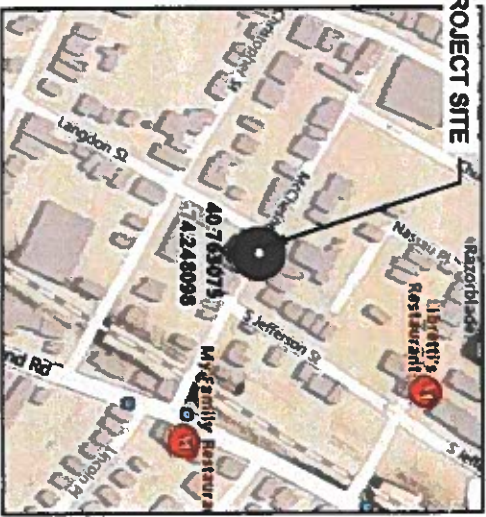


PROJECT SITE

SITE MAP

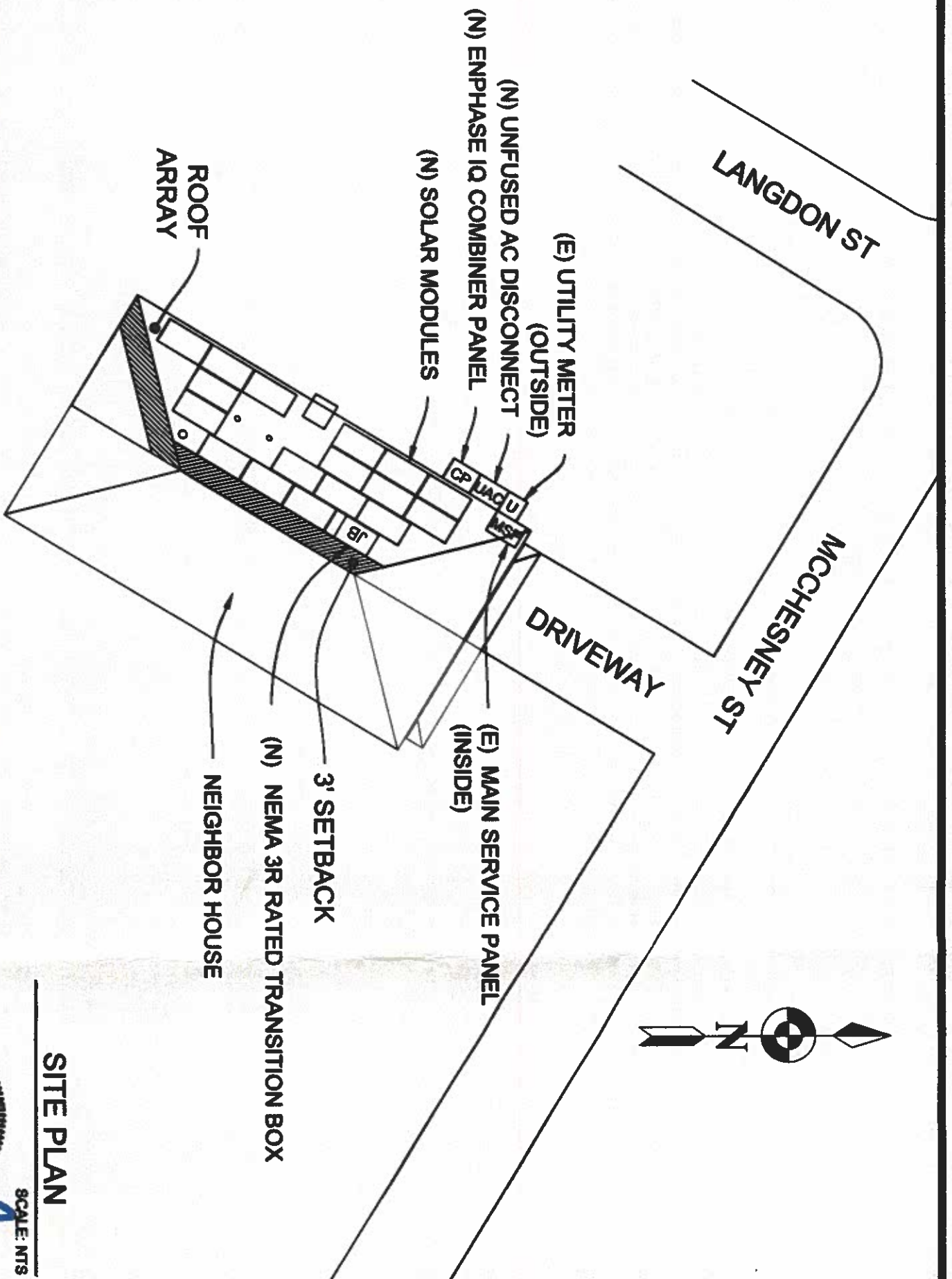
SCALE: NTS



PROJECT SITE

VICINITY MAP

SCALE: NTS



SITE PLAN

SCALE: NTS

Wysdler Consulting, P.L.L.C.  
76 N. Meadowbrook Drive Alpine UT 84004  
New Jersey COA 24GA25352000  
Signed 2/07/2023



PROPOSED SYSTEM SPECIFICATION	
SYSTEM SIZE DC	7.2 KWp
SYSTEM SIZE AC	@300 VA PEAK POWER = 5.4 KWp
SYSTEM SIZE AC	@280 VA MAX. CONT. POWER = 5.22 KWp
MODULES USED	(18) HANWHA Q.PEAK DUO BLK ML-G10+ 400
INVERTER USED	(18) ENPHASE IQ8PLUS-72-2-US
BRANCH CIRCUIT	2 CIRCUITS OF 9 MODULES
RACKING	ECOFASTEN ROCKIT
FLASHING	COMPOSITE SHINGLE FLASHING

ELECTRICAL SPECIFICATION	
SERVICE PANEL	200A MCB WITH 200A BUSBAR
INTERCONNECTION	PV BACKFEED BREAKER
PV OCPD	30A BREAKER

ROOF SPECIFICATION	
ROOF TYPE	COMPOSITE SHINGLE
