

# ARCHITECTURAL & PRELIMINARY SITE PLAN REVIEW BOARD

MICHAEL F. LONGOBARDI – VILLAGE TRUSTEE LIAISON TIMOTHY T. TWEEDY, P.E. – CHAIRMAN JOHN LOCKWOOD ANTHONY KRUZYNSKI ROGER KUEHNLENZ EDWARD CHATTERTON

RENEE MARCUS, AIA – SUPERINTENDENT OF BUILDINGS LUCILLE LANGONE – SECRETARY

> MAY 17, 2023 8:00 pm

Note Location: Village Hall – Fire Fighters Hall, 2<sup>nd</sup> Floor

Case No.	Approximate Time	Address #	Street	Description	Owner	Design Professional
1	8:00 p.m.	215	Cypress Street	Re-submission - Awning over Rear Stoop	Raimonda and Saimir Kryeziu	
2	8:05 p.m.	17	Ward Street	In-Ground Pool	John Ring	ASB Engineering
3	8:10 p.m.	143	Tulip Avenue	Storefront	Janet Decker	John J. Tacetta
4	8:15 p.m.	25	North Tyson Avenue	Solar	Olvin Serrano	Venture Home Solar
5	8:20 p.m.	11	Ash Street	Solar	Fatima Hoque	Sunrun
6	8:25 p.m.	24	Cedar Place	Solar	Nico Cappuccio	Momentum Solar
7	8:30 p.m.	96	Charles Street	Solar	Wing Chung	All Air Specialists Inc.
8	8:35 p.m.	266	Whittier Avenue	Re-submission - Brick Color Change	Rajinder Kaur	M. Azeem PE

Questions about the projects can be emailed to <a href="mailto:ARB@FPVillage.org">ARB@FPVillage.org</a> prior to the meeting to allow for the Village and Applicant to be prepared with answers.

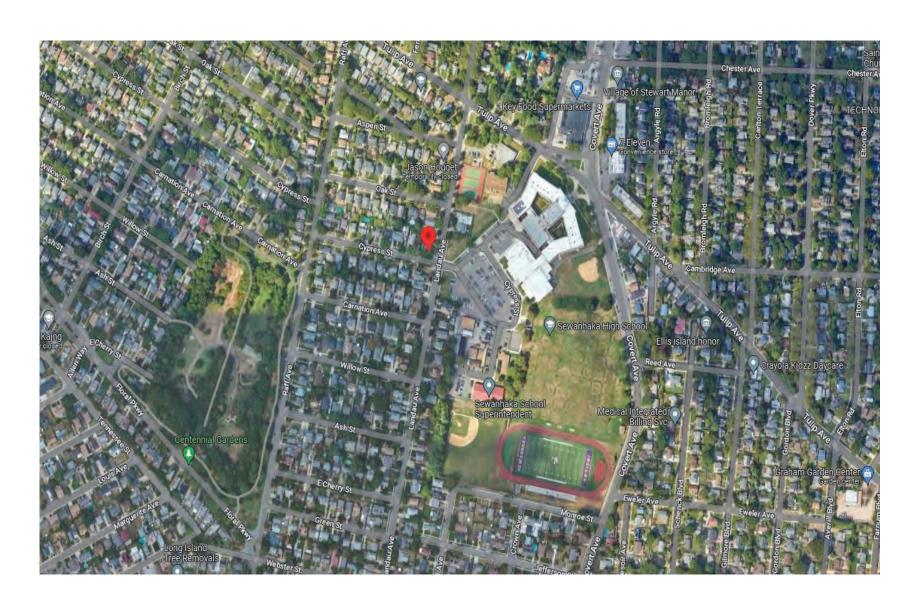
Supporting documents will be posted to the Architectural Review Board web page at least 24 hours prior to the meeting.

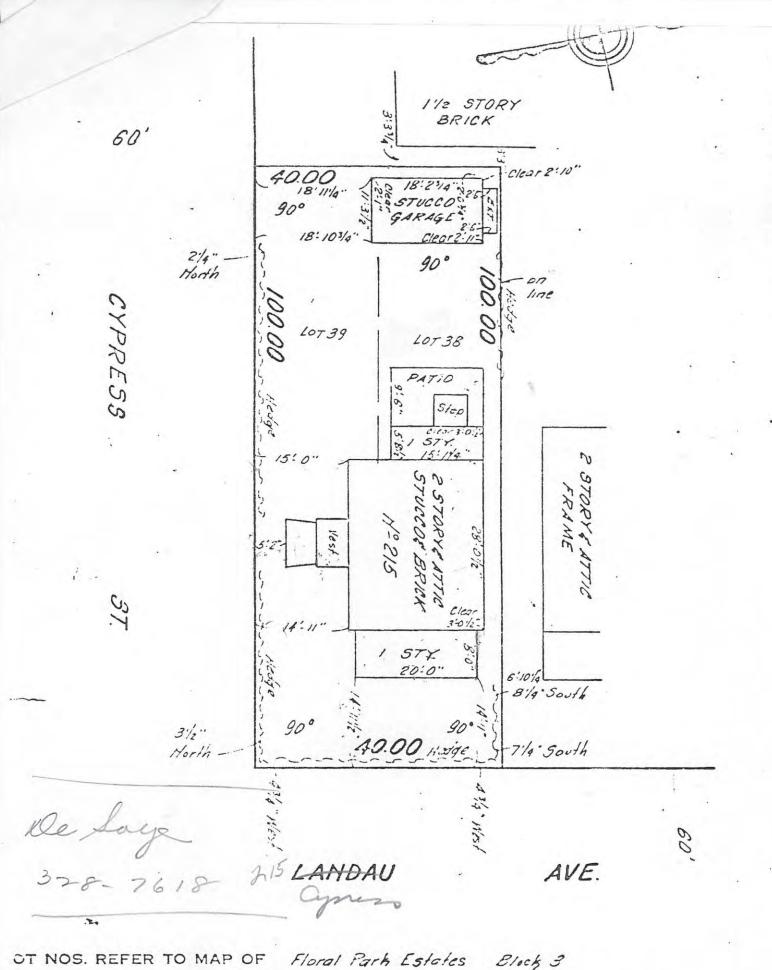
Click <u>here</u> for the ARB webpage.

Case No.	Approximate Time	Address #	Street	Description	Owner	Design Professional
1	8:00 p.m.	215	Cypress Street	Re-submission - Awning over Rear Stoop	Raimonda and Saimir Kryeziu	



# 215 Cypress Street (Aerial View)





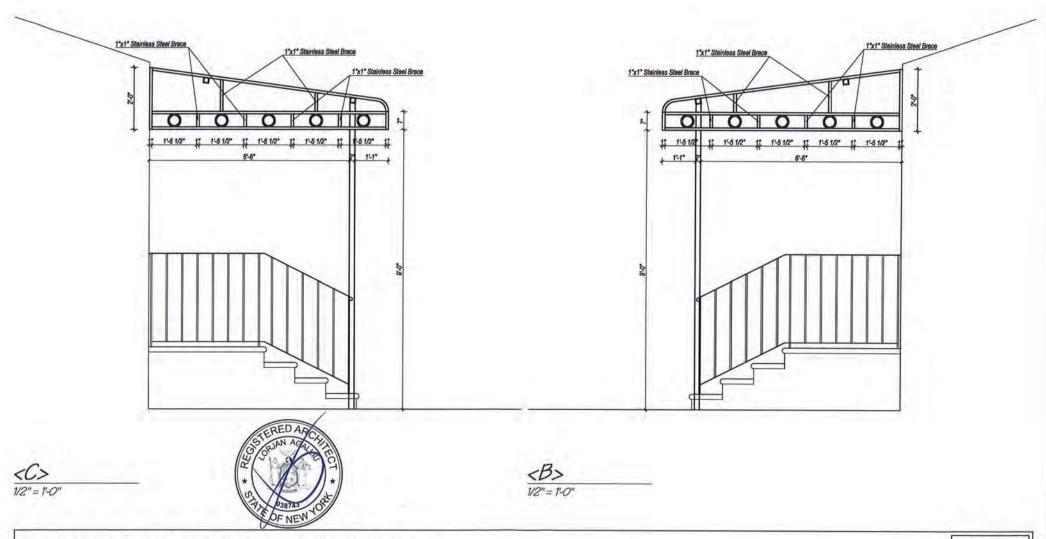
CT NOS. REFER TO MAP OF Floral Park Estates Block 3

CUARANTEED TO The Title Guarantee Company

Jamaica Savings Bank

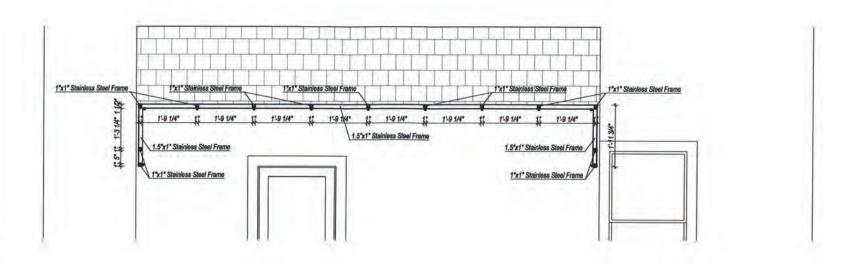
Jamaica Savings Bank

MILLIAM H. PARRY, INC.

