

PROJECT DESCRIPTION:

26 X 300 SILFAB SOLAR SIL-300 ML MODULES
 ROOF MOUNTED SOLAR PHOTOVOLTAIC MODULES

SYSTEM SIZE: 7.80 kW DC STC
 ARRAY AREA: ROOF#1 - 475.80 SQ FT

AUTHORITIES HAVING JURISDICTION

BUILDING : HARNETT COUNTY
 ZONING : HARNETT COUNTY
 UTILITY : CENTRAL ELECTRIC MEMBERSHIP CO-OP.

EQUIPMENT SUMMARY

26 SILFAB SOLAR SIL-300 ML MODULES
 03 GENERAC PV LINK S2502 POWER OPTIMIZERS
 01 GENERAC PWRCELL X7602 7600W INVERTER

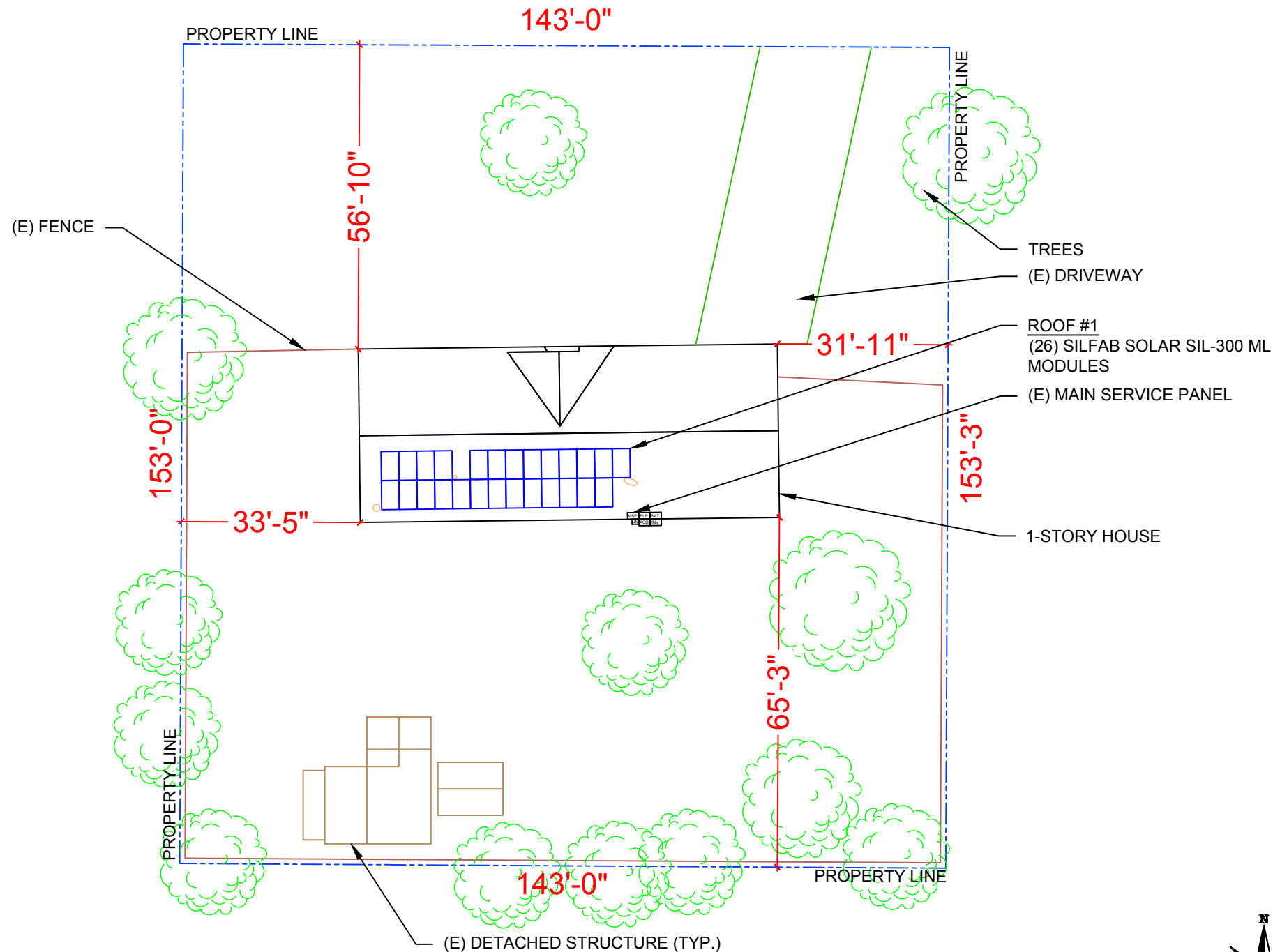
APPLICABLE CODES & STANDARDS

NCBC 2018
 NEC 2017

DESIGN SPECIFICATIONS

OCCUPANCY : II
 CONSTRUCTION : SINGLE-FAMILY
 ZONING : RESIDENTIAL
 GROUND SNOW LOAD : SEE STRUCTURAL LETTER
 WIND EXPOSURE : SEE STRUCTURAL LETTER
 WIND SPEED : SEE STRUCTURAL LETTER

RED BIRD DR.



1 PLOT PLAN & VICINITY MAP

PV-1

SCALE: 1/25" = 1'-0"

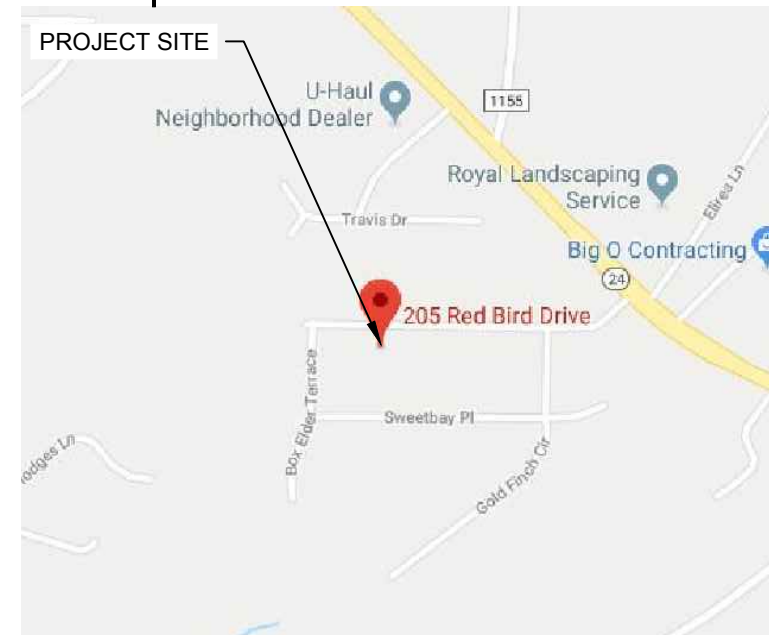


2

HOUSE PHOTO

PV-1

SCALE: NTS



3

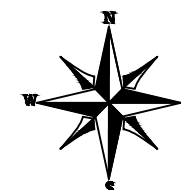
VICINITY MAP

PV-1

SCALE: NTS

SHEET INDEX

PV-1 PLOT PLAN & VICINITY MAP
 PV-2 ROOF PLAN & MODULES
 PV-2A STRING LAYOUT
 PV-3 ATTACHMENT DETAIL
 PV-4 ELECTRICAL LINE DIAGRAM
 PV-5 WIRING CALCULATIONS
 PV-6 to 12 EQUIPMENT SPECIFICATIONS



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REVISIONS

DESCRIPTION	DATE	REV

Signature with Seal

DATE: 1/28/2020

PROJECT NAME & ADDRESS

ANITA F YARBOROUGH
 RESIDENCE
 205 RED BIRD DR.,
 CAMERON, NC 28326

SHEET NAME

PLOT PLAN & VICINITY MAP

SHEET SIZE

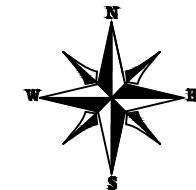
ANSI B
 11" X 17"

SHEET NUMBER

PV-1

MODULE TYPE, DIMENSIONS & WEIGHT

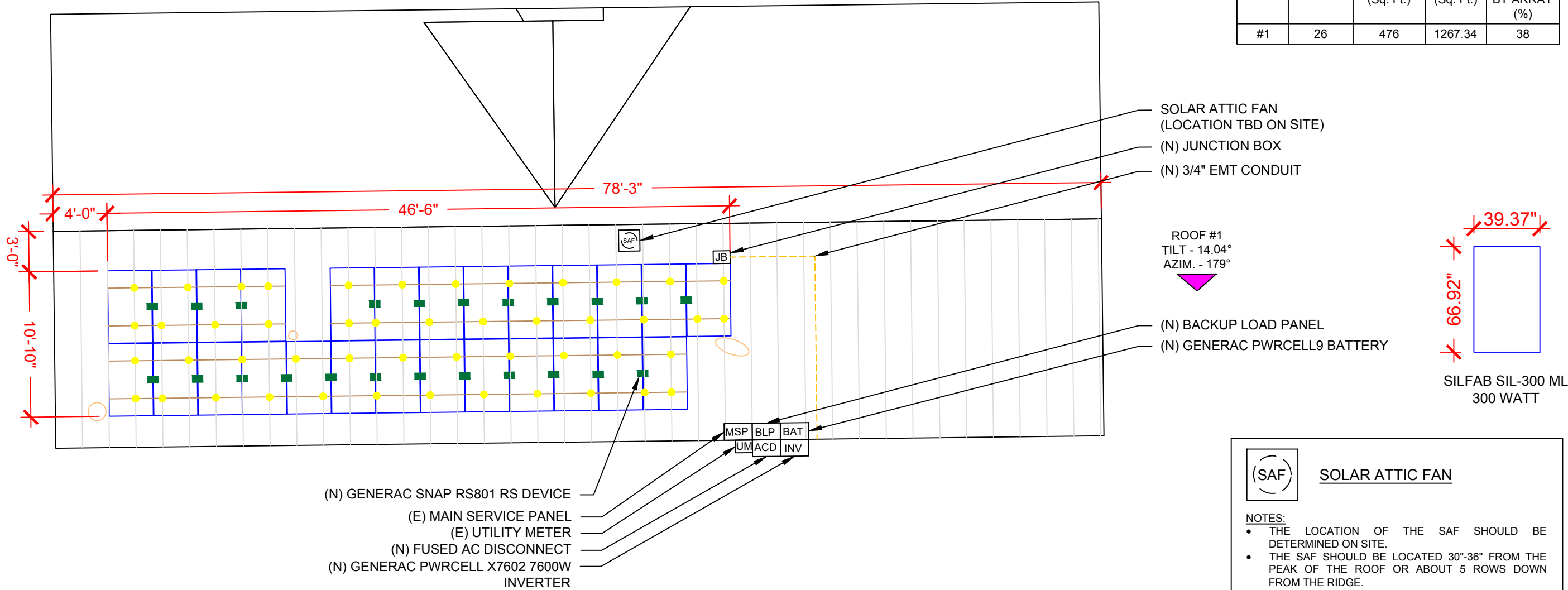
NUMBER OF MODULES = 26 MODULES
 MODULE TYPE = SILFAB SOLAR SIL-300 ML MODULES
 MODULE WEIGHT = 41.89 LBS / 19 KG.
 MODULE DIMENSIONS = 66.92"x 39.37" = 18.30 SF
 UNIT WEIGHT OF ARRAY = 2.30 PSF