ROOF CONDITION	FAIR
RE-ROOFING	NOT REQUIRED
RAFTERS	2" X 8" @ 16" O.C.
SHEATHING	1/2" PLYWOOD

ARRAY SPECIFICATION			
ROOF NO.	TILT	AZIMUTH	QTY
1	23°	301°	18

ROOF COVERAGE AREA CALCULATION	
TOTAL AREA OF ROOF	1054.39 SQ. FT
TOTAL AREA OF ARRAY	380.44 SQ. FT
PERCENTAGE OF TOTAL ARRAY AREA OCCUPIED ON ROOF	36.08%

NOTE: PROVIDING ARRAYS TAKE LESS THAN 33% OF TOTAL ROOF AREA, WHEN THE ARRAYS TAKE LESS THAN 33% WE CAN JUSTIFY 18" SETBACKS FROM RIDGE

REFERENCE CODES	IRC-2021-WNJ EDITION
ELECTRICAL CODE	NEC-2020
BUILDING USAGE	R - RESIDENTIAL
CONSTRUCTION	5-B UNPROTECTED

WIND SPEED	120 MPH
SNOW LOAD	30 LBS/SQ.FT.

TABLE OF CONTENT	
NO.	TITLE
PV-1.0	SITE PLAN
PV-2.0	ARRAY LAYOUT
PV-3.0	STRUCTURAL
PV-4.0	ELECTRICAL LINE DIAGRAM
PV-5.0	ELECTRICAL CALCULATIONS
PV-6.0	LABELS
ATTACHMENT	DATASHEETS

