Town of Long Island

P.O.Box 263 Long Island, ME 04050 207-766-5820
FAX: 207-766-5400
Email: townoflongisland@myfairpoint.net
Website: www.townoflongisland.us

BUILDING PERMIT APPLICATION# 629

LOT# 916 **ZONE**____ **LOT SIZE**_____ **STREET LOCATION** 20 Eastern Ave

OWNER/APPLICANT Paul Ferguson

OWNER/APPICANT ADDRESS 20 Eastern Ave.

TELEPHONE HOME_____ WORK_____ CELL 978-975-2684

CONTRACTOR ReVision Energy

ADDRESS 758 Westbrook St. South Portland, ME 04106

TELEPHONE WORK 207-271-9776 CELL_____ JOB SITE_____

EMAIL kcorey@revisionenergy.com

APPLICATION TYPE

_____NEW PRINCIPAL STRUCTURE _____ADDITION _____RELOCATION

_____NEW ACCESSORY STRUCTURE _X___ALTERATION _____REPLACEMENT

_____REPAIR

PROJECT DESCRIPTION (BRIEF EXPLANATION OF WORK TO BE DONE):

Installation of 26 roof-mounted solar panels

DIMENSIONS OF PROPOSED STRUCTURE 561 square ft

PROPOSED FOUNDATION TYPE:

_____FULL 10' _____FULL 8' _____4' FROST WALL _____PIER _____SLAB

SETBACKS OF PROPOSED STRUCTURES (MUST BE SHOWN ON "REQUIRED" SITE PLAN)

FRONT____FT SIDES____FT/____FT REAR____FT

BUILDING HEIGHT
THE VERTICAL DISTANCE FROM THE AVERAGE ORIGINAL GRADE TO THE TOP OF THE HIGHEST ROOF BEAMS OF A FLAT ROOF, OR TO THE MEAN LEVEL OF THE HIGHEST GABLE OR SLOPE OF GABLE OR HIP ROOF. (MAX 35' ALLOWED)

EXISTING STRUCTURES_____FT PROPOSED STRUCTURES_____FT

FOR STRUCTURES TO BE OCCUPIED OR FOR AN INCREASE IN THE # OF BEDROOMS TO BE SERVICED BY PRIVATE SEPTIC SYSTEM:

OF EXISTING BEDROOMS_____ # OF ADDITIONAL BEDROOMS_____

CEO PERMIT CHECKLIST:
SEASONAL CONVERSION _____YES _____NO
SEPTIC REVIEW NEEDED _____YES _____NO
SEPTIC DESIGN NEEDED _____YES _____NO
EXISTING LOT COVERAGE _____ OVER ON COVERAGE _____YES _____NO

NO BUILDING HEREAFTER ERECTED SHALL BE OCCUPIED OR USED, IN WHOLE OR IN PART, UNTIL A CERTIFICATE OF OCCUPANCY SHALL HAVE BEEN ISSUED BY THE CODE ENFORCEMENT OFFICER.

MINIMUM OF THREE INSPECTION REQUIRED FOR ALL CONSTRUCTION WORK.
1. FOUNDATIONS (FOOTINGS, WALLS, DRAINAGE, WATER PLUG)
2. FRAMING (PRIOR TO COVERING STRUCTURAL MEMBERS)
3. FINAL INSPECTION BEFORE OCCUPANCY

SEPARATE PERMITS ARE REQUIRED FOR ELECTRICAL, PLUMBING AND SHORELAND CONSTRUCTION MAY REQUIRE MAINE DEP PERMIT

THIS PERMIT APPLICATION DOES NOT PRECLUDE THE APPLICANT(S) FROM MEETING APPLICABLE STATE AND FEDERAL RULES.

THIS PERMIT WILL BE COME NULL AND VOID IF CONSTRUCTION IS NOT STARTED WITHIN SIX MONTHS OF PERMIT ISSUE DATE.

