

Menu Save Reset Cancel Help

Record Detail * (This section is required.)

Case #

EH-PLANS-24-0

Type

EnvHealth/Environmental Health/Plan Check/Application

Status

In Review

Opened Date

03/22/2024

Single Entry Edit-View Record Form

Application Name

B24000842

Description

SFD/INSTALL 50 GROUND-MOUNTED SOLAR PANELS**SUBJECT TO FIELD INSPECTION*

Total Invoiced

0.00

Total Paid

0.00

Balance

0.00

Online BP.
g/l 3/26/24

Assigned to Department Current Department

Well and Septic Progr

Assigned to Staff Current User

Zack Silvast

Address * (This section is required.)

New Search Delete Set Primary

<input type="checkbox"/> Primary	Street # (start)	Direction	Street Name	Street Type	City	State	Zip Code	Address Status	Street Suffix (Direction)	Unit Type	U
<input type="checkbox"/> <input checked="" type="radio"/>	11604		Log Jump	TRAIL	Elli...	MD	21042				

Parcel (This section is not required.)

Search Delete Get Address & Owner Set Primary

<input type="checkbox"/> Primary	Parcel #	Book	Page	Parcel	Parcel Area	Land Value	Improved Value	Exemption Value	Legal Description	Tract
0 record(s) found.										

Owner (This section is not required.)

Search Delete Set Primary

<input type="checkbox"/> Primary	Name	Mail Address Line1	Mail Address Line2	Mail Address Line3	Mail City	Mail State	Mail Zip Code	Phone	Country/Region
<input type="checkbox"/> <input checked="" type="radio"/>	Wang Ping	11604 Log Jump Trail			Elicott City	MD	21042	443-996-5544	US

Applicant * (This section is required.)

Search As Owner As Lic. Prof As Contact

Single Entry Applicant Form

Type *

Applicant

Primary

Yes

First Name *

Bethel

Middle Name

Last Name *

Hunley

Home Phone (000)000-0000

Approved Septic System Plan
Howard County Health Department
Dane Bernard 3-27-24
Signature Date

Organization Name *
 Trinity Solar, Inc.

Mobile Phone ((XXX)XXX XXXX)
 (240) 216-2128

E-mail
 HBIGVERN@AOL.COM

Business Phone ((XXX)XXX-XXXX)

Preferred Channel
 --Select--

Applicant Address

New Look Up Deactivate Remove

<input type="checkbox"/> Contact Address ID	Address Type	Address Line 1	City	State	Zip	Primary	Recipient	Status
0 record(s) found.								

Custom Fields

DATE TRACKING

Received Date
 3/22/2024

Due Date
 3/26/2024

Dates to Complete
 14
 (Number)

Food Review Type
 --Select--

Equipment Specification Sheet

Received by Well and Septic
 3/22/2024

Received by Food

Equipment Specification Sheets Submitted

Received by Community Hygiene

FACILITY INFORMATION

Name of Business (dba) *
 n/a (Text)

Associated Building Permit Number
 (Text)

Owner Switch Date
 (Date)

Does the project include an Aquatic Facility such as a Public Pool? If Yes, forward to CH Program.
 Yes No

Does the project include Private Septic? If Yes, forward to WS Program.
 Yes No

Is this a Prototype Food Service Facility? If Yes, refer to State.
 Yes No

Facility Fax
 0 (Text)

Days of Operation
 0 (Text)

Does this project have a Building Permit?
 Yes No

Building Permit Issued Date
 (Date)

Non-Profit

Does the project include Private Well? If Yes, forward to WS Program.
 Yes No

Does the project include Food Services? If Yes, forward to FP Program.
 Yes No

Facility Phone
 0 (Text)

Facility Email
 0 (Text)

PROPERTY INFORMATION

Water Source
 Private

Design Wastewater Flow
 0
 (Number)

Sewage Disposal
 Private

Permit Type
 --Select--

PLAT STATS

Total Number of buildable lots to be recorded
 0 (Number)

Total number of bulk parcels to be recorded
 0 (Number)

New buildable lots created
 0
 (Number)

PLAT Type
 --Select--

Total number of open space lots to be recorded
 0 (Number)

Total number of lots / parcels to be recorded
 0 (Number)

Date PLAT signed by Health Officer
 (Date)

DEVELOPMENT PLANS

Property Type

Residential

Signature Required

Yes No

Number of paper copies

0 (Number)

Number of buildable lots created

0 (Number)

Total Number of Lots

0 (Number)

Plan Version

Initial

Engineer

0 (Text)

Number of mylar copies

0 (Number)

Number of non-buildable lots created

0 (Number)

Associated Plans

WELL AND SEPTIC INTERNAL

State Review Required

Yes No

Coordinate State Review

Yes No

Proposed Septic System Type

--Select--

FOOD ESTABLISHMENT FACILITY

Priority Assessment

--Select--

Licensed Type

--Select--

License Category

--Select--

FOOD ESTABLISHMENT INFORMATION

Hours of Operation

(Text)

Operating Seasonally Only

If Operating Seasonally, What is the start month?

(Text)

Are pets allowed in a outdoor seating area?

Yes No

Full Bar?

Yes No

RESTAURANT AND FOOD SERVICE

Food Service Facility Secondary Category

--Select--

Total Seating Capacity

(Number)

Number of Restrooms

(Number)

Interior Restaurant Seating Capacity

(Number)

Bar Seating Capacity

(Text)

Outdoor Seating Capacity

(Text)

Does the restaurant have outdoor seating

Yes No

EQUIPMENT

Evaluated non NSF, ANSI, CF or other standards

Yes No

Description of Refrigeration Units

Number of Walk-In Refrigerator Units

(Number)

Description of Walk-In Freezer Units

(Text)

Is there a bulk ice machine available

Yes No

Space Limitation

Number of Hand Sinks Available

(Number)

Hood System

(Text)

Ventless Equipment

(Text)

PLUMBING

Size and installation of the water heater?

(Text)

Is there a grease interceptor or grease trap?

--Select--

REFUSE AND RECYCLABLES

Dumpsters Located on a impervious surface?

--Select--

Will there be a grease receptacle?

--Select--

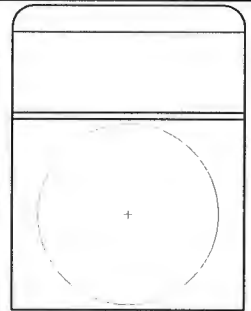
INSTALLATION OF NEW GROUND MOUNTED PV SOLAR SYSTEM 11604 LOG JUMP TRAIL ELLICOTT CITY, MD 21042

LOG JUMP TRAIL ●



VICINITY MAP
SCALE: NTS

SITE



Issued / Revisions		
04	TRENCH / SITE PLAN DETAILS	04/2024
02	SITE PLAN DETAILS	1/16/2024
01	LAYOUT	1/15/2024
01	ISSUED TO TOWNSHIP FOR PERMIT	11/22/2024
NO.	DESCRIPTION	DATE

Project Title:
KWON, STEVE- (GROUND MOUNT)
TRINITY ACCT #: 2023-09-932069

Project Address:
**11604 LOG JUMP TRAIL
ELLICOTT CITY, MD 21042
39.24462888, -76.91842072**

Drawing Title:
PROPOSED PV SOLAR SYSTEM

Drawing Information	
DRAWING DATE:	1/4/2024
DRAWN BY:	MM
REVISED BY:	DMR

System Information:	
DC SYSTEM SIZE:	20.25kW
AC SYSTEM SIZE:	15.2kW
MODULE COUNT:	50
MODULES USED:	HANNVHA 405
MODULE SPEC #:	CLPEAK DUO BLK ML-G10+ 405
UTILITY COMPANY:	BGE
UTILITY ACCT #:	5476216776
UTILITY METER #:	RG156913906
DEAL TYPE:	SUNNOVA

Rev. No.	Sheet
R4	PV - 1



2211 Allenwood Road
Wall, New Jersey 07719 877-786-7283
www.Trinity-Solar.com

GENERAL NOTES

1. THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL EQUIPMENT AND FOLLOWING ALL DIRECTIONS AND INSTRUCTIONS CONTAINED IN THE DRAWING PACKAGE AND INFORMATION RECEIVED FROM TRINITY.
2. THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL EQUIPMENT AND FOLLOWING ALL DIRECTIONS AND INSTRUCTION CONTAINED IN THE COMPLETE MANUAL.
3. THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR READING AND UNDERSTANDING ALL DRAWINGS, COMPONENT AND INVERTER MANUALS PRIOR TO INSTALLATION. THE INSTALLATION CONTRACTOR IS ALSO REQUIRED TO HAVE ALL COMPONENT SWITCHES IN THE OFF POSITION AND FUSES REMOVED PRIOR TO THE INSTALLATION OF ALL FUSE BEARING SYSTEM COMPONENTS.
4. ONCE THE PHOTOVOLTAIC MODULES ARE MOUNTED, THE INSTALLATION CONTRACTOR SHOULD HAVE A MINIMUM OF ONE ELECTRICIAN WHO HAS ATTENDED A SOLAR PHOTOVOLTAIC INSTALLATION COURSE ON SITE.
5. FOR SAFETY, IT IS RECOMMENDED THAT THE INSTALLATION CREW ALWAYS HAVE A MINIMUM OF TWO PERSONS WORKING TOGETHER AND THAT EACH OF THE INSTALLATION CREW MEMBERS BE TRAINED IN FIRST AID AND CPR.
6. THIS SOLAR PHOTOVOLTAIC SYSTEM IS TO BE INSTALLED FOLLOWING THE CONVENTIONS OF THE NATIONAL ELECTRICAL CODE. ANY LOCAL CODE WHICH MAY SUPERSEDE THE NEC SHALL GOVERN.
7. ALL SYSTEM COMPONENTS TO BE INSTALLED WITH THIS SYSTEM ARE TO BE "UL" LISTED. ALL EQUIPMENT WILL BE NEMA 3R OUTDOOR RATED UNLESS INDOORS.

GENERAL NOTES

IF ISSUED DRAWING IS MARKED WITH A REVISION CHARACTER OTHER THAN "A", PLEASE BE ADVISED THAT FINAL EQUIPMENT AND/OR SYSTEM CHARACTERISTICS ARE SUBJECT TO CHANGE DUE TO AVAILABILITY OF EQUIPMENT.