**Suntuity**

2137 Route 35  
Holmdel, NJ 07733  
Tel: (732) 979-2400  
Fax: (732) 979-2401

**Nicholas Williams**

562 McChesney St Unit B  
Orange City, NJ, 07050  
(Lat, Long: 40.763075, -74.248098)

Signature with Seal

REVISIONS	DESCRIPTION	DATE	DRW BY	REV BY
1				

DATE DRAWN	11-10-2022
DRAWN BY	KRINAL
REVIEWED BY	HARSH
SHEET NAME	SITE PLAN
SHEET NO.	PV-1.0

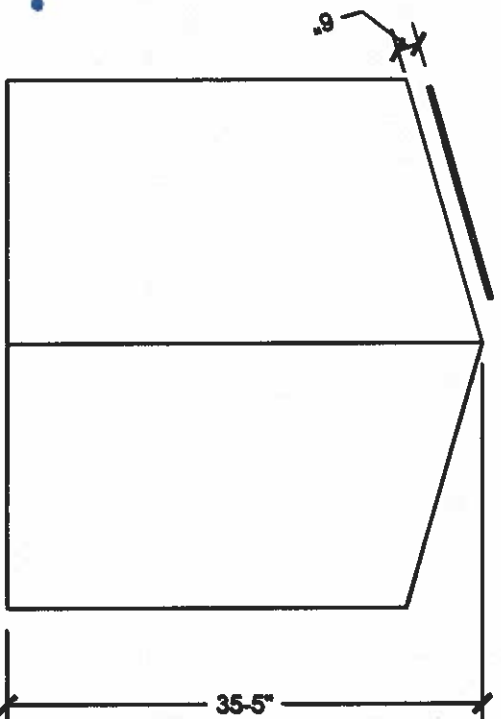
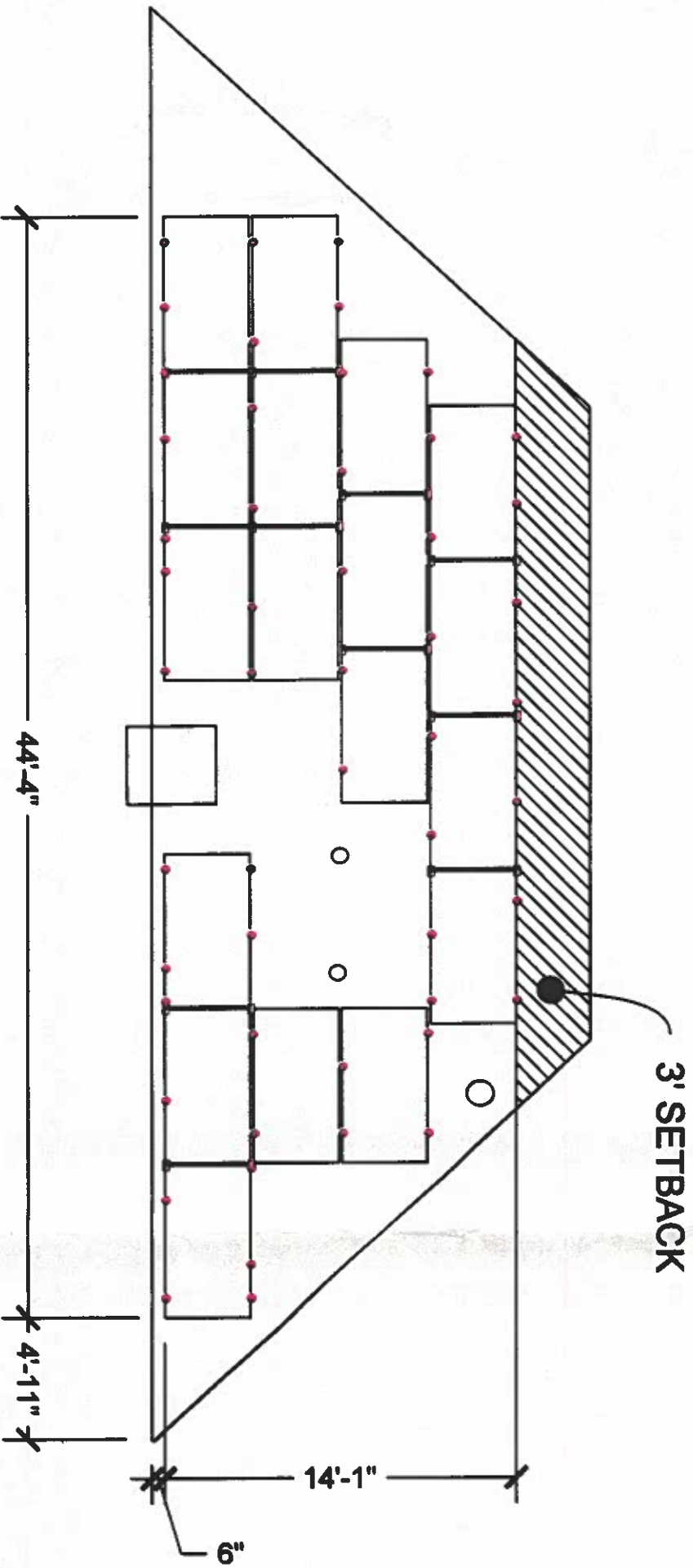
PROPOSED SYSTEM SPECIFICATION	
SYSTEM SIZE DC	7.2 KWp
SYSTEM SIZE AC	@300 VA PEAK POWER = 5.4 KWp
SYSTEM SIZE AC	@280 VA MAX. CONT. POWER = 5.22 KWp
MODULES USED	(18) HANWHA Q.PEAK DUO BLK ML-G10+ 400
INVERTER USED	(18) ENPHASE IQ8PL US-72-2-US
BRANCH CIRCUIT	2 CIRCUITS OF 9 MODULES
RACKING	ECOFASTEN ROCKIT
FLASHING	COMPOSITE SHINGLE FLASHING

