrise Solar SOLUTIONS

SunRise Solar Solution LLC
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Title

PREASSMBLIES

Project Info

Ridge St.

Contact: Doug Hertz
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doug@sunrisesolarllc.com

Date 14/02/2017

Project ID RSE-161116-1

Draft : FM

Check : FGG

Scale : 1:1

Page NO. PV01-7/14

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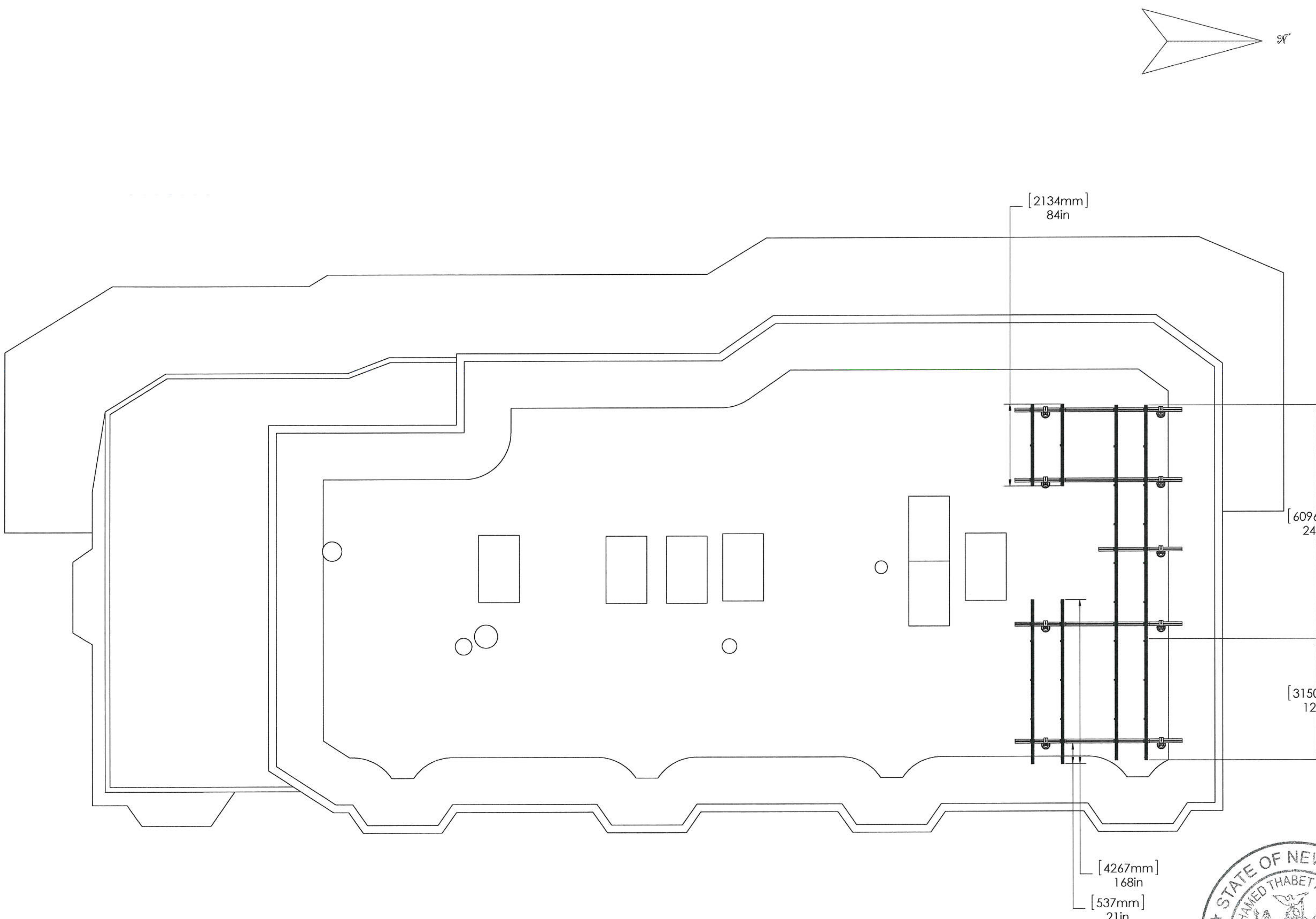

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6/11/17

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Canada

Notice

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Azimut (°): 0°
Array Size (kW): 12.7kW DC

Client Info

Sunrise Solar SOLUTIONS

SunRise Solar Solution LLC
510 North State Road
Briarcliff Manor, NY, USA
Contact : Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Title

CROSSRAIL-1

Project Info

Ridge St.

Contact: Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Date 14/02/2017

Project ID RSE-161116-1

Draft :	Check :
FM	FGG
Scale : 1:50	Page NO. PV01-8/14

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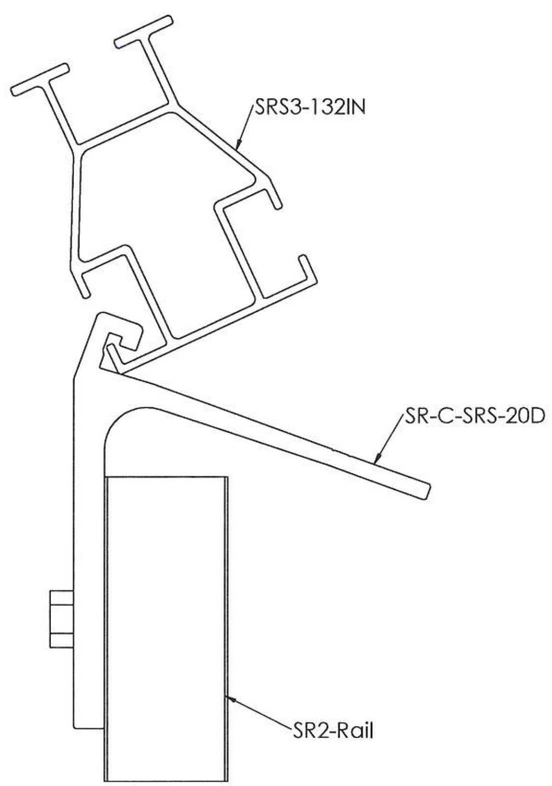
SRS3-Rail Installation
1. Slide the SRS3-Rail into the SR-C-SRS clamp by tilting it and secure it into the clamp channel. The SRS3-Rail must be flat on the SR-C-SRS clamp and fully inserted in the channel.