I HEREBY CERTIFY THAT I AM THE OWNER OF RECORD OF THE NAMED PROPERTY, OR THAT I HAVE BEEN AUTHORIZED BY THE OWNER TO MAKE THIS APPLICATION AS THEIR AGENT. I AGREE TO CONFORM TO ALL APPLICABLE LAWS OF THIS JURISDICTION. IN ADDITION, IF THIS PERMIT IS ISSUED, I CERTIFY THAT THE CODE OFFICIAL OR HIS REPRESENTATIVE SHALL HAVE THE AUTHORITY TO ENTER ALL AREAS COVERED BY SUCH PERMIT AT ANY REASONABLE HOUR FOR THE PURPOSES OF INSPECTING SAID WORK.

PRINTED NAME Kristine Corey OWNER/AUTHORIZED AGENT

SIGNED Kristine Corey **DATE**_____
OWNER / AUTHORIZED AGENT

APPROVED BY CODE ENFORCEMENT OFFICER _____ **YES** 10/26/21 **NO**

SIGNED_____ **DATE**_____

ESTIMATED COST INCLUDING MATERIALS & LABOR $ $32,700

PERMIT FEE: 220.00 **PAID: CASH**_____ **CHECK#** 202031
(SEE PAGE 4 FOR PERMIT FEE SCHEDULE)

APPLICATIONS FOR PERMITS MUST BE ACCOMPANIED BY THE FOLLOWING:

A site plan drawn to an indicated scale and showing the location and dimensions of all buildings to be erected, the sewage disposal system, driveways and turnarounds, and abutting lot and street lines. The site plan shall accurately represent the relationship between any proposed building or structure or addition to an existing building and all property lines to demonstrate compliance with setback requirements of the Ordinance. If there is any doubt as to the location of a property line on the ground or if the Code Enforcement Officer cannot confirm that all setback requirements are met from the information provided, the Code Enforcement Officer may require the applicant to provide a boundary survey or mortgage inspection plan.

SITE PLAN

LONG ISLAND BUILDING PERMIT FEE SCHEDULE
EFFECTIVE: MAY 9, 2009

I. Construction work:

New construction – entire area: **.30/per sq. ft.**

Minimum permit fee: **$30.00**

Any other construction (ex. dormer, alterations, etc.): Fee will be based upon $30.00 minimum for 1st $1,000 - $6.00 per $1,000 additional – according to a total cost of materials and labor.

Belated Fee: **Double permit fee**

Amendments to permit
Up to $2,000 of cost **$30.00**
Over $2,000 of cost **$30.00**
+ $6.00 per every $1,000 of total cost

II. Fees for specific items:

A. Change of use permit: **$60.00**

B. Demolitions: **$30.00 – 1st $1,000**
+ $6.00 per every $1,000 of total cost

C. Moving building: **$30.00 – 1st $1,000**
+ $6.00 per every $1,000 of total cost

III. Fees in lieu of cost of work:

A. Signs: **$30.00**

B. Tanks: **$50.00**
propane gas, gasoline, fuel oil (300 gallons or more)
Removal: **$15.00**

C. Parking lots: **$110.00**

D. Fire alarms
& Sprinkler Systems: **$ 30.00**

Except as otherwise provided herein, permit fees shall be based upon estimated total cost of materials and labor at the rate of $30.00 minimum for 1st $1,000 - $6.00 per $1,000 additional, for any other structure altered, constructed or demolished.

REVISED 06/09

PROJECT SUMMARY:

THE PROJECT SCOPE INCLUDES THE DESIGN, SPECIFICATION, PROCUREMENT, INSTALLATION AND COMMISSIONING OF A COMPLETE, TURN-KEY, GRID-TIED PHOTOVOLTAIC ELECTRIC SYSTEM.

MODULE TYPE	(26) REC360TP4
INVERTER	(26) ENPHASE IQ7PLUS-72-2-US
OPTIMIZER	()
ARRAY PITCH	25°
ARRAY AZIMUTH	90, 180, 270°
RACKING	BLACK IRONRIDGE XR100 ALUMINUM RAIL
ATTACHMENT	ECOSFASTEN GREENFASTEN GFI WITH SS 5"X 5/16" LAG SCR-WS

AUTHORITIES HAVING JURISDICTION:

BUILDING AUTHORITY	LONG ISLAND ME
ELECTRICAL AUTHORITY	LONG ISLAND ME
ZONING/PLANNING AUTHORITY	LONG ISLAND ME
ELECTRICAL UTILITY	CENTRAL MAINE POWER

