

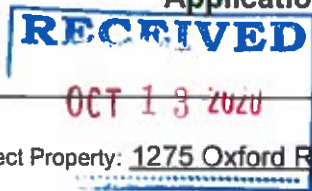


Chief Executive Officer
Michael Thurmond

DEPARTMENT OF PLANNING & SUSTAINABILITY

Director
Andrew A. Baker, AICP

Application for Certificate of Appropriateness



Date Received: OCT 13 2020 Application No.: _____

Address of Subject Property: 1275 Oxford Rd NE, Atlanta, GA 30306

Applicant: Clare Cifrino E-Mail: permitsSE@mysummitsolar.com

Applicant Mailing Address: 101 N. Main Street, #1004, Greenville, SC 29601

Applicant Phone(s): 864-626-5928 Fax: _____

Applicant's relationship to the owner: Owner Architect: Contractor/Builder Other

Owner(s): Barbara Brown E-Mail: barbarabrown1300@gmail.com

E-Mail: _____

Owner(s) Mailing Address: 1275 Oxford Rd NE, Atlanta, GA 30306

Owner(s) Telephone Number: 404-217-6909

Approximate age or date of construction of the primary structure on the property and any secondary structures affected by this project: 1929

Nature of work (check all that apply):

- New construction Demolition Addition Moving a building Other building changes
- New accessory building Landscaping Fence/Wall Other environmental changes
- Sign installation or replacement Other

Description of Work:

grid tied solar PV system on roof; system size = 8.820 kW

This form must be completed in its entirety and be accompanied by supporting documents, such as plans, list of materials, color samples, photographs, etc. All documents should be in PDF format, except for photographs, which may be in JPEG format. Email the application and supporting material to plansustain@dekalbcountyga.gov An incomplete application will not be accepted.

Clare Cifrino
Signature of Applicant/Date

Chief Executive Officer
Michael Thurmond

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Clare Cifrino
Signature of Applicant/Date

DEPARTMENT OF PLANNING & SUSTAINABILITY

Authorization of a Second Party to Apply for a Certificate of Appropriateness

This form is required if the individual making the request is **not** the owner of the property.

I/ We, Barbara Brown
being owner(s) of the property at 1275 Oxford Rd NE, Atlanta, GA 30306,
hereby delegate authority to Clare Cifrino/Summit Solar Solutions, LLC
to file an application for a certificate of appropriateness in my/our behalf.

Barbara L. Brown

Barbara L. Brown (Oct 9, 2020 19:49 EDT)

Signature of Owner(s)

Date

Please review the following information

Approval of this Certificate of Appropriateness does not release the recipient from compliance with all other pertinent county, state, and federal regulations.

Before making any changes to your approved plans, contact the preservation planner (404/371- 2155). Some changes may fall within the scope of the existing approval, but others will require review by the preservation commission. If work is performed which is not in accordance with your certificate, a Stop Work Order may be issued.

If your project requires that the county issue a Certificate of Occupancy at the end of construction, an inspection may be made to verify that the work has been completed in accord with the Certificate of Appropriateness. If the work as completed is not the same as that approved in the Certificate of Appropriateness you will not receive a Certificate of Occupancy. You may also be subject to other penalties including fines and/or required demolition of the non-conforming work.

If you do not commence construction within twelve months of the date of approval, your Certificate of Appropriateness will become void and you will need to apply for a new certificate if you still intend to do the work.

DEPARTMENT OF PLANNING & SUSTAINABILITY

How to Obtain a Certificate of Appropriateness

1. Contact the DeKalb County Department of Planning and Sustainability for an application form. You may pick this up at the DeKalb County Department of Planning and Sustainability, 330 West Ponce de Leon Avenue, Third Floor, in Decatur, or you may make your request by mail, telephone (404) 371-2247, or fax (404) 371-2813, or visit the website at <https://www.dekalbcountyga.gov/planning-and-sustainability/forms>
2. Complete and submit the application. Please provide as much supporting material as possible, (plans, material, color samples, photos, etc.). All documents must be in PDF format except for photographs, which may be in JPEG format. Email the application and supporting documents to plansustain@dekalbcountyga.gov. If all documents are not provided the application will not be complete and will not be accepted.
3. The Preservation Planner will post a sign on the property at least ten days before the preservation commission meeting.
4. The Preservation Planner will visit the property as part of their review. The commission members may view the property from the right-of-way.
5. Applications will be reviewed by the DeKalb County Historic Preservation Commission at its monthly meeting. In most months, the Historic Preservation Commission meets on the third Monday at 7 p.m. at the Maloof Auditorium, 1300 Commerce Drive in Decatur. In unusual circumstances meeting dates and location may be changed.
6. The Historic Preservation Commission may approve, approve with modifications or deny an application. The applicant or any affected person as defined by county code may appeal the decision to the DeKalb County Board of Commissioners. Please contact the Department of Planning and Sustainability if you wish to file an appeal. The Historic Preservation Commission is required to make a decision on an application within 45 days of the date of filing, although this time can be extended if the applicant agrees to a deferral.
5. Although not required, applicants are encouraged to attend the Historic Preservation Commission meetings. Applicants may make a presentation, but presentations are not required. The commissioners may have questions for the applicant.
7. Approval of a Certificate of Appropriateness does not release the recipient from compliance with all other county, state and federal regulations.

DEPARTMENT OF PLANNING & SUSTAINABILITY

Design Checklist for a Certificate of Appropriateness

This checklist was created to help applicants prepare a complete application. Omissions and inaccurate information can lead to deferrals and/or denials of applications. Please review the checklist with the project’s architect, designer, or builder. All items will not be applicable to all projects. New construction will involve all categories. One copy of drawings at scale (plus nine reduced sets) should be submitted. Please address questions regarding applicability to your project to the DeKalb County Preservation Planner at 404-371-2155, e-mail dccullis@dekalbcountyga.gov. Applicants are also referred to the DeKalb County website, <http://www.dekalbcountyga.gov/planning-and-sustainability/planning-sustainability>.

I have reviewed the “Design Manual for the Druid Hills Local Historic District”	<input checked="" type="checkbox"/>	Y	N
I have reviewed the DeKalb County Tree Ordinance	<input checked="" type="checkbox"/>	Y	N
I have reviewed applicable zoning codes regarding lot coverage, garage sizes, stream buffers	<input checked="" type="checkbox"/>	Y	N

1. General

- a. Label all drawings with the address of the site, owners’ name, and contact phone number.
- b. Number all drawings.
- c. Include a graphic scale on reductions.
- d. Date all revisions.
- e. Indicate all unverified numbers with +/- signs
- e. Include photos of the existing condition of the property.

2. Site Plan (existing and proposed) to include

- a. Topographical plan with significant trees sized and located;
- b. Setback compared to adjacent houses (ask surveyor to show corners of adjacent houses);
- c. Distance between houses;
- d. Façade width to finished face of material;
- e. Grading and elevations across site;
- f. Dirt removal or regrading if more than 18”;
- g. Tree protection plan;
- h. Tree removal and replacement plan

3. Driveways and Walkways

- a. Location and relationship to house;
- b. Width;
- c. Material;
- d. Curb cut and apron width

DEPARTMENT OF PLANNING & SUSTAINABILITY

4. Fences & Retaining Walls

- a. Placement on lot;
- b. Height of fence or wall. If retaining wall, height on both sides;
- c. Material;
- d. Railing if necessary

5. Elevations and Floor Plans <<Indicate all unverified numbers with +/- signs>>

- a. Plans for all floors (drawn to scale, 1/4"=1' preferred);
- b. House orientation on site plan;
- c. Scalable elevations for front, rear, left, right;
- d. Height, grade to ridge;
- e. Streetscape comparison showing heights of two flanking houses on each side;
- f. Height from grade to first floor level at all four corners;
- g. Height from grade or finished floor line to eaves at all four corners;
- h. Ceiling heights of each floor, indicating if rough or finished;
- i. Height of space between the ceiling and finished floor above;
- j. Two people of 5'-6" and 6' height shown;
- k. Landscaping plan

6. Additions

- a. Placement shown on elevations and floor plan;
- b. Visibility from rights-of-way and paths;
- c. Photos of all facades;
- d. Design proportioned to main house;
- e. Landscaping plan;
- f. Materials and their combinations

7. Roof Plan

- a. Shape and pitch of roof;
- b. Roofing material;
- c. Overhang;
- d. Louvers and vents;
- e. Chimney height and material

8. Dormers

- a. Construction details provided;
- b. Shape and size of dormer (show dimensions on drawings);
- c. Overhang;
- d. Size of window(s), with nominal size of sash (show dimensions on drawings)

9. Skylights

- a. Profile;
 - b. Visibility from right-of-way;
 - c. Material (plastic lens or glass);
 - d. Shown in plan and elevation to scale
-

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10. Façade

- a. Consistency in style;
- b. Materials and their combinations
 - brick size and color
 - stone type and color
 - fiber-cement (e.g. Hardieplank) or wood siding
 - shake or shingle
 - other
- c. Height of foundation at corners;
- d. Ceiling heights comparable to area of influence: basement, first floor, second floor;
- e. Detailing: soldier course, brackets, fascia board; water table;
- f. Height from grade to roof ridge;
- g. Dimensions, proportions and placement of windows, doors

11. Entrance

- a. Height and width of door;
- b. Design of door (e.g. 6-panel, craftsman);
- c. Material of door;
- d. Overhang;
- e. Portico height;
- f. Size and height of columns or posts;
- g. Railing

12. Windows

- a. Consistent with original as well as the area of influence;
- b. Size and proportion similar to original;
- c. Pane orientation and size similar to original;
- d. Type (e.g. double hung, casement);
- e. Fenestration on walls visible from right-of-way;
- f. Simulated divided light (SDL) or true divided light (TDL): location of muntins between the glass, behind the glass or permanently affixed on exterior;
- g. Material of window and any cladding;
- h. Width of muntins compared to original (show dimensions on drawings);
- i. Shutters or canopies
- j. Dimensions of windows and doors.