ELECTRICAL SPECIFICATION	
SERVICE PANEL	200A MCB WITH 200A BUSBAR
INTERCONNECTION	PV BACKFEED BREAKER
PV OCCPD	30A BREAKER

ROOF SPECIFICATION	
ROOF TYPE	COMPOSITE SHINGLE
ROOF CONDITION	FAIR
RE-ROOFING	NOT REQUIRED
RAFTERS	2" X 8" @ 16" O.C.
SHEATHING	1/2" PLYWOOD

ARRAY SPECIFICATION			
ROOF NO.	TILT	AZIMUTH	QTY
1	23°	301°	18

WIND SPEED	120 MPH
SNOW LOAD	30 LB/SQ.FT.



**SIDE ELEVATION**  
SCALE: NTS



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New Jersey CDA 24CA28352000  
Signed 2/07/2023

LEGEND	
○	- VENT, ATTIC FAN (ROOF OBSTRUCTION)
□	- MOUNTS
●	- COUPLING
▨	- ROOF SETBACK

**ARRAY LAYOUT**  
SCALE: NTS



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Holmdel, NJ 07733  
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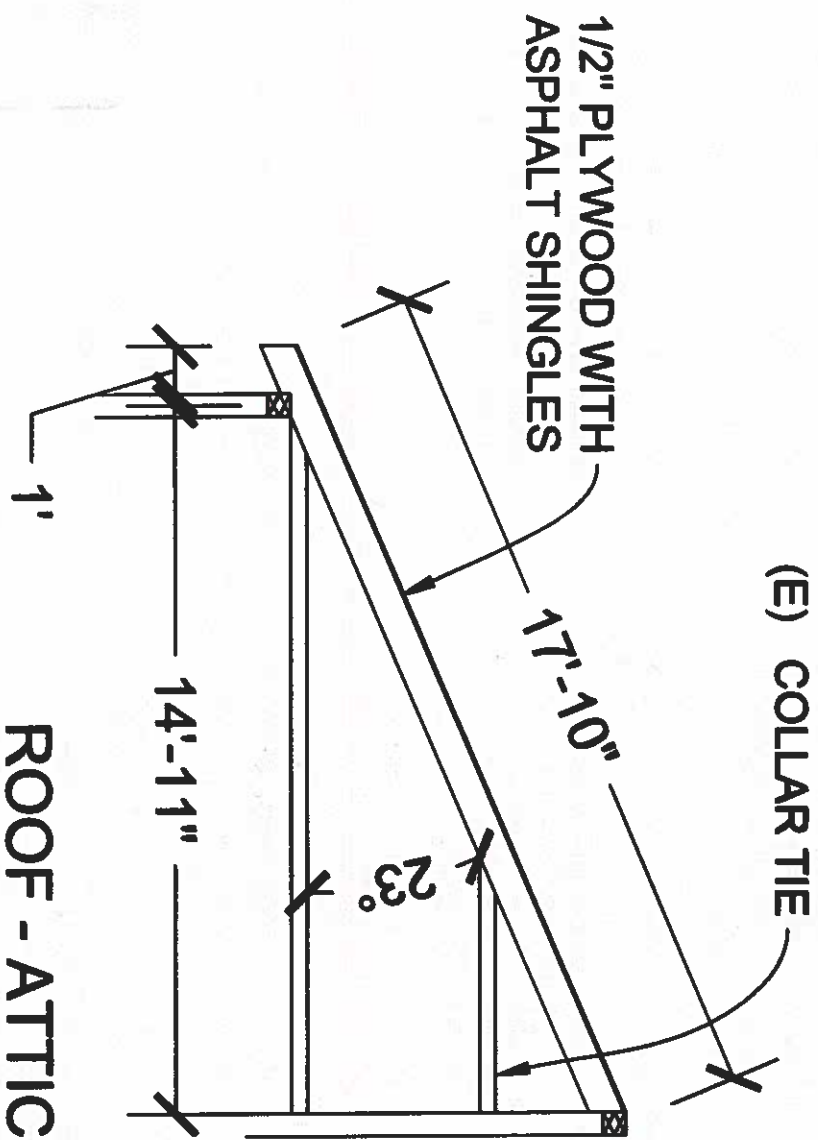
PROJECT NAME & ADDRESS