2. Adjust the SRS3-Rail position by sliding it along the clamp, if necessary.

3. Secure with the SR-SC clamp.



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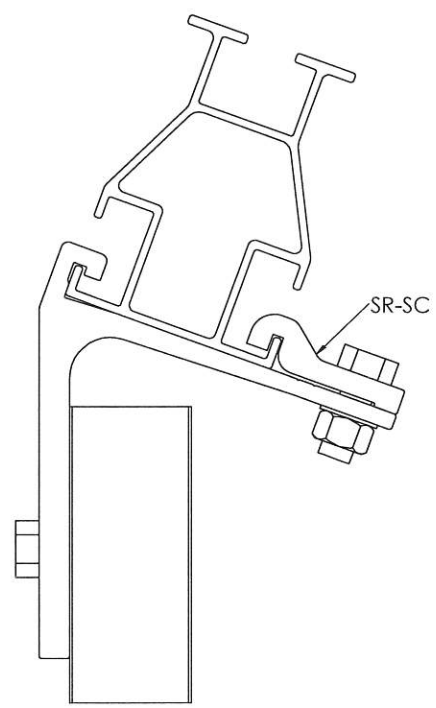
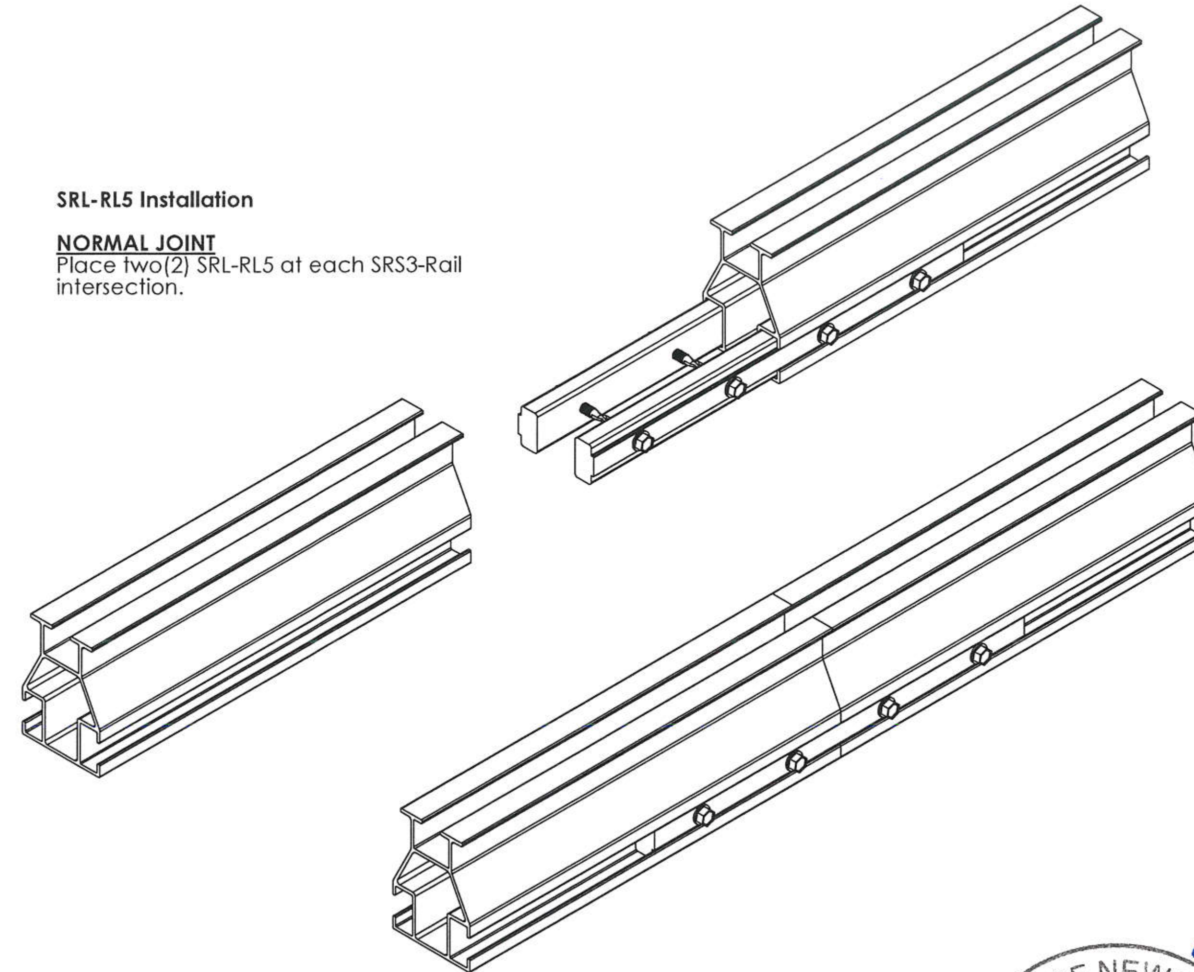


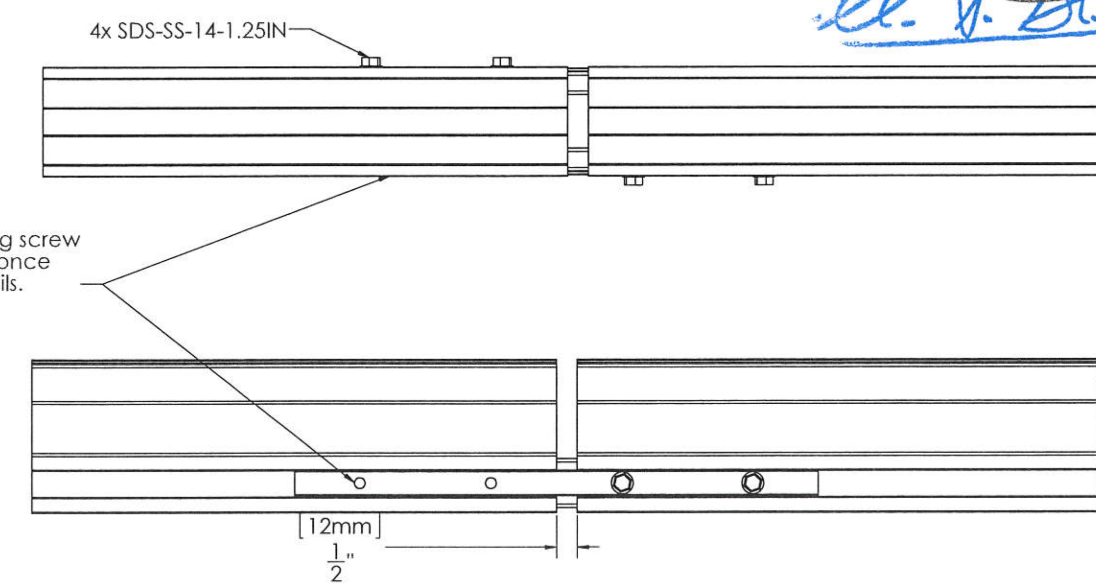
SCALE 1:1

SRL-RL5 Installation

NORMAL JOINT
Place two(2) SRL-RL5 at each SRS3-Rail intersection.



THERMAL EXPENSION JOINT
Once every 40' (once every two rails), leave a 12mm gap between rails and screws (2 screws on each side, 4 total) the SRL-RL5 only to one of the SRS3-Rail.



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LICENSED PROFESSIONAL ENGINEER
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Opsun systems inc
Project Manager : Frederic Martineau
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www.opsun.com

1901 Forbes Street
Whitby, Ontario L1N 9A7
Canada

Note

#	Review/Issue	Date

Array Information

Type of mounting : SunRail Structure
Module: 60 Cells /270W
Tilt Angle(°) : 10°
Qty Panels: panels
Azimut (°): 0°
Array Size (kW): 12.7kW DC

Client Info

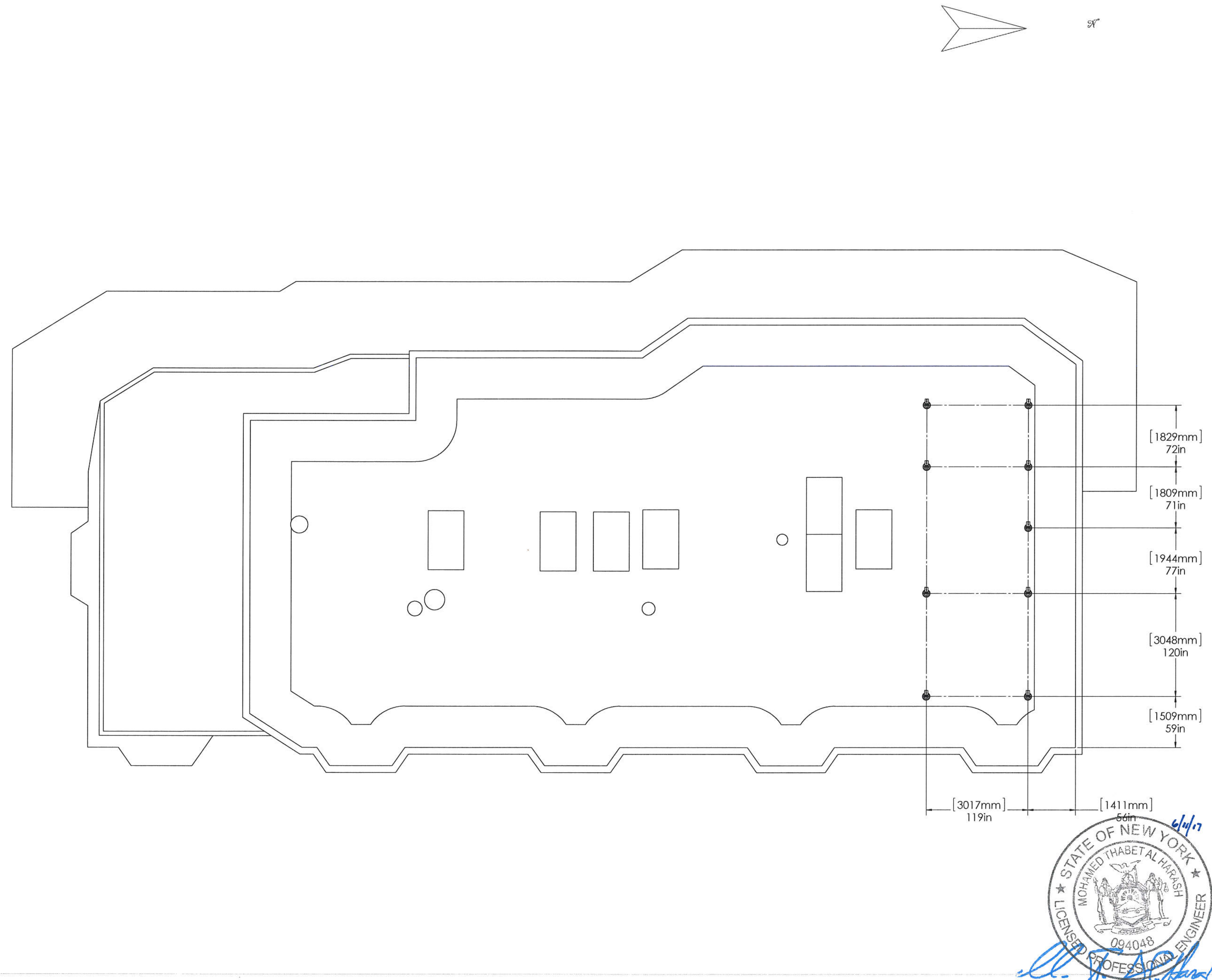
Sunrise Solar Solutions
SunRise Solar Solution LLC
510 North State Road
Briarcliff Manor, NY, USA
Contact : Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Title
CROSSRAILS-2

Project Info
Ridge St.