GENERAL NOTES CONTINUED

8. THE DC VOLTAGE FROM THE PANELS IS ALWAYS PRESENT AT THE DC DISCONNECT ENCLOSURE AND THE DC TERMINALS OF THE INVERTER DURING DAYLIGHT HOURS. ALL PERSONS WORKING ON OR INVOLVED WITH THE PHOTOVOLTAIC SYSTEM ARE WARNED THAT THE SOLAR MODULES ARE ENERGIZED WHENEVER THEY ARE EXPOSED TO LIGHT.
9. ALL PORTIONS OF THIS SOLAR PHOTOVOLTAIC SYSTEM SHALL BE MARKED CLEARLY IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 690 & 705.
10. PRIOR TO THE INSTALLATION OF THIS PHOTOVOLTAIC SYSTEM, THE INSTALLATION CONTRACTOR SHALL ATTEND A PRE-INSTALLATION MEETING FOR THE REVIEW OF THE INSTALLATION PROCEDURES, SCHEDULES, SAFETY AND COORDINATION.
11. PRIOR TO THE SYSTEM START UP THE INSTALLATION CONTRACTOR SHALL ASSIST IN PERFORMING ALL INITIAL HARDWARE CHECKS AND DC WIRING CONDUCTIVITY CHECKS.
12. FOR THE PROPER MAINTENANCE AND ISOLATION OF THE INVERTERS REFER TO THE ISOLATION PROCEDURES IN THE OPERATION MANUAL.
13. THE LOCATION OF PROPOSED ELECTRIC AND TELEPHONE UTILITIES ARE SUBJECT TO FINAL APPROVAL OF THE APPROPRIATE UTILITY COMPANIES AND OWNERS.
14. ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION FOR THE SITE IMPROVEMENTS SHOWN HEREIN SHALL BE IN ACCORDANCE WITH:
 - A) CURRENT PREVAILING MUNICIPAL AND/OR COUNTY SPECIFICATIONS, STANDARDS AND REQUIREMENTS

GENERAL NOTES CONTINUED

14. B) CURRENT PREVAILING UTILITY COMPANY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS
15. THIS SET OF PLANS HAVE BEEN PREPARED FOR THE PURPOSE OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. ONCE APPROVED, THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL SYSTEM COMPONENTS AS DESCRIBED IN THE DRAWING PACKAGE.
16. ALL INFORMATION SHOWN MUST BE CERTIFIED PRIOR TO USE FOR CONSTRUCTION ACTIVITIES.

ABBREVIATIONS

AMP	AMPERE
AC	ALTERNATING CURRENT
AL	ALUMINUM
AF	AMP. FRAME
AFB	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
C	CONDUIT (GENERIC TERM OF RACEWAY, PROVIDE AS SPECIFIED)
CB	COMBINER BOX
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CJ	COPPER
DC	DIRECT CURRENT
DISC	DISCONNECT SWITCH
DWG	DRAWING
EC	ELECTRICAL SYSTEM INSTALLER OWNERS
EMT	ELECTRICAL METALLIC TUBING
FS	FUSIBLE SWITCH
FU	FUSE
GND	GROUND
GFI	GROUND FAULT INTERRUPTER
HZ	FREQUENCY (CYCLES PER SECOND)

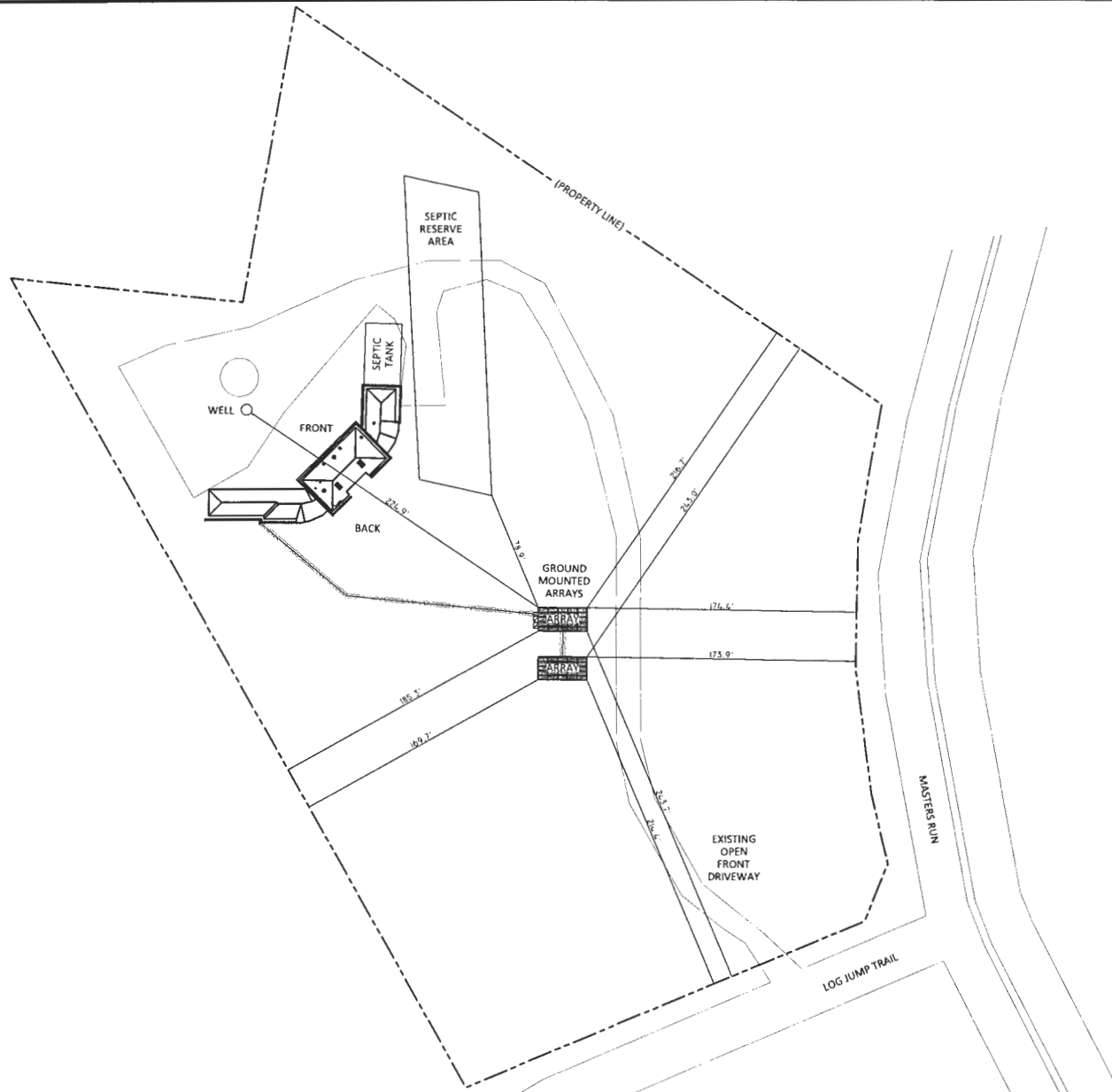
ABBREVIATIONS CONTINUED

JB	JUNCTION BOX
ICMIL	THOUSAND CIRCULAR MILS
KVA	KILO-VOLT AMPERE
KW	KILO-WATT
KWH	KILO-WATT HOUR
L	LINE
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MO	MAIN LUG ONLY
MTD	MOUNTED
MTG	MOUNTING
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
NO #	NUMBER
NTS	NOT TO SCALE
OCP	OVER CURRENT PROTECTION
P	POLE
PB	PULL BOX
PH Ø	PHASE
PVC	POLY-VINYL CHLORIDE CONDUIT
PWR	POWER
QTY	QUANTITY
RGS	RIGID GALVANIZED STEEL
SN	SOLID NEUTRAL
JSWB	SWITCHBOARD
TYP	TYPICAL
U.O.I.	UNLESS OTHERWISE INDICATED
WP	WEATHERPROOF
XFMR	TRANSFORMER
+72	MOUNT 72 INCHES TO BOTTOM OF ABOVE FINISHED FLOOR OR GRADE

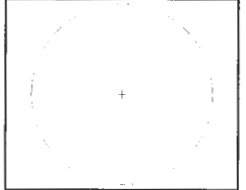
SHEET INDEX

- PV-1 COVER SHEET W/ SITE INFO & NOTES
- PV-2 ROOF PLAN W/ MODULE LOCATIONS
- PV-3 SITE PLAN
- PV-4 ELECTRICAL 3 LINE DIAGRAM
- AP APPENDIX

SITE PLAN
SCALE: NTS



Engineer / License Holder:



Issued / Revisions

NO.	DESCRIPTION	DATE
R4	TRENCH / SITE PLAN DETAILS	1/4/2024
R3	SITE PLAN DETAILS	1/14/2024
R1	LAYOUT	1/1/2024
P1	ISSUED TO TOWNSHIP FOR PERMIT	1/1/2024

Project Title:
KWON, STEVE- (GROUND MOUNT)
TRINITY ACCT #: 2023-09-932069

Project Address:
11604 LOG JUMP TRAIL
ELLCOTT CITY, MD 21042
39.24462888, -76.91842072

Drawing Title:
PROPOSED PV SOLAR SYSTEM

Drawing Information
DRAWN DATE: 1/4/2024
DRAWN BY: MIM
REVISED BY: OMR

System Information:
DC SYSTEM SIZE: 20.25KW
AC SYSTEM SIZE: 15.2KW
MODULE COUNT: 50
MODULES USED: HANWHA 405
MODULE SPEC #: CLPEAK DUO BLK ML-G10+ 405
UTILITY COMPANY: BGE
UTILITY ACCT #: 5476216776
UTILITY METER #: #G156913906
DEAL TYPE: SUNNOVA

Rev. No. R4	Sheet PV - 3
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ARRAY CIRCUIT WIRING NOTES
 1.) LICENSED ELECTRICIAN ASSUMES ALL RESPONSIBILITY FOR DETERMINING ON-SITE CONDITIONS AND EXECUTING INSTALLATION IN ACCORDANCE WITH **NEC 2020**

2.) LOWEST EXPECTED AMBIENT TEMPERATURE BASED ON ASHRAE MINIMUM MEAN EXTREME DRY BULB TEMPERATURE FOR ASHRAE LOCATION MOST SIMILAR TO INSTALLATION LOCATION. LOWEST EXPECTED AMBIENT TEMP = -18°C