ROOF DESCRIPTION				
ROOF TYPE			COMPOSITION SHINGLE	
ROOF #	ROOF TILT	AZIMUTH	FRAMING SIZE	FRAMING SPACING
#1	14.04°	179°	SEE STRUCTURAL LETTER	

RED BIRD DR.
 (E) FRONT OF RESIDENCE

ARRAY AREA & ROOF AREA CALC'S				
ROOF	# OF MODULES	ARRAY AREA (Sq. Ft.)	ROOF AREA (Sq. Ft.)	ROOF AREA COVERED BY ARRAY (%)
#1	26	476	1267.34	38

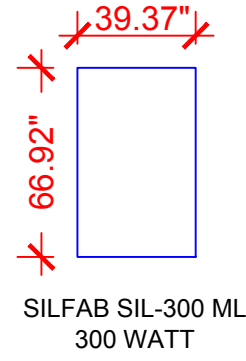


- (N) GENERAC SNAP RS801 RS DEVICE
- (E) MAIN SERVICE PANEL
- (E) UTILITY METER
- (N) FUSED AC DISCONNECT
- (N) GENERAC PWRCELL X7602 7600W INVERTER

- SOLAR ATTIC FAN (LOCATION TBD ON SITE)
- (N) JUNCTION BOX
- (N) 3/4" EMT CONDUIT

ROOF #1
 TILT - 14.04°
 AZIM. - 179°

- (N) BACKUP LOAD PANEL
- (N) GENERAC PWRCELL9 BATTERY



(SAF) SOLAR ATTIC FAN

NOTES:

- THE LOCATION OF THE SAF SHOULD BE DETERMINED ON SITE.
- THE SAF SHOULD BE LOCATED 30"-36" FROM THE PEAK OF THE ROOF OR ABOUT 5 ROWS DOWN FROM THE RIDGE.
- THE SAF SHOULD NOT BE MOUNTED ON ANY STRUCTURAL MEMBER LIKE TRUSS/RAFTER.
- "CAN VENTS" CAN BE REPLACED BY SAF.
- SAF CANNOT BE MOUNTED ON A METAL ROOF. PLEASE CARRY GABLE VENT FANS FOR METAL ROOF INSTALLATION (IF APPLICABLE).

(E) BACK OF RESIDENCE

LEGEND	
JB - JUNCTION BOX	- VENT, ATTIC FAN (ROOF OBSTRUCTION)
INV - INVERTER	- ROOF ATTACHMENT
ACD - AC DISCONNECT	- RAFTERS
MSP - MAIN SERVICE PANEL	- CONDUIT
BLP - BACKUP LOAD PANEL	BAT - BATTERY
OP - OPTIMIZER	

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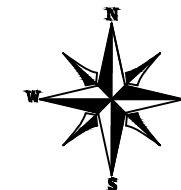
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DATE: 1/28/2020

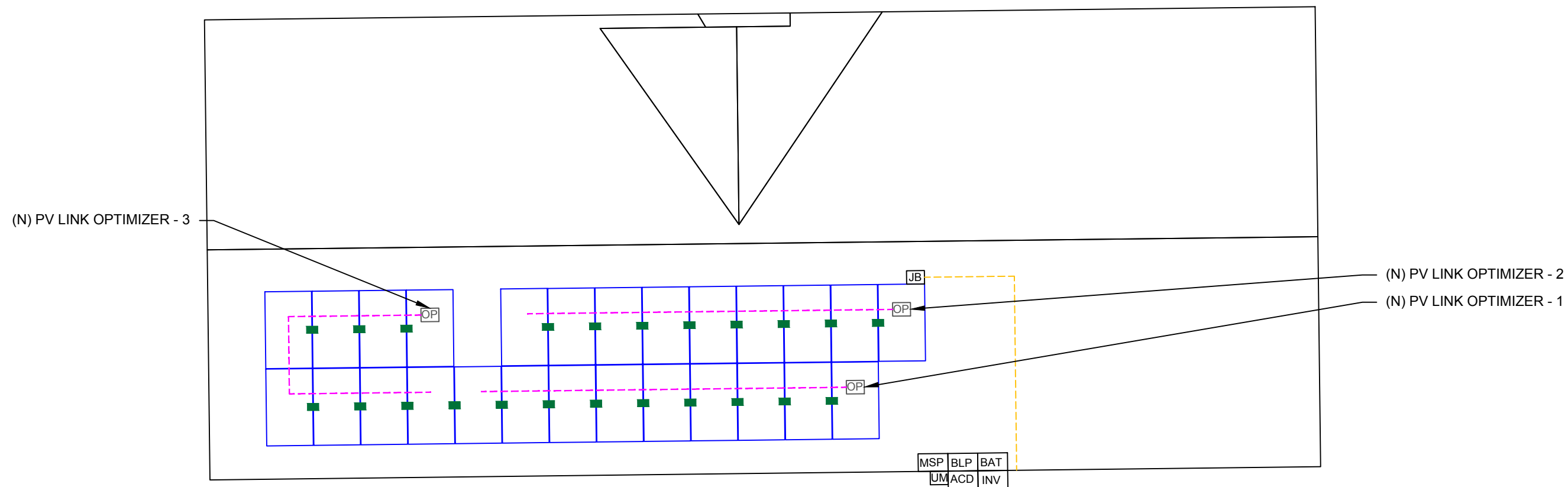
PROJECT NAME & ADDRESS

**ANITA F YARBOROUGH
 RESIDENCE**
 205 RED BIRD DR.,
 CAMERON, NC 28326

SHEET NAME	ROOF PLAN & MODULES
SHEET SIZE	ANSI B 11" X 17"
SHEET NUMBER	PV-2



RED BIRD DR.
(E) FRONT OF RESIDENCE



(E) BACK OF RESIDENCE

BILL OF MATERIALS		
EQUIPMENT	QTY	DESCRIPTION
SOLAR PV MODULE	26	SILFAB SOLAR SIL-300 ML MODULES
OPTIMIZER	03	GENERAC PV LINK S2502 POWER OPTIMIZERS
GENERAC SNAP RS	26	GENERAC SNAPRS MODEL RS801
INVERTER	01	GENERAC PWRCELL X7602 7600W INVERTER
AC DISCONNECT	1	60A FUSED, (2) 40A FUSES, 240V, NEMA 3R, UL LISTED
JUNCTION BOX	1	JUNCTION BOXES 600 V, NEMA 3 UL LISTED
BATTERY	1	GENERAC PWRCELL9 BATTERY
BACKUP PANEL	1	125A, BACKUP PANEL, 240V
RAILS	18	QRAIL LIGHT 14 FT. BLACK
SPLICE KIT	12	QSPLICE INTERNAL LIGHT
TRUNK CABLE	0	TRUNK/PV CABLE CLIP
MODULE CLAMPS	52	UNIVERSAL MID CLAMP
GROUNDING LUG	6	WEEB LUG W/ T-BOLT
END CLAMPS	16	UNIVERSAL END CLAMPS
ATTACHMENT	60	L-MOUNT ATTACHMENT (QUICKMOUNT)
T-BOLT	86	T-BOLT W/ NUT M8 X 20MM

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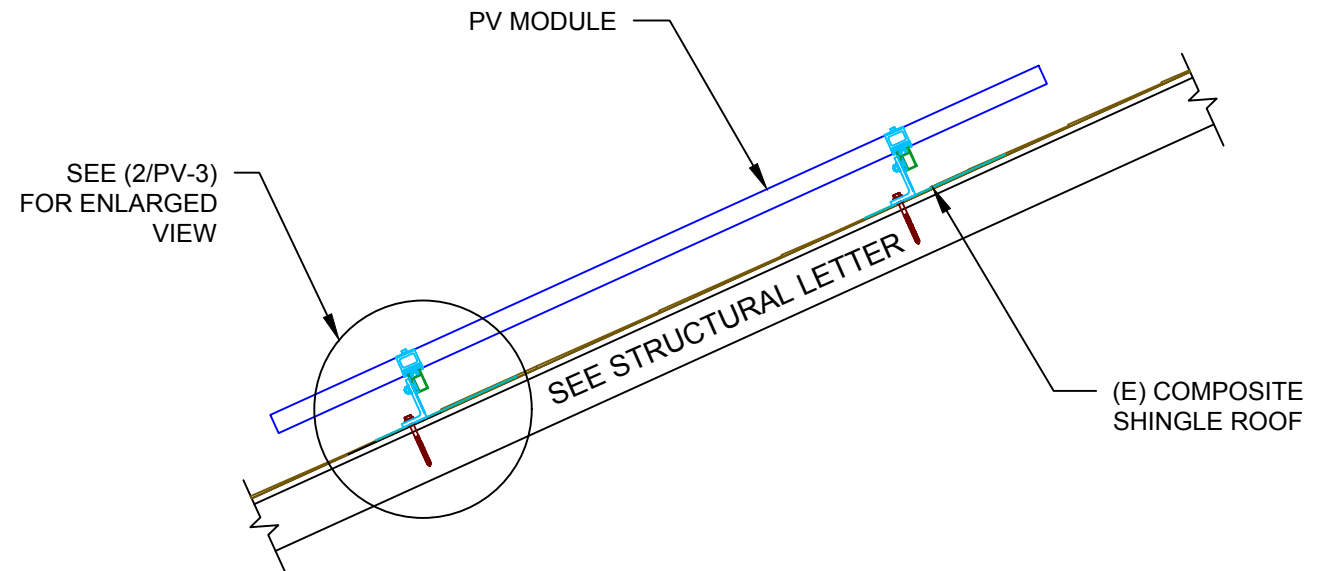
PROJECT NAME & ADDRESS