Contact: Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Date: 14/02/2017
Project ID: RSE-161116-1
Draft : FM | Check : FGG
Scale : 1:2 | Page NO. PV-08/01



Opsun Systems inc

Project Manager : Frederic Martineau
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1901 Forbes Street
Whitby, Ontario L1N 9A7
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Note

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Array Information

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Client Info

Sunrise Solar Solutions

SunRise Solar Solution LLC
510 North State Road
Briarcliff Manor, NY, USA
Contact : Doug Hertz
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doug@sunrisesolarllc.com

Title

ANCHOR LAYOUT

Project Info

Ridge St.

Contact: Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Date: 14/02/2017	
Project ID: RSE-161116-1	
Draft : FM	Check : FGG
Scale : 1:50	Page NO. PV01-10/14

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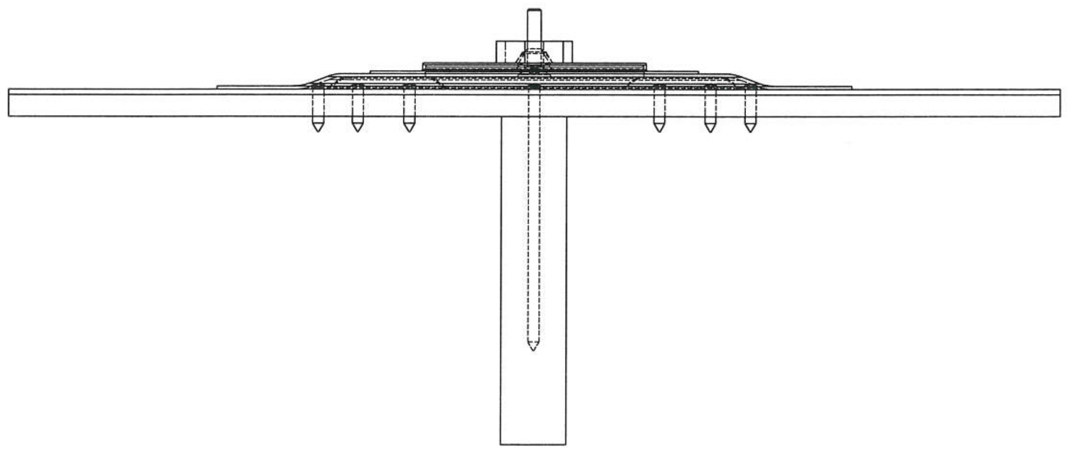

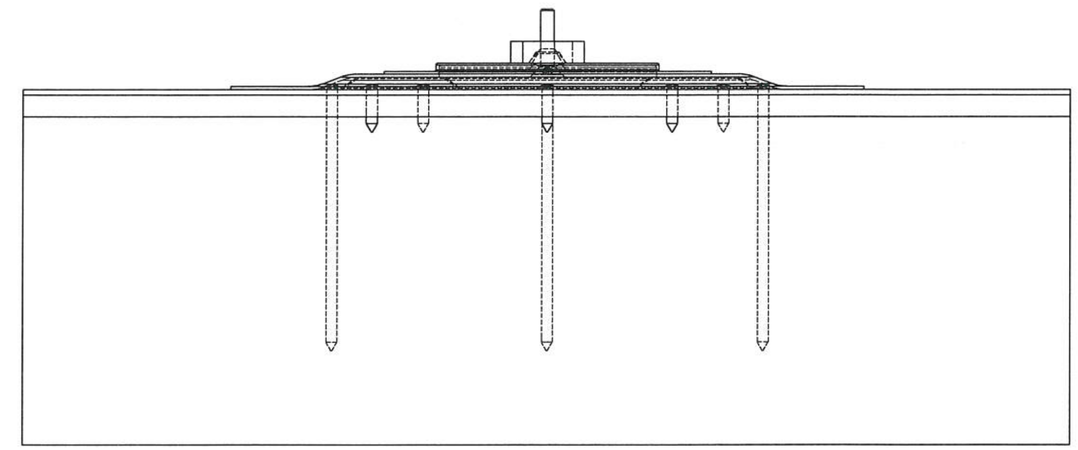

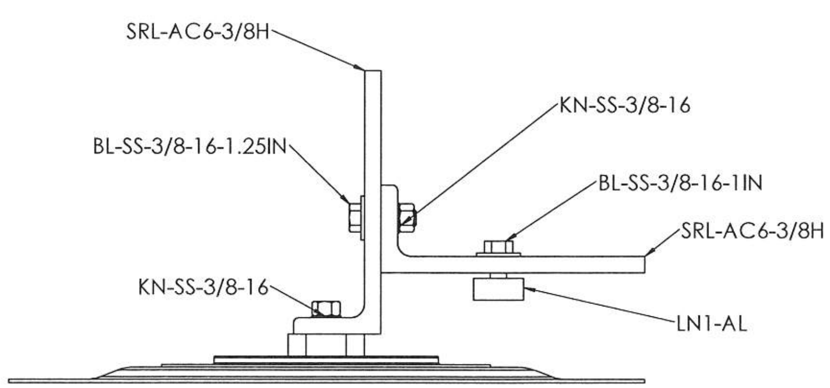

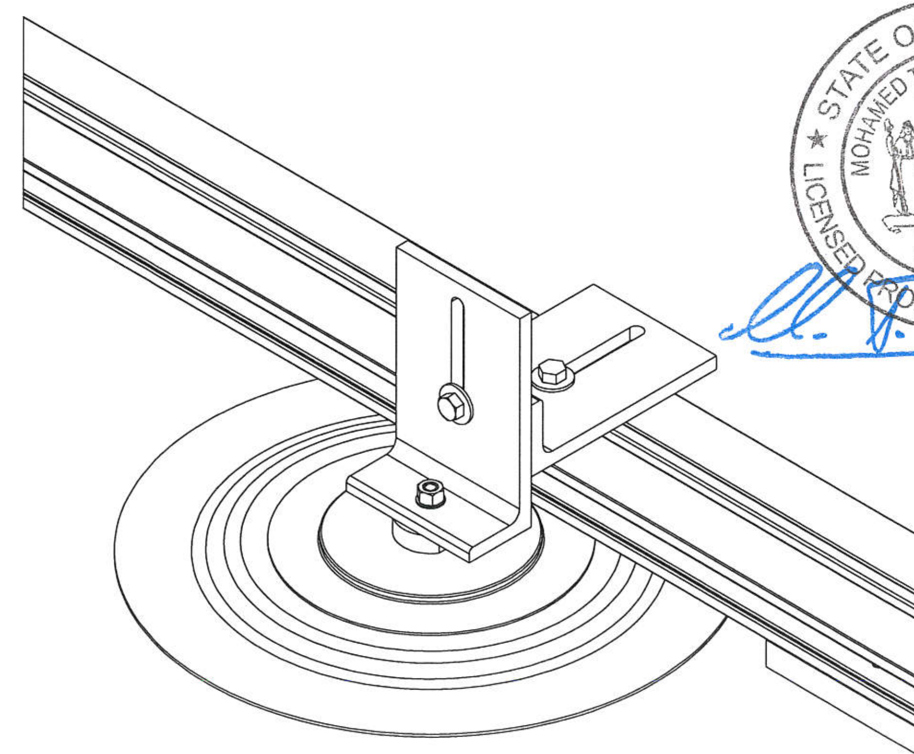

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Notice

Note

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MOHAMED THABET AL HARASH
094048
LICENSED PROFESSIONAL ENGINEER
6/11/17

#	Review/Issue	Date

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Phone : 914.762.7622
doug@sunrisesolarllc.com

Title

ANCHOR DETAIL

Project Info

Ridge St.