Nicholas Williams  
562 McChesney St Unit B  
Orange City, NJ, 07050  
(Lat, Long: 40.763075, -74.248098)

Signature with Seal

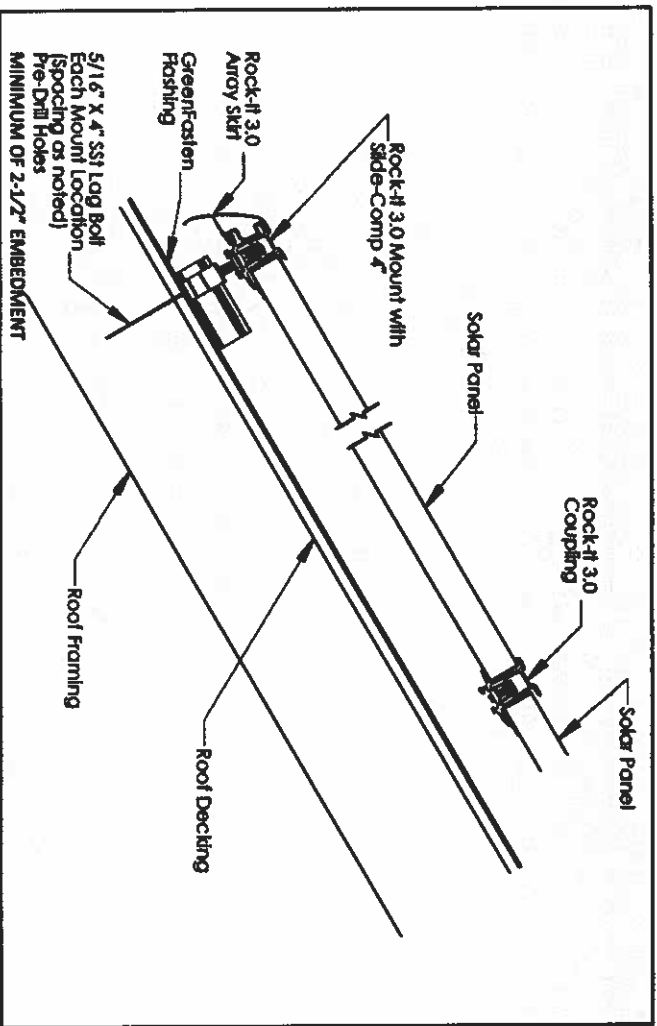
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2				

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DRAWN BY	KRIVAL
REVIEWED BY	HARSH
SHEET NAME	ARRAY LAYOUT
SHEET NO.	PV-2.0



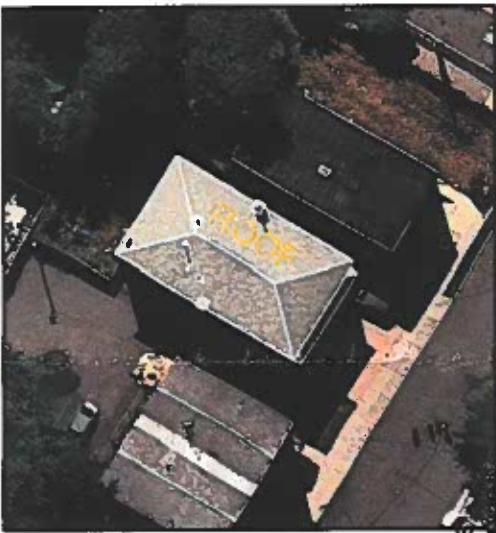
**ATTIC DETAILS**

SCALE: NTS



**ATTACHMENT DETAILS**

SCALE: NTS



**KEY PLAN**

SCALE: NTS



Wystling Consulting, P.L.L.C.  
76 N. Meadowbrook Drive Alpine UT 84004  
Utah License No. COA 246A28332000  
Signed 2/07/2023