13. Materials

- a. Show all materials and label them on drawings;
 - b. Provide samples of brick or stone;
 - c. Provide samples if new or unusual materials
-

DEPARTMENT OF PLANNING & SUSTAINABILITY

14. Garages / Accessory Buildings

- a. Visibility from street;
- b. Placement on site;
- c. Scale, style appropriate for house;
- d. Show dimensions on drawings;
- e. Materials;
- f. Square footage appropriate for lot size;
- g. Garage door size and design
- h. Show height from grade to eaves and to top of roof

15. Demolitions

- a. Provide documentation from engineer concerning feasibility of rehabilitation;
- b. Provide photographs of structure to be demolished;
- c. Provide plan for proposed redevelopment






Application for Certificate of Appropriateness (B. Brown)

Final Audit Report

2020-10-09

Created:	2020-10-09
By:	Clare Cifrino (clare.cifrino@mysummitsolar.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAlqZf1U72-q2_sNF143wwXXduLB24D3Y

"Application for Certificate of Appropriateness (B. Brown)" History

-  Document created by Clare Cifrino (clare.cifrino@mysummitsolar.com)
2020-10-09 - 7:18:30 PM GMT- IP address: 71.88.252.129
-  Document emailed to Barbara L. Brown (barbarabrown1300@gmail.com) for signature
2020-10-09 - 7:20:44 PM GMT
-  Email viewed by Barbara L. Brown (barbarabrown1300@gmail.com)
2020-10-09 - 11:46:37 PM GMT- IP address: 66.249.88.13
-  Document e-signed by Barbara L. Brown (barbarabrown1300@gmail.com)
Signature Date: 2020-10-09 - 11:49:55 PM GMT - Time Source: server- IP address: 99.174.92.106
-  Agreement completed.
2020-10-09 - 11:49:55 PM GMT



Scott E. Wyssling, PE, PP, CME

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

September 24, 2020

Derek Landino, COO
Summit Solar
101 North Main Street Unit #202
Greenville, SC 29601

Re: Engineering Services
Brown Residence
1275 Oxford Road NE, Atlanta, GA
8.820 kW System

Dear Mr. Landino:

Pursuant to your request, we have reviewed the following information regarding solar panel installation on the roof of the above referenced home:

1. Site Visit/Verification Form prepared by a Summit Solar representative identifying specific site information including size and spacing of rafters for the existing roof structure.
2. Design drawings of the proposed system including a site plan, roof plan and connection details for the solar panels. This information was prepared by Summit Solar and will be utilized for approval and construction of the proposed system.
3. Photographs of the interior and exterior of the roof system identifying existing structural members and their conditions.

Based on the above information we have evaluated the structural capacity of the existing roof system to support the additional loads imposed by the solar panels and have the following comments related to our review and evaluation:

Description of Residence:

The existing residence is typical wood framing construction with the roof system consisting of 2 x 6 dimensional lumber at 24" on center. The attic space is unfinished and photos indicate that there was free access to visually inspect the size and condition of the roof rafters. All wood material utilized for the roof system is assumed to be Doug-Fir #2 or better with standard construction components. The existing roofing material consists of composite asphalt shingles. Photos of the dwelling also indicate that there is a permanent foundation.

A. Loading Criteria Used

- 115 MPH wind loading based on ASCE 7-10 Exposure Category "C" at a slope of 34 degrees
- 7 PSF = Dead Load roofing/framing Live Load = 20 PSF Snow Load = 5 PSF
- 3 PSF = Dead Load solar panels/mounting hardware

Total Dead Load = 10 PSF

The above values are within acceptable limits of recognized industry standards for similar structures in accordance with the 2015 IRC. Analysis performed of the existing roof structure utilizing the above loading criteria indicates that the existing rafters will support the additional panel loading without damage, if installed correctly.

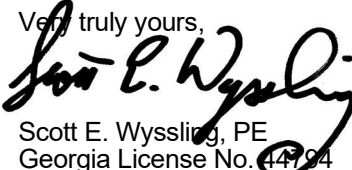
B. Solar Panel Anchorage

1. The solar panels shall be mounted in accordance with the most recent “*SnapNrack Installation Manual*”, which can be found on the SnapNrack website (<http://snapnrack.com/>). If during solar panel installation, the roof framing members appear unstable or deflect non-uniformly, our office should be notified before proceeding with the installation.
2. Maximum allowable pullout per lag screw is 235 lbs/inch of penetration as identified in the National Design Standards (NDS) of timber construction specifications for Doug-Fir (North Lumber) *assumed*. Based on our evaluation, the pullout value, utilizing a penetration depth of 2 ½”, is less than what is allowable per connection and therefore is adequate. Based on the variable factors for the existing roof framing and installation tolerances, using a thread depth of 2 ½” with a minimum size of 5/16” lag screw per attachment point for panel anchor mounts should be adequate with a sufficient factor of safety.
3. Considering the roof slopes, the size, spacing, condition of roof, the panel supports shall be placed no greater than 48” o/c.
4. Panel supports connections shall be staggered to distribute load to adjacent rafters.

Based on the above evaluation, it is the opinion of this office that with appropriate panel anchors being utilized the roof system will adequately support the additional loading imposed by the solar panels. This evaluation is in conformance with the 2015 IRC, current industry and standards, and based on information supplied to us at the time of this report.

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

Very truly yours,



Scott E. Wyssling, PE
Georgia License No. 44794





CONTRACTOR INFORMATION:

SUMMIT SOLAR
101 N MAIN ST. UNIT 202
GREENVILLE, SC 29601

SITE INFORMATION:

Barbara Brown
1275 Oxford Rd Ne, Atlanta, GA 30306
MAX CONTINUOUS AC SYSTEM SIZE: 6.72 kW AC
DC SYSTEM SIZE: 8.82 kW DC
Lat, Long: 33.7901535, -84.3314228999999
(28) Hanwha Q. Cells Q.Peak DUO-G5 315 PV MODULES
(28) Enphase IQ7-60-2-US INVERTERS
Georgia Power

DATE: September 23, 2020
PAGE: PV01 SHEET NAME: COVER PAGE
DRAWN BY: SoloCAD

AERIAL VIEW:



STREET VIEW:



SHEET INDEX:

- PV01 COVER PAGE
- PV02 PROPERTY PLAN
- PV03 ROOF PLAN
- PV04 ROOF ATTACHMENTS + BOM
- PV05 MOUNTING DETAIL
- PV06 ELECTRICAL DIAGRAM
- PV07 LABELS
- PV08 PLACARD
- PV09 SITE PHOTOS



GENERAL NOTES:

1. INSTALLATION OF SOLAR PHOTOVOLTAIC SYSTEM SHALL BE IN ACCORDANCE WITH NEC ARTICLE 690, AND ALL OTHER APPLICABLE NEC CODES WHERE NOTED OR EXISTING.
2. PROPER ACCESS AND WORKING CLEARANCE AROUND EXISTING AND PROPOSED ELECTRICAL EQUIPMENT WILL COMPLY WITH NEC ARTICLE 110.
3. ALL WIRES, INCLUDING THE GROUNDING ELECTRODE CONDUCTOR SHALL BE PROTECTED FROM PHYSICAL DAMAGE IN ACCORDANCE WITH NEC ARTICLE 250
4. THE PV MODULES ARE CONSIDERED NON-COMBUSTIBLE; THIS SYSTEM IS UTILITY INTERACTIVE PER UL 1741 AND DOES NOT INCLUDE STORAGE BATTERIES OR OTHER ALTERNATIVE STORAGE SOURCES.
5. ALL DC WIRES SHALL BE SIZED ACCORDING TO [NEC 690.8]
6. DC CONDUCTORS SHALL BE WITHIN PROTECTED RACEWAYS IN ACCORDANCE WITH [NEC 690.31]
7. ALL SIGNAGE TO BE PLACED IN ACCORDANCE WITH LOCAL JURISDICTIONAL BUILDING CODE.

DESCRIPTION OF DESIGN:

INSTALLATION OF GRID -TIED, UTILITY INTERACTIVE PHOTOVOLTAIC SYSTEM

EQUIPMENT:

MAX CONTINUOUS AC SYSTEM SIZE: 6.72 kW AC
DC SYSTEM SIZE: 8.82 kW DC
(28) Hanwha Q. Cells Q.Peak DUO-G5 315 PV MODULES
(28) Enphase IQ7-60-2-US INVERTERS
RACKING: SnapNrack - 48" O.C and ECOX Racking with S5 Clamps.

APPLICABLE GOVERNING CODES:

- 2014 NEC
- 2015 IRC
- 2015 IFC
- 2015 IBC

SITE SPECIFICATIONS:

OCCUPANCY: R-3
ZONING: RESIDENTIAL
EXPOSURE CATEGORY: B



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Georgia Power

DATE: September 23, 2020

PAGE: PV02 SHEET NAME: PROPERTY PLAN

DRAWN BY: SoloCAD SCALE: 1" = 22.85'

EQUIPMENT LEGEND:

- UTILITY METER
- MAIN SERVICE PANEL
- VISIBLE, LOCKABLE, LABELED AC DISCONNECT
- METER SOCKET (FOR UTILITY PV METER)
- INVERTER
- COMBINER BOX
- LOAD CENTER
- FIRE ACCESS PATHWAY (3' TYP)
- PROPERTY LINE
- BATTERY(IES)

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

164'-9"

MP3
PITCH: 34°
AZIMUTH: 243°

1275 Oxford Rd Ne

FRONT OF HOME

59'-11"

MP4
PITCH: 34°
AZIMUTH: 64°

MP1
PITCH: 34°
AZIMUTH: 152°

MP2
PITCH: 34°
AZIMUTH: 152°





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SUMMIT SOLAR
101 N MAIN ST. UNIT 202
GREENVILLE, SC 29601