Contact: Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Date 14/02/2017	
Project ID RSE-161116-1	
Draft : FM	Check : FGG
Scale : 1:2	Page NO. PV01-11/14

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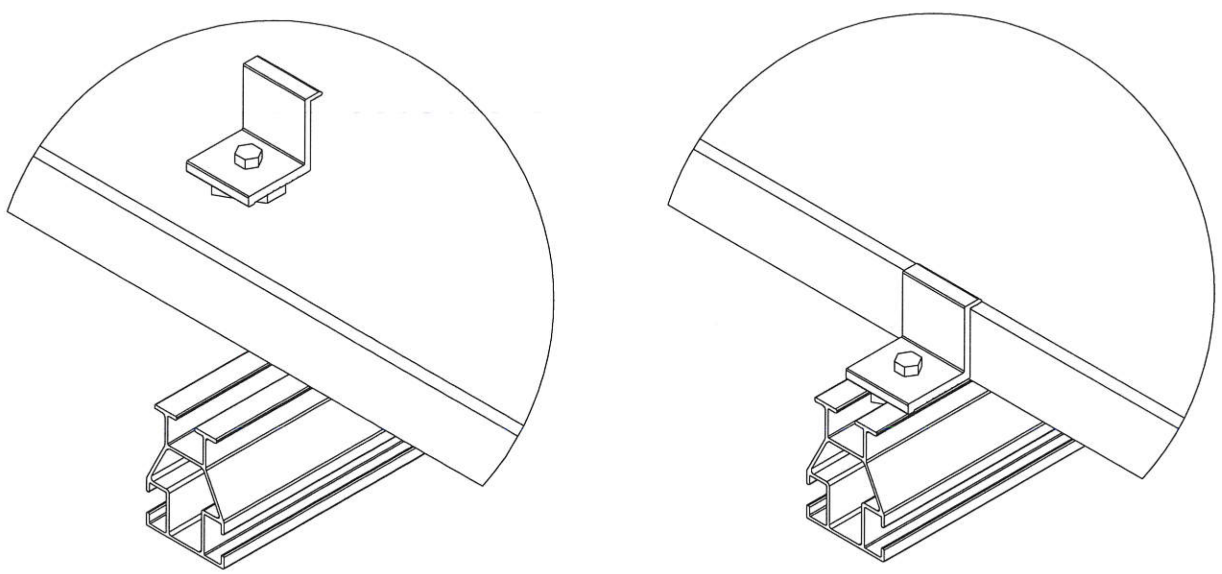
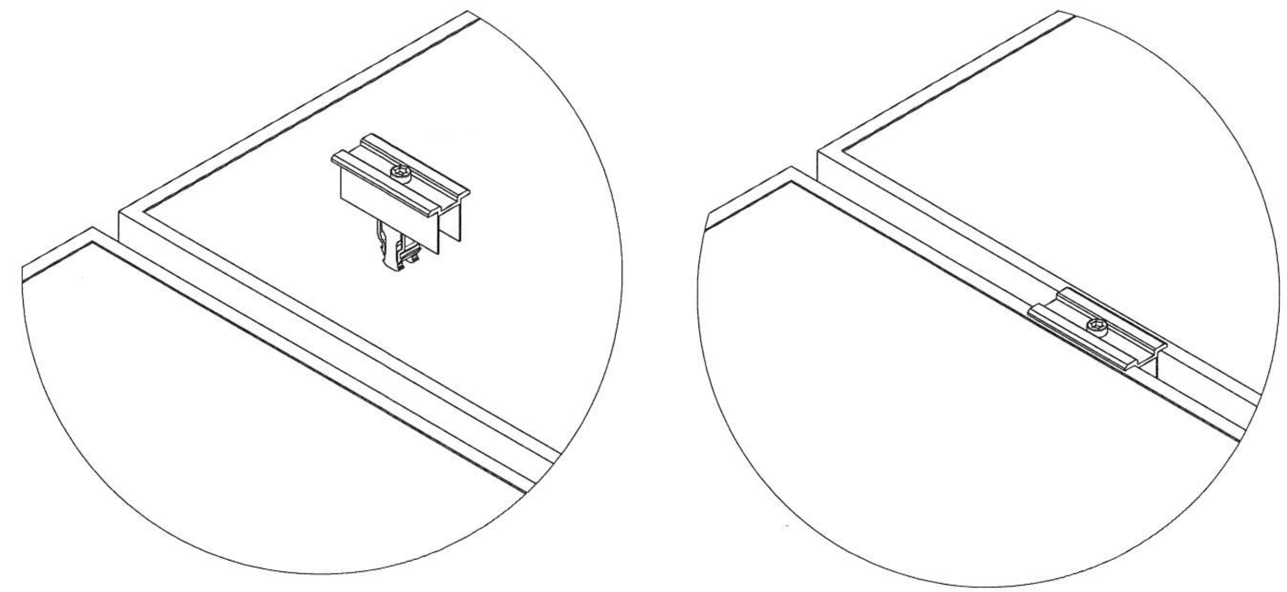
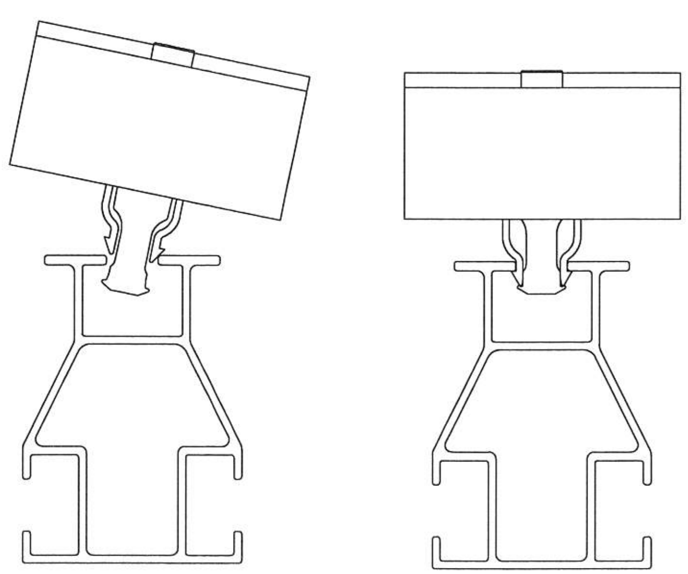
Clicloc Assembly Instruction



End Row Clicloc (SRL-ZC)

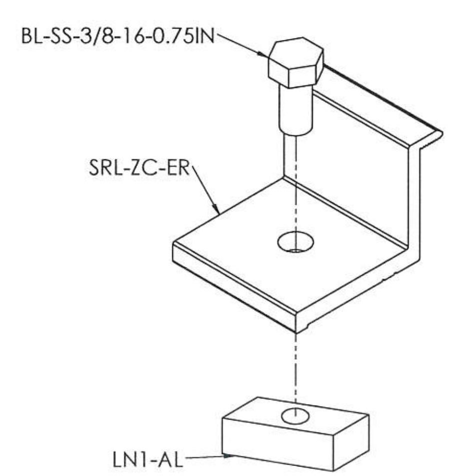


Mid Clamp Clicloc (U-Clicloc)

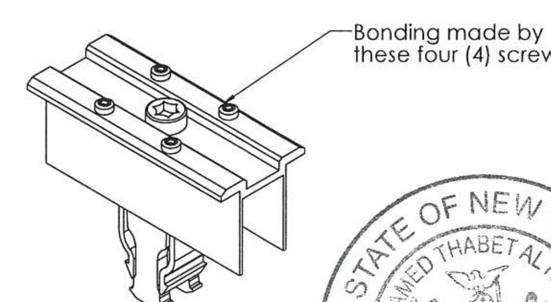


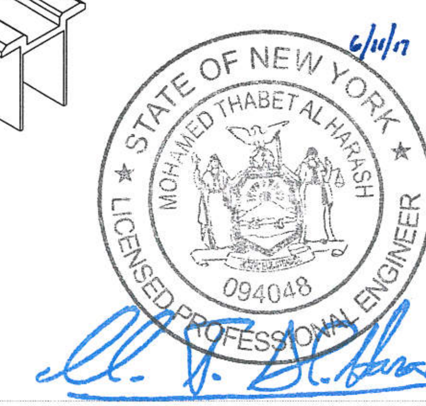
Tilt the Clic loc for an easy installation, then torque the Torx Bolt to lock it in posiiton.

End Row Clamp (SRL-ZC)



Mid Clamp ClicLoc (U-ClicLoc)





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Note

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Array Information

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Client Info

Sunrise Solar Solutions

SunRise Solar Solution LLC
510 North State Road
Briarcliff Manor, NY, USA
Contact : Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Title

CLICLOC INSTRUCTION

Project Info

Ridge St.