DESIGN CRITERIA:

OCCUPANCY	RESIDENTIAL
DESIGN WIND LOAD	107 MPH
RISK CATEGORY	I
GROUND SNOW LOAD	50 PSF
EXPOSURE CATEGORY	C
ROOF HEIGHT	12' ABOVE GRADE TO EAVES
ROOF COMPOSITION	ASPHALT SHINGLE
RAFTER	
RAFTER SPACING	

SHEET LIST:

GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH LOCAL AND STATE ORDINANCES AND BUILDING CODES.
2. ELECTRICAL INSTALLATION SHALL COMPLY WITH STATE AND LOCALLY ADOPTED ELECTRICAL CODE.
3. ROOFTOP PENETRATIONS SHALL BE SEALED.
4. ALL EQUIPMENT SHALL BE LISTED AND TESTED BY A RECOGNIZED LABORATORY.
5. MODULE CONNECTORS MUST BE MATCHING BRAND AND TYPE OR BE A UL LISTED ASSEMBLY.
6. SYSTEM SHALL CONFORM TO RAPID SHUTDOWN REQUIREMENTS PER NEC 690.
7. CONDUIT RUNS BETWEEN SUB-ARRAYS, COMBINERS, AND DISCONNECTS SHALL BE INSTALLED IN THE MOST DIRECT ROUTE POSSIBLE.
8. ELECTRICAL EQUIPMENT SHALL BE INSTALLED TO MAINTAIN CLEARANCES REQUIRED BY NEC 110.
9. EQUIPMENT SHALL BE LABELED PER NEC 2017 (NH) OR NEC 2020 (MA, ME) REQUIREMENTS.
10. ENSURE INVERTER IS SET TO ISO-NE STANDARDS.

REVISION ENERGY

758 WESTBROOK STREET
SOUTH PORTLAND, ME 04106
(207)-221-6342

CLIENT:

PAUL FERGUSON
20 EASTERN AVENUE
LONG ISLAND ME, 04050

SYSTEM TYPE:

9.36KW DC GRID TIED SOLAR PHOTOVOLTAIC SYSTEM WITH BATTERY BACKUP

FOR CONSTRUCTION

DESIGNED BY:	IAL
REVISION:	1
PRINT SIZE:	11" X 17"
DATE:	10/5/2021

DWG TITLE:

TITLE SHEET

DWG NUMBER:

G001

PROJECT SUMMARY:

THE PROJECT SCOPE INCLUDES THE DESIGN, SPECIFICATION, PROCUREMENT, INSTALLATION AND COMMISSIONING OF A COMPLETE, TURN-KEY, GRID-TIED PHOTOVOLTAIC ELECTRIC SYSTEM.

MODULE TYPE	(26) REC360TP4
INVERTER	(26) ENPHASE IQ7PLUS-72-2-US
OPTIMIZER	0
ARRAY PITCH	25°
ARRAY AZIMUTH	90, 180, 270°
RACKING	BLACK IRONRIDGE XR100 ALUMINUM RAIL
ATTACHMENT	ECOFASTEN GREENFASTEN GFI WITH SS 3"X 5/16" LAG SCREWS