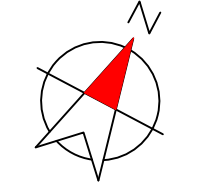
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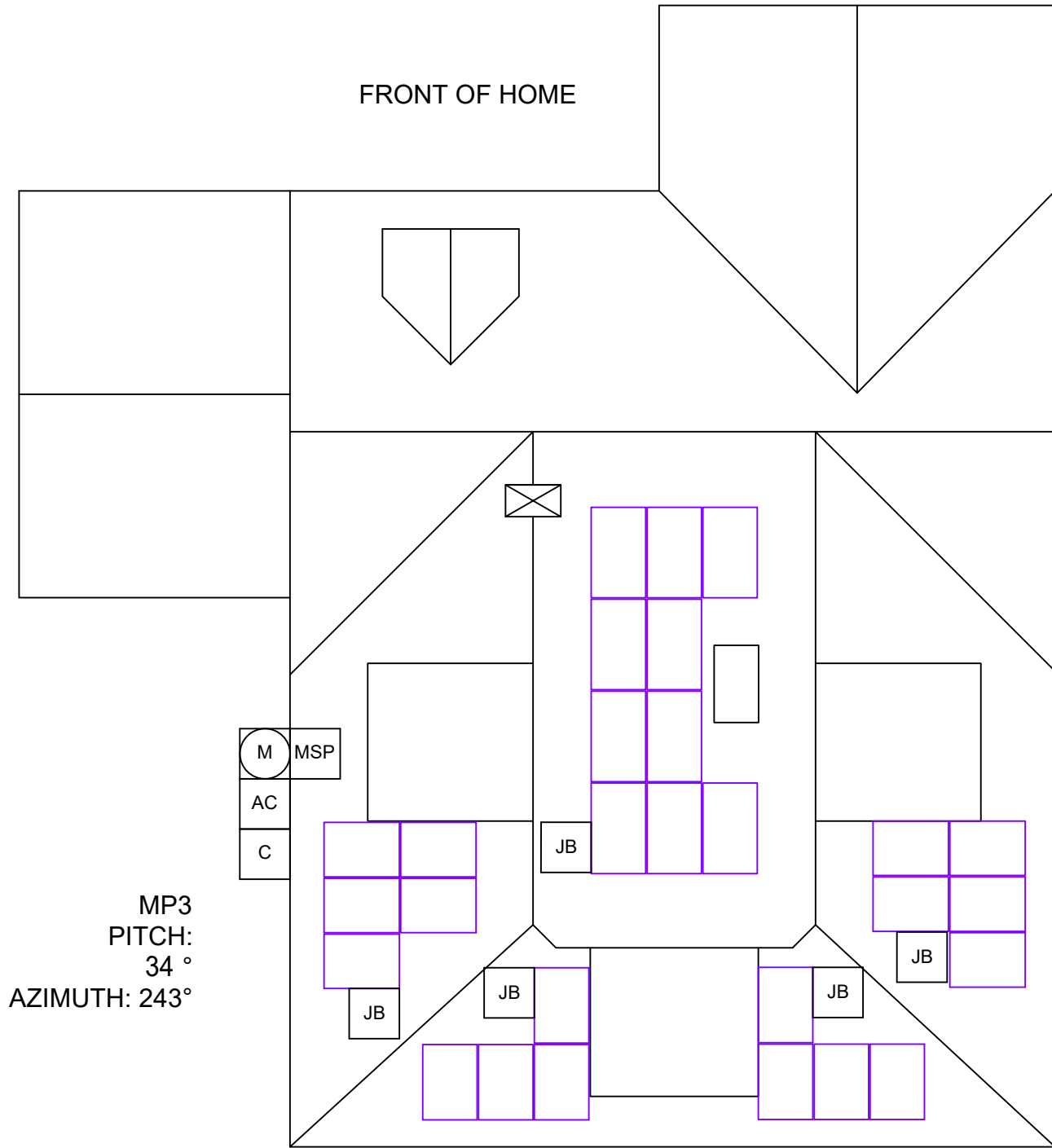
DATE: September 23, 2020

PAGE: PV03 SHEET NAME: ROOF PLAN

DRAWN BY: SoloCAD



FRONT OF HOME



MP3
PITCH:
34 °
AZIMUTH: 243°

MP4
PITCH:
34°
AZIMUTH: 64°

MP1
PITCH:
34°
AZIMUTH: 152°

MP2
PITCH:
34°
AZIMUTH: 152°

EQUIPMENT LEGEND:

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- MAIN SERVICE PANEL
- VISIBLE, LOCKABLE, LABELED AC DISCONNECT
- METER SOCKET (FOR UTILITY PV METER)
- INVERTER
- COMBINER BOX
- LOAD CENTER
- FIRE ACCESS PATHWAY (3' TYP)
- BATTERY(IES)

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





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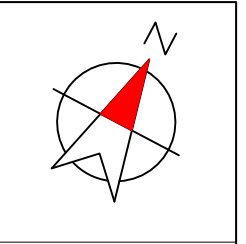
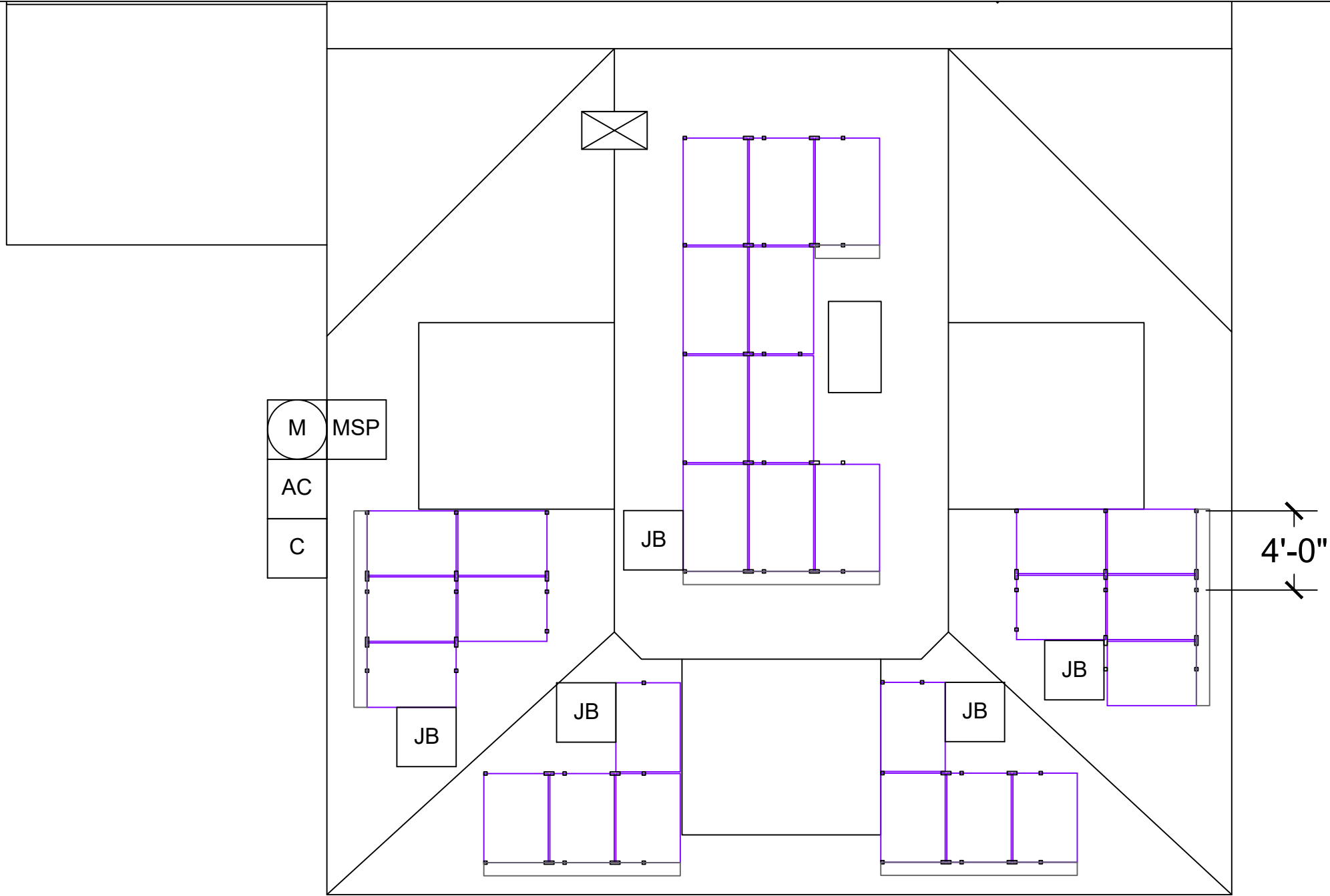
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(28) Enphase IQ7-60-2-US INVERTERS

Georgia Power

DATE: September 24, 2020

PAGE: PV04 SHEET NAME: ROOF ATTACHMENTS + BOM

DRAWN BY: SoloCAD



EQUIPMENT INFORMATION:		ROOF INFO:		PHOTOVOLTAIC ARRAY STRUCTURAL CRITERIA:	
ATTACHMENT MANUFACTURER	SnapNrack	ROOF TYPE	asphalt_shingle	ROOF ATTACHMENT COUNT:	48
ATTACHMENTS	Railless Speedseal Track	ROOF FRAMING	manufactured_truss	PV MODULE COUNT:	28
ATTACHMENT QTY	75	RAFTER/TOP CHORD SIZE	2x6	ARRAY AREA:	MODULE COUNT * 18.06ft² = 505.68
MIDCLAMP QTY	75	RAFTER/TOP CHORD SPACING	24	ROOF AREA:	3270 ft²
SPLICE QTY	27	ATTACHMENT SPACING	48	PERCENT OF ROOF COVERED:	15%
				ARRAY WEIGHT:	MODULE COUNT * 50lbs = 1400
				DISTRIBUTED LOAD:	ARRAY LBS/ATTACHMENTS = 29.17
				POINT LOAD: (lbs/ft²)	(ARRAY) WEIGHT/AREA = 2.77 lbs/ft²