Contact: Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

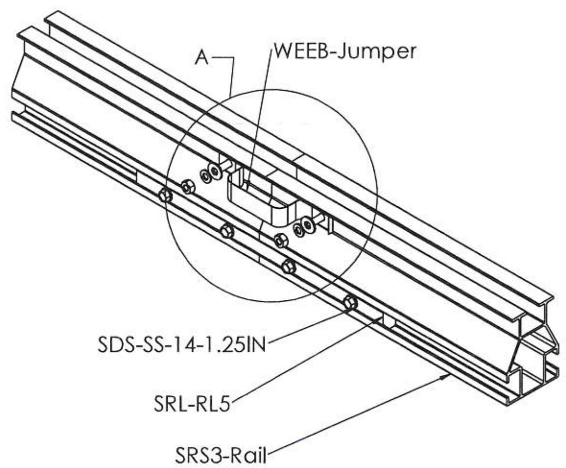
Date 14/02/2017

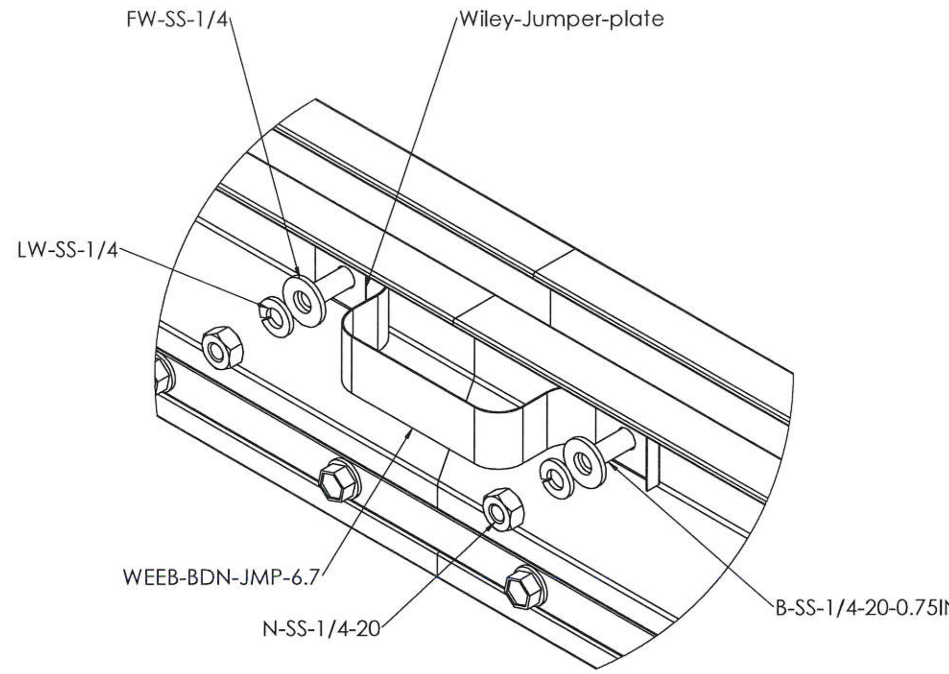
Project ID RSE-161116-1

Draft : FM	Check : FGG
Scale : 1:1	Page NO. PV-06/01

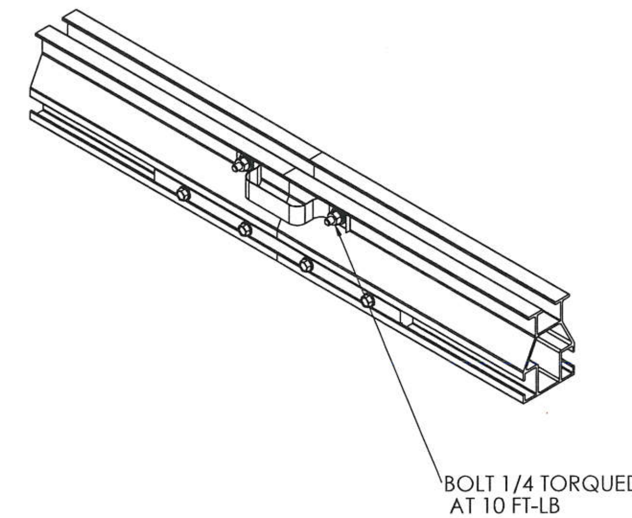
Electrical Detail -SRS-Clicloc

WEEB-Jumper Assembly Detail

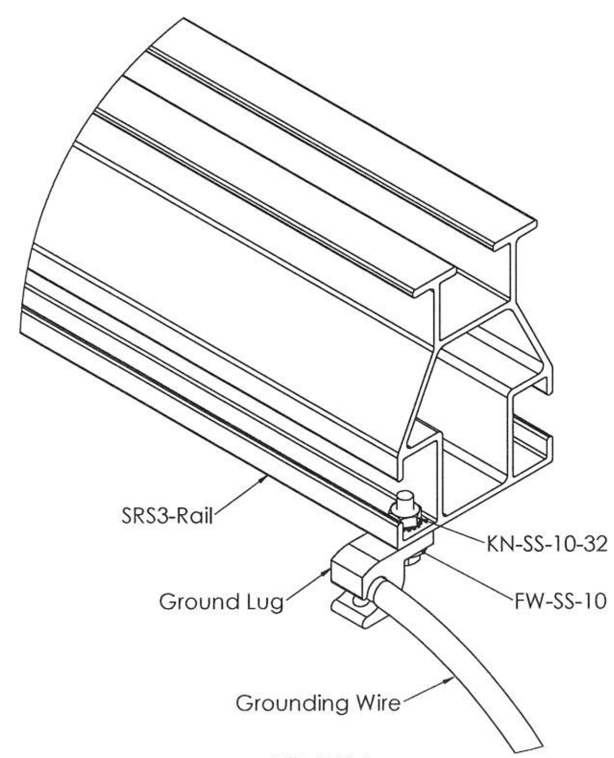




DETAIL A
SCALE 1 : 1



Ground Lug Assembly Detail



SCALE 1:1

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Contact : Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Title

GROUNDING

Project Info

Ridge St.

Contact: Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Date
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Project ID
RSE-161116-1

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LICENSED PROFESSIONAL ENGINEER

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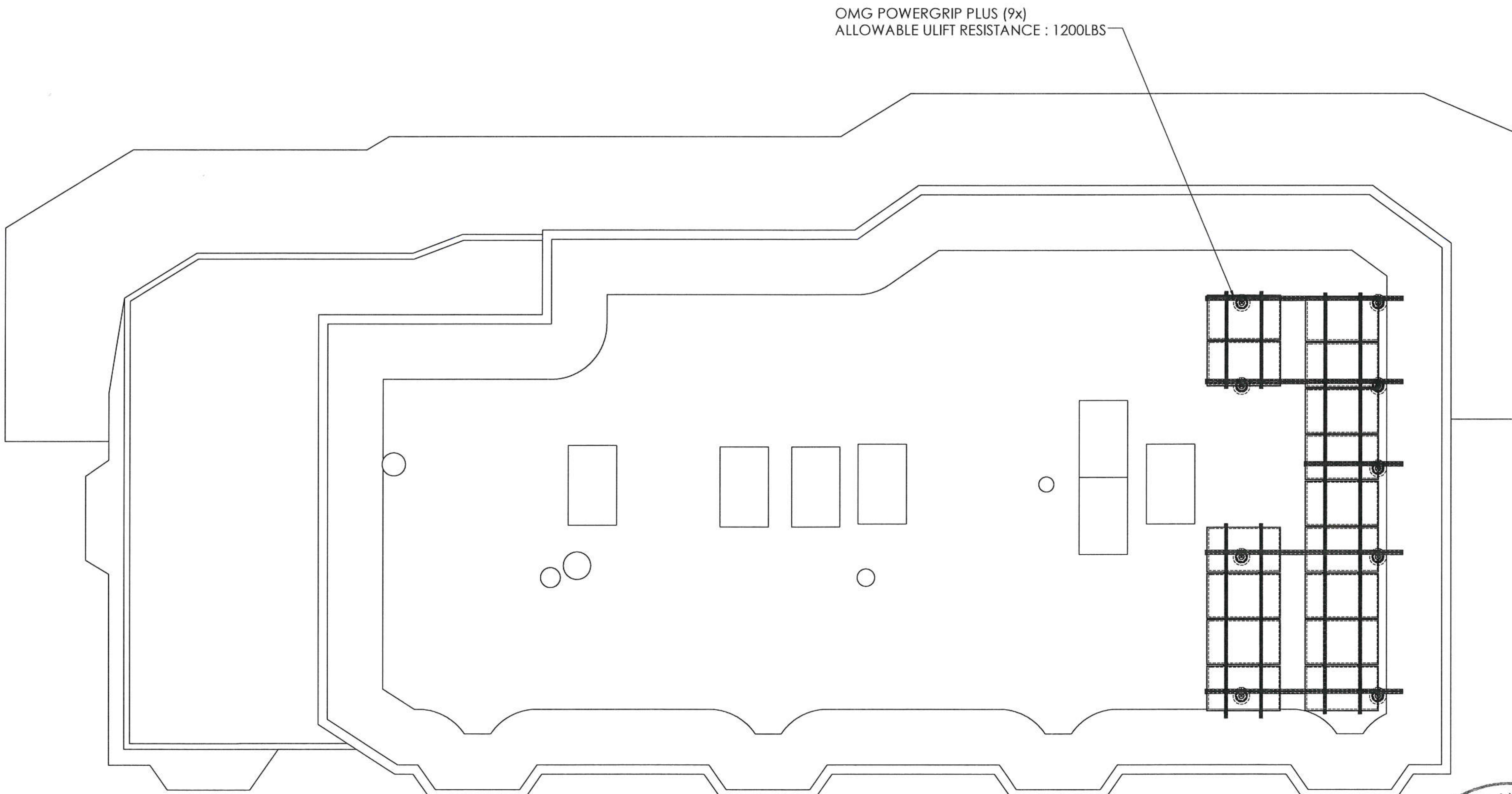
WIND LOAD PARMETERS (ASCE 7-10)	
Wind Speed (mph)	115
Exposure	D
Exposure Coefficient, Kz	1.1
Topographic Coefficient, Kzt	1.038
Directional Coefficient, Kd	0.85
Velocity Pressure, qz (lb/ft²)	32.9
Panel Inclinaison	10°