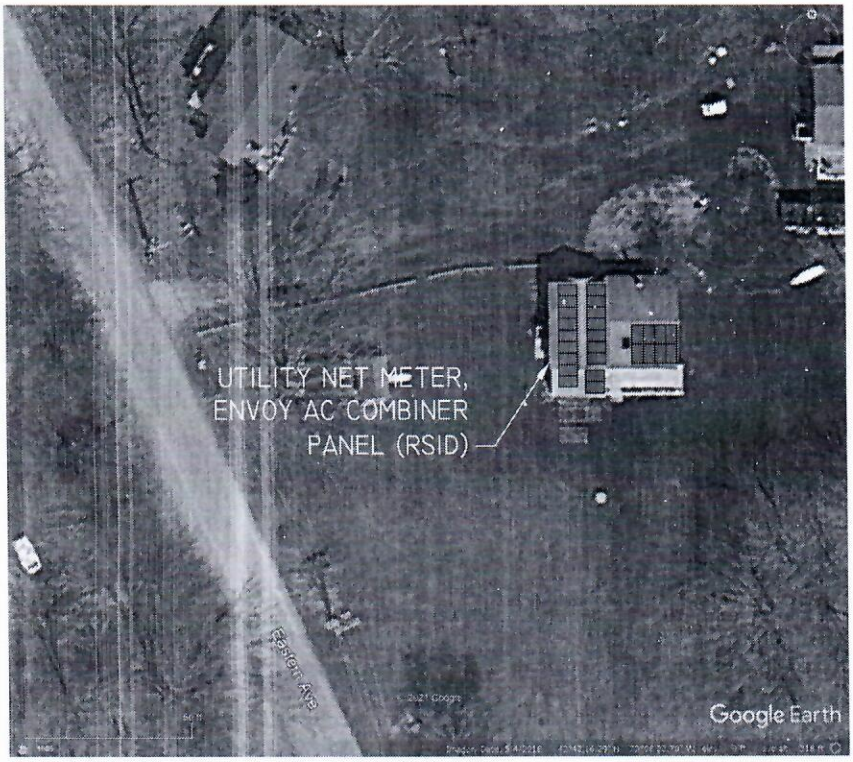
DESIGN CRITERIA:

OCCUPANCY	RESIDENTIAL
DESIGN WIND LOAD	107 MPH
RISK CATEGORY	I
GROUND SNOW LOAD	50 PSF
EXPOSURE CATEGORY	C
ROOF HEIGHT	12' ABOVE GRADE TO EAVES
ROOF COMPOSITION	ASPHALT SHINGLE
RAFTER	
RAFTER SPACING	

EQUIPMENT LOCATIONS:

INTERIOR:
- MAIN LOAD CENTER
- JUMIN SMART PANEL
- TESLA POWERWALL

EXTERIOR:
- UTILITY NET METER
- TESLA GATEWAY
- ENVOY PV AC COMBINER PANEL (RSID)



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FOR CONSTRUCTION

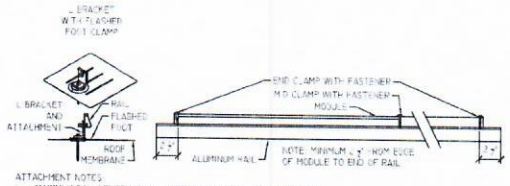
DESIGNED BY:	IAL
REVISION:	0
PRINT SIZE:	11" X 17"
DATE:	9/15/2021

DWG TITLE:

SITE PLAN

DWG NUMBER:

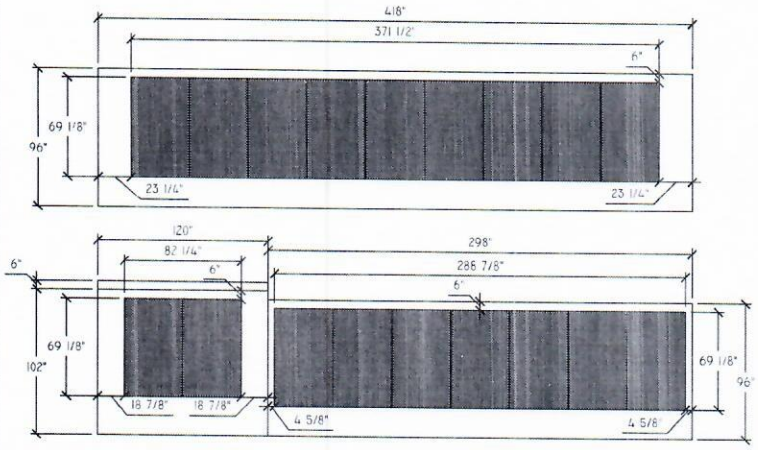
A001

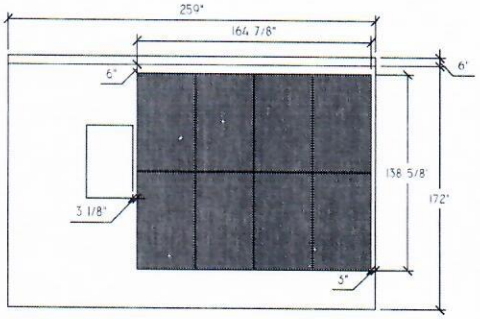


ATTACHMENT NOTES:

1. MAXIMUM RAIL LENGTH IS 100' BEFORE EXPANSION GAP IS REQUIRED.
2. MAXIMUM RAIL SPAN IS TYPICALLY 4'. THIS DISTANCE WILL VARY BASED ON ROOF SLOPE, SNOW LOAD, WIND SPEED, AND EXPOSURE CATEGORY.
3. MAXIMUM RAIL CANTILEVER DISTANCE IS 0.4 X A RAIL SPAN.
4. SEAL ALL ATTACHMENT POINTS WITH GEOSEAL. SEALS SHALL BE WATERTIGHT BETWEEN THE ATTACHMENT BRACKETS, ROOF MATERIAL AND STRUCTURAL MEMBERS.
5. ROOF ATTACHMENTS SHALL BE STAGGERED FOR EVEN DISTRIBUTION OF LOAD ON ROOF RAFTERS.
6. CLEARANCE BETWEEN ROOF AND BOTTOM OF MODULES SHALL BE A MINIMUM OF 2".

A	ROOF ATTACHMENT DETAIL
N.T.S.	





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FOR CONSTRUCTION

DESIGNED BY	IAL
REVISION	0
PRINT SIZE	11" X 17"
DATE	10/15/2021

DWG TITLE:

MODULE LAYOUT

DWG NUMBER:

A002

MODULE SPECIFICATIONS		
REC360TP4, QTY 26		
STC RATING	360	W
VMP	33.9	V
IMP	10.62	A
VOC	40.6	V
ISC	11.26	A
TEMP COEFF. VOC	-0.26	%/°C

MODULE-LEVEL DC OPTIMIZER SPECIFICATIONS		
QTY		
NOMINAL DC RATING (WATTS)	#N/A	W
MAX OUTPUT CURRENT (DC)	#N/A	A

GRID TIED INVERTER SPECIFICATIONS		
ENPHASE IQ7PLUS-72-2-US QTY 26		
NOMINAL AC RATING	290	W
NOMINAL VAC	240	V
MAX IAC	1.2	A
CEC EFFICIENCY	97.00%	%

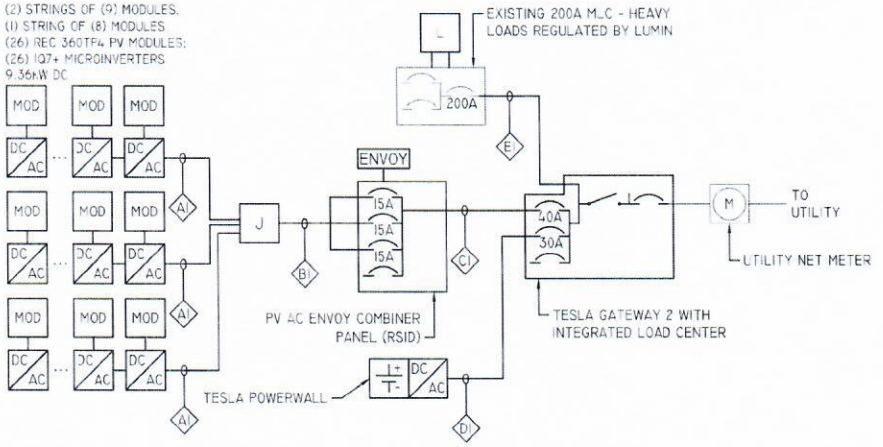
STICKER CALCULATIONS	
MAXIMUM DC VOLTAGE	425
MAXIMUM CIRCUIT CURRENT	40A
RATED AC OUTPUT CURRENT	31.2A
NOMINAL OPERATING AC VOLTAGE	240V

WIRING SCHEDULE								
TAG	FROM / TO	CONDUCTORS	WIRE TYPE	LENGTH (FT)	ADJUSTED LENGTH (FT)	VOLTAGE DROP	CONDUIT	CONDUIT FILL
A1	PV ARRAY / JUNCTION BOX	ENPHASE TRUNK CABLE	THWN-2 600V CU	40		0.15%		
B	JUNCTION BOX / ENVOY COMBINER	(16) #10 + (1) #10	THWN-2 600V CU	30		0.33%	3/4" EMT	24%
C1	ENVOY COMBINER	L1(2) #8, N #8, G #10	THWN-2 600V CU	5		0.06%	3/4" EMT	22%
D	POWERWALL / GATEWAY	L1(2) #10, N #10, G #10	THWN-2 600V CU	20		0.48%	3/4" EMT	16%
E1	METER / GATEWAY	4/0 ALUMINUM SER CABLE	XHHW-2 600V AL	5		0.06%		