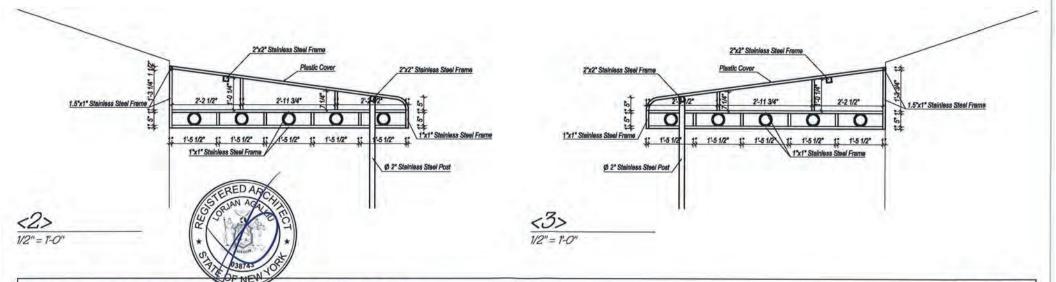


AWNING STRUCTURE AT BACKYARD
215 Cypress St Floral Park NY 11001

A-2.2



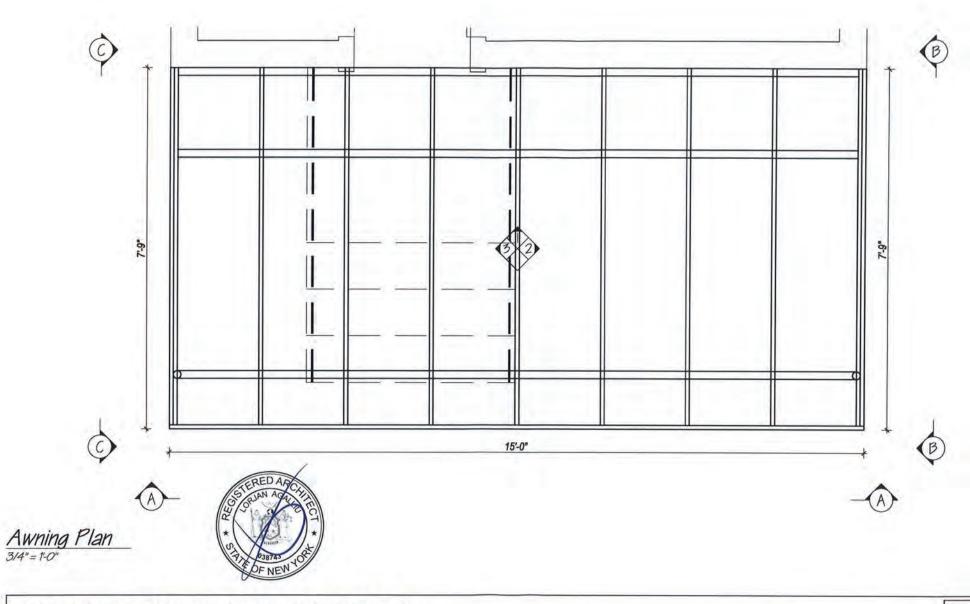




AWNING STRUCTURE AT BACKYARD

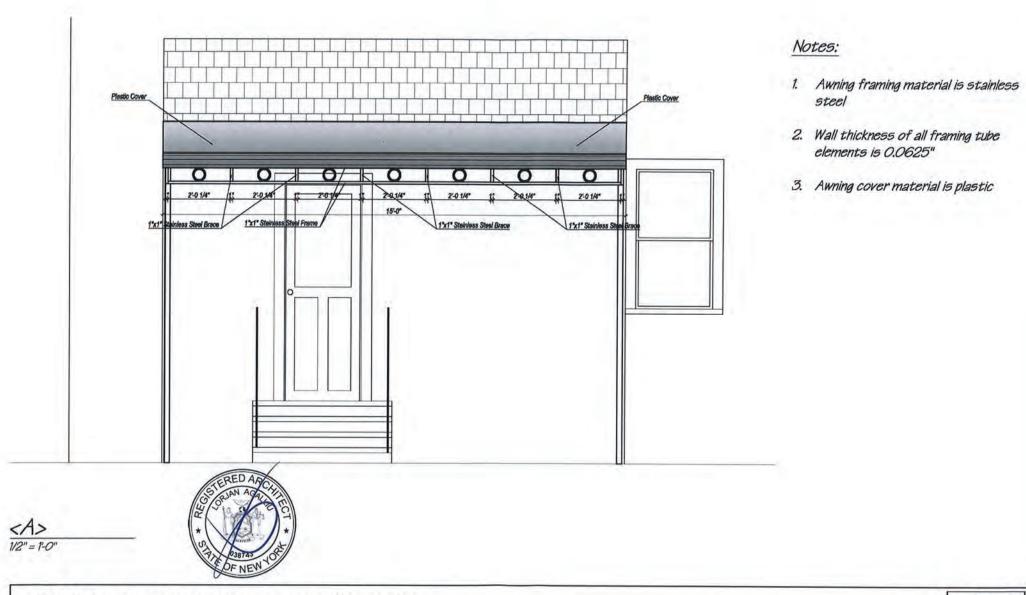
215 Cypress St Floral Park NY 11001

A-3.1



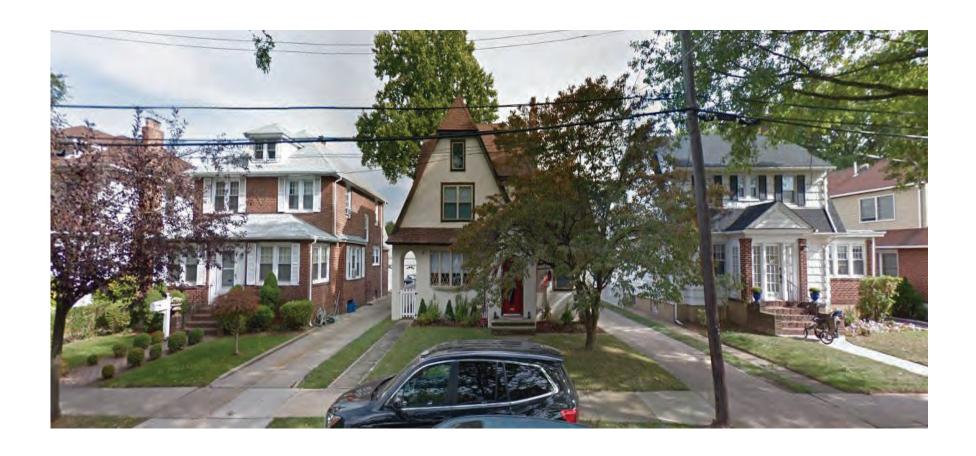
AWNING STRUCTURE AT BACKYARD
215 Cypress St Floral Park NY 11001

A-1.1

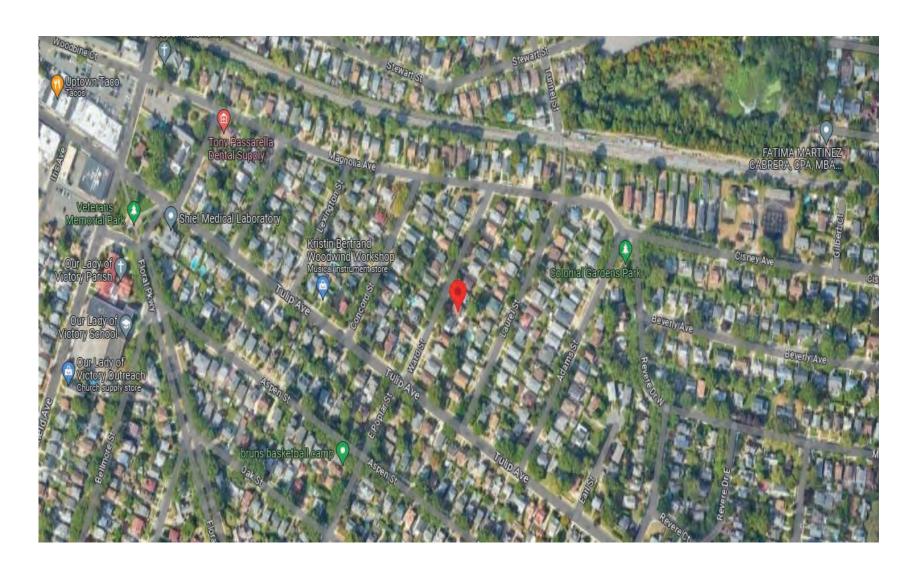


AWNING STRUCTURE AT BACKYARD 215 Cypress St Floral Park NY 11001 A-2.1

Case No.	Approximate Time	Address #	Street	Description	Owner	Design Professional
2	8:05 p.m.	17	Ward Street	In-Ground Pool	John Ring	ASB Engineering