SNOW LOAD PARAMETERS (ASCE 7-10)	
Ground Snow Load (lb/ft²)	30
Snow Importance Factor, Is	1.0
Exposure Factor, Ce	0.8
Thermal Factor, Ct	1.0
Slope Factor, Cs	0.92
Snow Load (lb/ft²)	15.46

UPLIFT FORCE PER PANEL (ALL PANELS)				
Fe	Fz	CpCg VERTICAL	UNFACTORED PRESSURE VALUES (PSF)	FACTORED UPLIFT FORCE PER PANEL (LBS)
1.0	1.0	-0.95	-32.9	292



STATE OF NEW YORK
MOHAMED THABET AL HARASH
094048
LICENSED PROFESSIONAL ENGINEER
6/11/17

opsun systems inc

Project Manager : Frederic Martineau
Phone : 1 (416)-800-1614
E-mail : projects@opsun.com
www.opsun.com

1901 Forbes Street
Whitby, Ontario L1N 9A7
Canada

Note

#	Review/Issue	Date

Array Information

Type of mounting : SunRail Structure
Modules : 60 Cells /270W
Tilt Angle(°) : 10°
Qty Panels: panels
Azimut (°): 0°
Array Size (kW): 12.7kW DC

Client Info

Sunrise Solar SOLUTIONS

SunRise Solar Solution LLC
510 North State Road
Briarcliff Manor, NY, USA
Contact : Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Title

ZONES

Project Info

Ridge St.

Contact: Doug Hertz
Phone : 914.762.7622
doug@sunrisesolarllc.com

Date 14/02/2017
Project ID RSE-161116-1
Draft : FM Check : FGG
Scale : 1:50 Page NO. PV01-14/14

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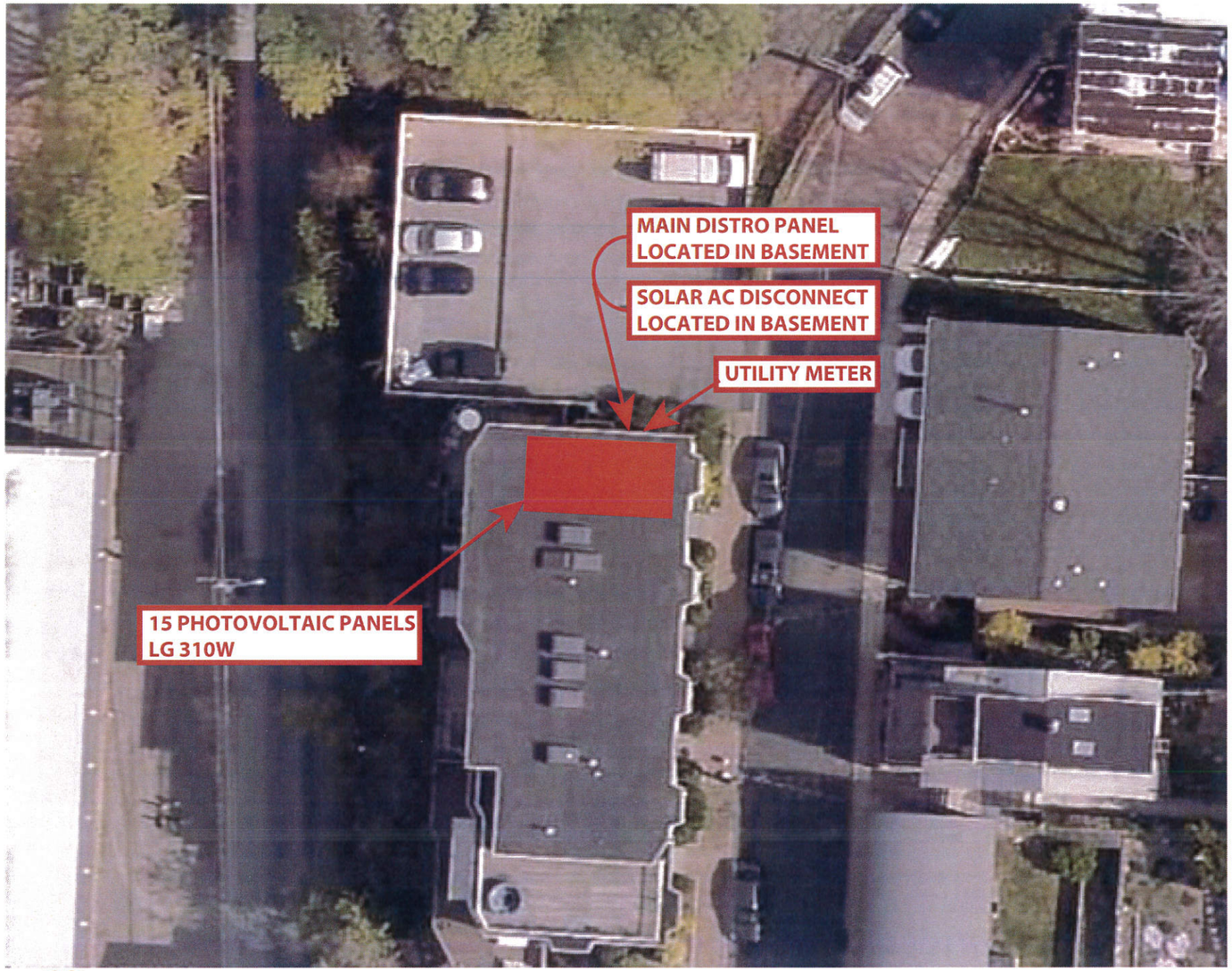

General Notes:

1. Modules to be LG 310 Watt
2. Inverters to be Enphase S280
3. Racking to Opsun
4. Racking to be installed as per Opsun Manufacturer's Specifications
5. Modules to be installed as per LG Installation Manual

Sunrise Solar Solutions, LLC
510 North State Road
Briarcliff Manor, NY 10510
(914) 762-7622

Site Plan

Zimmerman Residence
7 Ridge Street
Hastings-on-Hudson, NY 10706
Sect. 4.70 Block 52 Lot 47.5
Ph: 914 462 6877

DATE	VER.	DRAWN BY	CHECKED BY
11/04/2016	V1	BP	
06/11/2017	R1	BP	

Job No: 16-174

NOTES:
- 15 Photovolatic Panels
- LG 310 W
-System Size - 4.65 kW DC SYSTEM
- 4.05 kW AC