**ANITA F YARBOROUGH
RESIDENCE
205 RED BIRD DR.,
CAMERON, NC 28326**

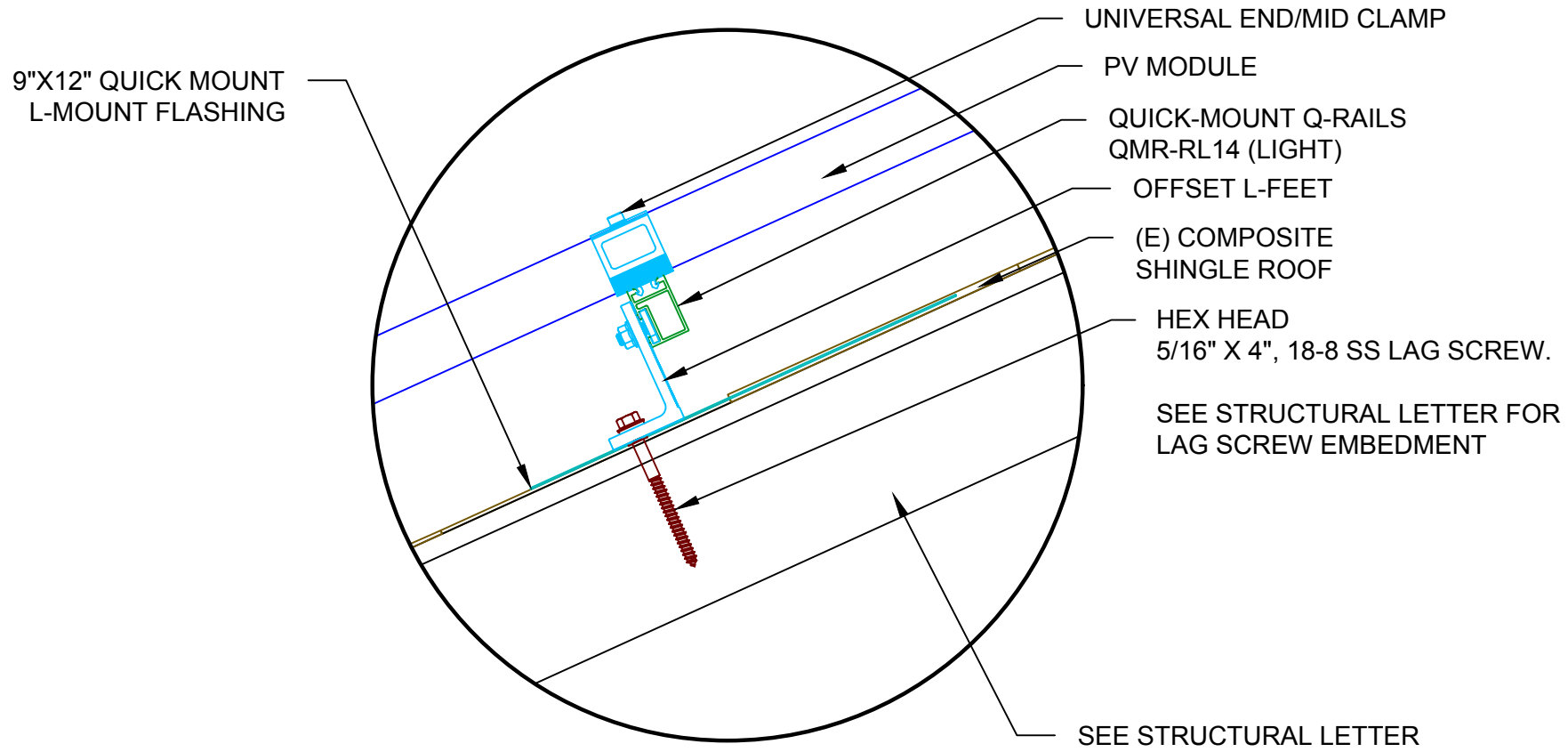
SHEET NAME
**STRING
LAYOUT**

SHEET SIZE
**ANSI B
11" X 17"**

SHEET NUMBER
PV-2A



1 ATTACHMENT DETAIL
 PV-3 SCALE: 1" = 1'-0"



2 ATTACHMENT DETAIL (enlarged view)
 PV-3 SCALE: NTS

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 RESIDENCE**
 205 RED BIRD DR.,
 CAMERON, NC 28326

SHEET NAME
**ATTACHMENT
 DETAIL**

SHEET SIZE
**ANSI B
 11" X 17"**

SHEET NUMBER
PV-3

(26) SILFAB SOLAR SIL-300 ML MODULES
 (1) PV LINK OF 08 MODULES AND
 (2) PV LINK OF 09 MODULES CONNECTED IN SERIES

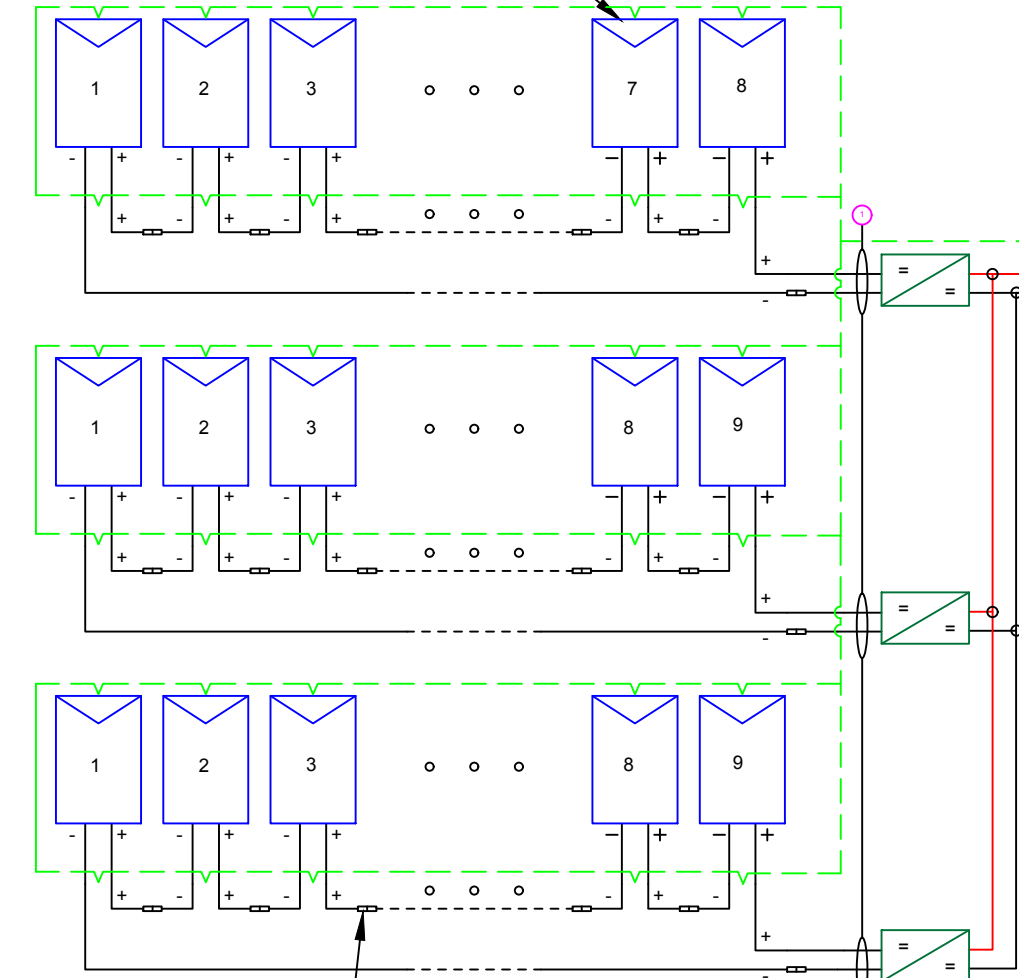
WIRE LEGEND

	PV ARRAY +VE CONDUCTOR AND L1
	PV ARRAY -VE CONDUCTOR AND L2
	NEUTRAL CONDUCTOR
	EGC AND GEC
	SINGLE TWISTED PAIR, CAT 5 WIRE

SERVICE INFO

UTILITY PROVIDER:	CENTRAL ELECTRIC MEMBERSHIP CO-OP.
MAIN SERVICE VOLTAGE:	240V
MAIN PANEL BRAND:	N/A
MAIN SERVICE PANEL:	200A
MAIN CIRCUIT BREAKER RATING:	200A
MAIN SERVICE LOCATION:	SOUTH-EAST
SERVICE FEED SOURCE:	UNDERGROUND

SILFAB SOLAR SIL-300 ML MODULES

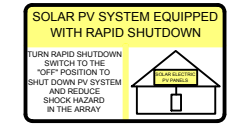


SNAP RS (RS801)
 MAX INPUT CURRENT - 13 A
 UL 1741 LISTED
 MODULE LEVEL RAPID
 SHUTDOWN (PVRSS)
 COMPLIANT
 NEMA 6P RATED

PV LINK SUBSTRING OPTIMIZER (S2502)
 RATED POWER : 2500W
 MPPT VOLTAGE RANGE: 60 TO 360 V
 MAX OUTPUT VOLTAGE: 420V
 MAX OUTPUT CURRENT: 8A
 RAPID SHUTDOWN COMPLIANT
 GROUND-FAULT PROTECTION COMPLIANT