# 17 Ward Street (Aerial View)



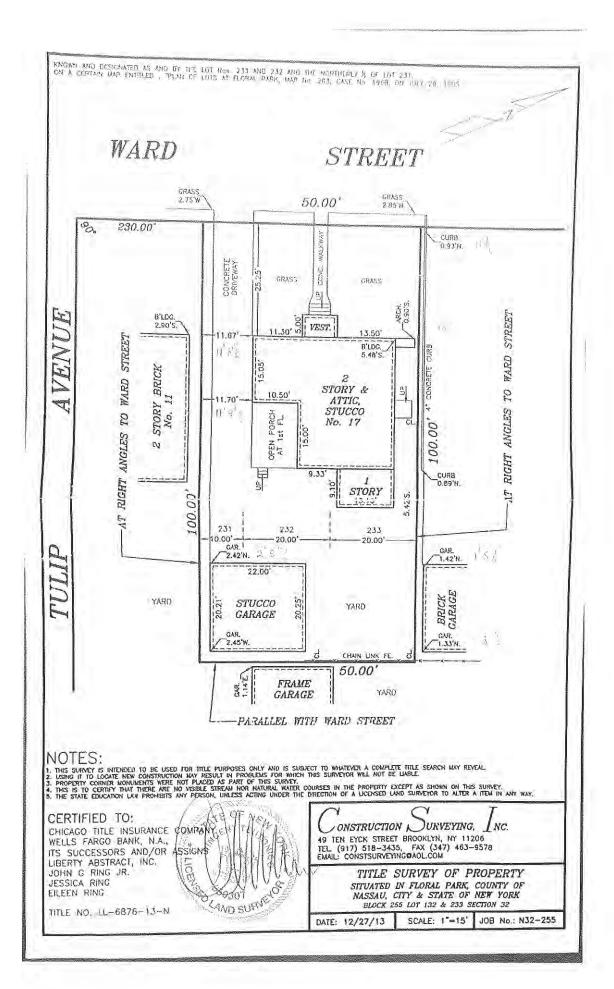












UT THE HOUSE DITIONS, AND CH AS WARD STREET 3 (SUCH ιN `15 S) MUST BE 50.00 GRASS GRASS, THE BARRIER. CONCRETE DRIVEWAY 2 STORY IN OUT (DG) & ATTIC, STUCCO AND SIX INCHES THE POOL. THE DOUBLE GATE -WITH LOCKABLE PIN OPEN PORCH 1ST FLOOR 'UMPING OF ,00 ) AFTER JST BE EMPTIED A DURING  $\bigcirc$  $\bigcirc$ MAINTAINING A DRY (w) REAR YARD O THE POOL. GATE OPEN 1 STORY PROPOSED 4' DIA. CONCRETE X 5' DEEP DRYWELL **EXISTING TREES ON NEIGHBORS** (SEE DETAIL ON AQ-1) PROPERTY AS SCREENING REAR YARD 2235 SF NEIGHBOR'S EXISTING 4' HIGH GREEN GIANT TREES SPACED AT 14'x22' 3'-0" O.C. FOR SCREENING BRICK GARAGE STUCCO P` GARAGE REAR ZONING (99-25) Pool not to exceed 15% of rear yard PLANTER EXISTING 4' PVC FENCE Rear Lot 2235 sf Proposed Pool 308 sf 13.8 % OK  $\mathsf{FRAME}$ EXISTING TREES ON NEIGHBORS GARAGE PROPERTY AS SCREENING

PLOT PLAN
SCALE: 1"=10'-0"

LEGEND

→ FENCE

OOR WHICH: HE DOOR AND F 30 SECONDS

### **GENERAL NOTES:**

THE ENGINEER HAS BEEN RETAINED ONLY FOR THE PURPOSE OF FILING THE PLANS TO OBTAIN A PERMIT AND HAS NOT BEEN RETAINED FOR ANY SUPERVISION OR OBSERVATION OF THE WORK, AND HIS RESPONSIBILITY IS LIMITED TO THE ACCURACY OF THE PLANS. THESE DRAWINGS ARE FOR BUILDING DEPT. USE ONLY.

NOTED DIMENSIONS SHALL TAKE PRECEDENCE OVER THOSE SCALED.

ANY OMISSIONS OR CHANGES IN THESE DRAWINGS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO ALL CONSTRUCTION AND/OR INSTALLATIONS BY THE CONTRACTOR.

THE CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD.

THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND LITHLITY PIPING PRIOR TO THE PROPOSED CONSTRUCTION

EXCAVATION.

EVERY RESIDENTIAL AND COMMERCIAL SWIMMING POOL SHALL HAVE SWIMMING POOL ALARMS WHICH COMPLY WITH THE REQUIREMENTS SET FORTH IN THE CURRENT NEW YORK STATE UNIFORM FIRE PREVENTION BUILDING CODE, AND NYS 2020 UNIFORM CODE SUPPLEMENT, SUBJECT TO THE EXCEPTIONS SET FORTH THEREIN.

THE POOL SHALL BE EQUIPPED WITH A COVER APPROVED BY THE BUILDING DEPARTMENT OF THE TOWN AND SHALL BE OF SUFFICIENT STRENGTH TO PROTECT AGAINST ACCIDENTAL ENTRY INTO THE POOL. THE POOL SHALL BE COVERED AT ALL TIMES WHEN CONTAINING WATER AND NOT IN USE.

ALL ELECTRICAL WORK SHALL COMPLY WITH ARTICLE 680 (NATIONAL ELECTRIC CODE) AND AN APPROVED ELECTRICAL INSPECTION CERTIFICATE MUST BE SUBMITTED PRIOR TO ISSUANCE OF CERTFICIATE OF COMPLETION.

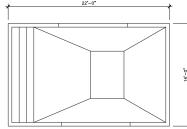
THE POOL SHALL BE FILLED MANUALLY WITH A GARDEN TYPE HOSE FED FROM A HOSE BIB WITH A VACUUM BREAKER. THERE WILL BE NO DIRECT WATER CONNECTION TO THE POOL

THE CONTRACTOR SHALL BRACE, SHORE, REINFORCE, AND/OR UNDERPIN ALL NEIGHBORING STRUCTURES AS REQUIRED FOR SAFE OPERATION.

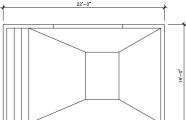
ALL SITE DEVELOPMENT INCLUDING RETAINING WALLS. SIDEWALKS, PLANTINGS, ETC. BY

ALL PLUMBING TO BE INSTALLED BY A LICENSED PLUMBER IN ACCORDANCE WITH THE NYS BUILDING CONSTRUCTION CODE.

DURING CONSTRUCTION OF THE POOL, A TEMPORARY BARRIER SHALL BE INSTALLED WITH A MINIMUM HEIGHT OF 4'0".



POOL PLAN SCALE: 1/4"=1'-0'





ACT-750 ACT-1100 ACT-1500 ACT-1750 ACT-1250W/C SCROLL SCROLL SCROLL SCROLL SCROLL 10.00 20 - 70 fe-.61 20/20 20-70 199-90 290 manus (Bridge ) \$8200 93,000 186,000 128/000 **(26/mi)** 51 3.4 14.0 58



ELECTRIC HEATER SPECIFICATIONS



All Drawings, Specifications and the design expressed therein are the sole property of ASB Engineering, P.C. They are to be used only with respect to this Project and are not to be copied or reproduced without written permission of ASB Engineering, P.C.

ALL DIMENSIONS

ARE TO BE FIELD VERIFIED

17 WARD STREET

FLORAL PARK, NY 11001

COLINTY OF NASSALL

STATE OF NEW YORK

RING

RESIDENCE

SECTION 32 255 132 BLOCK LOT

- 11	ISSUED FOR:						
- 11		ILDING D	EPT.				
- 11							
- 11	Н						
- 11	H						
- 11	Н						
- 11							
- 11	$\overline{}$						
- 11							
- 11							
- 11	<b>!</b> —						

PROJECT NO.	
DATE	05-06-23
SCALE	AS NOTED
DOLUMI DV	10



1924 Bellmore Avenue Phone: (516)785-4200 Fax: (516) 785-9148

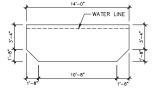


DRAWING:

GENERAL NOTES. POOL PLAN, CROSS SECTIONS, ELECTRICAL HEATER SPECIFICATIONS & DETAILS

PROPOSED INGROUND SWIMMING POOL

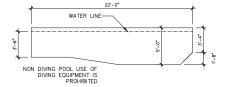
AQ-2



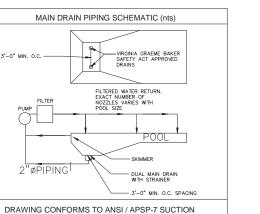
POOL CROSS SECTION "A"



POOL CORNER WALL DETAIL

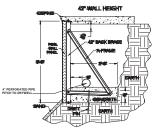


POOL CROSS SECTION "B"



POOL DRAIN DETAIL SCALE: NOT TO SCALE

ENTRAPMENT AVOIDANCE CODES.