- Azimuth: 183°
- Tilt: 10°

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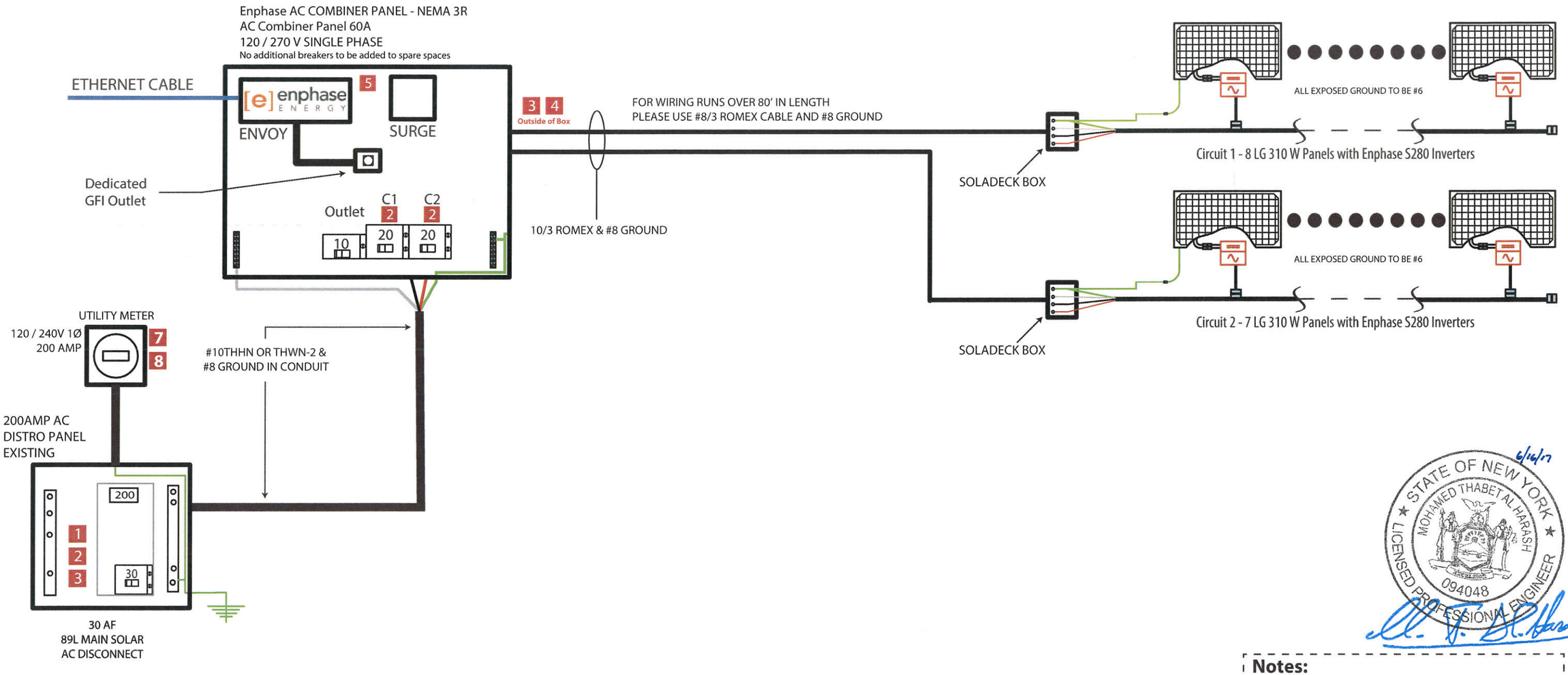
094048
LICENSED PROFESSIONAL ENGINEER
6/16/17

S-1

ROOF MOUNT



6/14/17

STATE OF NEW YORK ★ MOHAMED THABET ALHARASH ★ LICENSED PROFESSIONAL ENGINEER 094048

Notes:
Labels to comply w PSC requirements & NEC
All wiring to comply w NEC Code Article 230
Ground to be continuous
Ground wire connection to be "irreversible"
Meter pan to be grounded only
Neutral to pass through Meter Pan
No Line Side Tap connection in
Utility Meter Pan

Consumption monitoring current transformers to be installed on the main service lines and connected to the solar envoy monitoring system

PLEASE REFER TO PAGE E-2 FOR LABELING KEY

Sunrise Solar Solutions, LLC
510 North State Road
Briarcliff Manor, NY 10510
(914) 762-7622

Elec 3 Wire Diagram

Zimmerman Residence
7 Ridge Street
Hastings-on-Hudson, NY 10706
Sect. 4.70 Block 52 Lot 47.5

DATE	VER.	DRAWN BY	CHECKED BY
06/06/2016	V1	MAK	

Circuit Calculations:
Max 14 Inverters per circuit, 20 AMP OCPDC / Circuit
14 x 270 Watt Inverters. Max Output = 3,780 W
3,840 W / 240 V = 15.75 Amps x 1.25 = 19.68 Amps
Use 20 AMP OCPD

Total 15 x 270 Watt Inverters. Max Output = 4,050 W AC
4,050 W / 240 V = 16.875 Amps x 1.25 = 21.09 Amps
Use 30 Amp OCPD