! WARNING !
 PHOTOVOLTAIC
 POWER SOURCE

LABEL 1
 ON ALL CONDUITS
 SPACED AT MAX 10FT



LABEL 2
 AT INVERTER

! CAUTION !
 SOLAR ELECTRIC
 SYSTEM CONNECTED
 AND ENERGIZED

LABEL 3
 AT INVERTER

**PHOTOVOLTAIC
 DC DISCONNECT**

LABEL 4
 AT EACH DC
 DISCONNECT

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

LABEL 5
 AT EACH AC
 DISCONNECT

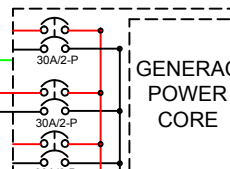
**PHOTOVOLTAIC
 AC DISCONNECT**

LABEL 6
 AT EACH AC
 DISCONNECT

QTY	CONDUCTOR INFORMATION	CONDUIT TYPE	CONDUIT SIZE
(6)	#10AWG - PV WIRE/USE-2	N/A	N/A
(1)	#6AWG - BARE COPPER IN FREE AIR		
(2)	#10AWG - THWN-2	EMT OR FLEX IN ATTIC	3/4"
(1)	#6AWG - THWN-2 GND		
(2)	#10AWG - THWN-2		
(1)	#10AWG - THWN-2 GND	EMT OR FLEX	3/4"
(1)	CAT 5 COMMUNICATION WIRE		
(3)	#6AWG - THWN-2		
(1)	#6AWG - THWN-2 GND	EMT OR FLEX	3/4"
(1)	CAT 5 COMMUNICATION WIRES	EMT OR FLEX	3/4"
(3)	#6AWG - THWN-2		
(1)	#6AWG - THWN-2 GND	EMT OR FLEX	3/4"
(3)	#6AWG - THWN-2	EMT OR FLEX	3/4"

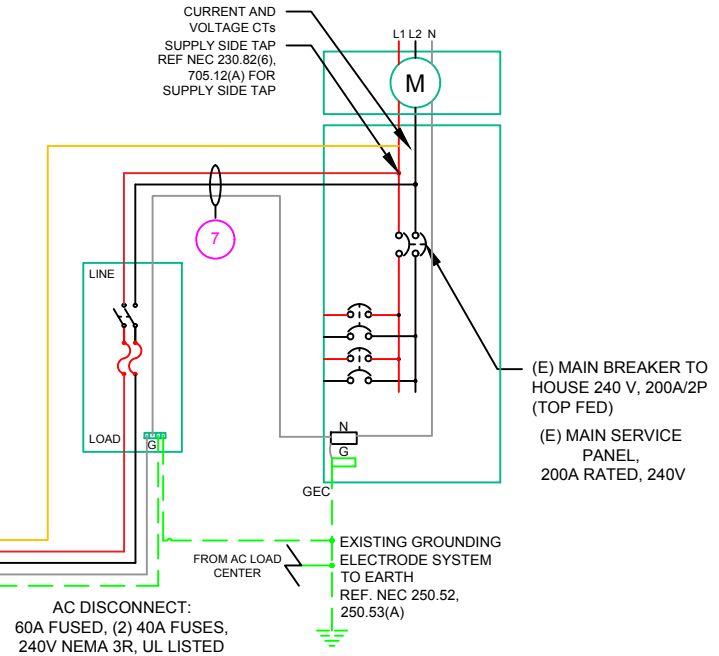
GENERAC PWRCELL X7602
 INVERTER (240V)
 OUTPUT: 240V, 32A
 96.5% CEC WEIGHTED EFFICIENCY
 NEMA 3R RATED, UL 1741 LISTED, INTERNAL
 GFDI WITH INTEGRATED DC DISCONNECT

JUNCTION BOX
 600 V, NEMA 3
 UL LISTED



(E) COMMUNICATION
 ROUTER

PWRcell MODEL 9 BATTERY
 8.6 kWh, 5.0 kW



AC DISCONNECT:
 60A FUSED, (2) 40A FUSES,
 240V NEMA 3R, UL LISTED

! WARNING !
 DUAL POWER SOURCES
 SECOND SOURCE IS PV SYSTEM

LABEL 8
 AT MEP

! CAUTION !
 SOLAR POINT OF
 INTERCONNECTION

LABEL 10
 AT UTILITY METER

! WARNING !
 SOLAR SYSTEM
 CONNECTED
 AND ENERGIZED

LABEL 9
 AT MEP

! WARNING !
 THE SERVICE METER IS ALSO SERVED
 BY A PHOTOVOLTAIC SYSTEM

LABEL 11
 AT UTILITY METER

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DESCRIPTION	DATE	REV

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 DATE: 1/28/2020

PROJECT NAME & ADDRESS
**ANITA F YARBOROUGH
 RESIDENCE**
 205 RED BIRD DR.,
 CAMERON, NC 28326

SHEET NAME
**ELECTRICAL LINE
 DIAGRAM**

SHEET SIZE
**ANSI B
 11" X 17"**

SHEET NUMBER
PV-4

SOLAR MODULE SPECIFICATIONS	
MANUFACTURER / MODEL #	SILFAB SIL300-ML
VMP	32.8V
IMP	9.16A
VOC	39.85V
ISC	9.71A
TEMP. COEFF. VOC	-0.28%/°C
MODULE DIMENSION	66.92"L x 39.37"W x 1.49"D (In Inch)
MODULE EFFICIENCY	18.4%

INVERTER SPECIFICATIONS	
MANUFACTURER / MODEL #	GENERAC PWRCELL X7602
AC POWER OUTPUT (LOADS/GRID)	7600VA
AC POWER OUTPUT (BACKUP)	8000VA
NOMINAL OUTPUT VOLTAGE	240 VAC
MAX OUTPUT CURRENT @240V (LOADS/GRID)	32A
MAX OUTPUT CURRENT @240V (BACKUP)	50A
NOMINAL DC INPUT VOLTAGE	380Vdc
MAX DC INPUT VOLTAGE	420Vdc
CEC WEIGHTED EFFICIENCY	96.5%
MAX DC POWER (PV)	10000W
MAX INPUT CURRENT (PV)	20Adc
CONT. PEAK POWER (BATTERY)	8000W

SERIES SUB STRING OPTIMIZER SPECIFICATIONS	
MANUFACTURER / MODEL #	PV LINK S2502
RATED POWER	2500W
MPPT VOLTAGE RANGE	60-360 Vmp
MAXIMUM INPUT VOLTAGE	420Voc
MAXIMUM OUTPUT	420 Adc
NOMINAL OUTPUT	380 Vdc
MAXIMUM OUTPUT CURRENT	8 A
MAXIMUM SHORT CIRCUIT CURRENT	18 A

BATTERY SPECIFICATIONS	
MANUFACTURER / MODEL #	GENERAC PWRCELL BATTERY
USABLE ENERGY	8.6kW
RATED CONTINUOUS POWER	3.4Kw
POWER: 60 MINUTES	4.2kW
POWER: 2 MINUTES	5.0kW
REBUS VOLTAGE: INPUT/ OUTPUT	360-420Vdc
MODULE VOLTAGE	46.8Vdc
ROUND-TRIP EFFICIENCY	96.5%

AMBIENT TEMPERATURE SPECS	
RECORD LOW TEMP	-13°
AMBIENT TEMP (HIGH TEMP 2%)	34°
CONDUIT HEIGHT	0.5"
ROOF TOP TEMP	56°

**DC CONDUCTOR AMPACITY CALCULATIONS:
ARRAY TO JUNCTION BOX:**

EXPECTED WIRE TEMP (In Celsius)	56°
TEMP. CORRECTION PER NEC TABLE 310.15 (B)(2)(a)	0.71
NO. OF CURRENT CARRYING CONDUCTORS	6
CONDUIT FILL CORRECTION PER NEC TABLE 310.15(B)(3)(a)	0.8
CIRCUIT CONDUCTOR SIZE	10 AWG
CIRCUIT CONDUCTOR AMPACITY PER NEC TABLE 310.15(B)(16)	40A

REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A&B)	10A
1.25 X I _{max}	
DERATED AMPACITY OF CIRCUIT CONDUCTOR	
TEMP. CORRECTION PER TABLE 310.15 (B)(2)(a) X CONDUIT FILL CORRECTION PER NEC 310.15(B)(3)(a) X CIRCUIT CONDUCTOR AMPACITY 310.15 (B)(16)	22.72A
Result should be greater than (10A) otherwise less the entry for circuit conductor size and ampacity	

FROM JUNCTION BOX TO INVERTER:

EXPECTED WIRE TEMP (In Celsius)	56°
TEMP. CORRECTION PER NEC TABLE 310.15 (B)(2)(a)	0.71
NO. OF CURRENT CARRYING CONDUCTORS	2
CONDUIT FILL CORRECTION PER NEC TABLE 310.15(B)(3)(a)	1
CIRCUIT CONDUCTOR SIZE	6 AWG
CIRCUIT CONDUCTOR AMPACITY PER NEC TABLE 310.15(B)(16)	75A

REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A&B)	30A
1.25 X I _{max} X # of PV LINKS	
DERATED AMPACITY OF CIRCUIT CONDUCTOR	
TEMP. CORRECTION PER TABLE 310.15 (B)(2)(a) X CONDUIT FILL CORRECTION PER NEC 310.15(B)(3)(a) X CIRCUIT CONDUCTOR AMPACITY 310.15 (B)(16)	53.25A
Result should be greater than (30A) otherwise less the entry for circuit conductor size and ampacity	

FROM BATTERY TO INVERTER:

EXPECTED WIRE TEMP (In Celsius)	34°
TEMP. CORRECTION PER NEC TABLE 310.15 (B)(2)(a)	0.96
NO. OF CURRENT CARRYING CONDUCTORS	2
CONDUIT FILL CORRECTION PER NEC TABLE 310.15(B)(3)(a)	1
CIRCUIT CONDUCTOR SIZE	10 AWG
CIRCUIT CONDUCTOR AMPACITY PER NEC TABLE 310.15(B)(16)	40A

REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A&B)	26.25A
1.25 X I _{max}	
DERATED AMPACITY OF CIRCUIT CONDUCTOR	
TEMP. CORRECTION PER TABLE 310.15 (B)(2)(a) X CONDUIT FILL CORRECTION PER NEC 310.15(B)(3)(a) X CIRCUIT CONDUCTOR AMPACITY 310.15 (B)(16)	38.40A
Result should be greater than (26.25A) otherwise less the entry for circuit conductor size and ampacity	

**AC CONDUCTOR AMPACITY CALCULATIONS:
FROM INVERTER TO BACK-UP PANEL:**

No. OF INVERTER	1
EXPECTED WIRE TEMP (In Celsius)	34°
TEMP. CORRECTION PER NEC TABLE 310.15(B)(2)(a)	0.96
NO. OF CURRENT CARRYING CONDUCTORS	2
CONDUIT FILL CORRECTION PER NEC TABLE 310.15(B)(3)(a)	1
CIRCUIT CONDUCTOR SIZE	6 AWG
CIRCUIT CONDUCTOR AMPACITY PER NEC TABLE 310.15(B)(16)	75A

REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A&B)	42.5A
1.25 X INVERTER OUTPUT CURRENT (BACKUP POWER)	
DERATED AMPACITY OF CIRCUIT CONDUCTOR	
TEMP. CORRECTION PER TABLE 310.15 (B)(2)(a) X CONDUIT FILL CORRECTION PER NEC 310.15(B)(3)(a) X CIRCUIT CONDUCTOR AMPACITY 310.15 (B)(16)	72A
Result should be greater than (42.5A) otherwise less the entry for circuit conductor size and ampacity	

**AC CONDUCTOR AMPACITY CALCULATIONS:
FROM INVERTER TO MEP:**

No. OF INVERTER	1
EXPECTED WIRE TEMP (In Celsius)	34°
TEMP. CORRECTION PER NEC TABLE 310.15(B)(2)(a)	0.96
NO. OF CURRENT CARRYING CONDUCTORS	2
CONDUIT FILL CORRECTION PER NEC TABLE 310.15(B)(3)(a)	1
CIRCUIT CONDUCTOR SIZE	6 AWG
CIRCUIT CONDUCTOR AMPACITY PER NEC TABLE 310.15(B)(16)	75A

REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A&B)	40A
1.25 X MAX INVERTER OUTPUT CURRENT (LOADS/GRID)	
DERATED AMPACITY OF CIRCUIT CONDUCTOR	
TEMP. CORRECTION PER TABLE 310.15 (B)(2)(a) X CONDUIT FILL CORRECTION PER NEC 310.15(B)(3)(a) X CIRCUIT CONDUCTOR AMPACITY 310.15 (B)(16)	72A
Result should be greater than (40A) otherwise less the entry for circuit conductor size and ampacity	



REVISIONS		
DESCRIPTION	DATE	REV

Signature with Seal

DATE: 1/28/2020

PROJECT NAME & ADDRESS

**ANITA F YARBOROUGH
RESIDENCE
205 RED BIRD DR.,
CAMERON, NC 28326**

SHEET NAME
**WIRING
CALCULATIONS**

SHEET SIZE
**ANSI B
11" X 17"**

SHEET NUMBER
PV-5



SIL-300 ML



60 Cell Monocrystalline PV Module



CHUBB
*Chubb provides error and omission insurance to Silfab Solar Inc.

INDUSTRY LEADING WARRANTY

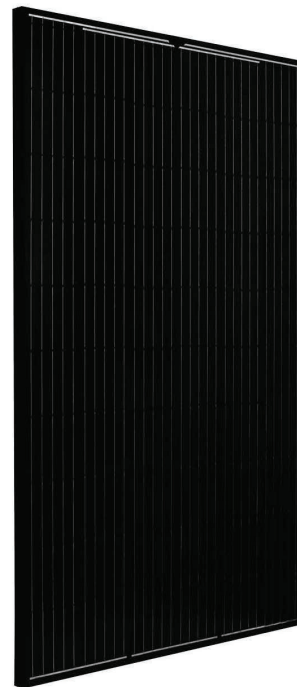
All our products include an industry leading 25-year product workmanship and 30-year performance warranty.

35+ YEARS OF SOLAR INNOVATION

Leveraging over 35+ years of worldwide experience in the solar industry, Silfab is dedicated to superior manufacturing processes and innovations such as Bifacial and Back Contact technologies, to ensure our partners have the latest in solar innovation.

NORTH AMERICAN QUALITY

Silfab is the largest and most automated solar manufacturer in North America. Utilizing premium quality materials and strict quality control management to deliver the highest efficiency, premium quality PV modules 100% made in North America.



BAA / ARRA COMPLIANT

Silfab panels are designed and manufactured to meet Buy American Act Compliance. The US State Department, US Military and FAA have all entrusted Silfab panels in their solar installations.

LIGHT AND DURABLE

Engineered to accommodate low load bearing structures up to 5400Pa. The light-weight frame is exclusively designed for wide-ranging racking compatibility and durability.

LOWEST DEFECT RATE

Total automation ensures strict quality controls during the entire manufacturing process at our ISO certified facilities. 48.18 ppm as per December 2018.

DOMESTIC PRODUCTION

Silfab is 100% North American which means our customer service is direct, efficient and local. Your solar panels can be delivered anywhere in the Continental USA within days.

AESTHETICALLY PLEASING

All black sleek design doesn't compromise on quality.

PID RESISTANT

PID Resistant due to advanced cell technology and material selection. In accordance to IEC 62804-1

Electrical Specifications		SILFAB SIL-300 ML mono PERC	
Test Conditions		STC	NOCT
Module Power (Pmax)	Wp	300	227
Maximum power voltage (Vpmax)	V	32.8	29.5
Maximum power current (Ipmax)	A	9.16	7.69
Open circuit voltage (Voc)	V	39.85	36.9
Short circuit current (Isc)	A	9.71	7.96
Module efficiency	%	18.4	17.3
Maximum system voltage (VDC)	V		1000
Series fuse rating	A		20
Power Tolerance	Wp		-0/+10

Measurement conditions: STC 1000 W/m² • AM 1.5 • Temperature 25 °C • NOCT 800 W/m² • AM 1.5 • Measurement uncertainty ± 3%
• Sun simulator calibration reference modules from Fraunhofer Institute. Electrical characteristics may vary by ±5% and power by -0/+10W.

Temperature Ratings		SILFAB SIL-300 ML mono PERC	
Temperature Coefficient Isc	%/°C		0.064
Temperature Coefficient Voc	%/°C		-0.28
Temperature Coefficient Pmax	%/°C		-0.36
NOCT (± 2°C)	°C		45
Operating temperature	°C		-40/+85

Mechanical Properties and Components		SILFAB SIL-300 ML mono PERC	
Module weight (± 1 kg)	kg		19
Dimensions (H x L x D; ± 1mm)	mm		1700 x 1000 x 38
Maximum surface load (wind/snow)*	N/m ²		4000 Pa rear load / 5400 Pa front load
Hail impact resistance			Ø 25 mm at 83 km/h
Cells			60 - Si monocrystalline - 4 or 5 busbar - 156.75 x 156.75 mm
Glass			3.2 mm high transmittance, tempered, antireflective coating
Backsheet			Multilayer polyester-based
Frame			Anodized Al (Black)
Bypass diodes			3 diodes, 20SQ040 (45V/20A)
Cables and connectors			1200 mm Ø 5.7 mm (4 mm ²), MC4 compatible (refer to installation manual)
Junction Box			UI 3730 Certified, IP67 rated

Warranties		SILFAB SIL-300 ML mono PERC	
Module product workmanship warranty		25 years**	30 years
		≥ 97% end of 1 st year	≥ 90% end of 12 th year
		≥ 82% end of 25 th year	≥ 80% end of 30 th year

Linear power performance guarantee

Certifications	SILFAB SIL 300 ML mono PERC
Product	ULC ORD C1703, UL 1703, IEC 61215, IEC 61730-1 and IEC 61730-2 Certified. FSEC and CEC listed. IEC 62716 Ammonia Corrosion, IEC 61701:2011 Salt Mist Corrosion Certified
Factory	UL Fire Rating: Type 2 ISO9001:2015

*Please refer to the Safety and Installation Manual for mounting specifications.
**12 year extendable to 25 years subject to registration and conditions outlined under "Warranty" at www.silfabsolar.com.

▲ Warning: Read the installation and User Manual before handling, installing and operating modules.

Third-party generated pan files from Fraunhofer-Institute for Solar Energy Systems ISE are available for download at: www.silfabsolar.com/downloads

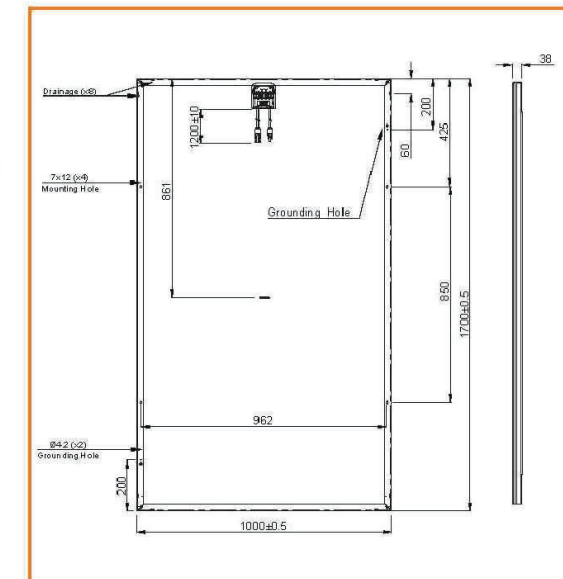


Modules Per Pallet: 26
Pallets Per Truck: 36
Modules Per Truck: 936



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Mississauga ON L5T 2Y3 Canada
Tel +1 905-255-2501 | Fax +1 905-696-0267
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800 Cornwall Ave
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REVISIONS		
DESCRIPTION	DATE	REV

Signature with Seal

DATE: 1/28/2020

PROJECT NAME & ADDRESS

**ANITA F YARBOROUGH
RESIDENCE**
205 RED BIRD DR.,
CAMERON, NC 28326

SHEET NAME
**EQUIPMENT
SPECIFICATION**

SHEET SIZE
**ANSI B
11" X 17"**

SHEET NUMBER
PV-6

FEATURES:

No autotransformer or battery inverter needed

User-selectable modes

Free system monitoring



GENERAC

PWRCELL

Inverter
Model: X7602, X11402

Solar-plus-storage is simple with the Generac PWRcell Inverter. This bi-directional, REBus™-powered inverter offers a simple, efficient design for integrating smart batteries with solar. Ideal for self-supply, backup power, zero-export and energy cost management, the PWRcell inverter is the industry's most feature-rich line of inverters, available in single-phase and three-phase models.