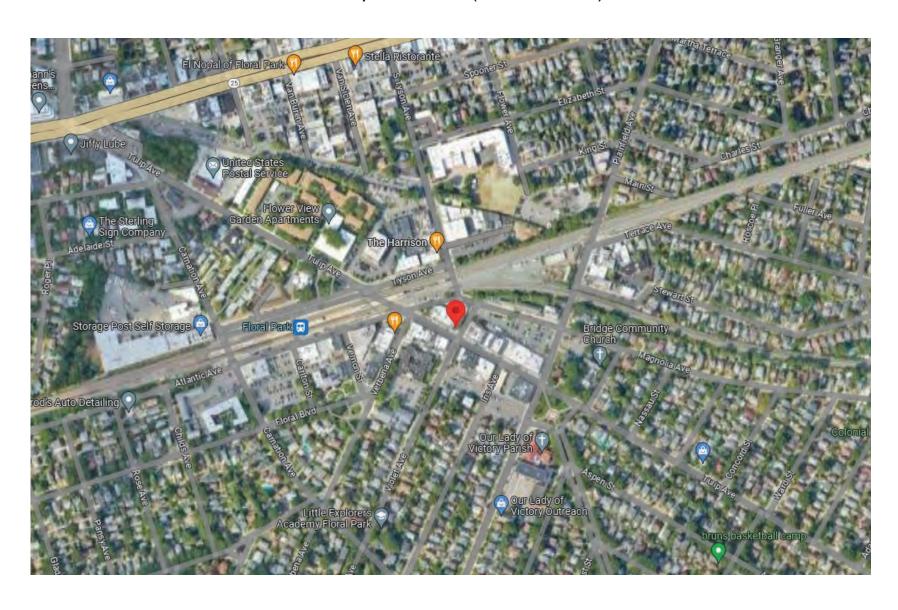


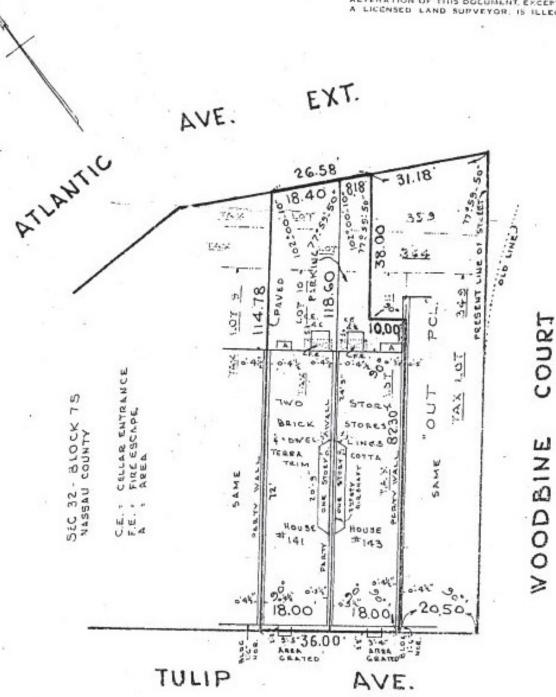
IN-GROUND WALL DETAIL SCALE: NOT TO SCALE

Case No.	Approximate Time	Address #	Street	Description	Owner	Design Professional
3	8:10 p.m.	143	Tulip Avenue	Storefront	Janet Decker	John J. Tacetta



# 143 Tulip Avenue (Aerial View)





LOT NOS. REFER TO MAP OF

USLIFE TITLE INSURANCE CO. " JANET C. FUJII

SURVEYED . NOV. 22 ND, 1976 SCALE: 1"= 20'

U.S. STANDARD PROPERTY: INC. VILLAGE OF FLORAL PARK, NASSAU CO., N.Y.

## FRANK O. BONACCI

SUCCESSOR

WILLIAM H. PARRY, INC.

LAND SURVEYORS . CITY SURVEYORS

BULENS - NASSAU - SUFFOLK OF FICES

600 JERICHO TURNPIKE, SYUSSET

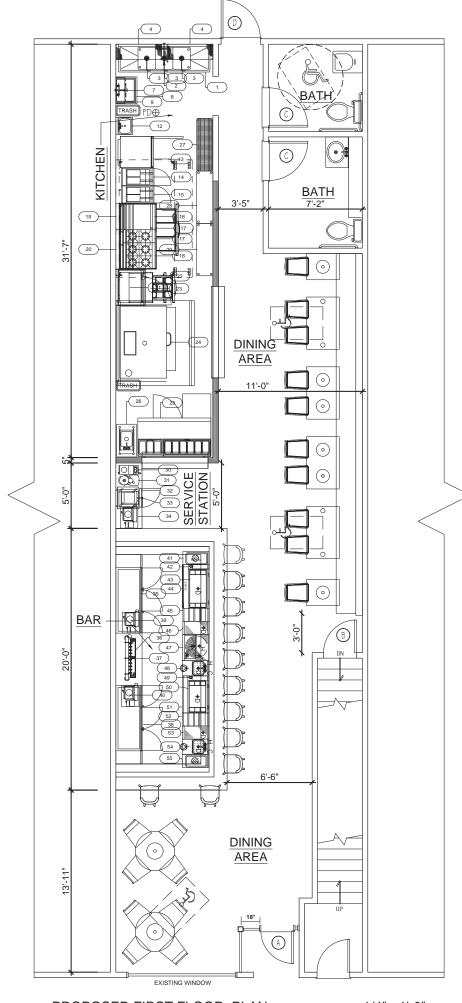
LONG ISLAND, NEW YORK 11791

PHONE 516-921-2211

11867-ои вос

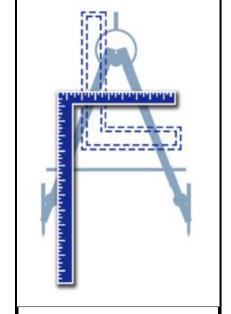
SEC.32 BLOCK TS THE Lots 10, 11, P/- 364, 4 P/- 357

141-143 Tulip -



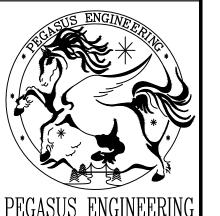






# FLA Associates

"builders by design"
769 Dogwood Avenue.
West Hempstead. NY 11552
Direct (516)779-1875
fax (516)292-0930



PLAN FOR BETTER RESULTS 546 BLYDENBURGH ROAD, HAUPPAUGE, NY 1178



# PROPOSED INTER 143 TULIP AV

AS NOTE R.ORDONEZ

10/29/2022

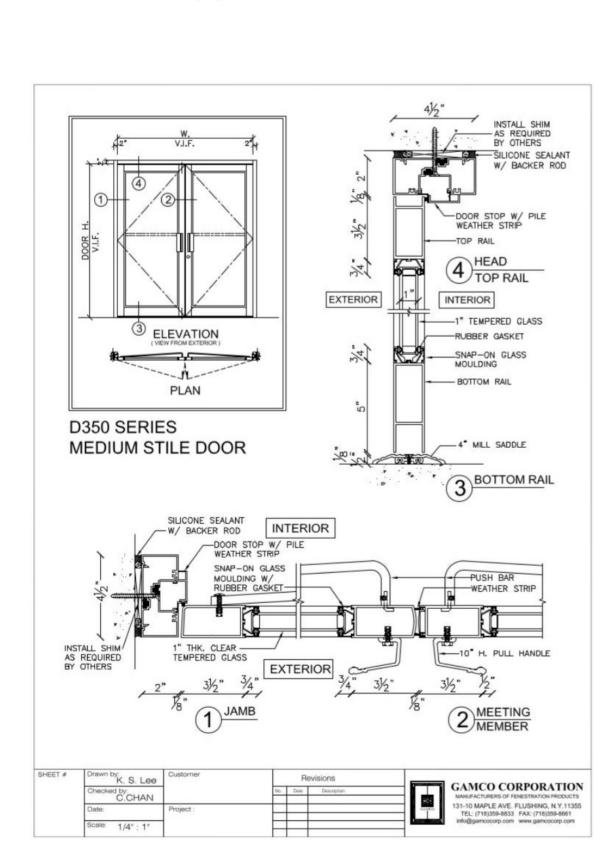
EXTERIOR ELEVATIONS

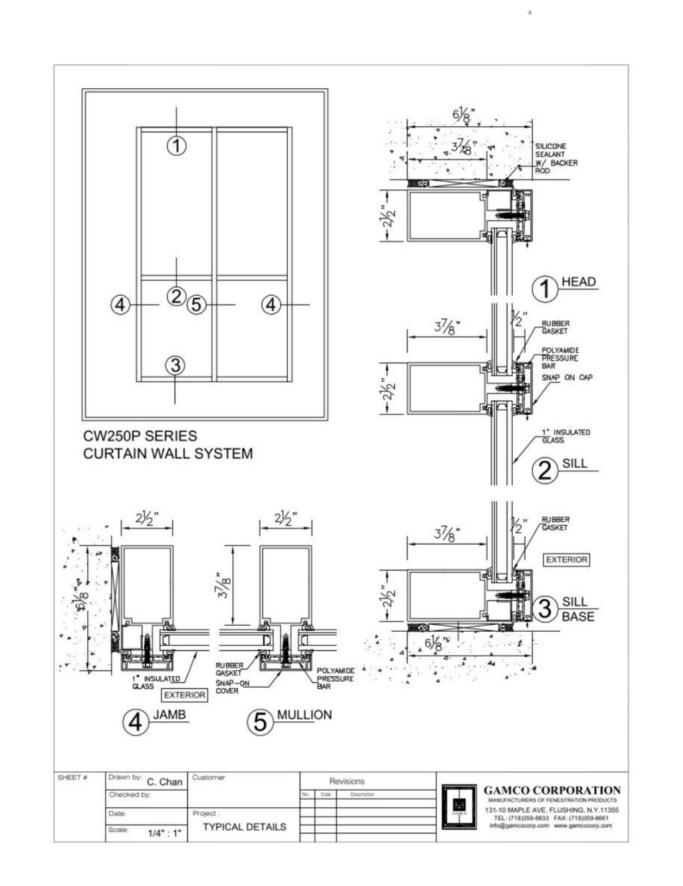




# **DOOR NOTES:**

ALL DIMENSIONS ARE TO FRAME
INSTALL AS PER MANUFACTURER'S
SPECIFICATIONS
F.P.S.C. - FIRE PROOF SELF CLOSING
SHGC: SLIDING GLASS PATIO DOOR: 0.26
ALL GLASS DOORS TO BE TEMPERED
PER NYSBC