MONITORING	HOME ROUTER

SYMBOLS:

MOD — PV MODULE
MLPE — MODULE LEVEL POWER ELECTRONIC / OPTIMIZER
DCC — DC COMBINER AND DC DISCONNECT
DC/AC — PV DC TO AC INVERTER
FUSED DISCONNECT SWITCH
NON-FUSED DISCONNECT SWITCH
60A — ENCLOSED CIRCUIT BREAKER
M — POWER METER
BATTERY
SMM — SMART MANAGEMENT MODULE



DESIGN NOTES:

1. ALL CONDUCTORS SHALL BE COPPER UNLESS NOTED OTHERWISE.
2. SYSTEM VOLTAGE DROP SHALL NOT EXCEED 5%
3. LOWEST EXPECTED AMBIENT TEMPERATURE IS BASED ON ASHRAE EXTREME MIN FOR THE SPECIFIED LOCATION.
4. AVERAGE HIGH TEMPERATURE IS BASED ON ASHRAE 2% AVG. FOR THE SPECIFIED LOCATION.

LINE TYPES:

- – – DEMOLITION
- ..... EXISTING
- ——— NEW

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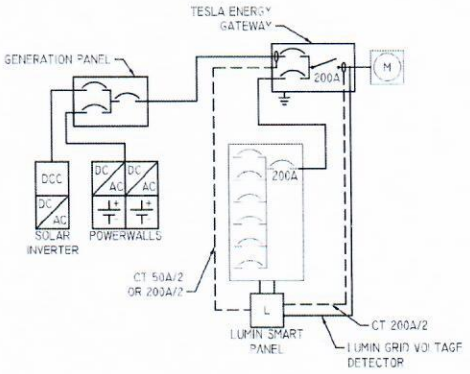
FOR CONSTRUCTION

DESIGNED BY	IAL
REVISION	0
PRINT SIZE	11" X 17"
DATE	10/15/2021

DWG TITLE:
ONE LINE AND EQUIPMENT SPECIFICATIONS

DWG NUMBER:
E001

LSP LINE #	PHASE (CIRCLE ONE)	CIRCUIT BREAKER LABLE/NAME	LSP LINE #	PHASE (CIRCLE ONE)	CIRCUIT BREAKER LABLE/NAME
1	A		7	A	
	B			B	
2	A		8	A	
	B			B	
3	A		9	A	
	B			B	
4	A		10	A	
	B			B	
5	A		11	A	
	B			B	
6	A		12	A	
	B			B	
		CURRENT TRANSFORMER (CT)			CURRENT TRANSFORMER (CT)
LINE A/B CTS (200A)			AUX. A/B CTS (50A/200A) (CIRCLE ONE)		



TYPICAL INSTALLATION

DESIGN NOTES:

1. VERIFY THAT CTS ARE INSTALLED IN CORRECT DIRECTION
2. LSP WIRES LABELED "LINE #A" CAN CONNECT TO CIRCUIT BREAKERS RATED UP TO 60 AMPS FOR LINES 1-6 (6 AWG WIRES) AND TO CIRCUIT BREAKERS RATED UP TO 30 AMPS FOR LINES 7-12 (10 AWG WIRES)

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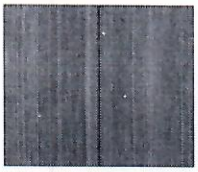
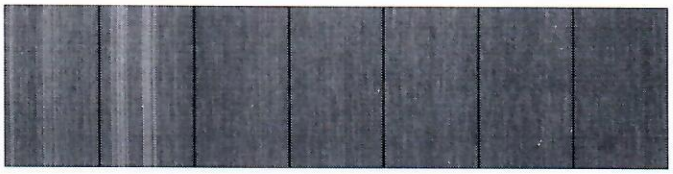
FOR CONSTRUCTION