ADDITIONAL FEATURES

- Single inverter for grid-tied solar with smart battery integration
- Simplified system design: No autotransformer or battery inverter needed
- User-selectable modes for backup power, self-supply, time-of-use and zero-export
- Free system monitoring included via PWRview Web Portal and Mobile App

AC OUTPUT/ GRID-TIE	MODEL X7602	MODEL X11402
RATED AC POWER OUTPUT	7600 W	11400 W
AC OUTPUT VOLTAGE	120/240, 10 VAC	120/208, 3Ø VAC
AC FREQUENCY	60 Hz	60 Hz
MAXIMUM CONTINUOUS OUTPUT CURRENT	32 A, RMS	32 A, RMS
GROUND-FAULT ISOLATION DETECTION	Included	Included
CHARGE BATTERY FROM AC	Yes	Yes
THD (CURRENT)	< 2 %	< 2 %
TYPICAL NIGHTTIME POWER CONSUMPTION	< 7 W	< 7 W

AC OUTPUT/ BACKUP	MODEL X7602	MODEL X11402
RATED AC BACKUP POWER OUTPUT	8000 W	8000 W
MAXIMUM AC BACKUP POWER OUTPUT	12000 W	12000 W
AC BACKUP OUTPUT VOLTAGE	120/240, 10 VAC	120/240, 10 VAC
AC FREQUENCY	60 HZ	60 HZ
AC CIRCUIT BREAKER	50 A	50 A
THD (VOLTAGE)	< 2 %	< 2 %
AUTOMATIC SWITCHOVER TIME	< 1 Seconds	< 1 Seconds
TYPICAL NIGHTTIME POWER CONSUMPTION	30 W	30 W

DC INPUT	MODEL X7602	MODEL X11402
DC INPUT VOLTAGE RANGE	360-420 VDC	360-420 VDC
NOMINAL DC BUS VOLTAGE	380 VDC	380 VDC
MAX INPUT CURRENT	20 A	30 A
REVERSE-POLARITY PROTECTION	YES	YES
GROUND-FAULT ISOLATION DETECTION	YES	YES
TRANSFORMERLESS, UNGROUNDED	YES	YES

DC INPUT/ BATTERY	MODEL X7602	MODEL X11402
MAXIMUM CONTINUOUS POWER	8000 W	8000 W
INTERNAL DC DISTRIBUTION BREAKERS	4X 2P30A	4X 2P30A
DC FUSES ON PLUS AND MINUS	40 A	40 A
2-POLE DISCONNECTION	YES	YES

EFFICIENCY	MODEL X7602	MODEL X11402
PEAK EFFICIENCY	97 %	98 %
CEC WEIGHTED EFFICIENCY	96.5 %	97.5 %

Specifications



FEATURES AND MODES

ISLANDING ¹	Yes
GRID SELL	Yes
SELF CONSUMPTION	Yes
PRIORITIZED CHARGING FROM RENEWABLES	Yes
GRID SUPPORT - ZERO EXPORT	Yes

ADDITIONAL FEATURES

SUPPORTED COMMUNICATION INTERFACES	CANbus, RS485, Ethernet
SYSTEM MONITORING	PWRview Web Portal and Mobile App
CRITICAL LOADS DISCONNECT ³	Yes
MANUAL INVERTER BYPASS SWITCH	Automatic
WARRANTY	10 Years

STANDARDS COMPLIANCE

SAFETY	UL1741 SA, CSA 22.2
GRID CONNECTION STANDARDS	IEEE1547, Rule 21, Rule 14H
EMISSIONS	FCC part15 class B

DIMENSIONS AND INSTALLATION SPECIFICATIONS

WIRE GAUGE RANGE	10 - 8 AWG
TOTAL AC KNOCKOUTS X SIZE	2" x 0.75", 2 x 1"
TOTAL DC KNOCKOUTS X SIZE	5" x 1"
DIMENSIONS (L,W,H)	24.5" x 19.25" x 8"
WEIGHT	62.7 lb
COOLING	Forced convection
NOISE	< 40 dBA
OPERATING TEMPERATURE	-20 to 50 °C*
PROTECTION RATING	NEMA 3R

INSTALLATION GUIDELINES

BATTERY TYPES SUPPORTED	PWRcell battery module
MODULE STRING SIZE PER PV LINK OPTIMIZER	2-9 PV modules
MAXIMUM RECOMMENDED DC POWER FROM PV	10kW (10), 15kW (Ø)
BATTERIES PER INVERTER	Up to 2

¹ 3Ø inverters offer islanding for 1Ø loads. ⁴ Modbus.
*Reduced power at extreme temperatures

Specifications subject to change without notice.

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PROJECT NAME & ADDRESS

ANITA F YARBOROUGH
RESIDENCE
205 RED BIRD DR.,
CAMERON, NC 28326

SHEET NAME
EQUIPMENT
SPECIFICATION

SHEET SIZE

ANSI B
11" X 17"

SHEET NUMBER

PV-7



FEATURES:

Easy installation

Low cost, high efficiency solution

NEC 2017 and 2020 PVRSS compliant

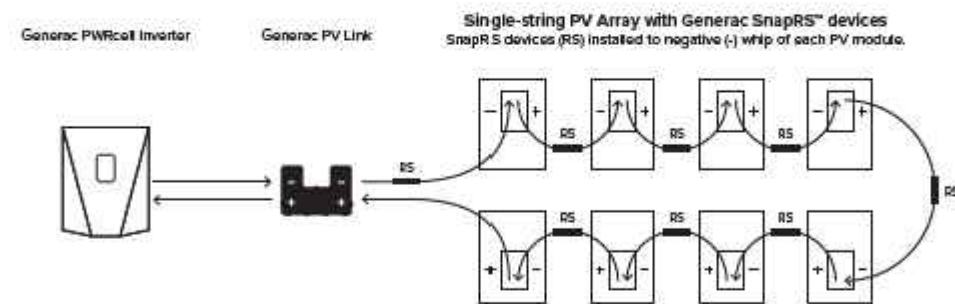
SnapRS™

Instant Rapid Shutdown Compliance
Model: RS801

The Generac SnapRS is NEC 2017 compliant, and doesn't require any extra hardware to mount, no pairing and no fussy digital communications. Just snap a Generac SnapRS disconnect device to each PV module for total rapid shutdown performance. When signaled by the inverter, SnapRS units break the PV circuit, reducing array voltage to <80V in seconds.

SYSTEM DESIGN

Snap a Generac SnapRS disconnect device to the negative (-) whip (-) of each module in the solar array for simple NEC-2017 module-level rapid shutdown compliance. SnapRS devices isolate array voltage when a rapid shutdown command is given by a connected Islanding Inverter



ADDITIONAL FEATURES

- Fast, easy and simple to install
- One SnapRS device per PV module
- Achieves PVRSS Compliance
- Low cost, high efficiency solution

Specifications



SNAPRS (RS801)

PV MODULE MAX VOC	75 V	OPERATING TEMPERATURE	-40 to 70 °C
EFFICIENCY	99.9 %	CERTIFICATIONS	UL1741
MAX INPUT CURRENT	13 A	WEIGHT	100 g
SHUTDOWN TIME	< 10 Seconds	DIMENSIONS (L,W,H)	1" x 1" x 7"
ENCLOSURE RATING	NEMA 6P	WARRANTY	25 Years

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SHEET NAME
EQUIPMENT SPECIFICATION

SHEET SIZE
**ANSI B
 11" X 17"**

SHEET NUMBER
PV-8

Specifications subject to change without notice.



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FEATURES:

Connect up to 2 PWRcells to a single PWRcell Inverter

Plug-and-play with PWRcell Inverters and PV Links

Residential and commercial application ready



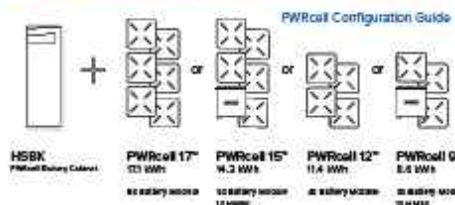
GENERAC
PWRCELL

Battery
Model: 9, 12, 15, 17

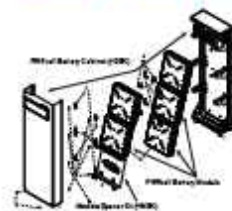
No other smart battery offers the flexibility of PWRcell. Whether for backup power or smart energy management, the PWRcell battery has power and capacity options for every need, without sacrificing flexibility or function.

The PWRcell battery series allows system owners the flexibility to scale from the economical 8.6kWh PWRcell 9™ to the massive 17.1 kWh PWRcell 17™ by adding additional PWRcell battery modules, the gold standard in storage.

PWRCELL CONFIGURATION GUIDE



PWRCELL ASSEMBLY



PWRCELL BATTERY DESIGN

PWRcell is a modular smart battery platform that allows for a range of configurations to suit any need, small or large. PWRcell can be built in capacities ranging from 8.6-17.1kWh. When needs change, PWRcell can be upgraded with additional modules. Use the chart above to understand what components you need for your chosen PWRcell configuration.

ADDITIONAL FEATURES

- Connect as many as two 2 PWRcells to a single PWRcell Inverter™ for up to 34.2kWh of storage
- Best-in-class battery backup power
- Plug-and-play with PWRcell Inverters™ and PV Links™
- Time-of-use (TOU) and zero-export ready
- Residential and commercial application ready

Specifications

PWRCELL MODEL	9	12	15	17
BATTERY MODULES	3	4	5	6
USABLE ENERGY	8.6 kWh	11.4 kWh	14.3 kWh	17.1 kWh
POWER: RATED CONTINUOUS	3.4 kW	4.5 kW	5.6 kW	6.7 kW
POWER: 60 MINUTES	4.2 kW	5.6 kW	7.0 kW	8.4 kW
POWER: 2 MINUTES	5.0 kW	6.7 kW	8.4 kW	10.0 kW
REBUS VOLTAGE: INPUT/OUTPUT	360-420 VDC			
MODULE VOLTAGE	46.8 VDC			
ROUND-TRIP EFFICIENCY	96.5 %			
OPERATING TEMPERATURE	-10 to 45 °C*			
RECOMMENDED TEMPERATURE	13 to 30 °C			
MAXIMUM INSTALLATION ALTITUDE	9834 ft. (3000 m)			
DIMENSIONS (L,W,H)	68" x 22" x 10"			
WEIGHT (ENCLOSURE)	115 lb. (52 kg)			
WEIGHT (INSTALLED)	280 lb. (127 kg)	335 lb. (152 kg)	390 lb. (178 kg)	445 lb. (202 kg)
WARRANTY: LI-ION MODULES	10 Years, (22.6 MWh)	10 Years, (30.2 MWh)	10 Years, (37.8 MWh)	10 Years, (45.3 MWh)
WARRANTY: ELECTRONICS AND ENCLOSURE	10 Years			
COMMUNICATION PROTOCOL	REbus DC Nanogrid™			
COMPLIANCE	UL 9540, UL 1973, UL 1642, CSA 22.2			

*Reduced power at extreme temperatures

Specifications subject to change without notice.