E-1

SYSTEM SPECS:
Nominal AC Voltage: 240 V
Max Current: 16.875 A

SITE OF SOLAR INSTALLATION

Zimmerman Residence

7 Ridge Street

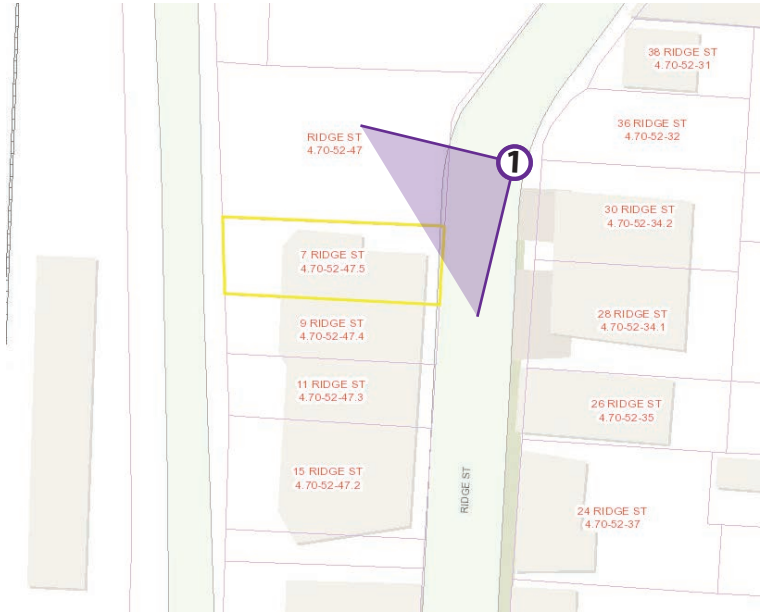
Hasting-on-Hudson, NY 10706

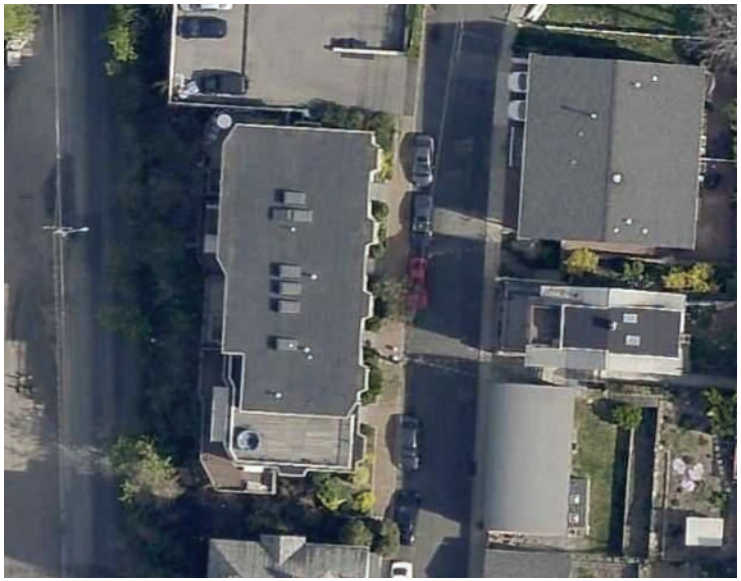
INSTALLER

Sunrise Solar Solutions, LLC

510 North State Road

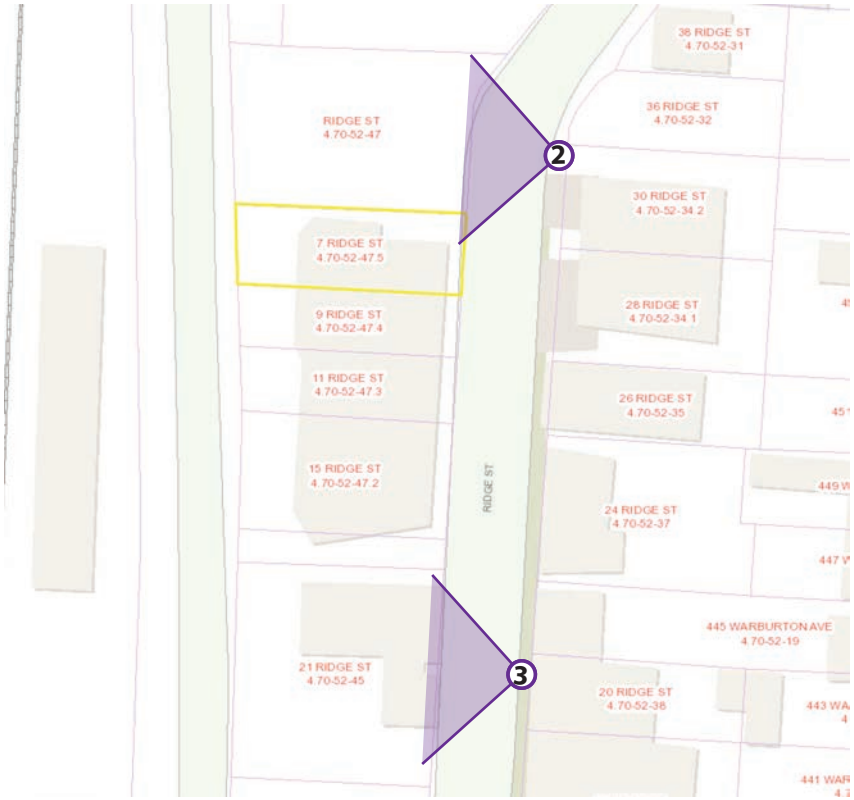
Briarcliff Manor, NY 10510





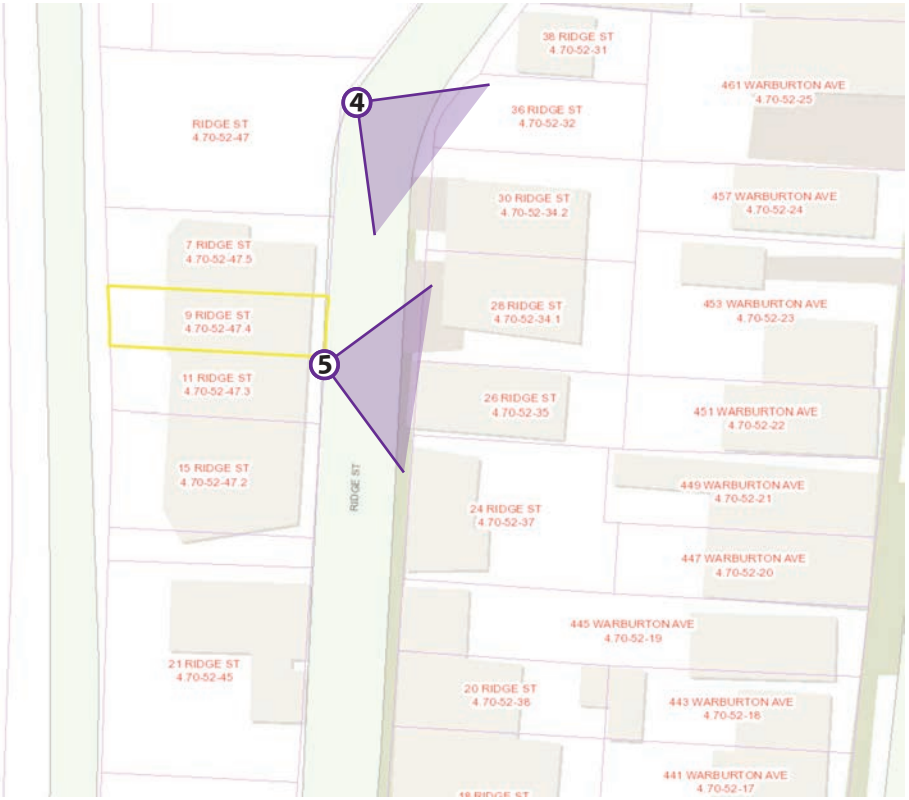
1 **VIEW OF HOUSE FROM RIDGE STREET**

2 NEIGHBORING HOUSE



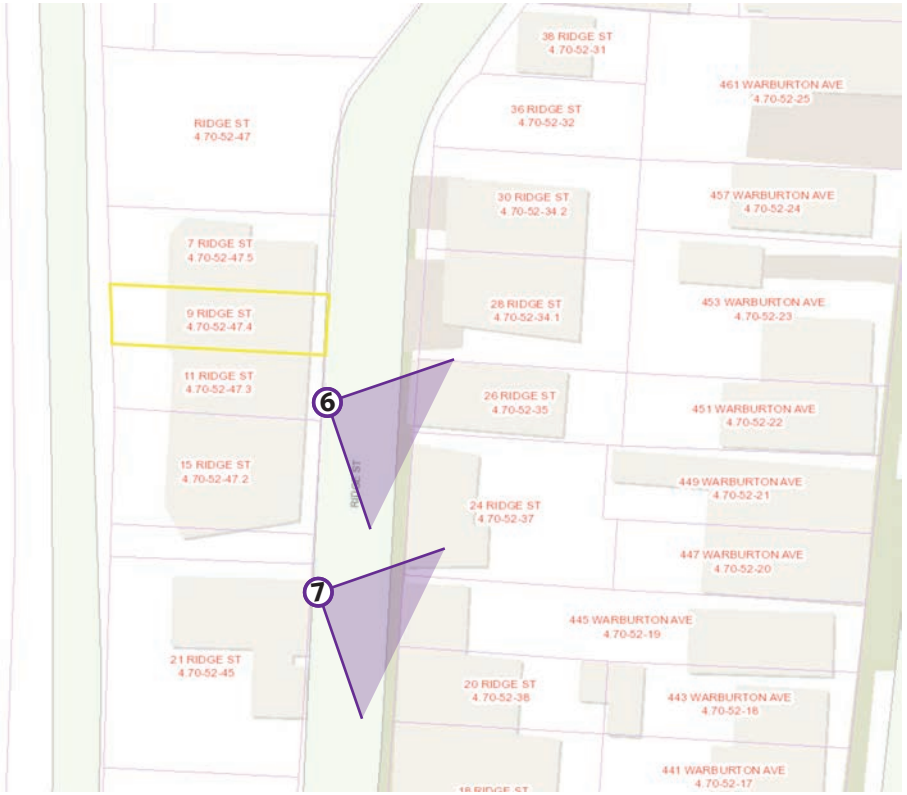
3 NEIGHBORING HOUSE

4 NEIGHBORING HOUSE



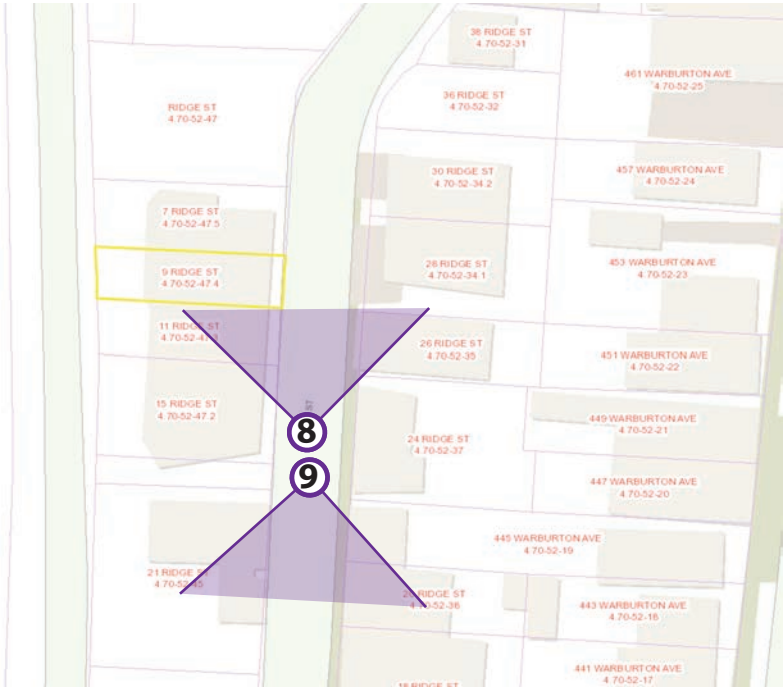
5 NEIGHBORING HOUSE

6 NEIGHBORING HOUSE



7 NEIGHBORING HOUSE

8 VIEW DOWN STREET



9 VIEW DOWN STREET

6 VIEW OF SOLAR PANEL RENDERING

INSTALLER

Sunrise Solar Solutions, LLC

510 North State Road

Briarcliff Manor, NY 10510

SITE OF SOLAR INSTALLATION

Zimmerman Residence

7 Ridge Street

Hasting-on-Hudson, NY 10706

NOTE: Solar array will not be functionally visible from street level.
This rendering depicts an aerial view.