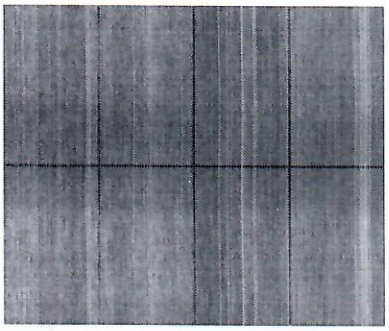
DESIGNED BY	IAL
REVISION	0
PRINT SIZE	11" X 17"
DATE	10/5/2021

DWG TITLE:
LUMIN PANEL DETAILS

DWG NUMBER:
E002







INVERTER STICKER HERE

STRING AND STICKER MAP

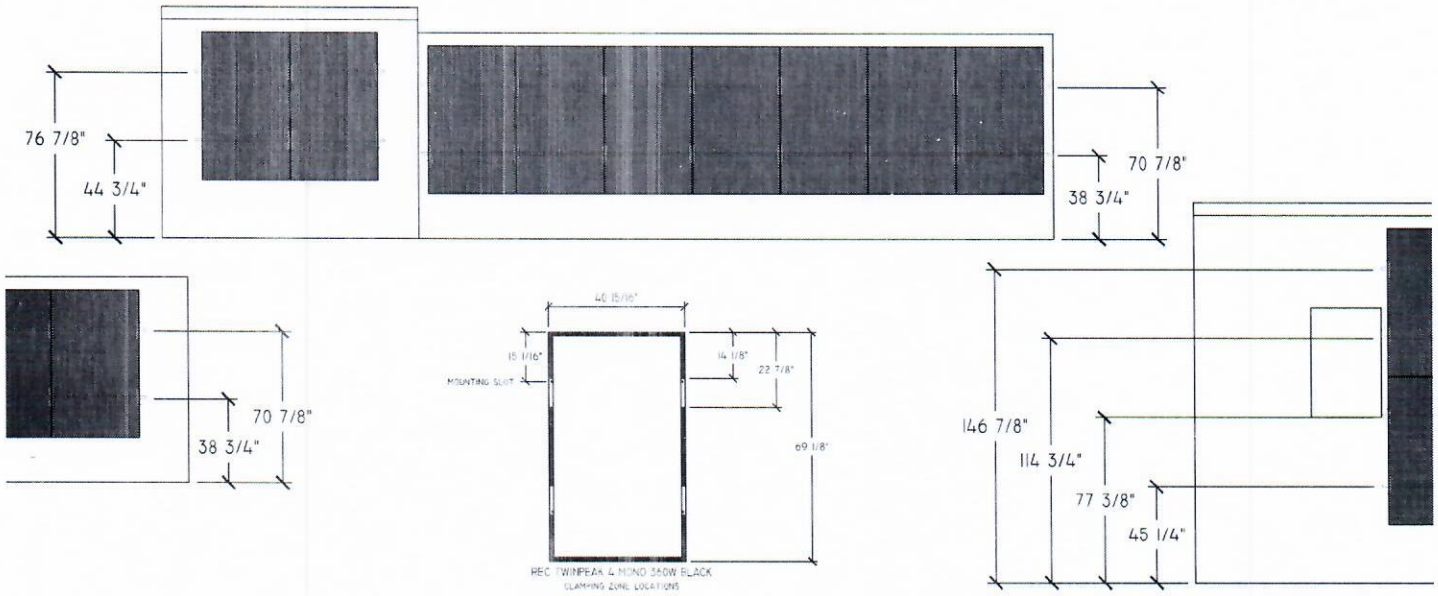
PLEASE CONNECT MODULES AS STRUNG. PLEASE SHOW ROOF PENETRATIONS.