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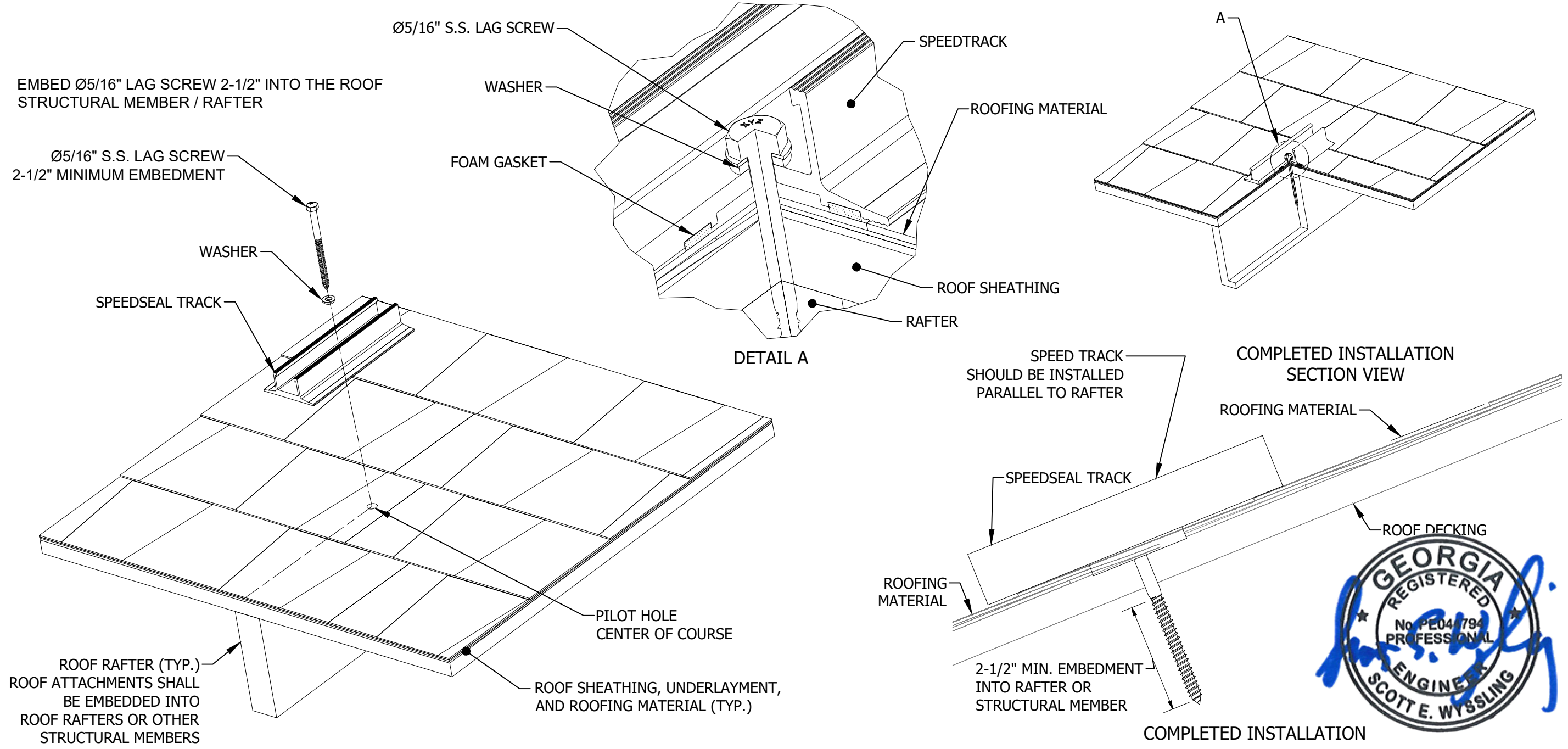
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DATE: September 24, 2020

PAGE: PV05 SHEET NAME: MOUNTING DETAIL
DRAWN BY: SoloCAD

SNAPNRACK RL UNIVERSAL SPEEDSEAL TRACK COMPOSITION ROOF MOUNTING



EQUIPMENT INFORMATION:		ROOF INFO:		PHOTOVOLTAIC ARRAY STRUCTURAL CRITERIA:	
ATTACHMENT MANUFACTURER	SnapNrack	ROOF TYPE	asphalt_shingle	ROOF ATTACHMENT COUNT:	48
ATTACHMENTS	Railless Speedseal Track	ROOF FRAMING	manufactured_truss	PV MODULE COUNT:	28
ATTACHMENT QTY	75	RAFTER/TOP CHORD SIZE	2x6	ARRAY AREA:	MODULE COUNT * 18.06ft ² = 505.68
MIDCLAMP QTY	75	RAFTER/TOP CHORD SPACING	24	ROOF AREA:	3270 ft ²
SPLICE QTY	27	ATTACHMENT SPACING	48	PERCENT OF ROOF COVERED:	15%
				ARRAY WEIGHT:	MODULE COUNT * 50lbs = 1400
				DISTRIBUTED LOAD:	ARRAY LBS/ATTACHMENTS = 29.17
				POINT LOAD: (lbs/ft ²)	(ARRAY) WEIGHT/AREA = 2.77 lbs/ft ²



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SITE INFORMATION:

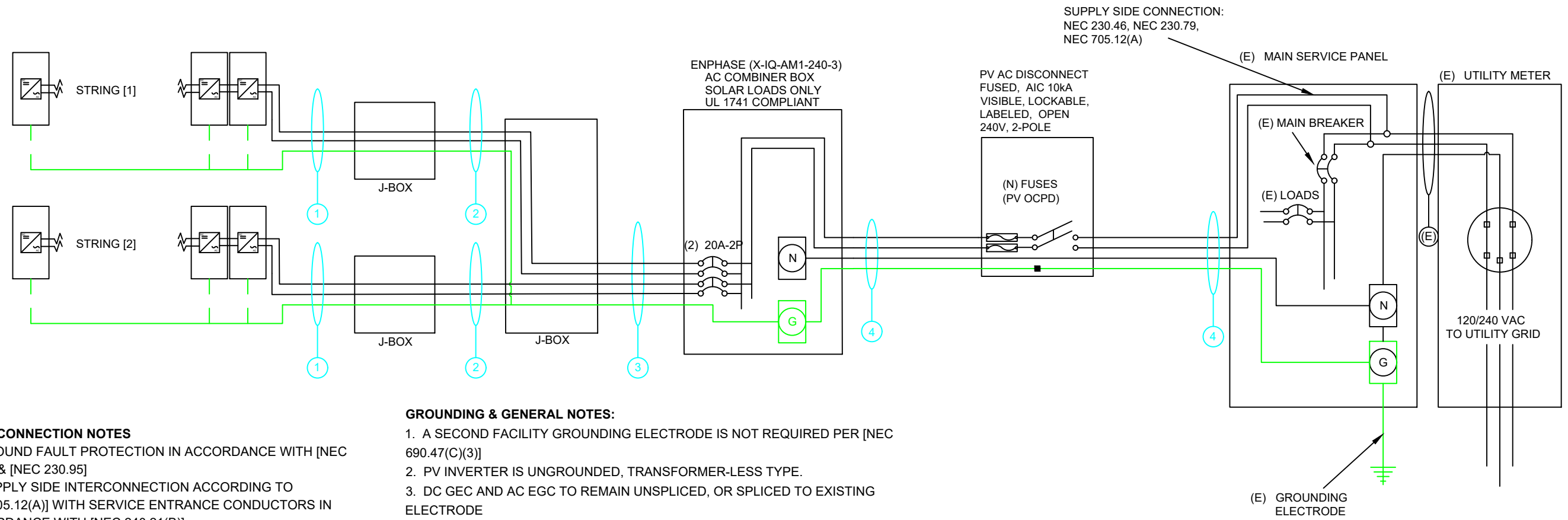
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1275 Oxford Rd Ne, Atlanta, GA 30306
MAX CONTINUOUS AC SYSTEM SIZE: 6.72 kW AC
DC SYSTEM SIZE: 8.82 kW DC
Lat, Long: 33.7901535, -84.3314228999999
(28) Hanwha Q. Cells Q.Peak DUO-G5 315 PV MODULES
(28) Enphase IQ7-60-2-US INVERTERS
Georgia Power

DATE: September 23, 2020
PAGE: PV06 SHEET NAME: ELECTRICAL DIAGRAM
DRAWN BY: SoloCAD

WIRE SCHEDULE

1	(1) 12-2 TC-ER, THWN-2, COPPER (OR CODE APPROVED EQUIVALENT) (1) 6 AWG BARE, COPPER (GROUND)	2	(1) 10 AWG THWN-2, or THHN, or 10/2 NM-B COPPER - (POSITIVE) (1) 10 AWG THWN-2, or THHN, or 10/2 NM-B COPPER - (NEGATIVE) (1) 10 AWG THWN-2, or THHN, or 10/2 NM-B COPPER - (GROUND) (1) 3/4" LIQUID TIGHT OR EMT OR FMC (OR CODE APPROVED EQUIVALENT)	3	(2) 10 AWG THHN/THWN-2, COPPER - (L1) (2) 10 AWG THHN/THWN-2 COPPER - (L2) (1) 10 AWG THHN/THWN-2 (GROUND) CONDUIT: 3/4" LIQUID TIGHT OR EMT (OR CODE APPROVED EQUIVALENT)	4	(1) 6 AWG THWN-2 COPPER - (L1) (1) 6 AWG THWN-2 COPPER - (L2) (1) 6 AWG THWN-2 COPPER - (NEUTRAL) (1) 10 AWG THWN-2 COPPER - (GROUND) (1) CONDUIT: 3/4" LIQUID TIGHT OR EMT (OR CODE APPROVED EQUIVALENT)
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STRINGS:		SERVICE EQUIPMENT & PV OCPD RATINGS	
STRING 1	14 PV MODULES	MAIN BREAKER RATING	150A
STRING 2	14 PV MODULES	MAIN SERVICE BUS RATING	150A
		PV OCPD RATING	35A
		AC VOLTAGE	240V
		AC DISCONNECT RATING	60A



INTERCONNECTION NOTES

- GROUND FAULT PROTECTION IN ACCORDANCE WITH [NEC 215.9] & [NEC 230.95]
- SUPPLY SIDE INTERCONNECTION ACCORDING TO [NEC705.12(A)] WITH SERVICE ENTRANCE CONDUCTORS IN ACCORDANCE WITH [NEC 240.21(B)]

DISCONNECT NOTES

- DISCONNECTING SWITCHES SHALL BE WIRED SUCH THAT WHEN THE SWITCH IS OPENED THE CONDUCTORS REMAINING LIVE ARE CONNECTED TO THE TERMINALS MARKED "LINE SIDE" (TYPICALLY THE UPPER TERMINALS)
- AC DISCONNECT MUST BE ACCESSIBLE TO QUALIFIED UTILITY PERSONNEL, BE LOCKABLE, AND BE A VISIBLE-BREAK SWITCH.
- FUSED AC DISCONNECT TO BE USED.