3.) HIGHEST CONTINUOUS AMBIENT TEMPERATURE BASED ON ASHRAE HIGHEST MONTH 2% DRY BULB TEMPERATURE FOR ASHRAE LOCATION MOST SIMILAR TO INSTALLATION LOCATION. HIGHEST CONTINUOUS TEMP = 33°C

4.) 2005 ASHRAE FUNDAMENTALS 2% DESIGN TEMPERATURES DO NOT EXCEED 47°C IN THE UNITED STATES (PALM SPRINGS, CA IS 44.1°C). FOR LESS THAN 9 CURRENT-CARRYING CONDUCTORS IN A ROOF-MOUNTED SUNLIT CONDUIT AT LEAST 0.5" ABOVE ROOF AND USING THE OUTDOOR DESIGN TEMPERATURE OF 47°C OR LESS (ALL OF UNITED STATES)

5.) PV SYSTEM CIRCUITS INSTALLED ON OR IN BUILDINGS SHALL INCLUDE A RAPID SHUTDOWN FUNCTION THAT CONTROLS SPECIFIC CONDUCTORS IN ACCORDANCE WITH NEC 690.12(A) THROUGH (D)

6.) PHOTOVOLTAIC POWER SYSTEMS SHALL BE PERMITTED TO OPERATE WITH UNGROUNDED PHOTOVOLTAIC SOURCE AND OUTPUT CIRCUIT PER NEC 690.41 (A)(4)

7.) UNGROUNDED DC CIRCUIT CONDUCTORS SHALL BE IDENTIFIED WITH THE FOLLOWING OUTER FINISH:
 POSITIVE CONDUCTORS = RED
 NEGATIVE CONDUCTORS = BLACK
 NEC 210.5(C)(2)

8.) ARRAY AND SUB ARRAY CONDUCTORS SHALL BE #10 PV WIRE TYPE RHW-2 OR EQUIVALENT AND SHALL BE PROTECTED BY CONDUIT WHERE EXPOSED TO DIRECT SUNLIGHT. SUB-ARRAY CONDUIT LONGER THAN 24" SHALL CONTAIN 5/32 CURRENT CARRYING CONDUCTORS AND WHERE EXPOSED TO DIRECT SUNLIGHT SHALL CONTAIN 5/8 CURRENT CARRYING CONDUCTORS.

9.) ALL WIRE LENGTHS SHALL BE LESS THAN 100' UNLESS OTHERWISE NOTED

10.) FLEXIBLE CONDUIT SHALL NOT BE INSTALLED ON ROOFTOP AND SHALL BE LIMITED TO 12" IF USED OUTDOORS

11.) DISCONNECTS FED BY SUPPLY-SIDE SOURCE CONDUCTORS SHALL BE BONDED AND CONNECTED TO GROUNDING SYSTEM IN ACCORDANCE WITH NEC 250.24

12.) OVERCURRENT PROTECTION FOR CONDUCTORS CONNECTED TO THE SUPPLY SIDE OF A SERVICE SHALL BE LOCATED WITHIN 10' OF THE POINT OF CONNECTION NEC 690.9(A)(1)(2)

13.) WHERE TWO SOURCES FEED A BUSBAR, ONE A UTILITY AND THE OTHER AN INVERTER, PV BACKFEED BREAKER(S) SHALL BE LOCATED OPPOSITE FROM UTILITY NEC 705.12(B)(3)(2)

14.) ALL SOLAR SYSTEM LOAD CENTERS TO CONTAIN ONLY GENERATION CIRCUITS AND NO UNUSED POSITIONS OR LOADS

15.) ALL EQUIPMENT INSTALLED OUTDOORS SHALL HAVE A NEMA 3R RATING

CALCULATIONS FOR CURRENT CARRYING CONDUCTORS
 REQUIRED CONDUCTOR AMPACITY PER STRING
 (NEC 690.8(B)(1)): (15.00*1.25)1 = 18.75A

AWG #10, DERATED AMPACITY
 AMBIENT TEMP: 33°C, TEMP DERATING FACTOR: .96
 RACEWAY DERATING = 0.95
 (40° - 96.0, 70 = 26.88A)

26.88A > 18.75A, THEREFORE WIRE SIZE IS VALID
 TOTAL AC REQUIRED CONDUCTOR AMPACITY
 64.00A * 1.25 = 80.00A

AWG #4, DERATED AMPACITY
 AMBIENT TEMP: 30°C, TEMP DERATING: 1.0
 RACEWAY DERATING = 3 CEC: N/A
 95A * 1.0 = 95A

95A > 80.00A, THEREFORE AC WIRE SIZE IS VALID

CALCULATION FOR PV OVERCURRENT PROTECTION
 TOTAL INVERTER CURRENT: 64.00A
 64.00A * 1.25 = 80.00A
 -> 80A OVERCURRENT PROTECTION IS VALID

SOLAR MODULES GROUND MOUNTED ON 2 ARRAYS
 50 - 405W MODULES W/ 1 SOLAR EDGE 5440 PER MODULE
 15 ADC MAX PER STRING

1 STRING OF 13 MODULES IN SERIES - 400 Vmax
 1 STRING OF 12 MODULES IN SERIES - 400 Vmax

*2 STRINGS TO BE TERMINATED IN PARALLEL INSIDE INVERTER 1

1 STRING OF 13 MODULES IN SERIES - 400 Vmax
 1 STRING OF 12 MODULES IN SERIES - 400 Vmax

*2 STRINGS TO BE TERMINATED IN PARALLEL INSIDE INVERTER 2

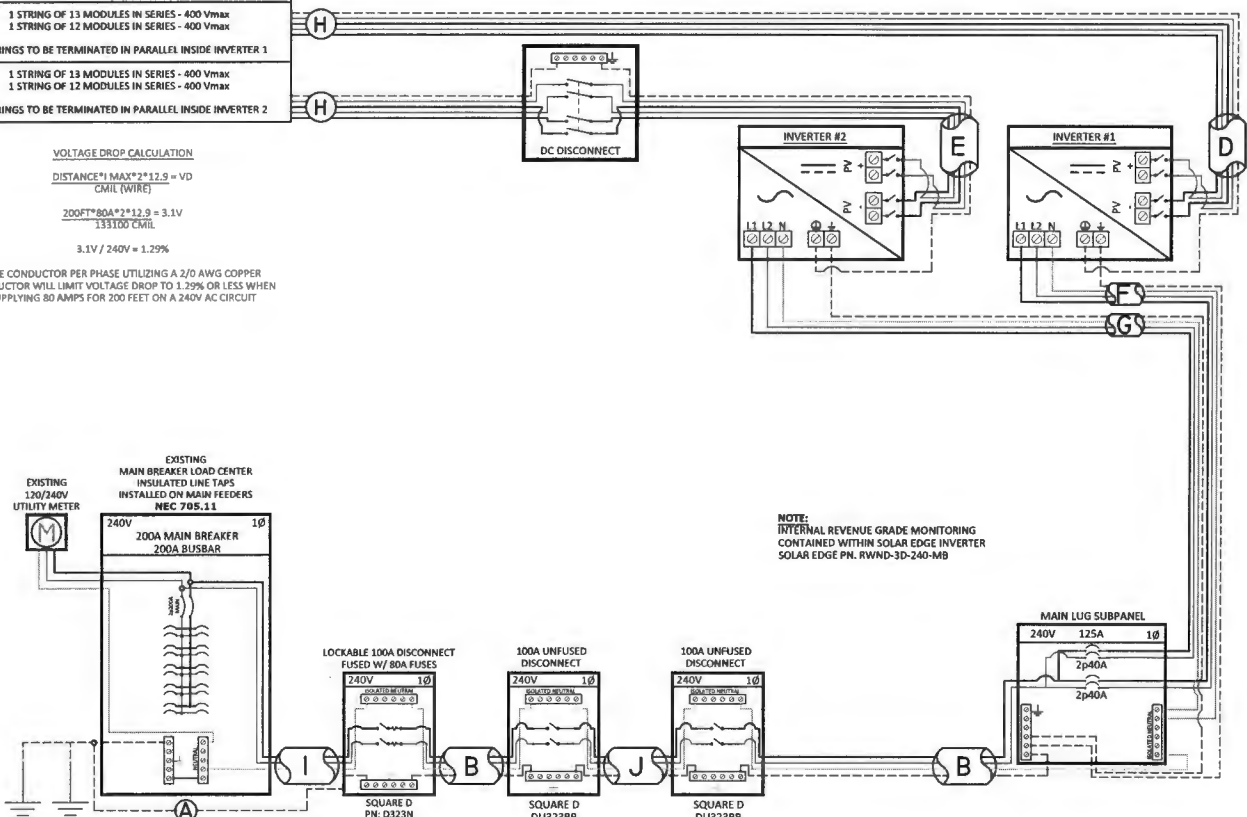
VOLTAGE DROP CALCULATION

$DISTANCE * MAX^2 * 17.9 = VD$
 CMIL [WIRE]

$200FT * 80A^2 * 17.9 = 3.1V$
 133100 CMIL

$3.1V / 240V = 1.29%$

ONE CONDUCTOR PER PHASE UTILIZING A 2/0 AWG COPPER CONDUCTOR WILL LIMIT VOLTAGE DROP TO 1.29% OR LESS WHEN SUPPLYING 80 AMPS FOR 200 FEET ON A 240V AC CIRCUIT



NOTE: INTERNAL REVENUE GRADE MONITORING CONTAINED WITHIN SOLAR EDGE INVERTER SOLAR EDGE PN: RWND-3D-240-4M

PV MODULE SPECIFICATIONS	
HANWHA 405 (Q, PEAK DUO BLK ML-G10+ 405)	
Imp	10.83
Vmp	37.39
Voc	45.34
Isc	11.17

INVERTER #1 - SE7600H-US000BE4			
DC		AC	
Imp	20	Pout	7600
Vmp	400	I _{max}	32
Voc	480	OC _P min	40
Isc	30	Vnom	240

INVERTER #2 - SE7600H-US000BE4			
DC		AC	
Imp	20	Pout	7600
Vmp	400	I _{max}	32
Voc	480	OC _P min	40
Isc	30	Vnom	240