UPGRADING PWRCELL

Inside of the PWRcell battery, the PWRcell battery modules are stacked 2-deep on three levels, allowing for up to six modules to be connected in series. Upgrade an existing PWRcell battery by adding modules and a module spacer (HMSK) if required. PWRcell 9 and PWRcell 15 require a module spacer.

Generac offers a convenient PWRcell Battery Upgrade Kit (HMUK) to help replace lost or misplaced hardware. A PWRcell Battery Upgrade Kit may be purchased from your Generac distributor.

Refer to the table to the right for material requirements related to upgrading PWRcell.

UPGRADE MATERIAL REQUIREMENTS

Starting Configuration	Ending Configuration		
	PWRCELL 17	PWRCELL 15	PWRCELL 12
PWRCELL 9	+ 3 x PWRCell Mod + 2 x HMUK*	+ 2 x PWRCell Mod + 1 x HMUK*	+ 1 x PWRCell Mod + 1 x HMUK*
PWRCELL 12	+ 2 x PWRCell Mod + 1 x HMUK*	+ 1 x PWRCell Mod + 1 x HMSK	
PWRCELL 15	+ 1 x PWRCell Mod + 1 x HMUK*		

*HMUK (Upgrade kit) only required if original hardware is unavailable

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ANITA F YARBOROUGH
RESIDENCE
205 RED BIRD DR.,
CAMERON, NC 28326

SHEET NAME
EQUIPMENT
SPECIFICATION

SHEET SIZE

ANSI B
11" X 17"

SHEET NUMBER

PV-9



FEATURES:

- Fast, simple installation
- Lower failure risk than module-level optimizers
- NEC 2017 rapid shutdown compliant with SnapRS™

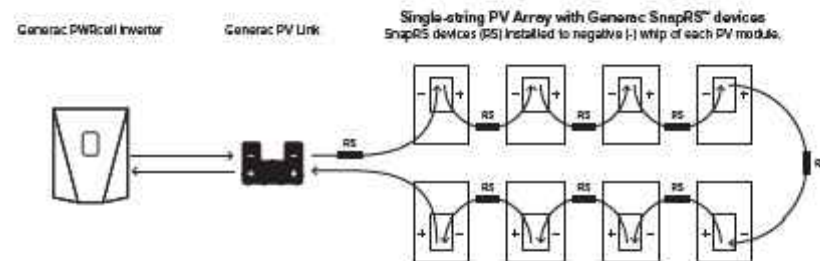
PV Link™

S2500 Series sub-string optimizer
Model: S2502

PV Link is the simple solar optimizer for quick installation and long-lasting performance. Connect as few as two or as many as nine PV modules to each PV Link to overcome shading and challenging roof lines.

ADDITIONAL FEATURES

- Quick connections with MC4 connectors
- 2500W capacity
- Compatible with high-voltage smart batteries
- Cost-effective solution for high-performance PV
- Ground-fault protection



Specifications



PWRCELL PV LINK (S2502)

RATED POWER	2500 W	PROTECTIONS	Ground-fault, Arc-fault (Arc-fault Type 1 AFCI, Integrated)
PEAK EFFICIENCY	99%	MAX OPERATING TEMP	70 °C
MPPT VOLTAGE RANGE	60-360 VMP	SYSTEM MONITORING	PWRview Web Portal and Mobile App
MAX INPUT VOLTAGE	420 VOC, max when cold	ENCLOSURE	Type 3R
MAX OUTPUT	420 VOC	WEIGHT	7.3 lb
NOMINAL OUTPUT (REBUS™)	380 VDC	DIMENSIONS (L,W,H)	2" x 15.4" x 9.6"
MAX OUTPUT CURRENT	8 A	COMPLIANCE	UL 1741, CSA 22.2
MAX SHORT CIRCUIT CURRENT (ISC)	18 A	WARRANTY	25 Years
STANDBY POWER	< 1W		

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SHEET NAME
**EQUIPMENT
SPECIFICATION**

SHEET SIZE
**ANSI B
11" X 17"**

SHEET NUMBER
PV-10



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QRail™ — Fully Integrated Mounting and Racking System

The QRail Series is a strong and versatile solar array mounting system that provides unrivaled benefits to solar designers and installers. Combined with Quick Mount PV's industry-leading waterproof mounts, QRail offers a complete racking solution for mounting solar modules on any roof.



Easily design array configurations with the QDesign software application. Generate complete engineering reports and calculate a precise bill of materials for all the mounting, racking and accessories needed for a complete solar array.

Comprehensive, One-Source Solution

QRail, together with Quick Mount PV's waterproof mounting products, provides the benefit of a single-sourced, seamlessly integrated rooftop installation that works with all roof types — composition/asphalt shingles, flat or curved tile, metal shingle, shake, slate and low slope roofs. The QRail system also works with any roof attachment system for maximum flexibility.

Superior Strength and Versatility

QRail is engineered for optimal structural performance. The system is certified to UL 2703, fully code compliant and backed by a 25-year warranty. QRail is available in Light, Standard and Heavy versions to match all geographic locations. QRail is compatible with virtually all modules and works on a wide range of pitched roof surfaces. Modules can be mounted in portrait or landscape orientation in standard or shared-rail configurations.

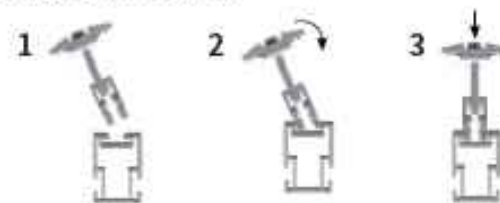


QRails come in two lengths — 168 inches (14 ft) and 208 inches (17.3 ft) Mill and Black Finish

Fast, Simple Installation: It Just Clicks

QClick Technology™

The universal mid and end clamps use QClick technology to simply "click" into the rail channel and remain upright, ready to accept the module. The pre-assembled clamps fit virtually all module frames and require no extra hardware, eliminating pre-loading and reducing installation time.



Installing is as easy as 1-2-3



UNIVERSAL END CLAMP
2 clamps for modules from 30-45mm or 38-50mm thick



UNIVERSAL BONDED MID CLAMP
2 clamps for modules from 30-45mm or 38-50mm thick

QSplice™ Technology

QRail's innovative internal QSplice installs in seconds, requiring no tools or screws. Simply insert QSplice into the rail and slide the other rail on to create a fully structural, bonded splice. An external splice is also available.



Installs in seconds — no tools or hardware required

Fully Integrated Electrical Bonding

The QRail system provides an integrated electrical bonding path, ensuring that all exposed metal parts and the solar module frames are electrically connected. All electrical bonds are created when the components are installed and tightened down.



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SHEET NAME

EQUIPMENT
SPECIFICATION

SHEET SIZE

ANSI B
11" X 17"

SHEET NUMBER

PV-10A

QRail™ Configurations



Item Code	Part Number	Description	Finish
QMR-RL14 A 60	800	QRail Light, 14 ft., 60 Pack	Mill
QMR-RL17.3 A 60	801	QRail Light, 17.3 ft., 60 Pack	Mill
QMR-RL14 B 60	805	QRail Light, 14 ft., 60 Pack	Black
QMR-RL17.3 B 60	806	QRail Light, 17.3 ft., 60 Pack	Black
QMR-RS14 A 60	810	QRail Standard, 14 ft., 60 Pack	Mill
QMR-RS17.3 A 60	811	QRail Standard, 17.3 ft., 60 Pack	Mill
QMR-RS14 B 60	815	QRail Standard, 14 ft., 60 Pack	Black
QMR-RS17.3 B 60	816	QRail Standard, 17.3 ft., 60 Pack	Black
QMR-RH14 A 60	820	QRail Heavy, 14 ft., 60 Pack	Mill
QMR-RH17.3 A 60	821	QRail Heavy, 17.3 ft., 60 Pack	Mill
QMR-RH14 B 60	825	QRail Heavy, 14 ft., 60 Pack	Black
QMR-RH17.3 B 60	826	QRail Heavy, 17.3 ft., 60 Pack	Black

QSplice™ Internal Structural Splice



Item Code	Part Number	Description	Finish
QMR-ISL A 15	830	QSplice Internal, Light, 15 Pack	Mill
QMR-ISS A 15	831	QSplice Internal, Standard, 15 Pack	Mill
QMR-ISH A 15	832	QSplice Internal, Heavy, 15 Pack	Mill

QSplice™ External Structural Splice



Item Code	Part Number	Description	Finish
QMR-ESS A 15	834	QSplice External, Standard, 15 Pack	Mill
QMR-ESH A 15	835	QSplice External, Heavy, 15 Pack	Mill

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SHEET NAME
**EQUIPMENT
 SPECIFICATION**

SHEET SIZE
**ANSI B
 11" X 17"**

SHEET NUMBER
PV-11

Universal End Clamp with QClick™ Technology



Black

Mill

Item Code	Part Number	Description	Finish
QMR-UEC3045 A 20	860	Universal End Clamp, 30-45mm, 20 Pack	Mill
QMR-UEC3850 A 20	861	Universal End Clamp, 38-50mm, 20 Pack	Mill
QMR-UEC3045 B 20	865	Universal End Clamp, 30-45mm, 20 Pack	Black
QMR-UEC3850 B 20	866	Universal End Clamp, 38-50mm, 20 Pack	Black
QMR-UEC3045BP A 20	862	Universal End Clamp, 30-45mm, w/ Bonding, 20 Pack	Mill
QMR-UEC3850BP A 20	863	Universal End Clamp, 38-50mm, w/ Bonding, 20 Pack	Mill
QMR-UEC3045BP B 20	867	Universal End Clamp, 30-45mm, w/ Bonding, 20 Pack	Black
QMR-UEC3850BP B 20	868	Universal End Clamp, 38-50mm, w/ Bonding, 20 Pack	Black