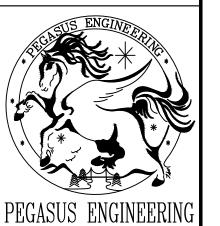


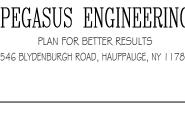
SCALE: 1/2" = 1'-0"



# FLA Associates of NY. LLC

"builders by design" 769 Dogwood Avenue. West Hempstead. NY 11552 Direct (516)779-1875 fax (5 | 6)292-0930







# PROPOS 43 TU

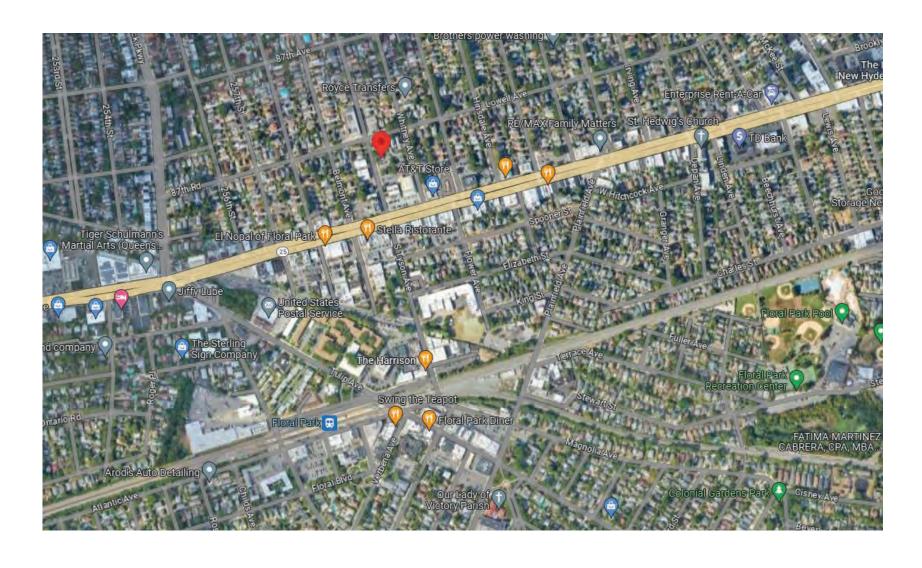
10/29/2022
AS NOTED
R.ORDONEZ

EXTERIOR ELEVATIONS

Case No.	Approximate Time	Address #	Street	Description	Owner	Design Professional
4	8:15 p.m.	25	North Tyson Avenue	Solar	Olvin Serrano	Venture Home Solar



# 25 North Tyson Avenue (Aerial View)

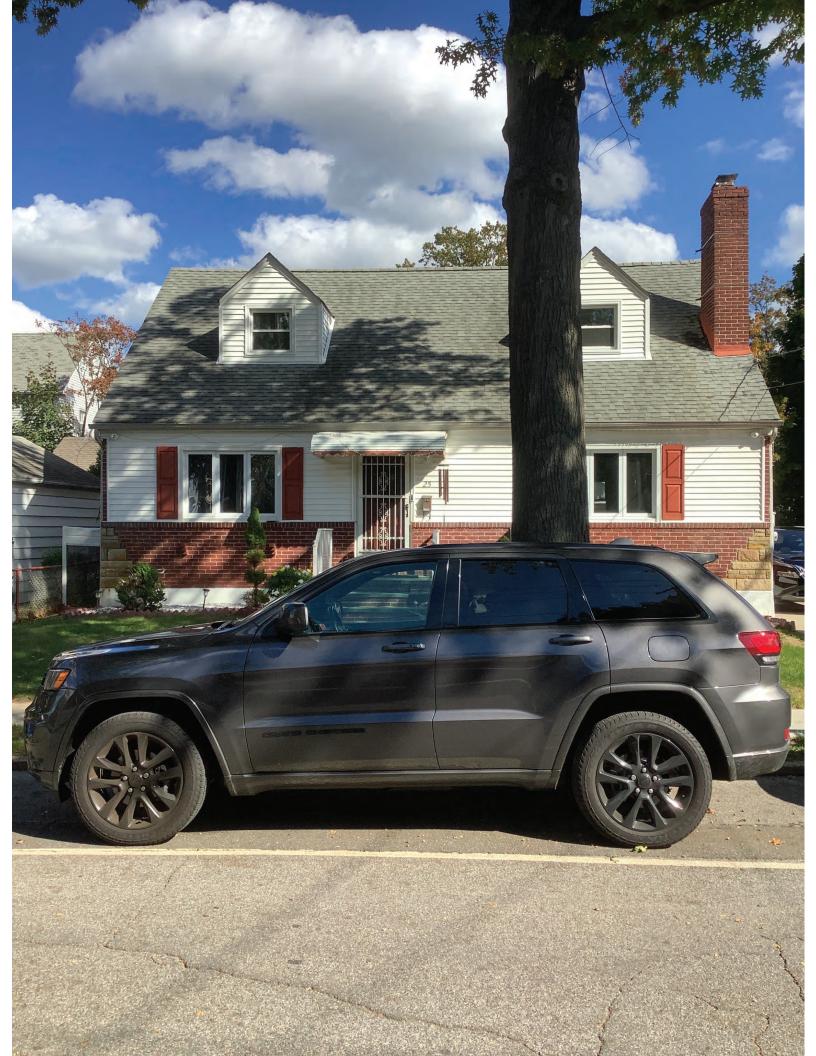














### venture solar

67 West St, Brooklyn, NY 11222 www.venturehomesolar.com

(800) 203-4158				
25 N Tyson Av, Floral Park, NY				
11001-1514, USA				
Bernardita Estrella's Residence				
Solar Panels: (14) Hanwha Q-Cell Q.PEAK DUO				
BLK ML-G10+ 400 Modules				
Inverters: (14) IQ8PLUS-72-2-US Micro-Inverters				
Solar System DC Size: 5.60KW AC Size: 4.06KW				
Solar Annual Production: 8,605.00 KWH				
Designed By: UNIRAC				
Date: 4/15/2023				

### AERIAL SITE VIEW

### MAP OF BLOCK DISTRICTS



GPS COORDINATES 40,7296058, -73,705203

### DRAWING INDEX

1	Zoning Information, Site Plan	Z-000.00
2	Elevations and System Layout	A-000.00
3	Site Plan	Z-001.00
4	Racking and Load Calculations	S-000.00
5	Spreadsheet	S-001.00
6	Labels & Solar Map Placard	G-000.00
7	String Diagram	E-000.00
8	Label Sheet	E-001.00
9	Electrical 3-Line & Labels	E-002.00
10	BOM	G-001.00
11	PHOTO RENDERING	G-002.00
12	PHOTO RENDERING	G-003.00
13	PHOTO RENDERING	G-004.00
14	PHOTO RENDERING	G-005.00
15	PHOTO RENDERING	G-006.00

Ventilation

Obstruction

# SOLAR ELECTRIC GENERATION INSTALLATION ON EXISTING RESIDENCE:

-Existing Tree (Typ.)

25 N Tyson Av, Floral Park, NY 11001-1514, USA

### SITE PLAN Scale: 1/8" = 1'-0"

### SCOPE OF WORK

SCOPE OF WORK IS SOLELY FOR THE INSTALLATION OF THE SOLAR ELECTRONIC GENERATING SYSTEM. ALL OTHER WORK IS NOT TO BE RELIED UPON AS BEING APPROVED AND/OR PERMITTED BY THE BUILDINGS DEPARTMENT.

### NOTES

The existing roof structure for this project, as is or with the structural reinforcement specified on page S-000.00, has been structurally analyzed and has been determined to be capable of supporting the loads imposed by the installation of the proposed solar electrical generating system as dsecribed in these design documents.

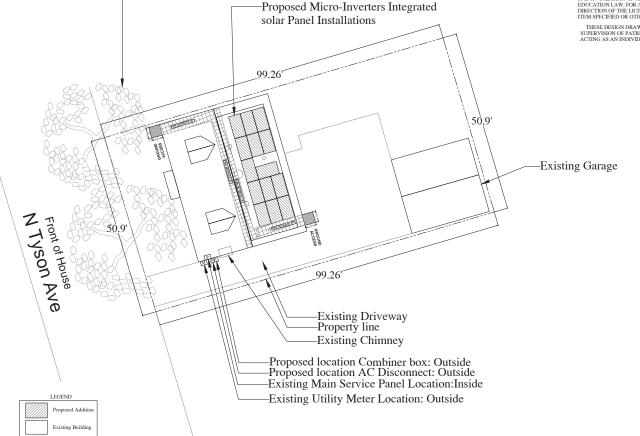
There is no tree, utility line or any other potential hazard that could come into contact with any part of the solar electric generating system.

### APPLICABLE CODES

All proposed work shall meet the standards specified in the 2020 Residential Code of New York, 2017 National electrical code and all other applicable local and state building and fire codes.

IT IS A VIOLATION OF ARTICLE 145, SECTION 7209(2) OF THE NEW YORK STATE EDUCATION LAW, FOR ANY PERSON, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF THE LICENSED PROFESSIONAL ENGINEER OF RECORD, TO ALTER ANY ITEM SPECIFIED OR OTHERWISE INCLUDED ON THIS DESIGN DRAWING IN ANY WAY.