NOTE: CONDUIT TYPE SHALL BE CHosen BY THE INSTALLATION CONTRACTOR TO MEET THE IEC AND LOCAL AUTHORITY REQUIREMENTS

Letter	Description	Letter	Description
A	#6 THWN-2 TO GEC	G	3/4" CONDUIT W/ 2-#8 THWN-2, 1-#8 THWN-2, 1-#8 THWN-2 GROUND
B	1" CONDUIT W/ 2-#4 THWN-2, 1-#8 THWN-2, 1-#8 THWN-2 GROUND	H	#10 PV WIRE (FREE AIR) W/ #6 BARE COPPER BOND TO ARRAY
C	(NOT USED)	I	1" CONDUIT W/ 2-#4 THWN-2, 1-#8 THWN-2
D	3/4" CONDUIT W/ 4-#10 THWN-2, 1-#8 THWN-2 GROUND	J	1 1/2" PVC W/ 2-2/0 THWN-2, 1-#2 THWN-2 GROUND (TRENCHED APPROX. 100')
E	3/4" CONDUIT W/ 4-#10 THWN-2, 1-#8 THWN-2 GROUND (TRENCHED APPROX. 15')		
F	3/4" CONDUIT W/ 2-#8 THWN-2, 1-#8 THWN-2, 1-#8 THWN-2 GROUND		

Engineer / License Holder:

Issued / Revisions

NO.	DESCRIPTION	DATE
R1	TYPING / SITE PLAN DETAILS	3/6/2024
R2	SITE PLAN DETAILS	3/7/2024
R3	LAYOUT	3/7/2024
P1	ISSUED TO TOWNSHIP FOR PERMIT	3/7/2024

Project Title:
KWON, STEVE - (GROUND MOUNT)
 TRINITY ACCT #: 2023-09-932069

Project Address:
 11604 LOG JUMP TRAIL
 ELLICOTT CITY, MD 21042
 39.24462888, -76.91842072

Drawing Title:
PROPOSED PV SOLAR SYSTEM

Drawing Information

DRAWING DATE: 1/4/2024
 DRAWN BY: MDM
 REVISED BY: DMR

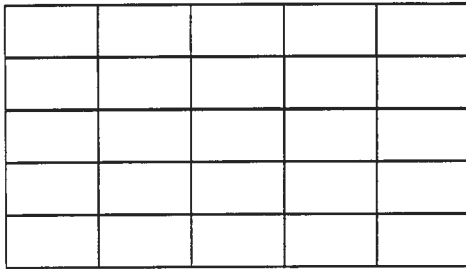
System Information:

DC SYSTEM SIZE: 20.25kW
 AC SYSTEM SIZE: 15.2kW
 MODULE COUNT: 50
 MODULES USED: HANWHA 405
 MODULE SPEC #: Q, PEAK DUO BLK ML-G10+ 405
 UTILITY COMPANY: BGE
 UTILITY ACCT #: 5476216776
 UTILITY METER #: #6156913906
 DEAL TYPE: SUNNOVA

Rev. No. **R4** Sheet **PV - 4**

Trinity SOLAR

2211 Allenwood Road Wall, New Jersey 07719 877-786-7283 www.Trinity-Solar.com



PANEL LAYOUT 5Lx5C (TYP - 2)

N.T.S

(2) 5Lx5C SUB-ARRAY DESIGN DATA

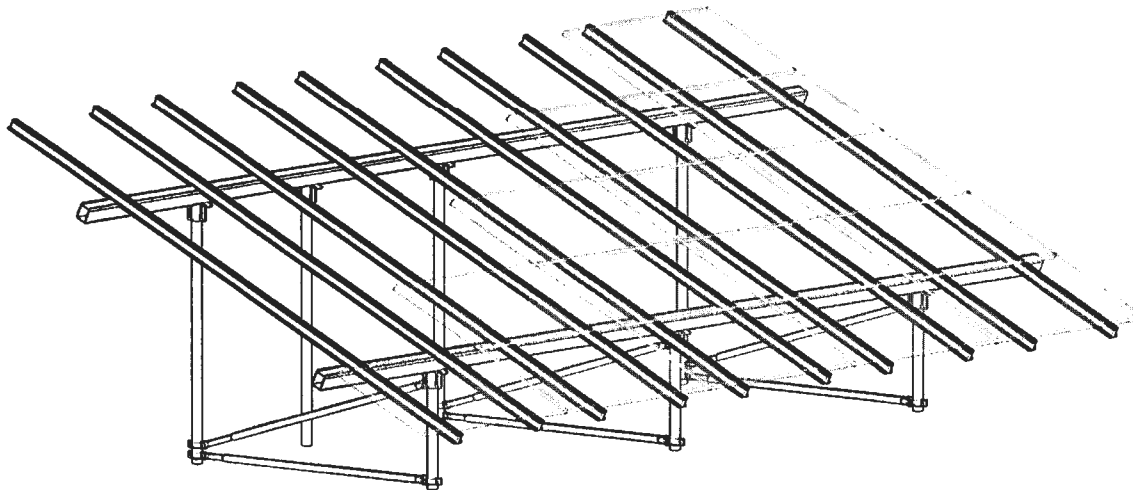
QTY OF MODULES/SUB-ARRAY:	25
QTY OF SUB-ARRAYS:	2
PANEL COLUMNS/SUB-ARRAY:	5
QTY OF PANEL ROWS:	5
PANEL ORIENTATION:	LANDSCAPE
PANEL COLUMN SPACING:	3/8"
PANEL ROW SPACING:	1/4"
PANEL MODEL:	Q.PEAK DUO BLK ML-G10+
PANEL SIZE:	41.14" x 73.98"
PANEL POWER RATING:	405 WATTS
SUB ARRAY POWER RATING:	10.125 KW
TOTAL POWER RATING:	20.25 KW
QTY RAIL PER PANEL:	2

SITE DESIGN CONDITIONS

BASIC WIND SPEED: (RISK CATEGORY II)	115 MPH	MAXIMUM PILE AXIAL BEARING:	4,350 LBS
BASIC WIND SPEED: (RISK CATEGORY I)	N/A	MAXIMUM PILE UPLIFT:	2,805 LBS
EXPOSURE CATEGORY:	C	MAXIMUM LATERAL RESISTANCE:	2,530 LBS
GROUND SNOW LOAD:	40 PSF	TOP RAIL MAXIMUM LOADING:	135.6 PLF
FLAT ROOF SNOW LOAD:	N/A	GROUND SCREW DEPTH:	60" MIN
SITE CONTOUR:	<5 DEG SLOPE		

ALL DESIGN WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY BUILDING CODE INCLUDING, BUT NOT LIMITED TO, THE 2021 INTERNATIONAL BUILDING CODE WITH AMENDMENTS PER SECTION 3.101.

NET DESIGN PRESSURES WERE CALCULATED IN ACCORDANCE WITH ASCE 7-16 SECTION 27.3.2, "OPEN BUILDINGS WITH MONOSLOPE, PITCHED, OR TROUGHED ROOFS". ALL LOAD CASES WERE EVALUATED IN DETERMINING THE LIMITING DESIGN CONDITIONS. THE DATA TABLE ABOVE PROVIDES THE RESULTS FOR THE LIMITING LOAD CASE. MAXIMUM PILE REACTION FORCES REPRESENT THE HIGHEST LOAD CONDITION APPLIED TO ANY PILE IN THE STRUCTURE. ALL PILES IN THE STRUCTURE ARE DESIGNED TO MEET THE MAXIMUM LOAD CONDITIONS.



ISOMETRIC VIEW

N.T.S

NOTE:

- (1) ADDITIONAL NORTH GROUND SCREW IS TO BE INSTALLED PER FIELD DIRECTION. THE GROUND SCREW IS TO SUPPORT EQUIPMENT MOUNTING NEEDS. IT IS NOT REQUIRED FOR NORTH BEAM SUPPORT.

Solar Foundations[®]
USA
1142 River Road, New Castle, DE 19720
Ph: (855) 738-7200 Fax: (855) 644-5665

TRINITY SOLAR
-PROJECT-
KWON, STEVE RESIDENCE
11664 LOG JUMP TRAIL
ELLCOTT CITY, MD 21042

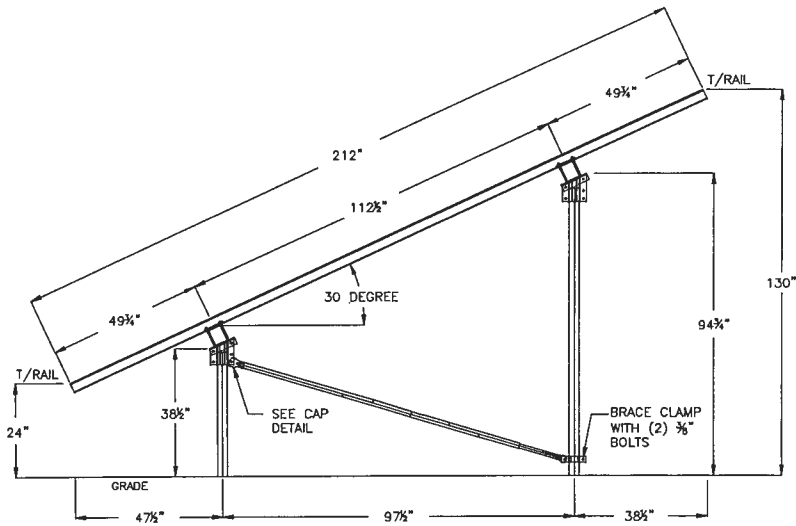
James C Douglas
Digitally signed by James C Douglas
DN: cn=US, o=New York,
dnQualifier=401435C0001LMLK0D
41C3080A690, ca=James C Douglas
Date: 2024.03.15 15:49:48 -0400



PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 40027, EXPIRATION DATE: 3/15/25.

DATE	REVISION	DRAWN BY:	REVIEW BY:
01/09/2024	ORIGINAL	JB	JD
03/14/2024	REV 1 - CONFIGURATION CHANGED TO (2) 5Lx5C	JB	JD

S-1

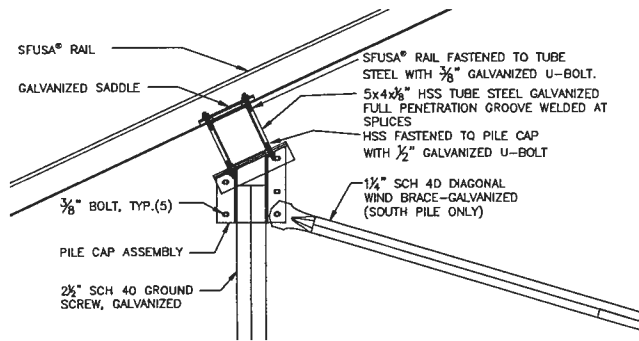


EAST ELEVATION

N.T.S.