GROUNDING & GENERAL NOTES:

- A SECOND FACILITY GROUNDING ELECTRODE IS NOT REQUIRED PER [NEC 690.47(C)(3)]
- PV INVERTER IS UNGROUNDED, TRANSFORMER-LESS TYPE.
- DC GEC AND AC EGC TO REMAIN UNSPLICED, OR SPLICED TO EXISTING ELECTRODE
- ANY EXISTING WIRING INVOLVED WITH PV SYSTEM CONNECTION THAT IS FOUND TO BE INADEQUATE PER CODE SHALL BE CORRECTED PRIOR TO FINAL INSPECTION.
- JUNCTION BOX QUANTITIES, AND PLACEMENT SUBJECT TO CHANGE IN THE FIELD - JUNCTION BOXES DEPICTED ON ELECTRICAL DIAGRAM REPRESENT WIRE TYPE TRANSITIONS.
- AC DISCONNECT NOTED IN EQUIPMENT SCHEDULE OPTIONAL IF OTHER AC DISCONNECTING MEANS IS LOCATED WITHIN '10' OF SERVICE DISCONNECT.

EQUIPMENT SCHEDULE:

TYPE:	QTY:	DESCRIPTION:	RATING:
MODULES:	(28)	Hanwha Q. Cells Q.Peak DUO-G5 315	315 W
INVERTERS:	(28)	Enphase IQ7-60-2-US	240 W
AC DISCONNECT(S):	(1)	PV AC DISCONNECT, 240V, 2-POLE	60 A



CONTRACTOR INFORMATION:

SUMMIT SOLAR
101 N MAIN ST. UNIT 202
GREENVILLE, SC 29601

SITE INFORMATION:

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Georgia Power

DATE: September 23, 2020
PAGE: PV07 SHEET NAME: LABELS
DRAWN BY: SoloCAD

⚠ WARNING
ELECTRIC SHOCK HAZARD
THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MAY BE ENERGIZED

LABEL 1
AT EACH JUNCTION BOX, COMBINER BOX, DISCONNECT, AND DEVICE WHERE ENERGIZED UNGROUNDED CONDUCTORS MAY BE EXPOSED DURING SERVICE. NEC. 690.35(F)

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

LABEL 2
FOR PV DISCONNECTING MEANS WHERE ALL TERMINALS OF THE DISCONNECTING MEANS MAY BE ENERGIZED IN THE OPEN POSITION. NEC 690.17(E), NEC 705.22

⚠ PHOTOVOLTAIC SYSTEM AC DISCONNECT ⚠
RATED AC OUTPUT CURRENT 28 A
NOMINAL OPERATING AC VOLTAGE 240 V

LABEL 3
AT POINT OF INTERCONNECTION, MARKED AT AC DISCONNECTING MEANS. NEC 690.54, NEC 690.13 (B)

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

LABEL 4
AT POINT OF INTERCONNECTION FOR EQUIPMENT CONTAINING OVERCURRENT DEVICES IN CIRCUITS SUPPLYING POWER TO A BUSBAR OR CONDUCTOR SUPPLIED FROM MULTIPLE SOURCES, EACH SERVICE EQUIPMENT AND ALL ELECTRIC POWER PRODUCTION SOURCE LOCATIONS. NEC 705.12(D)(3)

LABEL VALUES:	
DESCRIPTION	VALUE:
DC IMP:	9.55
DC VMP:	32.98
DC VOC:	39.87
DC ISC:	SEE DATASHEET
DC SYSTEM SIZE (W):	8820
AC OPERATING CURRENT:	SEE DATASHEET
AC VOLTAGE:	240

- LABELING NOTES:**
- LABELS CALLED OUT ACCORDING TO ALL COMMON CONFIGURATIONS. ELECTRICIAN TO DETERMINE EXACT REQUIREMENTS IN THE FIELD PER CURRENT NEC AND LOCAL CODES AND MAKE APPROPRIATE ADJUSTMENTS.
 - LABELING REQUIREMENTS BASED ON THE 2014 NATIONAL ELECTRIC CODE, OSHA STANDARD 19010.145, ANSI Z535.
 - MATERIAL BASED ON THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
 - LABELS TO BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED [NEC 110.21]
 - LABELS TO BE A MINIMUM LETTER HEIGHT OF 3/8", WHITE ON RED BACKGROUND; REFLECTIVE, AND PERMANENTLY AFFIXED [IFC 605.11.1.1]

WARNING: PHOTOVOLTAIC POWER SOURCE

⚠ WARNING
INVERTER OUTPUT CONNECTION
DO NOT RELOCATE THIS OVERCURRENT DEVICE

LABEL 5
AT DIRECT-CURRENT EXPOSED RACEWAYS, CABLE TRAYS, COVERS AND ENCLOSURES OF JUNCTION BOXES, AND OTHER WIRING METHODS; SPACED AT MAXIMUM 10FT SECTION OR WHERE SEPARATED BY ENCLOSURES, WALLS, PARTITIONS, CEILINGS, OR FLOORS. NEC 690.31(G)(3&4)

PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN

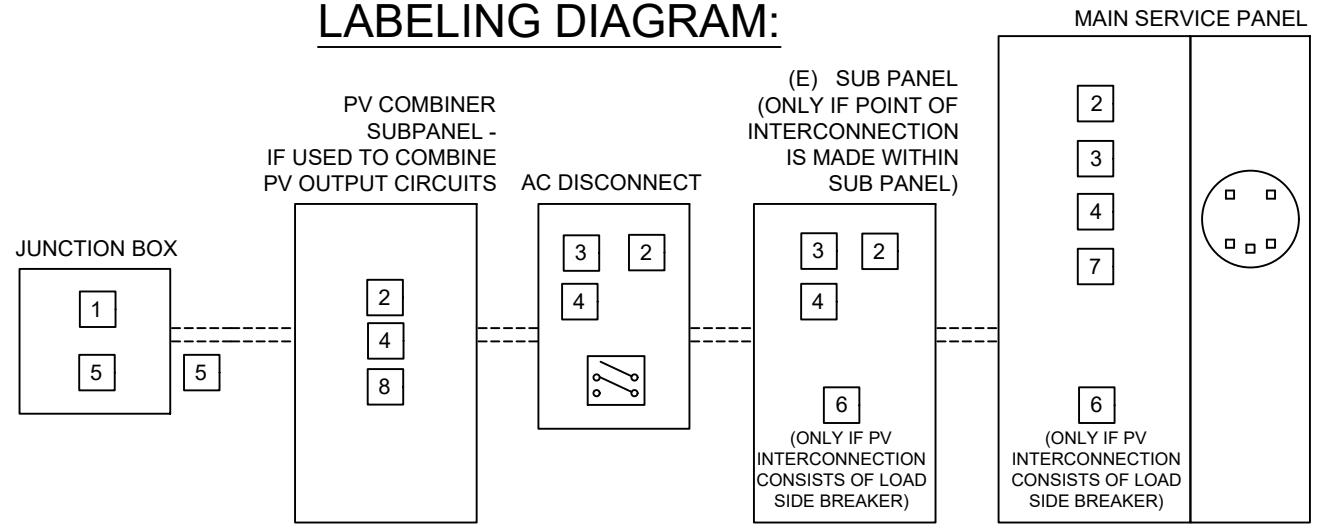
LABEL 6
PLACED ADJACENT TO THE BACK-FED BREAKER FROM THE INVERTER IF TIE IN CONSISTS OF LOAD SIDE CONNECTION TO BUSBAR. NEC 705.12(D)(2)(3)(B)

⚠ WARNING
THIS EQUIPMENT FED BY MULTIPLE SOURCES. TOTAL RATING OF ALL OVERCURRENT DEVICES, EXCLUDING MAIN SUPPLY OVERCURRENT DEVICE, SHALL NOT EXCEED AMPACITY OF BUSBAR.

LABEL 7
SIGN LOCATED AT UTILITY SERVICE EQUIPMENT. NEC 690.56(C)

LABEL 8 (ONLY IF 3 OR MORE SUPPLY SOURCES TO A BUSBAR)
SIGN LOCATED AT LOAD CENTER IF CONTAINING 3 OR MORE POWER SOURCES. NEC 705.12(D)(2)(3)(C)

LABELING DIAGRAM:



** ELECTRICAL DIAGRAM SHOWN ABOVE IS FOR LABELING PURPOSES ONLY. NOT AN ACTUAL REPRESENTATION OF EQUIPMENT AND CONNECTIONS TO BE INSTALLED. LABEL LOCATIONS PRESENTED MAY VARY DEPENDING ON TYPE OF INTERCONNECTION METHOD AND LOCATION PRESENTED ELECTRICAL DIAGRAM PAGE. **



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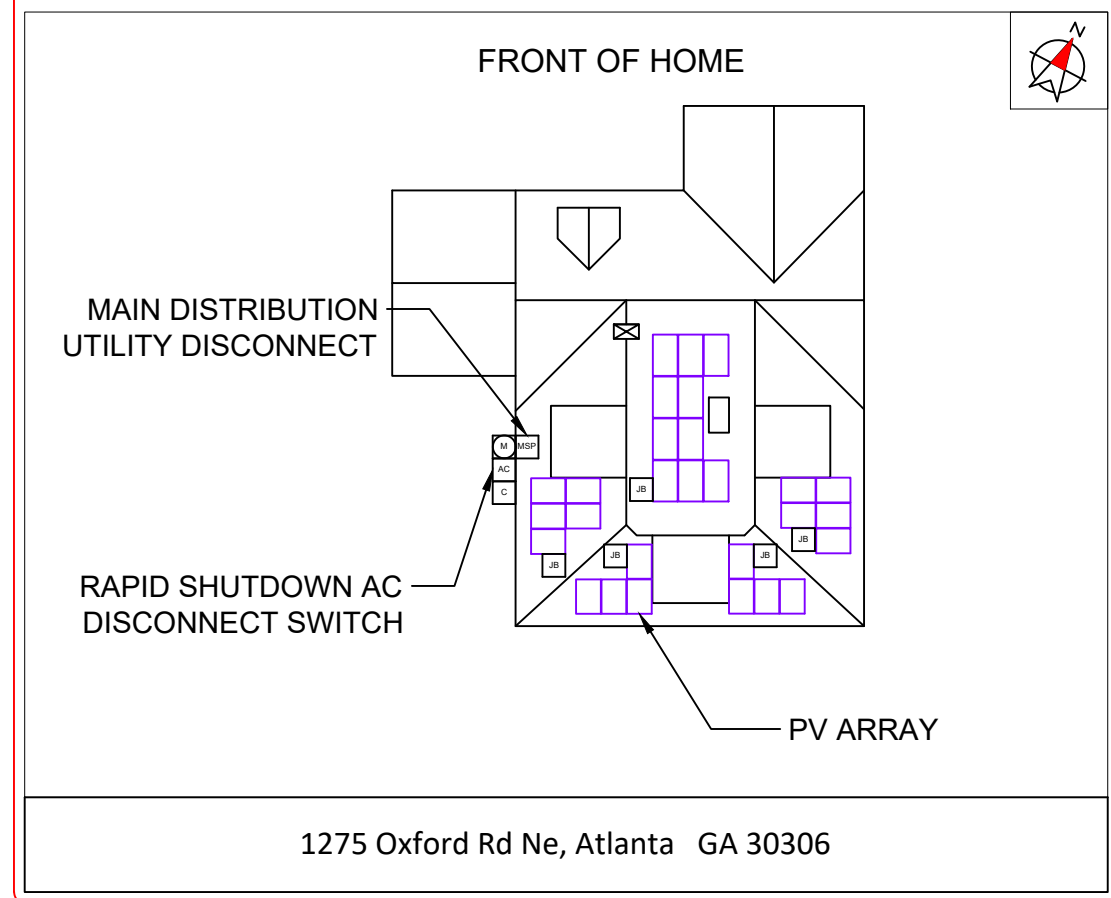
DATE: September 23, 2020