**PROPOSED SYSTEM SPECIFICATION**

SYSTEM SIZE DC	7.2 KWp
SYSTEM SIZE AC	@300 VA PEAK POWER = 5.4 KWp
SYSTEM SIZE AC	@280 VA MAX. CONT. POWER = 5.22 KWp
MODULES USED	(18) HANWHA Q.PEAK DUO BLK ML-G10+ 400
INVERTER USED	(18) ENPHASE IQ8PLUS-72-2-US
BRANCH CIRCUIT	2 CIRCUITS OF 9 MODULES
RACKING	ECOFASTEN ROCKIT
FLASHING	COMPOSITE SHINGLE FLASHING

**ROOF SPECIFICATION**

ROOF TYPE	COMPOSITE SHINGLE
ROOF CONDITION	FAIR
RE-ROOFING	NOT REQUIRED
RAFTERS	2" X 8" @ 16" O.C.
SHEATHING	1/2" PLYWOOD

**ARRAY SPECIFICATION**

ROOF NO.	1
TILT	23°
AZIMUTH	301°
QTY	18

**RACKING SPECIFICATION**

MIN/MAX ROOF SLOPE	1/2:12 / 12:12
MAX ANCHOR SPACING (35MM/40MM)	48"
MAX ANCHOR SPACING (32MM)	
MAX MODULE SIZE	74" X 41.1" X 1.26"
MODULE CANTILEVER	MAXIMUM CANTILEVER IS 1/3 BRACKET SPACING

**MODULE SPECIFICATION**

MODEL	O.PEAK DUO BLK ML-G10+ 400
FORMAT	74" ~ 41.1" ~ 1.26" (INCLUDING FRAME)
WEIGHT	48.5 LBS

WIND SPEED	120 MPH
SNOW LOAD	30 LB/SQ.FT.

**GENERAL NOTES**  
1. SOLAR PANELS SHALL NOT EXCEED ANY PART OF ROOF EDGE OR PEAK.

**PV MODULE**  
WEIGHT = 48.5 LBS.  
AREA = 74" X 41.1" NOMINAL (21,121 SQ.FT.)  
MODULE = 48.5 LBS. OVER 21,121 SQ.FT. = 2,298 LBS/SQ.FT.  
FOOT SPACING IS 48" O.C. ACROSS PANEL WIDTH WITH 2 ROWS PER MODULE  
TYPICAL LAYOUT PROVIDES AN AVERAGE OF 1.8 FEET PER MODULE.  
MODULE WEIGHT DISTRIBUTED PER MOUNTING FOOT = 48.5 LBS./1.8 FEET = 30.3 LBS./MTG. FOOT.

**MOUNTING LOAD CALCULATION**



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**Nicholas Williams**  
562 McChesney St Unit B  
Orange City, NJ, 07050  
(Lat. Long: 40.763075, -74.248098)