NOTE:

1. ARRAY HEIGHT DIMENSIONS ASSUME LEVEL GRADE



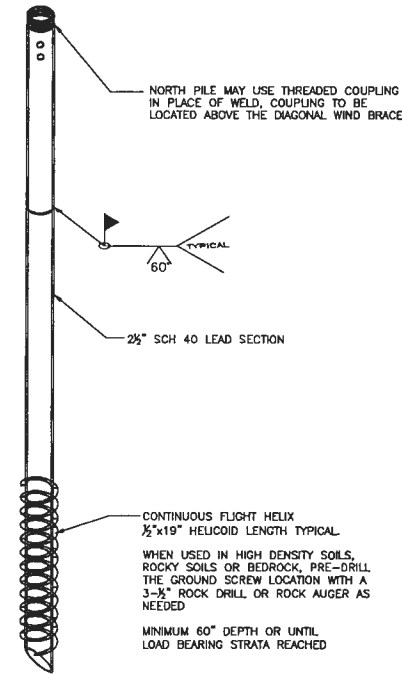
CAP DETAIL

N.T.S.

SPECIFICATION REQUIREMENT NOTES:

THE FOLLOWING MATERIAL SPECIFICATION REQUIREMENTS PERTAIN TO THE FABRICATION OF THE SOLAR FOUNDATIONS USA® GROUND MOUNT SOLAR SUPPORT STRUCTURE AS INDICATED ON THESE DRAWINGS.

1. SFUSA® ALUMINUM RAILS SHALL CONFORM TO ASTM B221.
2. STRUCTURAL STEEL TUBING SHALL BE ASTM A500 HIGH YIELD (60 KSI).
3. STEEL PIPE FOR PILES SHALL CONFORM TO ASTM A500 GRADE C.
4. STEEL PILE EXTENSIONS SHALL BE ASTM A53 GRADE B.
5. STEEL PIPE FOR DIAGONAL BRACING SHALL BE ASTM A53 GRADE A.
6. FABRICATED STEEL PLATE FOR PILE CAP ASSEMBLIES, BRACING CLAMPS, ETC. SHALL BE ASTM A36 OR A1011.
7. STEEL BOLTS SHALL CONFORM TO SAE J429 GRADE 5 OR BETTER.
8. STEEL U-BOLTS SHALL CONFORM TO ASTM 1018.
9. USS FLAT STEEL WASHERS SHALL CONFORM TO ASTM F844 AND NUTS FOR STEEL CONNECTIONS SHALL CONFORM TO ASTM A563 GRADE A.
10. ALL FIELD WELDING SHALL CONFORM TO AWS D1.1/D1.1M -STRUCTURAL WELDING CODE REQUIREMENTS.
11. ALL STEEL SHALL BE HOT-DIP GALVANIZED PER ASTM A123 OR A153 AFTER ALL FABRICATION HAS BEEN COMPLETED.



GROUND SCREW DETAIL

N.T.S.

INSTALLATION REQUIREMENT NOTES:

1. THE MINIMUM AVERAGE INSTALLATION TORQUE REQUIRED TO OBTAIN THE REQUIRED INDICATED CAPACITIES AND THE MINIMUM INSTALLATION DEPTH SHOWN ON THE PLANS SHALL BE SATISFIED PRIOR TO TERMINATION OF THE GROUND SCREW INSTALLATION. THE INSTALLATION TORQUE SHALL BE AN AVERAGE OF THE INSTALLATION TORQUES INDICATED DURING THE LAST ONE FOOT OF INSTALLATION.
2. THE TORSIONAL STRENGTH RATING OF THE GROUND SCREW SHALL NOT BE EXCEEDED DURING THE INSTALLATION. IF THE TORSIONAL STRENGTH LIMIT OF THE GROUND SCREW HAS BEEN REACHED, BUT THE SCREW HAS NOT REACHED THE TARGET DEPTH, PERFORM THE FOLLOWING:
 - a. REVIEW DEVELOPED TORQUE AND GROUND SCREW DEPTH WITH ENGINEER OF RECORD TO DETERMINE IF ACCEPTABLE FOR THIS INSTALLATION BASED UPON MINIMUM FROST DEPTH REQUIREMENT.
 - b. FOR INSTALLATION INTO HIGHLY COMPACTED SOIL, CREW SHALL PRE-DRILL THE GROUND SCREW LOCATION WITH A 3/4" CARBIDE TIPPED ROCK AUGER TO FULL GROUND SCREW DEPTH PRIOR TO INSTALLATION OF THE GROUND SCREW.
 - c. FOR INSTALLATION INTO SOLID ROCK, CREW SHALL PRE-DRILL THE GROUND SCREW LOCATION WITH A 3/4" PNEUMATIC DRIVEN ROCK DRILL. DEPTH OF DRILLED HOLE INTO THE ROCK SHALL BE A MINIMUM OF 30" TO ALLOW THE GROUND SCREW TO BE INSTALLED A MINIMUM OF 24" INTO THE ROCK FOR FULL FLIGHT ENGAGEMENT.
3. IF THE TARGET DEPTH IS ACHIEVED, BUT THE TORSIONAL REQUIREMENT HAS NOT BEEN MET THE INSTALLER PERFORM ONE OF THE FOLLOWING:
 - a. INSTALL THE GROUND SCREW DEEPER TO OBTAIN THE REQUIRED CAPACITY.
 - b. REMOVE THE GROUND SCREW AND INSTALL AN APPROVED SINGLE FLIGHT PILE WITH A LARGER DIAMETER HELICAL PLATE OR ONE WITH MULTIPLE HELICAL PLATES.
 - c. REDUCE THE LOAD ON THE INDIVIDUAL GROUND SCREWS BY PROVIDING ADDITIONAL GROUND SCREWS AT A REDUCED SPACING. CONTACT ENGINEER OF RECORD FOR DETERMINATION OF MAXIMUM PILE SPACING BASED UPON DEVELOPED TORQUE.

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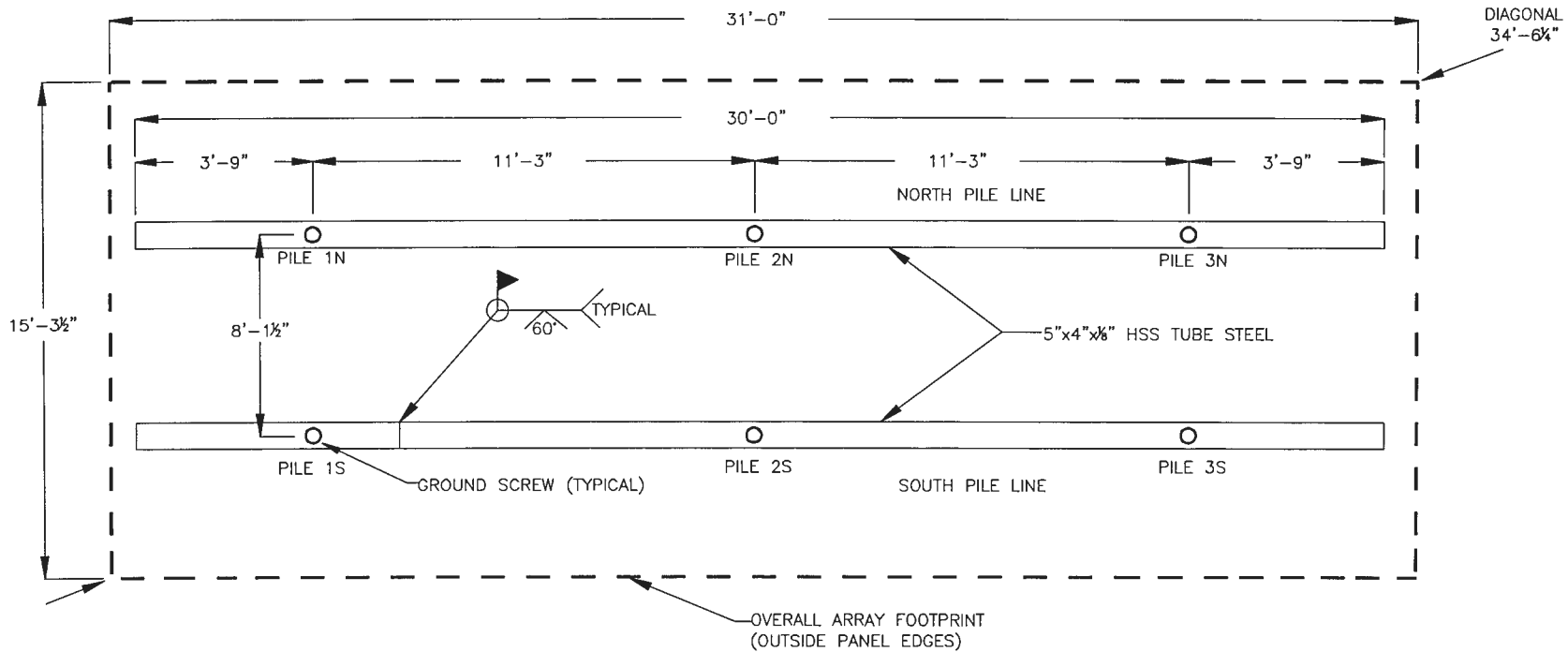
James C Douglas
Digitally signed by James C Douglas
DN: cn=J.C. Douglas, o=New York, email=jcdouglas@101618000001863C, ou=15620044606, cn=James C Douglas
Date: 2024.03.15 15:50:31 -0400



DATE	REVISION	DRAWN BY:	REVIEW BY:
01/09/2024	ORIGINAL	JB	JD
03/14/2024	REV 1 - CONFIGURATION CHANGED TO (2) 5Lx5C	JB	JD

Solar Foundations® USA
1142 River Road, New Castle, DE 19720
Ph: (855) 738-7200, Fax: (866) 644-5665