THESE DESIGN DRAWINGS HAVE BEEN PREPARED UNDER THE DIRECT SUPERVISION OF PATRICK BUSSETT, R.A., NY ARCHITECT LICENSE # 105278, ACTING AS AN INDIVIDUAL/SOLE PRACTITIONER REGISTERED ARCHITECT



Patrick Bussett Venture Solar 67 West St, Brooklyn, NY 11222 License # 105278



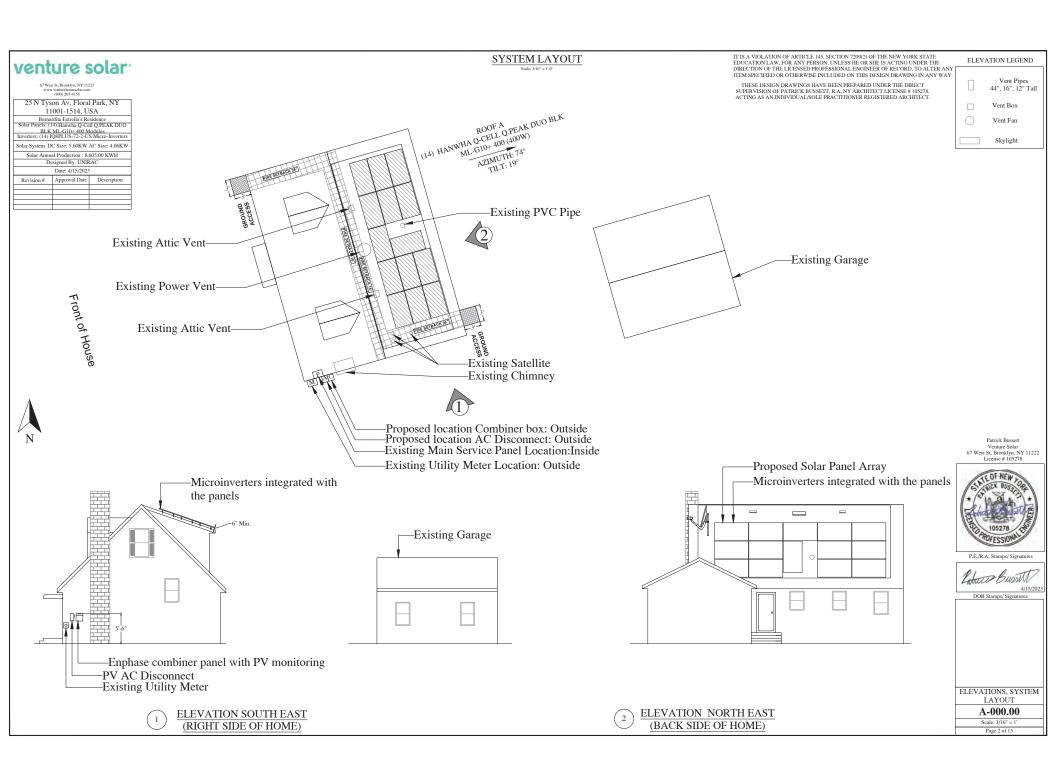
P.E./R.A. Stamps/ Signatures

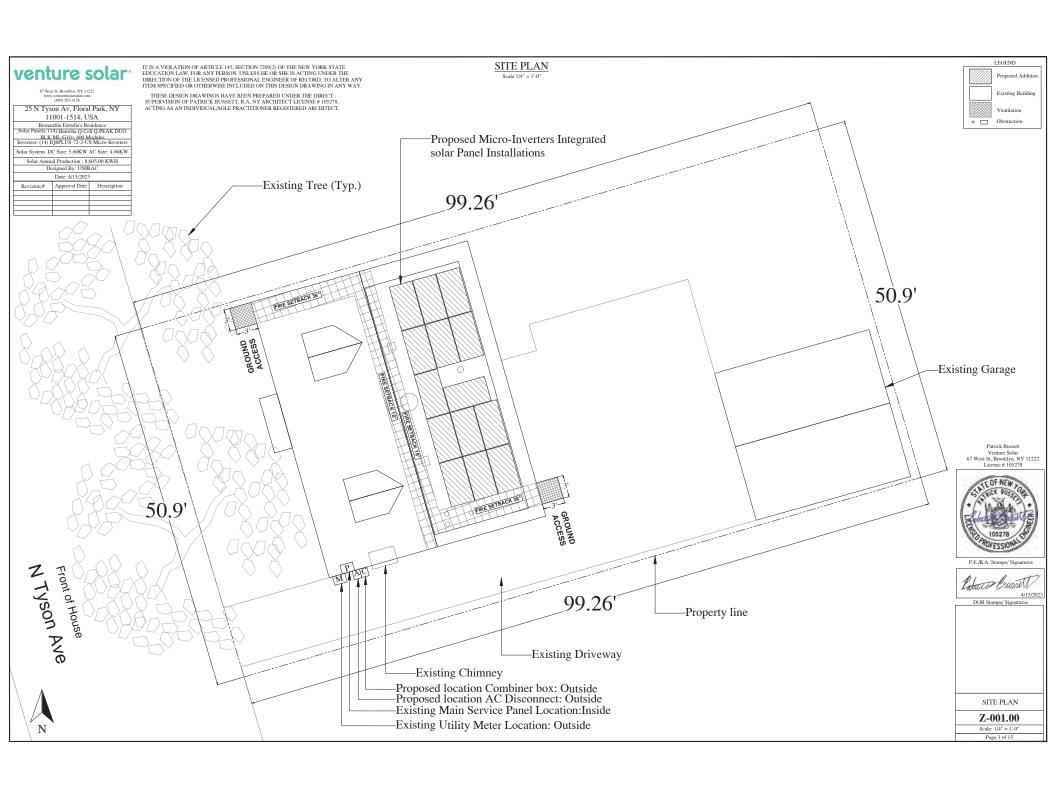
Lobaco Bussett

DOB Stamps/ Signature

ZONING INFORMATION, SITE PLAN

> Z-000.00 Scale: 1/8" = 1'-0"





### venture solar

67 West St, Brooklyn, NY 11222 www.venturehomesolar.com

25 N Tyson Av, Floral Park, NY 11001-1514, USA

Bernardita Estrella's Residence
Solar Panels: (14) Hanwha Q-Cell Q.PEAK DUO
BLK ML-G10+400 Modules
Inverters: (14) 1Q8PLUS-722-2US Micro-Inverters

Solar System DC Size: 5.60KW AC Size: 4.06KW

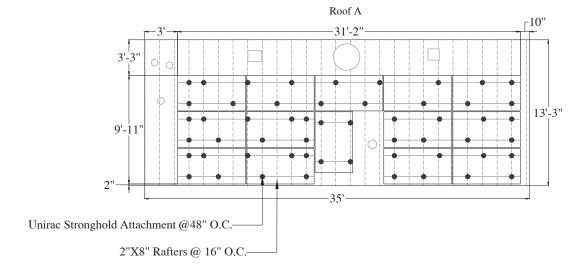
Solar Annual Production : 8,605.00 KWH
Designed By: UNIRAC

Date: 4/15/2023

Revision #	Approval Date	Description

## $\frac{\text{UNIRAC STAGGERED STRONGHOLD}}{\text{ROOF ATTACHMENT}}$

Scale: 1/4" = 1'-0"





Acceptable Rail Mounting Area L-Feet Rail Supports shall be installed at each end of rail and every 48" there after to support all Solar array wind and snow loads.Roof attachments shall be staggered.

IT IS A VIOLATION OF ARTICLE 145, SECTION 7209(2) OF THE NEW YORK STATE EDUCATION LAW, FOR ANY PERSON, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF THE LICENSEP PROFESSIONAL ENGINEER OF RECORD, TO ALTER ANY ITEM SPECIFIED OR OTHERWISE INCLUDED ON THIS DESIGN DRAWING IN ANY WAY.

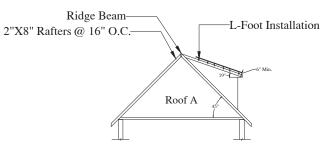
THESE DESIGN DRAWINGS HAVE BEEN PREPARED UNDER THE DIRECT SUPERVISION OF PATRICK BUSSETT, R.A., NY ARCHITECT LICENSE # 105278, ACTING AS AN INDIVIDUAL/SOLE PRACTITIONER REGISTERED ARCHITECT.

# ARRAY PERIMETER RAFTER LOCATION ROOF PENETRATIONS ROOF PENETRATION

### ROOF STRUCTURAL DETAILS:

Scale: 5/32" = 1'-0"

ROOF TILT: 26°,19°



The PV modules will be maximum 6" off the roof surface.