PAGE: PV08 SHEET NAME: PLACARD

DRAWN BY: SoloCAD

CAUTION

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



DIRECTORY

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

(ALL PLAQUES AND SIGNAGE WILL BE INSTALLED AS OUTLINED WITHIN: NEC 690.56(B)&(C), [NEC 705.10])



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DATE: September 23, 2020

PAGE: PV09 SHEET NAME: SITE PHOTOS

DRAWN BY: SoloCAD



Q.PEAK DUO BLK-G5 300-320

Q.ANTUM SOLAR MODULE

The new **Q.PEAK DUO BLK-G5** solar module from Q CELLS impresses with its outstanding visual appearance and particularly high performance on a small surface thanks to the innovative **Q.ANTUM DUO** Technology. **Q.ANTUM**'s world-record-holding cell concept has now been combined with state-of-the-art circuitry half cells and a six-busbar design, thus achieving outstanding performance under real conditions — both with low-intensity solar radiation as well as on hot, clear summer days.



Q.ANTUM TECHNOLOGY: LOW LEVELIZED COST OF ELECTRICITY
Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 19.3%.



INNOVATIVE ALL-WEATHER TECHNOLOGY
Optimal yields, whatever the weather with excellent low-light and temperature behavior.



ENDURING HIGH PERFORMANCE
Long-term yield security with Anti LID Technology, Anti PID Technology¹, Hot-Spot Protect and Traceable Quality Tra.Q™.



EXTREME WEATHER RATING
High-tech aluminum alloy frame, certified for high snow (5400 Pa) and wind loads (4000 Pa) regarding IEC.



A RELIABLE INVESTMENT
Inclusive 12-year product warranty and 25-year linear performance guarantee².



STATE OF THE ART MODULE TECHNOLOGY
Q.ANTUM DUO combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology.



THE IDEAL SOLUTION FOR:



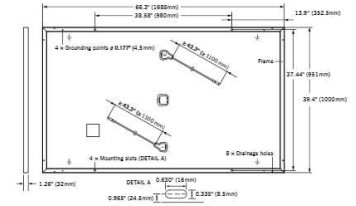
Engineered in **Germany**

¹ APT test conditions according to IEC/TS 62804-1:2015, method B (-1500V, 168h)
² See data sheet on rear for further information.



MECHANICAL SPECIFICATION

Format	66.3in x 39.4in x 1.26in (including frame) (1685mm x 1000mm x 32mm)
Weight	41.2lbs (18.7kg)
Front Cover	0.13in (3.2mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodized aluminum
Cell	6 x 20 monocrystalline Q.ANTUM solar half-cells
Junction box	2.76-3.35in x 1.97-2.76in x 0.51-0.83in (70-85mm x 50-70mm x 13-21mm), decentralized, IP67
Cable	4mm ² Solar cable; (+) ≥43.3in (1100mm), (-) ≥43.3in (1100mm)
Connector	Multi-Contact MC4, IP68

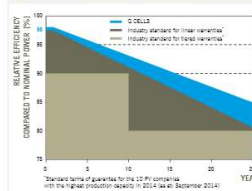


ELECTRICAL CHARACTERISTICS

POWER CLASS		300	305	310	315	320	
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5W / -0W)							
Minimum	Power at MPP¹	P_{MPP} [W]	300	305	310	315	320
	Short Circuit Current¹	I_{sc} [A]	9.72	9.78	9.83	9.89	9.94
	Open Circuit Voltage¹	V_{oc} [V]	39.48	39.75	40.02	40.29	40.56
	Current at MPP	I_{MPP} [A]	9.25	9.31	9.36	9.41	9.47
	Voltage at MPP	V_{MPP} [V]	32.43	32.78	33.12	33.46	33.80
	Efficiency¹	η [%]	≥17.8	≥18.1	≥18.4	≥18.7	≥19.0
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT²							
Minimum	Power at MPP	P_{MPP} [W]	224.1	227.8	231.6	235.3	239.1
	Short Circuit Current	I_{sc} [A]	7.83	7.88	7.92	7.97	8.01
	Open Circuit Voltage	V_{oc} [V]	37.15	37.40	37.66	37.91	38.17
	Current at MPP	I_{MPP} [A]	7.28	7.32	7.37	7.41	7.45
	Voltage at MPP	V_{MPP} [V]	30.78	31.11	31.44	31.76	32.08

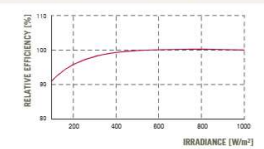
¹Measurement tolerances P_{MPP} ±3%; I_{sc}, V_{oc} ±5% at STC: 1000W/m², 25±2°C, AM 1.5 G according to IEC 60904-3 - *800 W/m², NMOT, spectrum AM 1.5 G

Q CELLS PERFORMANCE WARRANTY



At least 98% of nominal power during first year. Thereafter max. 0.54% degradation per year. At least 93.1% of nominal power up to 10 years. At least 85% of nominal power up to 25 years. All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Q CELLS sales organization of your respective country.

PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25°C, 1000W/m²).

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I_{sc}	α [%/K]	+0.04	Temperature Coefficient of V_{oc}	β [%/K]	-0.28
Temperature Coefficient of P_{MPP}	γ [%/K]	-0.37	Normal Operating Module Temperature	NMOT [°F]	109 ± 5.4 (43 ± 3°C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V_{MIS}	[V]	1000 (IEC) / 1000 (UL)	Safety Class	II
Maximum Series Fuse Rating	[A DC]	20	Fire Rating	C (IEC) / TYPE 1 (UL)
Max. Design Load, Push / Pull (UL)²	[lbs/ft²]	75 (3600 Pa) / 55 (2667 Pa)	Permitted module temperature on continuous duty	-40°F up to +185°F (-40°C up to +85°C)
Max. Test Load, Push / Pull (UL)²	[lbs/ft²]	113 (5400 Pa) / 84 (4000 Pa)		² see installation manual

QUALIFICATIONS AND CERTIFICATES

UL 1703; VDE Quality Tested; CE-compliant; IEC 61215:2016; IEC 61730:2016, Application class A



PACKAGING INFORMATION

Number of Modules per Pallet	32
Number of Pallets per 53' Trailer	30
Number of Pallets per 40' High Cube Container	26
Pallet Dimensions (L x W x H)	69.3in x 45.3in x 46.9in (1760mm x 1150mm x 1190mm)
Pallet Weight	1415lbs (642kg)

NOTE: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.

Hanwha Q CELLS America Inc.
300 Spectrum Center Drive, Suite 1250, Irvine, CA 92618, USA | TEL +1 949 748 59 96 | EMAIL Inquiry@us.q-cells.com | WEB www.q-cells.us

Enphase IQ 7 and IQ 7+ Microinverters

The high-powered smart grid-ready **Enphase IQ 7 Micro™** and **Enphase IQ 7+ Micro™** dramatically simplify the installation process while achieving the highest system efficiency.

Part of the Enphase IQ System, the IQ 7 and IQ 7+ Microinverters integrate with the Enphase IQ Envoy™, Enphase IQ Battery™, and the Enphase Enlighten™ monitoring and analysis software.

IQ Series Microinverters extend the reliability standards set forth by previous generations and undergo over a million hours of power-on testing, enabling Enphase to provide an industry-leading warranty of up to 25 years.

Easy to Install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant (NEC 2014 & 2017)

Productive and Reliable

- Optimized for high powered 60-cell and 72-cell* modules
- More than a million hours of testing
- Class II double-insulated enclosure
- UL listed

Smart Grid Ready

- Complies with advanced grid support, voltage and frequency ride-through requirements
- Remotely updates to respond to changing grid requirements
- Configurable for varying grid profiles
- Meets CA Rule 21 (UL 1741-SA)

* The IQ 7+ Micro is required to support 72-cell modules.