TRINITY SOLAR
-PROJECT-
KWON, STEVE RESIDENCE
11604 LOG JUMP TRAIL
ELLICOTT CITY, MD 21042



PILE PLAN LAYOUT
N.T.S

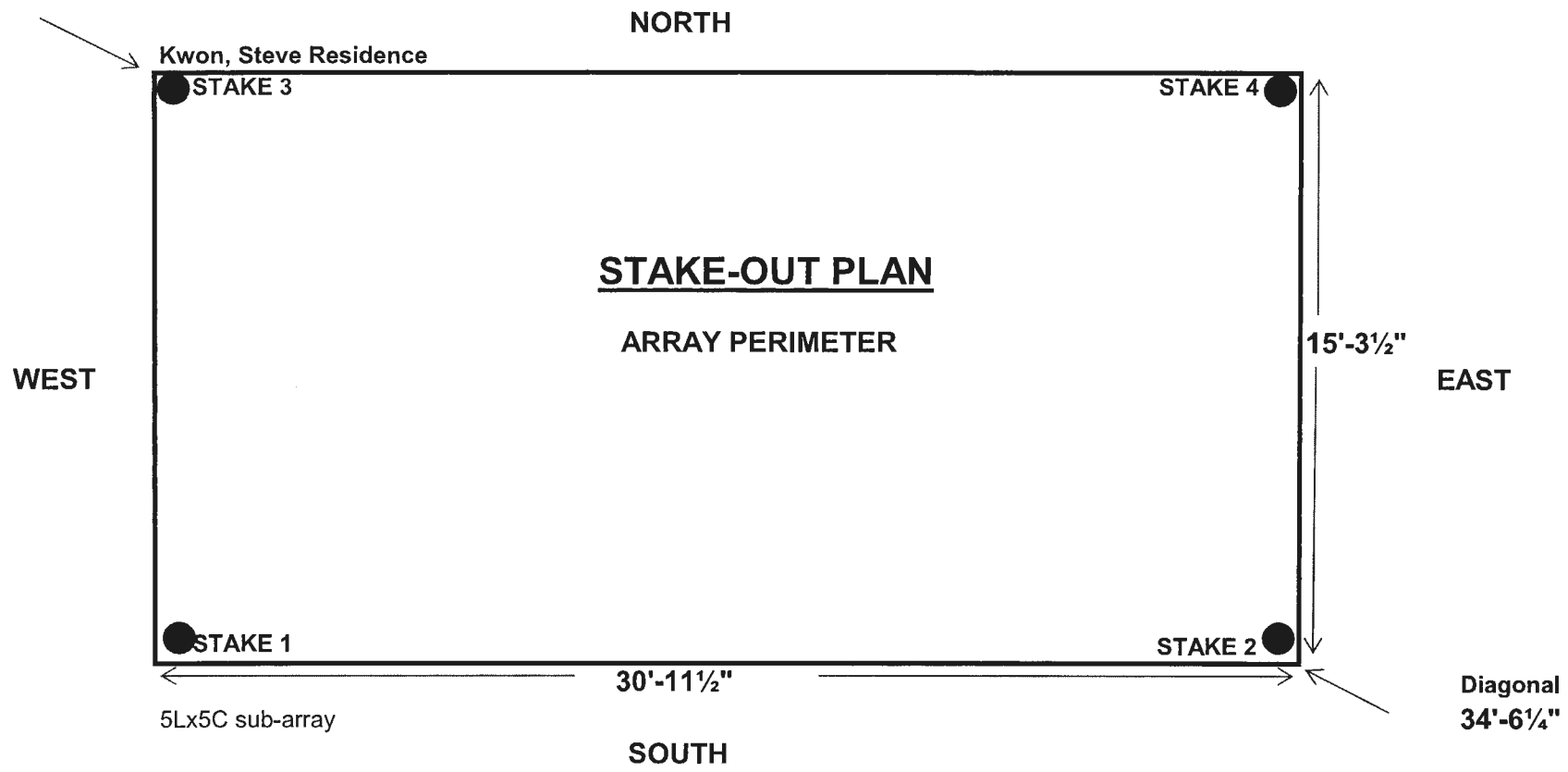
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James C
Douglas

Digitally signed by James C Douglas
DN: cn=US, o=New York, email=jcd@141300001863C, DN=C50004A600, cn=James C Douglas
Date: 2024.03.15 15:59:58 -0400

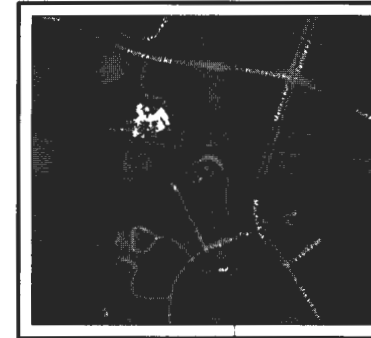


DATE	REVISION	DRAWN BY:	REVIEW BY:
01/09/2024	ORIGINAL	JB	JD
03/14/2024	REV 1 - CONFIGURATION CHANGED TO (2) 5Lx5C	JB	JD



INSTALLATION OF NEW GROUND MOUNTED PV SOLAR SYSTEM 11604 LOG JUMP TRAIL ELLCOTT CITY, MD 21042

LOG JUMP TRAIL ●



VICINITY MAP
SCALE: NTS

SITE

GENERAL NOTES

1. THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL EQUIPMENT AND FOLLOWING ALL DIRECTIONS AND INSTRUCTIONS CONTAINED IN THE DRAWING PACKAGE AND INFORMATION RECEIVED FROM TRINITY.
2. THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL EQUIPMENT AND FOLLOWING ALL DIRECTIONS AND INSTRUCTION CONTAINED IN THE COMPLETE MANUAL.
3. THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR READING AND UNDERSTANDING ALL DRAWINGS, COMPONENT AND INVERTER MANUALS PRIOR TO INSTALLATION. THE INSTALLATION CONTRACTOR IS ALSO REQUIRED TO HAVE ALL COMPONENT SWITCHES IN THE OFF POSITION AND FUSES REMOVED PRIOR TO THE INSTALLATION OF ALL FUSE BEARING SYSTEM COMPONENTS.
4. ONCE THE PHOTOVOLTAIC MODULES ARE MOUNTED, THE INSTALLATION CONTRACTOR SHOULD HAVE A MINIMUM OF ONE ELECTRICIAN WHO HAS ATTENDED A SOLAR PHOTOVOLTAIC INSTALLATION COURSE ON SITE.
5. FOR SAFETY, IT IS RECOMMENDED THAT THE INSTALLATION CREW ALWAYS HAVE A MINIMUM OF TWO PERSONS WORKING TOGETHER AND THAT EACH OF THE INSTALLATION CREW MEMBERS BE TRAINED IN FIRST AID AND CPR.
6. THIS SOLAR PHOTOVOLTAIC SYSTEM IS TO BE INSTALLED FOLLOWING THE CONVENTIONS OF THE NATIONAL ELECTRICAL CODE, ANY LOCAL CODE WHICH MAY SUPERSEDE THE NEC SHALL GOVERN.
7. ALL SYSTEM COMPONENTS TO BE INSTALLED WITH THIS SYSTEM ARE TO BE "UL" LISTED. ALL EQUIPMENT WILL BE NEMA 3R OUTDOOR RATED UNLESS INDOORS.

GENERAL NOTES

IF ISSUED DRAWING IS MARKED WITH A REVISION CHARACTER OTHER THAN "A", PLEASE BE ADVISED THAT FINAL EQUIPMENT AND/OR SYSTEM CHARACTERISTICS ARE SUBJECT TO CHANGE DUE TO AVAILABILITY OF EQUIPMENT.

GENERAL NOTES CONTINUED

8. THE DC VOLTAGE FROM THE PANELS IS ALWAYS PRESENT AT THE DC DISCONNECT ENCLOSURE AND THE DC TERMINALS OF THE INVERTER DURING DAYLIGHT HOURS. ALL PERSONS WORKING ON OR INVOLVED WITH THE PHOTOVOLTAIC SYSTEM ARE WARNED THAT THE SOLAR MODULES ARE ENERGIZED WHENEVER THEY ARE EXPOSED TO LIGHT.
9. ALL PORTIONS OF THIS SOLAR PHOTOVOLTAIC SYSTEM SHALL BE MARKED CLEARLY IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 690 & 705.
10. PRIOR TO THE INSTALLATION OF THIS PHOTOVOLTAIC SYSTEM, THE INSTALLATION CONTRACTOR SHALL ATTEND A PRE-INSTALLATION MEETING FOR THE REVIEW OF THE INSTALLATION PROCEDURES, SCHEDULES, SAFETY AND COORDINATION.
11. PRIOR TO THE SYSTEM START UP THE INSTALLATION CONTRACTOR SHALL ASSIST IN PERFORMING ALL INITIAL HARDWARE CHECKS AND DC WIRING CONDUCTIVITY CHECKS.
12. FOR THE PROPER MAINTENANCE AND ISOLATION OF THE INVERTERS REFER TO THE ISOLATION PROCEDURES IN THE OPERATION MANUAL.
13. THE LOCATION OF PROPOSED ELECTRIC AND TELEPHONE UTILITIES ARE SUBJECT TO FINAL APPROVAL OF THE APPROPRIATE UTILITY COMPANIES AND OWNERS.
14. ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION FOR THE SITE IMPROVEMENTS SHOWN HEREIN SHALL BE IN ACCORDANCE WITH:
 - A) CURRENT PREVAILING MUNICIPAL AND/OR COUNTY SPECIFICATIONS, STANDARDS AND REQUIREMENTS

GENERAL NOTES CONTINUED

14. B) CURRENT PREVAILING UTILITY COMPANY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS
15. THIS SET OF PLANS HAVE BEEN PREPARED FOR THE PURPOSE OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. ONCE APPROVED, THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL SYSTEM COMPONENTS AS DESCRIBED IN THE DRAWING PACKAGE.
16. ALL INFORMATION SHOWN MUST BE CERTIFIED PRIOR TO USE FOR CONSTRUCTION ACTIVITIES.