PAUL FERGUSON
20 EASTERN AVENUE
LONG ISLAND ME, 04050

SUMMARY			
TYPE	PRODUCT	DIMENSIONS	QUANTITY
MODULE:	REC360TP4	40.94IN X 69.09IN	26
RAIL:	IRON RIDGE XR100 - 17'	204 IN	(4) FULL (10) CUT
FASTENERS:	IRON RIDGE UFO	0.375 IN	62 MIN

INVERTER	WATTS / STRING	MAX MODS PER STRING
ENPHASE IQ7PLUS-72-2-US	0	0

RAIL LENGTH									CUT LIST	
RAIL SECTION TAG	NUMBER OF RAIL SECTIONS	QTY OF PANELS IN SECTION	RAFTER SPACING	MODULE ORIENTATION	RAIL ORIENTATION	RAIL LENGTH (IN)	FULL STICKS	CUT PIECE (IN)	RAIL LENGTH (IN)	QTY
P2	2	2	24"	PORTRAIT	HORIZONTAL	87 1/4	0	(1) 87 1/4	FULL (17')	4
P4	4	4	24"	PORTRAIT	HORIZONTAL	169 7/8	0	(1) 169 7/8	87 1/4	2
P7	2	7	24"	PORTRAIT	HORIZONTAL	295 7/8	1	(1) 89 7/8	169 7/8	4
P9	2	9	24"	PORTRAIT	HORIZONTAL	376 1/2	1	(1) 172 1/2	89 7/8	2
									172 1/2	2



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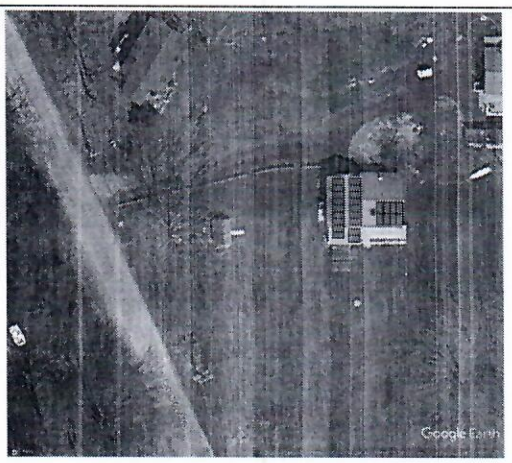
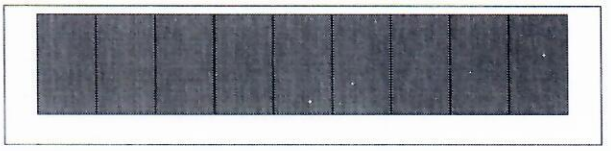


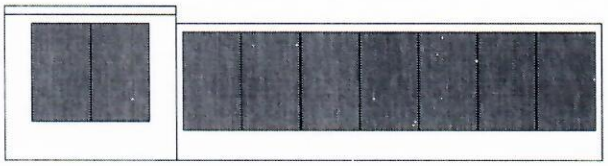
SAFETY SHEET NOTES:

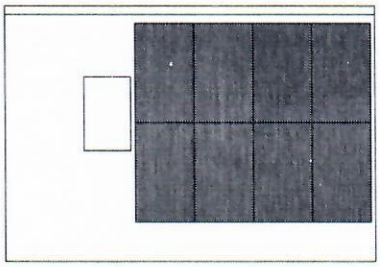
1. Draw in approximate anchor locations and swing radius.
2. Draw in Approximate Restricted Access Zone (Rule of Thumb 10' for every story of building)
3. Draw in Machinery or personnel access paths.

ANCHOR POINT ATTACHMENT NOTES:

1. Anchor Points requiring fasteners must be installed into building structure (rafters or purlins)
2. Anchor Points to be installed a minimum of 72" from roof rake.
3. Maximum spacing between anchor points 5'-90"
4. Leave behind anchor to be installed under the left and top right panels to facilitate safe roof Exit.
5. 3 minimum anchors per roof.
6. Anchor point II (one person per anchor point at a time)
7. Work is to be done within while within 30 degrees of anchor.







REVISION ENERGY

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SOUTH PORTLAND, ME 04106
(207)-221-6342

CLIENT:

PAUL FERGUSON
20 EASTERN AVENUE
LONG ISLAND ME, 04050

SYSTEM TYPE:

9.36KW DC GRID TIED SOLAR PHOTOVOLTAIC SYSTEM WITH BATTERY BACKUP

FOR CONSTRUCTION

DESIGNED BY:	SL
REVISION:	0
PRINT SIZE:	17" X 11"
DATE:	01/15/202
DWG TITLE:	SAFETY SHEET
DWG NUMBER:	