Enphase IQ 7 and IQ 7+ Microinverters

INPUT DATA (DC)	IQ7-60-2-US / IQ7-60-B-US		IQ7PLUS-72-2-US / IQ7PLUS-72-B-US	
Commonly used module pairings ¹	235 W - 350 W +		235 W - 440 W +	
Module compatibility	60-cell PV modules only		60-cell and 72-cell PV modules	
Maximum input DC voltage	48 V		60 V	
Peak power tracking voltage	27 V - 37 V		27 V - 45 V	
Operating range	16 V - 48 V		16 V - 60 V	
Min/Max start voltage	22 V / 48 V		22 V / 60 V	
Max DC short circuit current (module Isc)	15 A		15 A	
Overtoltage class DC port	II		II	
DC port backfeed current	0 A		0 A	
PV array configuration	1 x 1 ungrounded array; No additional DC side protection required; AC side protection requires max 20A per branch circuit			
OUTPUT DATA (AC)	IQ 7 Microinverter		IQ 7+ Microinverter	
Peak output power	250 VA		295 VA	
Maximum continuous output power	240 VA		290 VA	
Nominal (L-L) voltage/range ²	240 V / 211-264 V	208 V / 183-229 V	240 V / 211-264 V	208 V / 183-229 V
Maximum continuous output current	1.0 A (240 V)	1.15 A (208 V)	1.21 A (240 V)	1.39 A (208 V)
Nominal frequency	60 Hz		60 Hz	
Extended frequency range	47 - 68 Hz		47 - 68 Hz	
AC short circuit fault current over 3 cycles	5.8 Arms		5.8 Arms	
Maximum units per 20 A (L-L) branch circuit ³	16 (240 VAC)	13 (208 VAC)	13 (240 VAC)	11 (208 VAC)
Overtoltage class AC port	III		III	
AC port backfeed current	0 A		0 A	
Power factor setting	1.0		1.0	
Power factor (adjustable)	0.7 leading ... 0.7 lagging		0.7 leading ... 0.7 lagging	
EFFICIENCY	@240 V	@208 V	@240 V	@208 V
Peak CEC efficiency	97.6 %	97.6 %	97.5 %	97.3 %
CEC weighted efficiency	97.0 %	97.0 %	97.0 %	97.0 %
MECHANICAL DATA				
Ambient temperature range	-40°C to +65°C			
Relative humidity range	4% to 100% (condensing)			
Connector type (IQ7-60-2-US & IQ7PLUS-72-2-US)	MC4 (or Amphenol H4 UTX with additional Q-DCC-5 adapter)			
Connector type (IQ7-60-B-US & IQ7PLUS-72-B-US)	Friends PV2 (MC4 intermateable). Adaptors for modules with MC4 or UTX connectors: - PV2 to MC4: order ECA-S20-S22 - PV2 to UTX: order ECA-S20-S25			
Dimensions (WxHxD)	212 mm x 175 mm x 30.2 mm (without bracket)			
Weight	1.08 kg (2.38 lbs)			
Cooling	Natural convection - No fans			
Approved for wet locations	Yes			
Pollution degree	PD3			
Enclosure	Class II double-insulated, corrosion resistant polymeric enclosure			
Environmental category / UV exposure rating	NEMA Type 6 / outdoor			
FEATURES				
Communication	Power Line Communication (PLC)			
Monitoring	Enlighten Manager and MyEnlighten monitoring options. Both options require installation of an Enphase IQ Envoy.			
Disconnecting means	The AC and DC connectors have been evaluated and approved by UL for use as the load-break disconnect required by NEC 690.			
Compliance	CA Rule 21 (UL 1741-SA) UL 62109-1, UL1741/IEEE1547, FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01 This product is UL Listed as PV Rapid Shut Down Equipment and conforms with NEC-2014 and NEC-2017 section 690.12 and C22.1-2015 Rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors, when installed according manufacturer's instructions.			

1. No enforced DC/AC ratio. See the compatibility calculator at <https://enphase.com/en-us/support/module-compatibility>.
 2. Nominal voltage range can be extended beyond nominal if required by the utility.
 3. Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.



To learn more about Enphase offerings, visit enphase.com

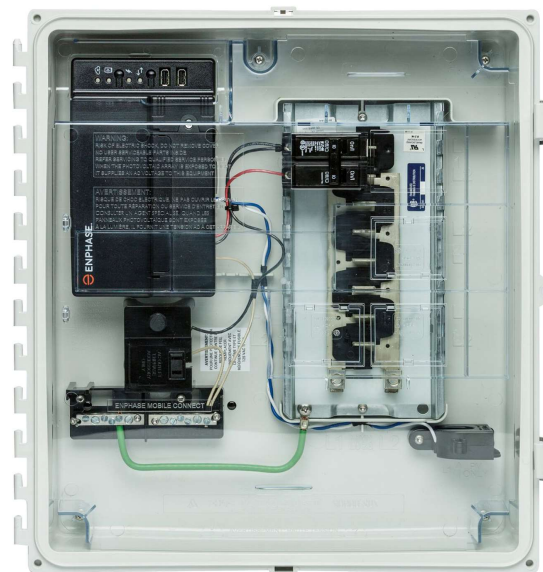


To learn more about Enphase offerings, visit enphase.com



Enphase IQ Combiner+ (X-IQ-AM1-240-2)

The **Enphase IQ Combiner+**™ with Enphase IQ Envoy™ consolidates interconnection equipment into a single enclosure and streamlines PV and storage installations by providing a consistent, pre-wired solution for residential applications. It offers up to four 2-pole input circuits and Eaton BR series busbar assembly.



Smart

- Includes IQ Envoy for communication and control
- Flexible networking supports Wi-Fi, Ethernet, or cellular
- Provides production metering and optional consumption monitoring
- Supports installation of the Enphase Q Aggregator™

Simple

- Eaton BR series panelboard interior
- Up to four 2-pole branch circuits for 240 VAC plug-in breakers (not included)
- 80 A total PV or storage branch circuits

Reliable

- Durable NRTL-certified NEMA type 3R enclosure
- Five-year warranty
- UL listed

Enphase IQ Combiner+

MODEL NUMBER

IQ Combiner+ X-IQ-AM1-240-2	IQ Combiner+ with Enphase IQ Envoy™ for integrated revenue grade PV production metering (ANSI C12.20 +/- 0.5%) and optional* consumption monitoring (+/- 2.5%).
-----------------------------	---

ACCESSORIES (order separately)

Enphase Mobile Connect™ CELLMODEM-03 (4G / 12-year data plan) CELLMODEM-01 (3G / 5-year data plan) CELLMODEM-M1 (4G LTE CAT-M1 / 5-year data plan)	Plug and play industrial grade cellular modem with data plan for systems up to 60 microinverters. (Available in the US, Canada, Mexico, Puerto Rico, and the US Virgin Islands, where there is adequate cellular service in the installation area.)
Consumption Monitoring CT CT-200-SPLIT	Split core current transformers enable whole home consumption metering* (+/- 2.5%).
Circuit Breakers BRK-15A-2-240 BRK-20A-2-240	Breaker, 2 pole, 15A, Eaton BR215 Breaker, 2 pole, 20A, Eaton BR220

ELECTRICAL SPECIFICATIONS

Rating	Continuous duty
System voltage	240 VAC, 60 HZ
Eaton BR series busbar rating	125 A
Max. continuous current rating (output to grid)	65 A
Max. fuse/circuit rating (output)	90 A
Branch circuits (solar and/or storage)	Up to four 2-pole Eaton BR series Distributed Generation (DG) breakers only (not included)
Max. continuous current rating (input from PV)	64 A
Max. total branch circuit breaker rating (input)	80 A (any combination)
Production Metering CT	200 A solid core pre-installed and wired to IQ Envoy

MECHANICAL DATA

Dimensions (WxHxD)	49.3 x 46.5 x 16.0 cm (19.4" x 18.3" x 6.3")
Weight	7.5 kg (16.5 lbs)
Ambient temperature range	-40° C to +46° C (-40° to 115° F)
Cooling	Natural convection, plus heat shield
Enclosure environmental rating	Outdoor, NRTL-certified, NEMA type 3R, polycarbonate construction
Wire sizes	<ul style="list-style-type: none"> • 20 A to 50 A breaker inputs: 14 to 4 AWG copper conductors • 60 A breaker branch input: 3 to 1/0 AWG copper conductors • Main lug combined output: 10 to 2/0 AWG copper conductors • Neutral and ground: 14 to 1/0 copper conductors Always follow local code requirements for conductor sizing.
Altitude	To 2000 meters (6,560 feet)

INTERNET CONNECTION OPTIONS

Integrated Wi-Fi	802.11b/g/n
Ethernet	802.3, Cat5E (or Cat 6) UTP Ethernet cable - not included
Cellular	Optional, CELLMODEM-01 (3G) or CELLMODEM-03 (4G) (not included)


COMPLIANCE

Compliance, Combiner	UL 1741 CAN/CSA C22.2 No. 107.1 47 CFR, Part 15, Class B, ICES 003 Production metering: ANSI C12.20 accuracy class 0.5 (PV production)
Compliance, IQ Envoy	UL 916 CAN/CSA C22.2 No. 61010-1

* Consumption monitoring is required for Enphase Storage Systems.

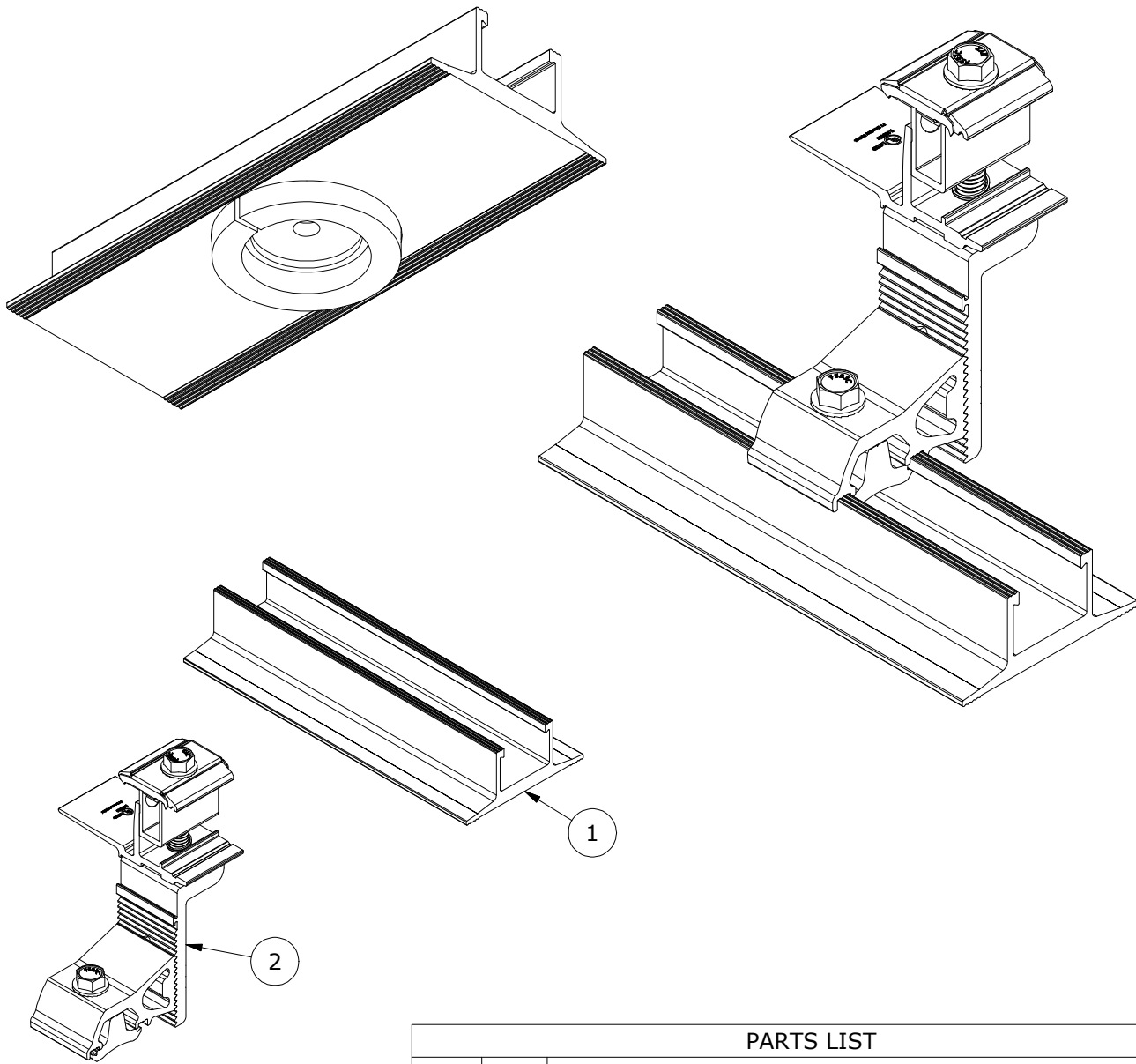
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2018-05-02