Mid Clamp with QClick™ Technology



Black

Mill

Item Code	Part Number	Description	Finish
QMR-UMC3045BP 1.2 A 20	872	Universal Mid Clamp, 30-45mm, w/ Bonding, 20 Pack	Mill
QMR-UMC3850BP 1.2 A 20	873	Universal Mid Clamp, 38-50mm, w/ Bonding, 20 Pack	Mill
QMR-UMC3045BP 1.2 B 20	877	Universal Mid Clamp, 30-45mm, w/ Bonding, 20 Pack	Black
QMR-UMC3850BP 1.2 B 20	878	Universal Mid Clamp, 38-50mm, w/ Bonding, 20 Pack	Black

Single-Slot L-Foot



Item Code	Part Number	Description	Finish
QMC-LF A 12	692	Single-slot L-foot, 12 Pack	Mill
QMC-LF B 12	693	Single-slot L-foot, 12 Pack	Black

End Caps



Heavy

Standard

Light

Item Code	Part Number	Description	Finish
QMR-CPL B 50	885	End Cap Light, 50 Pack	Black
QMR-CPS B 50	886	End Cap Standard, 50 Pack	Black
QMR-CPH B 50	887	End Cap Heavy, 50 Pack	Black



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 RESIDENCE
 205 RED BIRD DR.,
 CAMERON, NC 28326

SHEET NAME
**EQUIPMENT
 SPECIFICATION**

SHEET SIZE
**ANSI B
 11" X 17"**

SHEET NUMBER
PV-11A

T-Bolt



Item Code	Part Number	Description	Finish
QMR-TB A 300	880	T-Bolt w/ Nut, 300 Pack	stainless steel

Grounding Lug



Item Code	Part Number	Description	Finish
QMR-GL A 50	890	WEEB Lug w/ T-Bolt, 50 Pack	n/a

Wire Clip



Works with both PV and Trunk Cabling

Item Code	Part Number	Description	Finish
QMR-WCA 300	892	Trunk/PV Cable, 300 Pack	stainless steel

WEEB BMC



Item Code	Part Number	Description	Finish
QMR-ECWA 50	891	WEEB BMC, 50 Pack	stainless steel



POWER HOME SOLAR, LLC
 "POWER YOUR FUTURE"
 919 N. MAIN ST.
 MOORESVILLE, NC 28115
 Phone: 704-800-6591 (OFFICE)
 Email: info@powerhome.com
 Web: www.powerhome.com

REVISIONS

DESCRIPTION	DATE	REV

Signature with Seal

DATE: 1/28/2020

PROJECT NAME & ADDRESS

ANITA F YARBOROUGH
 RESIDENCE
 205 RED BIRD DR.,
 CAMERON, NC 28326

SHEET NAME

EQUIPMENT
 SPECIFICATION

SHEET SIZE

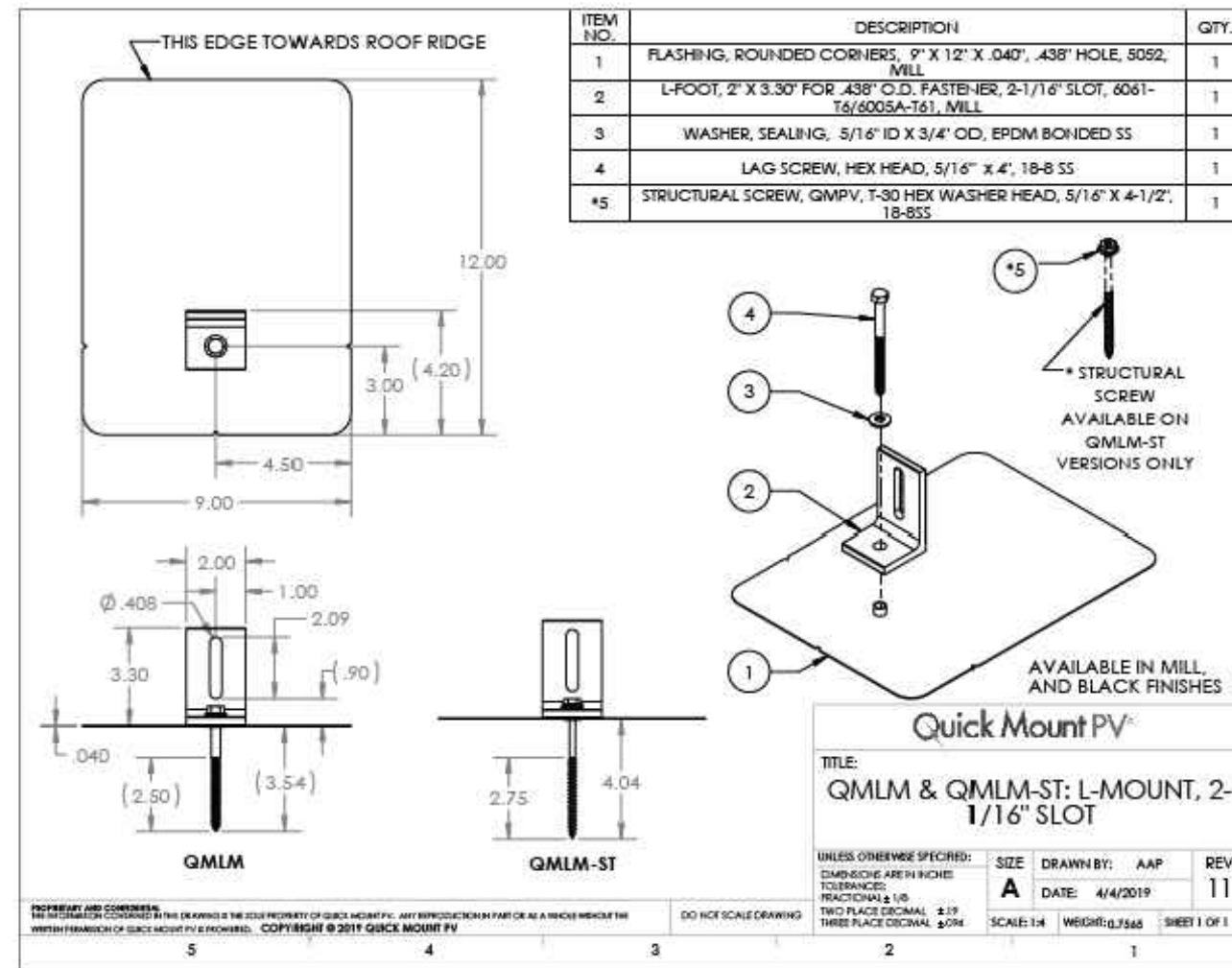
ANSI B
 11" X 17"

SHEET NUMBER

PV-11B

L-Mount | QMLM / QMLM-ST

Elevated Water Seal Technology®



ITEM NO.	DESCRIPTION	QTY.
1	FLASHING, ROUNDED CORNERS, 9" X 12" X .040", .438" HOLE, 5052, MILL	1
2	L-FOOT, 2" X 3.50" FOR .438" O.D. FASTENER, 2-1/16" SLOT, 6061-T6/6005A-T61, MILL	1
3	WASHER, SEALING, 5/16" ID X 3/4" OD, EPDM BONDED SS	1
4	LAG SCREW, HEX HEAD, 5/16" X 4", 18-8 SS	1
*5	STRUCTURAL SCREW, QMPV, T-30 HEX WASHER HEAD, 5/16" X 4-1/2", 18-8SS	1

L-Mount Installation Instructions

Installation Tools Required: tape measure, roofing bar, chalk line, stud finder, caulking gun, sealant compatible with roofing materials, drill with 7/32" or 1/8" bit, drill or impact gun with 1/2" socket.

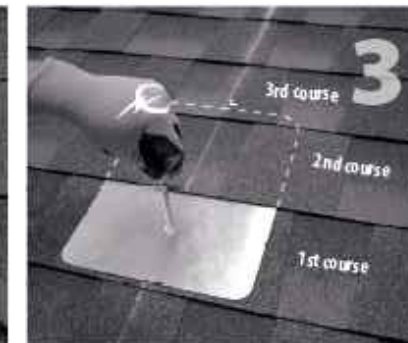
WARNING: Quick Mount PV products are NOT designed for and should NOT be used to anchor fall protection equipment.



1 Locate, choose, and mark centers of rafters to be mounted. Select the courses of shingles where mounts will be placed.



2 Carefully lift composition roof shingle with roofing bar, just above placement of mount. Remove nails as required and backfill holes with approved sealant. See "Proper Flashing Placement" on next page.



3 Insert flashing between 1st and 2nd course. Slide up so top edge of flashing is at least 3/4" higher than the butt-edge of the 3rd course and lower flashing edge is above the butt-edge of 1st course. Mark center for drilling.



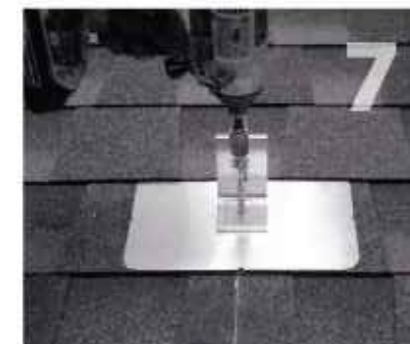
4 If attaching with lag bolt use a 7/32" bit (Lag). Use a 1/8" bit (ST) for attaching with the structural screw. Drill pilot hole into roof and rafter, taking care to drill square to the roof. Do not use mount as a drill guide. Drill a 2" deep hole into rafter.



5 Clean off any sawdust, and fill hole with sealant compatible with roofing materials.



6 Place L-foot onto elevated flange and rotate L-foot to desired orientation.



7 Prepare lag bolt or structural screw with sealing washer. Using a 1/2-inch socket on an impact gun, drive prepared lag bolt through L-foot until L-foot can no longer easily rotate. **DO NOT over-torque.** NOTE: Structural screw can be driven with T-30 hex head bit.



8 You are now ready for the rack of your choice. Follow all the directions of the rack manufacturer as well as the module manufacturer. NOTE: Make sure top of L-Foot makes solid contact with racking.

All roofing manufacturers' written instructions must also be followed by anyone modifying a roof system. Consult the roof manufacturer's specs and instructions prior to working on the roof.

Quick Mount PV®
RESPECT THE ROOF



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Signature with Seal

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SHEET NAME
EQUIPMENT
SPECIFICATION

SHEET SIZE

ANSI B
11" X 17"

SHEET NUMBER

PV-12

Apr-2019 Rev 6