Patrick Bussett Venture Solar 67 West St, Brooklyn, NY 11222 License # 105278



P.E./R.A. Stamps/ Signatures

Labour Burntt

DOB Stamps/ Signatures

RACKING AND LOAD CALCULATIONS

S-000.00

Scale: SEE SCALE Page 4 of 15

### venture solar

67 West St, Brooklyn, NY 11222 www.venturehomesolar.com (800) 203-4158

25 N Tyson Av, Floral Park, NY 11001-1514, USA Bernardita Estrella's Residence Solar Panels: (14) Hanwha Q-Cell Q-PEAK DUO

BLK ML-G10+ 400 Modules Inverters: (14) IQ8PLUS-72-2-US Micro-Inverters

Solar System DC Size: 5.60KW AC Size: 4.06KW

Designed By: UNIRAC Date: 4/15/2023 Revision # Approval Date Description

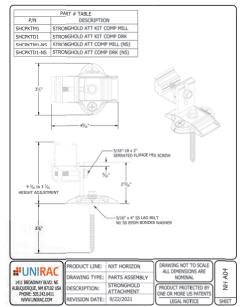
IT IS A VIOLATION OF ARTICLE 145. SECTION 1729/20 OF THE NEW YORK STATE EDUCATION LAW, FOR ANY PERSON, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF THE LICENSED PROFESSIONAL ENGINEER OF LICENSED PROFESSIONAL ENGINEER OF RECORD, TO ALTER ANY ITEM SPECIFIED OR OTHERWISE INCLUDED ON THIS DESIGN DRAWING IN ANY WAY.

THESE DESIGN DRAWINGS HAVE BEEN PREPARED UNDER THE DIRECT SUPERVISION OF PATRICK BUSSETT, R.A. NY ARCHITECT LICENSE # 105278, ACTING AS AN INDIVIDUAL/SOLE PRACTITIONER REGISTERED ARCHITECT.

### NXT HORIZON RAIL



### STRONGHOLD INSTALLATION



### NXT HORIZON RAILS MAX. SPAN

Maximum Continuous Spliced Rail Length for NXT Horizon Rail with Stronghold Attachments (ft.)/Maximum Reaction Force (lbs)

	Attachment Spacing				
ΔT (°F)	24"	48"	72"		
40	67 / 155	94 / 218	117 / 272		
50	59 / 171	86 / 250	105 / 305		
60	55 / 191	78 / 272	93 / 324		
70	51 / 207	70 / 285	81 / 329		
80	47 / 218	62 / 288	80 / 372		
90	43 / 225	62 / 324	69 / 361		
100	43 / 250	54 / 314	64 / 372		
120	39 / 272	53 / 369	53 / 369		
140	35 / 285	45 / 366	45 / 366		

Maximum Continuous Spliced Rail Length for NXT Horizon Rail with Flashkit Pro Attachments (ft.)/Maximum Reaction Force (lbs)

	Attachment Spacing				
ΔT (°F)	24"	48"	72"		
40	75 / 139	102 / 189	129 / 239		
50	67 / 155	94 / 218	117 / 271		
60	63 / 175	86 / 239	105 / 292		
70	55 / 178	78 / 253	93 / 302		
80	51 / 189	70 / 259	93 / 345		
90	51 / 213	70 / 308	81 / 338		
100	47 / 218	62 / 287	80 / 371		
120	43 / 239	62 / 345	66 / 367		
140	39 / 253	54 / 350	57 / 370		

### **COMBINER BOX 4 SPEC-SHEET**

MODEL NUMBER			
IQ Combiner 4 (X-IQ-AM1-24Q-4)	COmbine for Data Company respective transfer regard on a year PV to the company of COMPANY and the COMPANY of COMPANY and the		
IQ Comisiner 4C (X-IQ-AM1-24D-4C)	Continue Continue Continue Continue printed Court board for transport years of pulse for particular transport of COU and the continue control Court of COU and the continue control Court of COU and the control COU and the contr		
ACCESSORIES AND REPLACEMENT PARTS	(nat included, order separately)		
Ensemble Communications Kit DOMMS-CELLMODEM-MI-09 CELLMODEM-MI-06-SP-05 CELLMODEM-MI-05-AT-05	Outcome CTANES 415 OF and CELENTEEMAT 96-51-01 with it years (pure data pure for Execution since 450 beams ETE-461 contains recomment 5-year Sportschapping 450 beams ETE-461 contains recomment 6-year ATEST (see page)		
Circuit Breakers BRN 15A-2-240V BRN 15A-2-240V BRN 25A-2P-240V BRN 25A-2P-240V-B BRN-25A-2P-240V-B	Suppose Taxon WINTON SECTION SECTION SECTION SECTION SECTION SECTION (SECTION SECTION		
EPLC-01	Flower time currier (current action bridge part), quartitis - aver part		
XA-SOLARSHIELD-ES	Resourced year should for 10 Common AVIC		
XA-PLUG-120-3	Accesses a recognise to the Process Land Confer on IQ Constitute 4-45 in recovered for 1916-191		
XA-ENV-PCBA-3	Supplement C Comment promotional loand (PCB) to Comment in		
X-IQ-NA-HD-125A	Proof Storet All the Carpe corporal breaker with accrews.		
ELECTRICAL SPECIFICATIONS	Company of the Compan		
Rating	Correspond duty		
System voltage	120/280 PAC, 60 HIV		
Eaton BR series busbar rating	Q\$X		
Max. continuous current rating	ASA		
Max. continuous current rating (input from Physiologis)	514		
Max. fuse/circuit rating (output) Branch circuits (solal and/or storage)	MSA  Up to Your S poin Easys SH across Descripted Governous (INC) breakers only (included)		
Max. total branch circuit breaker rating (in	and a second sec		
Production metering CT	200 A solid cord pre-installed and ested to 10 Getewar		
Consumption menitoring CT (CT-200-SPL/II)	A pair of 2014 solit core cornert minolinears		
MECHANICAL DATA			
Dimensions (WkHxD)	ST SA 40 A & TA B com [14 70" & 76 1" a A D"], Hopping 21 DH [15 2 both with remarking incomes.		
Weight	254g (%.5-ltm)		
Ambient temperature range	42° C to 440° C ( 40° to 160° F)		
Cooling	Natural Igentuction, Israil Anal Smith		
Enclosure environmental rating	Contact ARTI contribut, All his hour SA, polycurborus is communities		
Wire sizes	- 20 A to 30 Cheesian rough: 14 to 4 Mill copper confinition - 64 A frankle frame or each 4 to 10 ARR copper confinition - Main fag confined indiges 10 to 20 ARR copper confinition - Reveal and growth 4 to 10 Arrange rendectors - Reveal and growth 4 to 10 Arrange rendectors - Arrange in the confinition of the confinition confinition.		
Aftitude	To 2000 means (6.600 Med)		
INTERNET CONNECTION OPTIONS			
Integrated Wi-F7	MET They in		
Cellular	COLLANGES AND OF DISCOULANCES AND OF AN AND AND AND AND AND AND AND AND AND		
Ethernet	Command RES & Cartill for Cartill UTF Empred cable (will reduce to		
COMPLIANCE			
Compliance, IQ Combiner	GE TON CONTRACT I SHE THE STORY PART IS THAN IN CITE ONLY  FOR A STORY OF THE STORY		
Compliance, IQ Gateway	18,40681.1-CAMESA 23.2 Nov. 61816-1		

### **INVERTER IQ 8 SPEC-SHEET**

### IQ8 and IQ8+ Microinvertera

APUT SATA (SC)		14891140		SMITH OUT	
Commonly used module painings1	*	231-260		376 - 666	
Module compatibility		AD-VALODINE-VAL		50-val-DS bill-val and D-vall-Milled-vall.	
MP97 wiltens servin	Y.	171-30		01140	
Operating range	9	3-4		30-99	
Min/max start voltage	/8-	30746		307.00	
Max input DC voltage	T	198		400	
Max DC current* [module lsc]			15.		
Overvoltage class DC port			1.3		
DC port backfeed current.	MI.		0		
PV array configuration	694	and the same of the	periodical property and	the present real Print real Print	
DUTPUT DATA (ACI		GR43.185		MILE PROPERTY.	
Peak output power	16	286		300	
Max continuous output power	98.	260		100	
Nominal (L-L) voltage/range*	4.		240 / 21 - 884		
Max portinuous output ourrent	W.	1/40		AB*	
Nominal frequency			60		
Extended frequency range			20-0		
Was units per 20 A S. LI branch circult				4	
Total harmonic distortion			45%		
Overvoltage class AC port			11		
AC port backfeed current			.50		
Power factor setting			10		
Grad-med power factor (adjustable)	- 5 leading = 0				
Peak efficiency		9.6		44	
CEC weighted efficiency	4	- 61-		-	
Night-time power consumption	400		60		
MECHANICAL DATE:					
Aribiert temperature range			20 +80°C (-4° 11	LASTIC CO.	
Selative humidity range	** to 100% (cc**				
DC Connector type	MC4				
Dimensions 94xWxD0	100 mm (b. 8 t x 175 mm (6 8 7 ) a Min 2 mm (b. 4 7				
Wegte	100 kg (2.20 mil)				
coony.	In al convector in the second				
Approved for wet locations	Ves				
Acoustic noise at 1 m	<south< td=""></south<>				
Pollution degree	POS				
Enclosure	The Part of Corressor and Control of Control				
Environ. category / UV exposure rating			MSMA Type 6 / mins	Sec .	
	Steel	PARTNAMAN RESERVATIONS	B4TFCCPart15	R. ESTS-GOOD COLLEGE CHRISTIAN COLLEGE SEED.	
Certifications	This promotes (A. Limon in Principal than Come I simplement and of torsin arm Marc 1994, ARC 1991, and MRC 1991, a				