DESCRIPTION: SNAPNRACK, RL UNIVERSAL, SPEEDSEAL™ MOUNT KIT	DRAWN BY: mwatkins	
PART NUMBER(S): 242-92642	REVISION: A	


595 MARKET STREET, 29TH FLOOR • SAN FRANCISCO, CA 94105 USA
PHONE (415) 580-6900 • FAX (415) 580-6902

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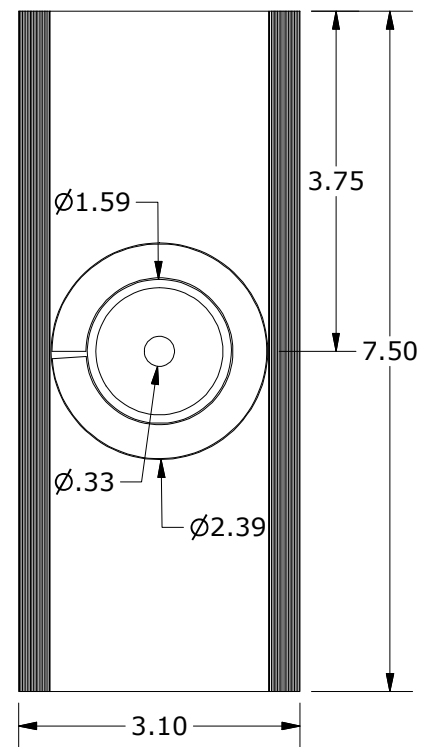
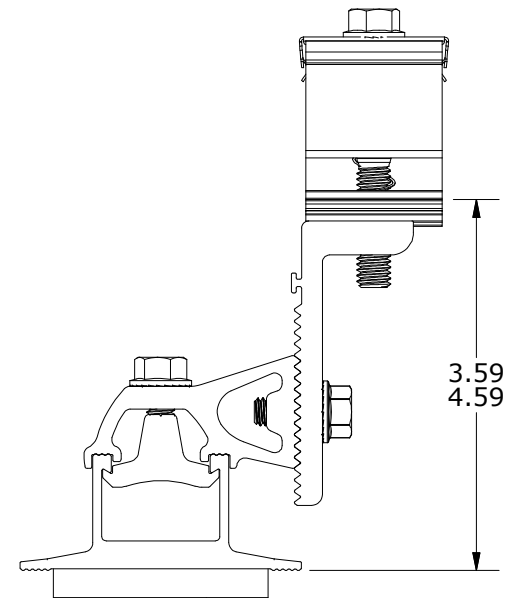
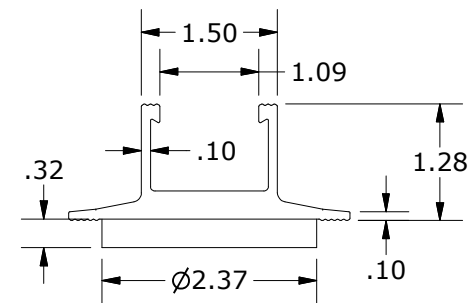
PARTS LIST		
ITEM	QTY	DESCRIPTION
1	1	SNAPNRACK, SPEEDSEAL TRACK, 7-1/2IN, SEALING, MILL
2	1	SNAPNRACK, RL UNIVERSAL, MOUNT

MATERIALS:	6000 SERIES ALUMINUM, STAINLESS STEEL, FOAM
DESIGN LOAD (LBS):	623 UP, 674 DOWN, 505 SIDE
ULTIMATE LOAD (LBS):	N/A
TORQUE SPECIFICATION:	12 LB-FT
CERTIFICATION:	UL 2703, FILE E359313; WIND-DRIVEN RAIN TEST FROM UL SUBJECT 2582
WEIGHT (LBS):	1.39

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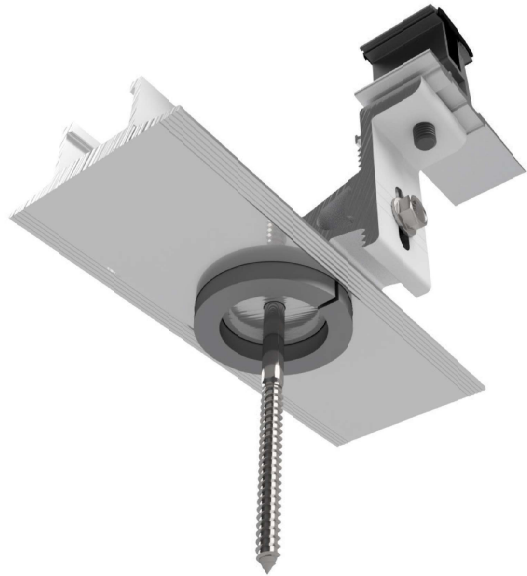
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ALL DIMENSIONS IN INCHES

SnapNrack SpeedSeal™ Track

Patent Pending Lag Driven Sealant Solution for RL Universal



A New Generation of Roof Attachments

- Innovative design incorporates flashing reliability into a single roof attachment
- 100% waterproof solution
- Sealing cavity with compressible barrier secures sealant in place & fills voids

Maintain the Integrity of the Roof by Eliminating Disruption

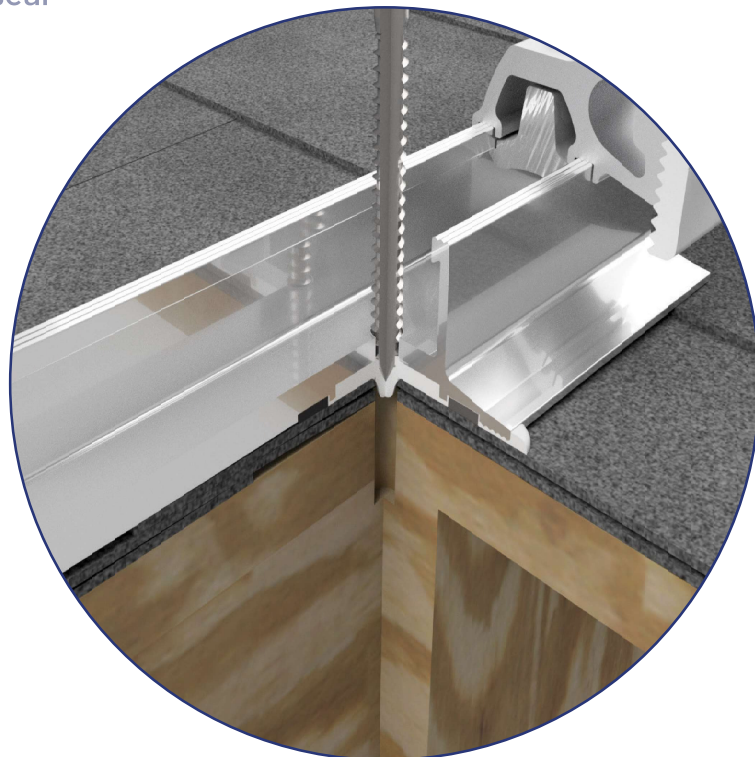
- Zero prying of shingles
- Zero removal of nails leaving holes in the roof
- Roof remains installed the way manufacturer meant it to be

Lag Driven Sealant Waterproofing

- Time Tested Roof Sealant provides lasting seal
- Sealant is compressed into cavity and lag hole as attachment is secured to rafter
- Active sealant solidifies bond if ever touched by liquid
- Technology passes UL 2582 Wind Driven Rain Test and ASTM E2140 Water Column Testing standards. Patent Pending.

Single Tool Installation

- SnapNrack was the first in the industry to develop a complete system that only requires a single tool. That tradition is continued as a ½” socket is still the only tool necessary to secure the mount as well as all other parts of the system.



Note: Sealant shown in white for illustration purposes only.

SnapNrack SpeedSeal™ Track

Fastest Roof Attachment in Solar

- Lag straight to a structural member, no in-between components such as flashings or bases.
- Simply locate rafter, fill sealant cavity & secure to roof. *It's that simple!*



Integrated Flashings. No Questions.

- Sealant fills around lag screw keeping roof and structure sealed and intact
- No added holes from ripping up nails, staples and screws holding shingles on roof

Less Time. Less Parts. Less Tools.

- No more need for a pry bar to rip up shingles
- No more proprietary lag screws
- Single Tool installation with ½” socket

Total System Solution

One Tool. One Warranty.

- SnapNrack RL Universal is designed to provide the fastest & easiest install experience on the roof without compromising quality, aesthetics & safety, all supported by a 25 year warranty.
- Built-in Wire Management & Aesthetics have been designed specifically for RL-U to improve quality and efficiency. RL-U features a sturdy skirt that provides considerable strength at the leading edge resulting in a clean polished array.

Certifications

SnapNrack RL Universal has been evaluated by Underwriters Laboratories (UL) and Listed to UL/ANSI Standard 2703 for Mechanical Loading and Fire. Additionally it is listed to UL 2582 for wind-driven rain and ASTM 2140.