ABBREVIATIONS

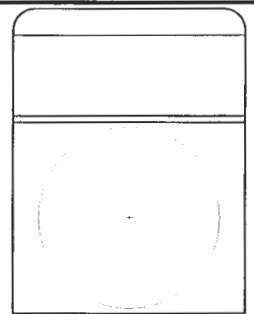
AMP AMPERE
AC ALTERNATING CURRENT
AL ALUMINUM
AF AMP. FRAME
AFF ABOVE FINISHED FLOOR
AFG ABOVE FINISHED GRADE
AWG AMERICAN WIRE GAUGE
C CONDUIT (GENERIC TERM OF RACEWAY, PROVIDE AS SPECIFIED)
CB COMBINER BOX
CKT CIRCUIT
CT CURRENT TRANSFORMER
CU COPPER
DC DIRECT CURRENT
DISC DISCONNECT SWITCH
DWG DRAWING
EC ELECTRICAL SYSTEM INSTALLER
EMT ELECTRICAL METALLIC TUBING
FS FUSIBLE SWITCH
FU FUSE
GND GROUND
GFI GROUND FAULT INTERRUPTER
HZ FREQUENCY (CYCLES PER SECOND)

ABBREVIATIONS CONTINUED

JB JUNCTION BOX
KCMIL THOUSAND CIRCULAR MILS
KVA KILO-VOLT AMPERE
KW KILO-WATT
KWH KILO-WATT HOUR
L LINE
MCB MAIN CIRCUIT BREAKER
MLD MAIN DISTRIBUTION PANEL
MLO MAIN LUG ONLY
MTD MOUNTED
MTO MOUNTING
N NEUTRAL
NEC NATIONAL ELECTRICAL CODE
NIC NOT IN CONTRACT NUMBER
NTS NOT TO SCALE
OCP OVER CURRENT PROTECTION
P POLE
PB PULL BOX
PH Ø PHASE
PVC POLY-VINYL CHLORIDE CONDUIT
PWR POWER
QTY QUANTITY
RGS RIGID GALVANIZED STEEL
SN SOLID NEUTRAL
JSMBD SWITCHBOARD
TYP TYPICAL
U.O.L. UNLESS OTHERWISE INDICATED
WP WEATHERPROOF
XFR TRANSFORMER
+2 MOLINT 22 INCHES TO BOTTOM OF ABOVE FINISHED FLOOR OR GRADE

SHEET INDEX

- PV-1 COVER SHEET W/ SITE INFO & NOTES
PV-2 ROOF PLAN W/ MODULE LOCATIONS
PV-3 SITE PLAN
PV-4 ELECTRICAL 3 LINE DIAGRAM
AP APPENDIX



Issued / Revisions

NO.	DESCRIPTION	DATE
01	TRENCH / SITE PLAN DETAILS	1/14/2024
02	SITE PLAN DETAILS	1/14/2024
03	LAYOUT	1/14/2024
04	ISSUED TO TOWNSHIP FOR PERMIT	1/14/2024

Project Title:

KWON, STEVE- (GROUND MOUNT)

TRINITY ACCT #: 2023-09-932069

Project Address:

11604 LOG JUMP TRAIL
ELLCOTT CITY, MD 21042
39.24462888,-76.91842072

Drawing Title:

PROPOSED PV SOLAR SYSTEM

Drawing Information

DRAWING DATE: 1/4/2024
DRAWN BY: MM
REVISED BY: DMR

System Information:

DC SYSTEM SIZE: 20.25kW
AC SYSTEM SIZE: 15.2kW
MODULE COUNT: 50
MODULES USED: HANVHA 405
MODULE SPEC #: CL PEAK DUO BLK ML-G10+ 405
UTILITY COMPANY: BGE
UTILITY ACCT #: 5476216776
UTILITY METER #: RG156913906
DEAL TYPE: SUNNOVA

Rev. No.

R4

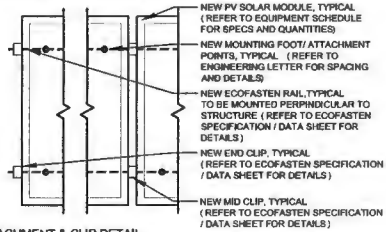
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PV - 1

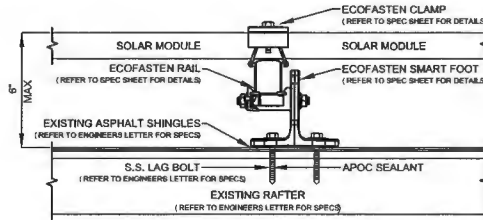
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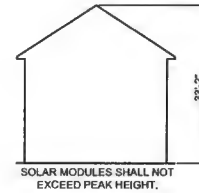
NOTES: *REFER TO MODULE SPECS FOR MODULE DIMENSIONS
 *DEPICTED MODULES MAY BE PORTRAIT OR LANDSCAPE



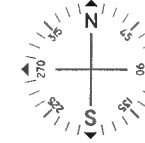
ATTACHMENT & CLIP DETAIL
 SCALE: NOT TO SCALE



PV MODULE ATTACHMENT ON ASPHALT SHINGLE ROOF
 SCALE: NOT TO SCALE



HEIGHT FROM GROUND LEVEL TO PEAK OF ROOF
 SCALE: NOT TO SCALE



ARRAY SCHEDULE

ROOF 1
 MODULES: 25
 PITCH: 30
 ORIENTATION: 180

ROOF 2
 MODULES: 25
 PITCH: 30
 ORIENTATION: 180

ROOF 3
 MODULES: 0
 PITCH: 27
 ORIENTATION: 315°

ROOF 4
 MODULES: 0
 PITCH: 27
 ORIENTATION: 135°

ROOF 5
 MODULES: 0
 PITCH: 23
 ORIENTATION: 179°

ROOF 6
 MODULES: 0
 PITCH: 27
 ORIENTATION: 271°

ROOF 7
 MODULES: 0
 PITCH: 27
 ORIENTATION: 45°

ROOF 8
 MODULES: 0
 PITCH: 27
 ORIENTATION: 225°

ROOF 9
 MODULES: 0
 PITCH: 23
 ORIENTATION: 179°

ROOF 10
 MODULES: 0
 PITCH: 27
 ORIENTATION: 91°

ROOF 11
 MODULES: 0
 PITCH: 23
 ORIENTATION: 156°

ROOF 12
 MODULES: 0
 PITCH: 27
 ORIENTATION: 96°

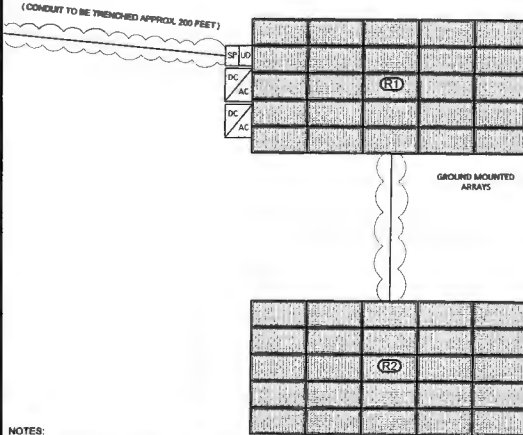
ROOF 13
 MODULES: 0
 PITCH: 27
 ORIENTATION: 123°

ROOF 14
 MODULES: 0
 PITCH: 27
 ORIENTATION: 1°

ROOF 15
 MODULES: 0
 PITCH: 23
 ORIENTATION: 269°

ROOF 16
 MODULES: 0
 PITCH: 23
 ORIENTATION: 179°

ROOF 17
 MODULES: NA
 PITCH: NA
 ORIENTATION: NA



NOTES:

- 1.) ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 2.) ARRAY BONDING TO COMPLY WITH MANUFACTURER SPECIFICATION.
- 3.) ALL LOCATIONS ARE APPROXIMATE AND REQUIRE FIELD VERIFICATION.
- 4.) AN AC DISCONNECT SHALL BE GROUPED WITH INVERTER (S) NEC 690.13 (E).
- 5.) ALL OUTDOOR EQUIPMENT SHALL BE RAIN TIGHT WITH MINIMUM NEMA 3R RATING.
- 6.) ROOFTOP SOLAR INSTALLATION ONLY PV ARRAY SHALL NOT EXTEND BEYOND THE EXISTING ROOF EDGE.

SYMBOL LEGEND

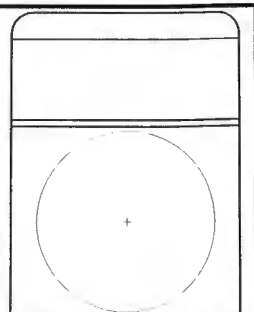
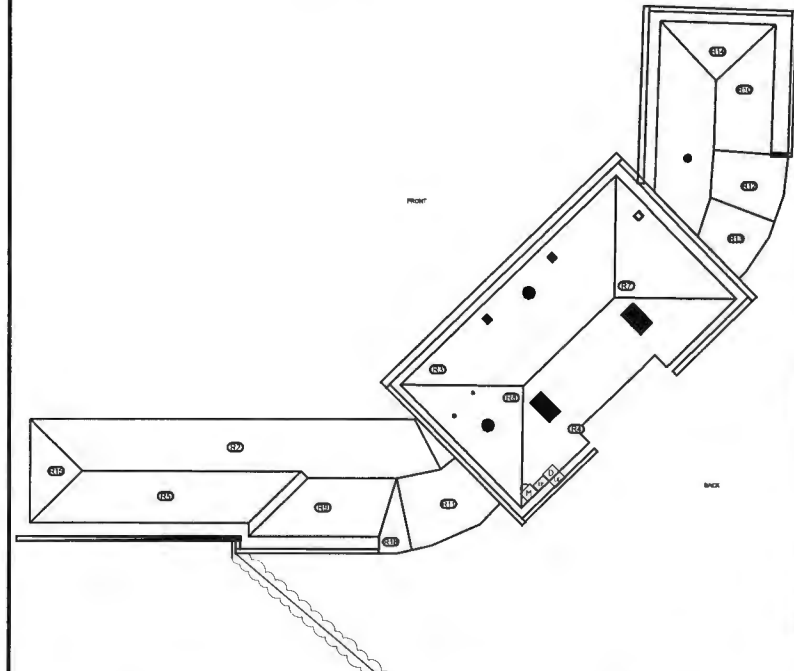
(RT)	INDICATES ROOF DESIGNATION. REFER TO ARRAY SCHEDULE FOR MORE INFORMATION	(UD)	INDICATES NEW UNFUSED PV DISCONNECT TO BE INSTALLED OUTSIDE. (UTILITY ACCESSIBLE)	(SP)	INDICATES NEW PV ONLY SUBPANEL TO BE INSTALLED
(M)	INDICATES EXISTING METER LOCATION	(P)	INDICATES NEW PV SOLAR MODULE. RED MODULES INDICATE PANELS THAT USE MICRO INVERTERS. REFER TO EQUIPMENT SCHEDULE FOR SPECS.	(DC)	INDICATES NEW DC DISCONNECT
(EP)	INDICATES EXISTING ELECTRICAL PANEL LOCATION. INSIDE	(P)	INDICATES NEW PRODUCTION METER TO BE INSTALLED OUTSIDE.	(SD)	INDICATES EXISTING SERVICE DISCONNECT
(D)	INDICATES NEW FUSED PV DISCONNECT TO BE INSTALLED INSIDE	(DC/AC)	INDICATES NEW INVERTER TO BE INSTALLED OUTSIDE. REFER TO EQUIPMENT SCHEDULE FOR SPECS	(TS)	INDICATES EXISTING TRANSFER SWITCH