Signature with Seal

**REVISIONS**

DATE	DESCRIPTION	DATE	DRW BY	REV BY
11-10-2022	ORIGINAL		KRUMAL	
			HARSH	

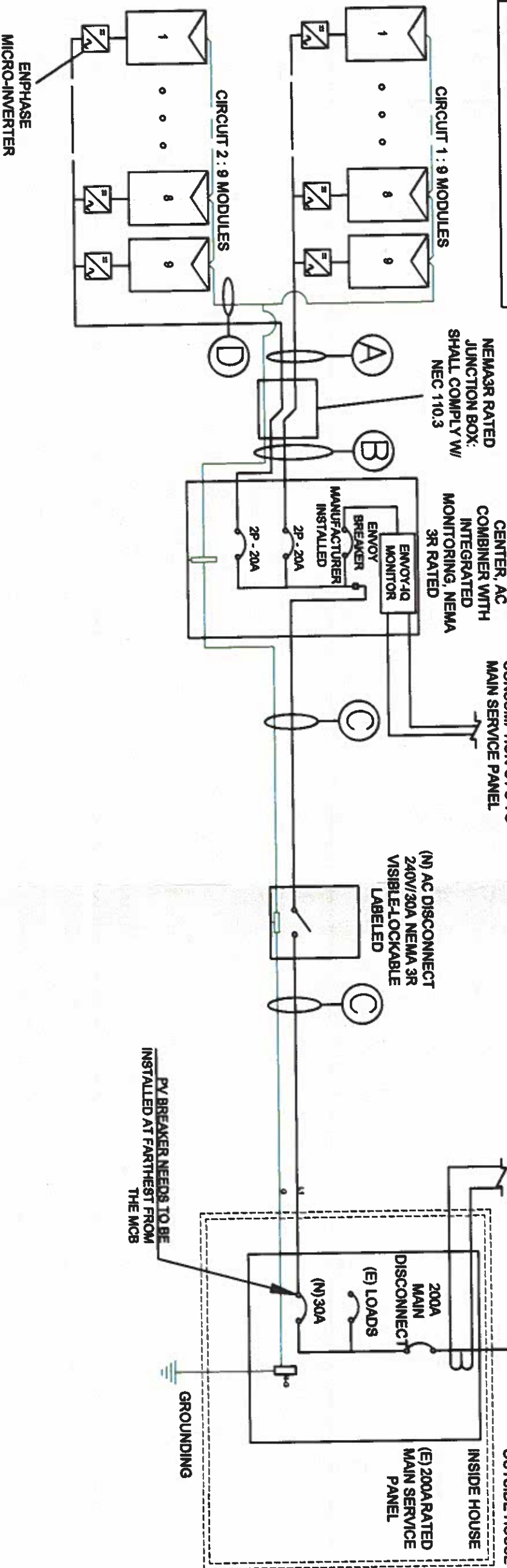
DATE DRAWN	11-10-2022
DRAWN BY	KRUMAL
REVIEWED BY	HARSH
SHEET NAME	STRUCTURAL
SHEET NO.	PV-3.0

PROPOSED SYSTEM SPECIFICATION	
SYSTEM SIZE DC	7.2 KWp
SYSTEM SIZE AC	@300 VA PEAK POWER = 5.4 KWp
SYSTEM SIZE AC	@280 VA MAX. CONT. POWER = 5.22 KWp
MODULES USED	(18) HANWHA Q.PEAK DUO BLK ML-G10+ 400
INVERTER USED	(18) ENPHASE IQ8PLUS-72-2-US
BRANCH CIRCUIT	2 CIRCUITS OF 9 MODULES
RACKING	ECOFASSTEN ROCKIT
FLASHING	COMPOSITE SHINGLE FLASHING

ELECTRICAL SPECIFICATION	
SERVICE PANEL	200A MCB WITH 200A BUSBAR
INTERCONNECTION	PV BACKFEED BREAKER
PV OCPD	30A BREAKER
WIND SPEED	120 MPH
SNOW LOAD	30 LB/SQ.FT.

CONDUIT TAG	QTY	CONDUCTOR INFORMATION	CONDUIT TYPE	CONDUIT SIZE
A	(2)	-	ENPHASE IQ CABLE	NA
B	(4) (1)	#10AWG THHN-2 #8AWG THHN-2 GND	PVC, EMT OR FLEX IN ATTIC	1"
C	(3) (1)	#10AWG THHN-2 #8AWG THHN-2 GND	PVC, EMT OR FLEX IN ATTIC	1"
D	(1)	#8AWG BARE GROUND	NA	NA

THE ENPHASE MICRO-INVERTERS HAVE INTEGRATED GROUND AND DOUBLE INSULATION, SO NO GEC OR EGC IS REQUIRED. THE DC CIRCUIT IS ISOLATED AND INSULATED FROM GROUND AND MEETS THE REQUIREMENTS OF NEC 690.35



# ELECTRICAL LINE DIAGRAM

SCALE: NTS

**Suntuity**

2137 Route 35  
Holmdel, NJ 07733  
Tel: (732) 979-2400  
Fax: (732) 979-2401

**Nicholas Williams**

562 McChesney St Unit B  
Orange City, NJ, 07050  
(Lat, Long: 40.763075, -74.248098)

Signature with Seal  
*Vincent Vellucci*

NAME: VINCENT VELLUCCI  
LICENSE NO: Electric #34EB01572800

REVISIONS				
REV	DESCRIPTION	DATE	DRW BY	REV BY

DATE DRAWN	11-10-2022
DRAWN BY	KRUMAL
REVIEWED BY	HARSH
SHEET NAME	ELECTRICAL LINE DIAGRAM
SHEET NO.	PV-4.0