PLUMBING SCHEDULE

OTHER OBSTRUCTIONS	
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EQUIPMENT SCHEDULE

QTY	SPEC #
50	HANWHA 405 (Q,PEAK DUO BLK ML-G10+ 405)
1	SE7600H-US0008E14
1	SE7600H-US0008E14



Issued / Revisions		
NO.	DESCRIPTION	DATE
R4	TRENCH / SITE PLAN DETAILS	3/6/2024
R3	SITE PLAN DETAILS	1/15/2024
R2	LAYOUT	1/15/2024
R1	ISSUED TO TOWNSHIP FOR PERMIT	1/16/2024

Project Title:
KWON, STEVE- (GROUND MOUNT)
 TRINITY ACCT #: 2023-09-932069

Project Address:
 11604 LOG JUMP TRAIL
 ELLICOTT CITY, MD 21042
 39.24462888,-76.91842072

Drawing Title:
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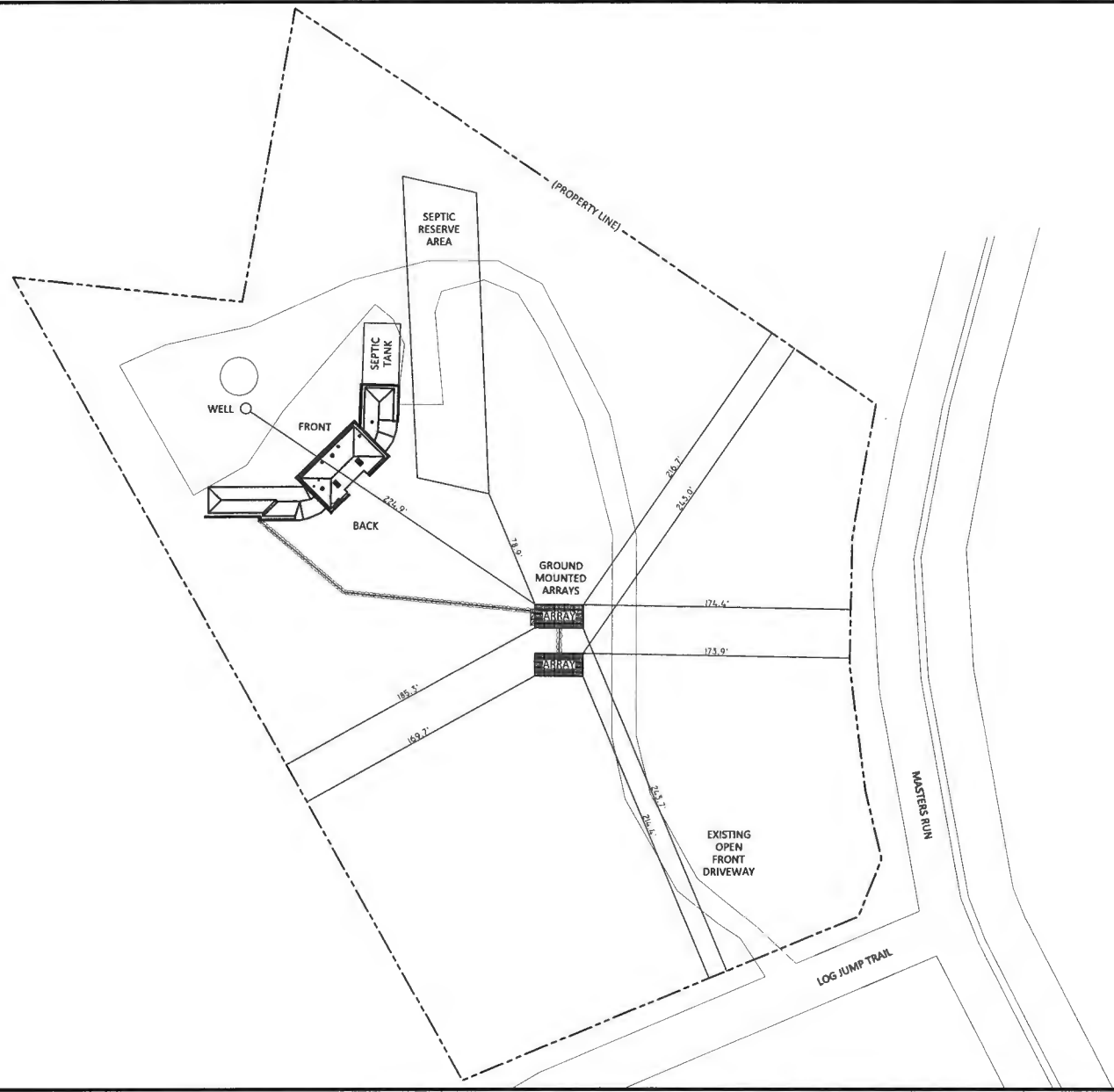
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DRAWN BY:	MM
REVISED BY:	DMR

System Information:	
DC SYSTEM SIZE:	20.25kW
AC SYSTEM SIZE:	15.2kW
MODULE COUNT:	50
MODULES USED:	HANWHA 405
MODULE SPEC:	Q,PEAK DUO BLK ML-G10+ 405
UTILITY COMPANY:	BGE
UTILITY ACCT #:	5476216776
UTILITY METER #:	#G156913906
DEAL TYPE:	SUNNOVA

Rev. No.	Sheet
R4	PV - 2

Trinity SOLAR
 2231 Allenwood Road Wall, New Jersey 07719 877-786-7283 www.Trinity-Solar.com

SITE PLAN
SCALE: NTS



Engineer / License Holder:

Issued / Revisions		
R4	TRENCH / SITE PLAN DETAILS	3/4/2024
R3	SITE PLAN DETAILS	1/16/2024
R2	LAYOUT	1/12/2024
R1	ISSUED TO TOWNSHIP FOR PERMIT	1/12/2024
NO.	DESCRIPTION	DATE

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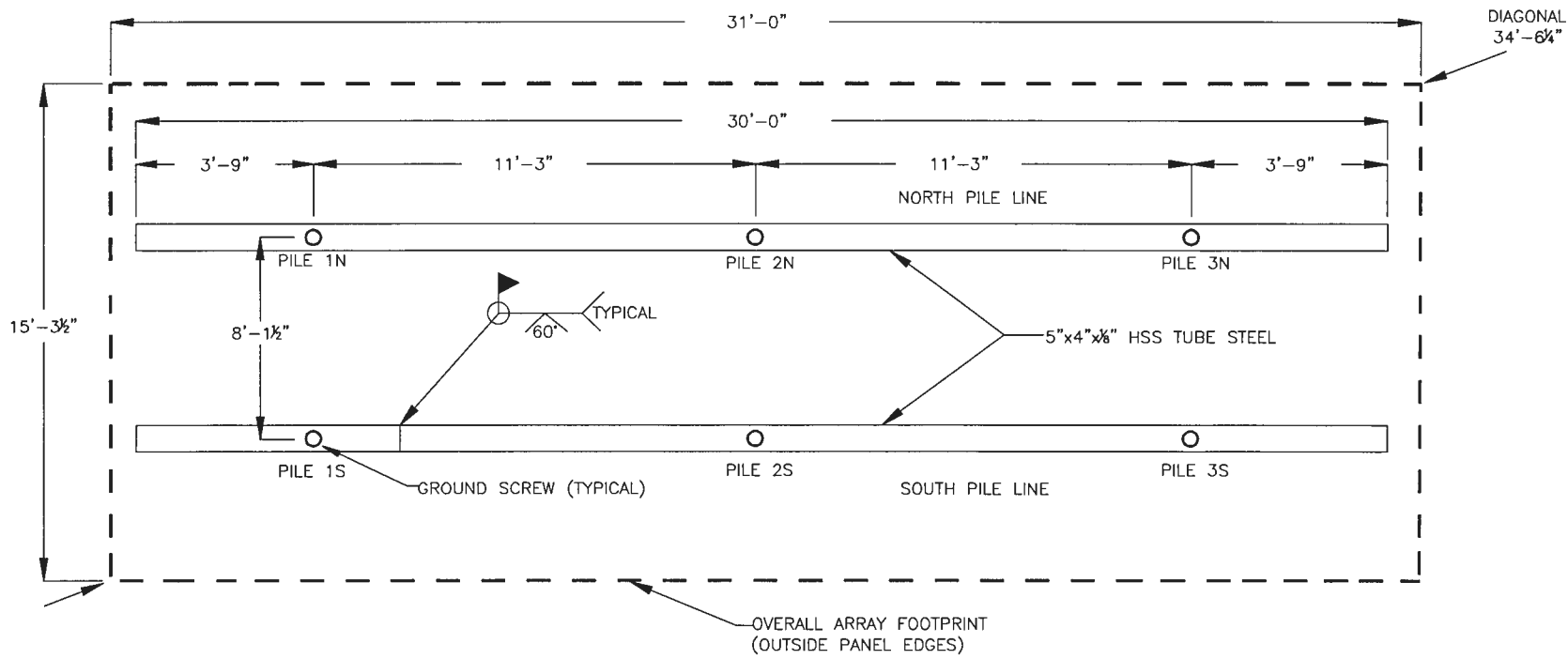
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MODULES USED:	HANWHA 405
MODULE SPEC #:	Q PEAK DUO BLK ML-G10+ 405
UTILITY COMPANY:	BGE
UTILITY ACCT #:	5476216776
UTILITY METER #:	#G156913906
DEAL TYPE:	SUNNOVA

Rev. No. R4	Sheet PV - 3
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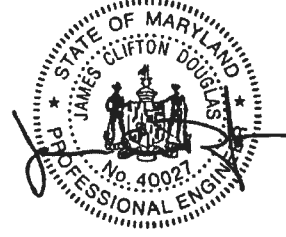
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PILE PLAN LAYOUT
N.T.S

James C
Douglas

Digitally signed by James C Douglas
DN: c=US, o=New York, ou=James C Douglas, email=AD41DC00001863C1561C500046005_cj=James C Douglas
Date: 2024.03.15 15:50:58 -0400



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