### PV MODULE SPEC-SHEET

MECHANICAL SPECIFICATION 74.0 in × 41.1 in × 1.26 in (including frame) (1879 mm × 1045 mm × 32 mm) Weight 48.5 lbs (22.0 kg) 0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology Back Cover Composite film Black anodized aluminum Cell 6 × 22 monocrystalline Q.ANTUM solar half cells 2.09-3.98 in × 1.26-2.36 in × 0.59-0.71 in (53-101 mm × 32-60 mm × 15-18 mm), IP67, with bypass diodes Junction Box Cable 4mm² Solar cable; (+) ≥49.2 in (1250mm), (-) ≥49.2 in (1250mm) Connector Střiubli MC4: IP68 DENEL & DESTRUCTION TO THE PROPERTY OF THE PRO

Patrick Bussett Venture Solar 67 West St, Brooklyn, NY 11222 License # 105278



P.E./R.A. Stamps/ Signatures

Labour Bursett 4/15/2023

DOB Stamps/ Signatures

SPREADSHEET

S-001.00 Scale: SEE SCALE Page 5 of 15

25 N Tyson Av, Floral Park, NY 11001-1514, USA

Bernardita Estrella's Residence Solar Panels: (14) Hanwha O-Cell O.PEAK DUO BLK ML-G10+ 400 Modules Inverters: (14) IO8PLUS-72-2-US Micro-Inverters

Solar System DC Size: 5.60KW AC Size: 4.06KW Solar Annual Production: 8.605.00 KWH

Designed By: UNIRAC Date: 4/15/2023

Revision # Approval Date Description

Labels comply with NEC 110.21(B) and ANSI Z535.4

IT IS A VIOLATION OF ARTICLE 145, SECTION 7209(2) OF THE NEW YORK STATE EDUCATION LAW, FOR ANY PERSON, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF THE LICENSELD PROFESSIONAL ENGINEER OF RECORD, TO ALTER ANY ITEM SPECIFIED OR OTHERWISE INCLUDED ON THIS DESIGN DRAWING IN ANY WAY.

THESE DESIGN DRAWINGS HAVE BEEN PREPARED UNDER THE DIRECT SUPERVISION OF PATRICK BUSSETT, R.A. NY ARCHITECT LICENSE # 105278, ACTING AS AN INDIVIDUAL/SOLE PRACTITIONER REGISTERED ARCHITECT.

COMBINER PANEL AC Output Current: 16.94A Nominal Operating AC Voltage: 240V

COMBINER PANEL

AC DISCONNECT AC Output Current: 16.94A Nominal Operating AC Voltage: 240V

A/C DISCONNECT



TWO POWER SOURCES INSIDE UTILITY AND SOLAR PV

MAIN DISTRIBUTION PANEL



JUNCTION BOX CONDUIT EVERY 10 FT



RAPID SHUTDOWN **SYSTEM** 

SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN

WITHIN THE ARRAY REMAIN ENERGIZED IN SUNLIGHT.

TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN THE ARRAY.



AT RAPID SHUTDOWN SYSTEM

**WARNING** 

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

JUNCTION BOX

**WARNING** 

INVERTER OUTPUT CONNECTION; DO NOT RELOCATE THIS OVERCURRENT DEVICE

COMBINER PANEL

Patrick Bussett Venture Solar 67 West St, Brooklyn, NY 11222 License # 105278



P.E./R.A. Stamps/ Signatures

DOB Stamps/ Signatures

LABELS

G-000.00

Scale: NTS Page 6 of 15

67 West St, Brooklyn, NY 11222 www.venturehomesolar.com

25 N Tyson Av, Floral Park, NY 11001-1514, USA

Bernardita Estrella's Residence Solar Panels: (14) Hanwha Q-Cell Q-PEAK DUO BLK ML-G10+400 Modules Inverters: (14) 108PL/US-72-2-US Micro-Inverters

Solar System DC Size: 5.60KW AC Size: 4.06KW

Solar Annual Production : 8,605.00 KWH
Designed By: UNIRAC

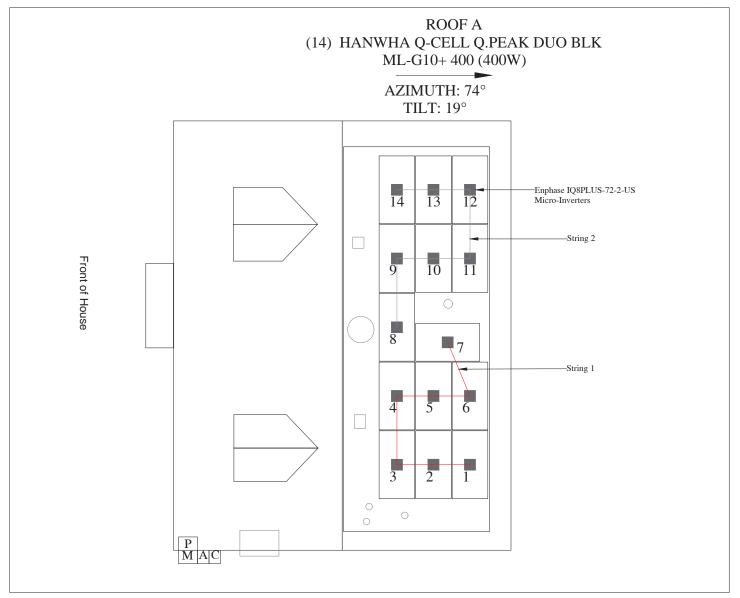
Date: 4/15/2023

Revision#	Approval Date	Description

# String Diagram

IT IS A VIOLATION OF ARTICLE 145, SECTION 7209(2) OF THE NEW YORK STATE EDUCATION LAW, FOR ANY PERSON, UNLESS HE OS SHE IS ACTING UNDER THE DIRECTION OF THE LICENSEP PROFESSIONAL ENGINEER OF RECORD, TO ALTER ANY ITEM SPECIFIED OR OTHERWISE INCLUDED ON THIS DESIGN DRAWING IN ANY WAY.

THESE DESIGN DRAWINGS HAVE BEEN PREPARED UNDER THE DIRECT SUPERVISION OF PATRICK BUSSETT, R.A., NY ARCHITECT LICENSE # 105278, ACTING AS AN INDIVIDUAL/SOLE PRACTITIONER REGISTERED ARCHITECT.



Patrick Bussett Venture Solar 67 West St, Brooklyn, NY 11222 License # 105278



P.E./R.A. Stamps/ Signatures

Patrice Burnt

DOB Stamps/ Signatures

String Diagram

E-000.00

Scale: NTS Page 7 of 15

67 West St, Brooklyn, NY 11222 www.venturehomesolar.com (800) 203-4158

### 25 N Tyson Av, Floral Park, NY 11001-1514, USA

#### STRING CALCULATIONS (07) x 1.21A x 1.25 = 10.59A <20A --->OK (07) x 1.21A x 1.25 = 10.59A <20A --->OK

FUSE SIZE CALCULATIONS
(14) x 1.21A x 1.25 = 21.18A =< 60A fuse size

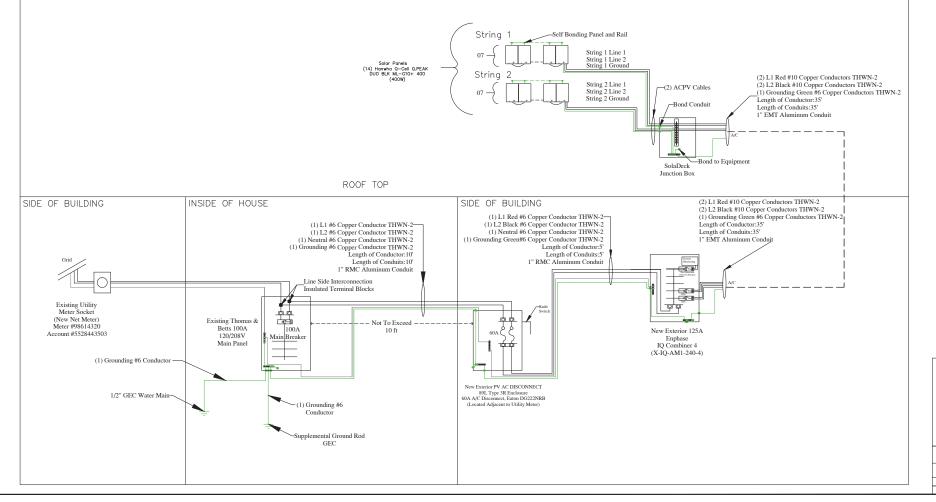
#### MODULE SPEC-SHEET

			ELECTRIC	AL CHARACTE	RISTICS			
PO	WERCLASS			385	390	395	400	3
M	NIMUM PERFORMANCE AT STANDA	AD TEST CONDITIO	ows, sto-po	WERTOLERANCE +	5W/-0V)			
	Power at MPP	Pare	(W)	385	390	395	400	
	Short Circuit Current!	le:	[A]	11.04	11.07	11.10	11.14	- 1
- 2	Open Circuit Voltage*	Voc	(V)	45.19	45.23	45.27	45.30	45
3	Current at MIPP	lun-	[4]	10.59	31.65	10.71	10.77	10
2	Voltage at MPP	Vari	[1/2]	36.36	31.62	36.88	37.13	3
	Efficiency*		[N]	119.6	1:9.9	≥20.1	≥20.4	2.5
3,07	NIMUM PERFORMANCE AT NORMA	L OPERATING CON	OITIONS, MM					
	Power at MPP	Pare	(W)	268.8	292.6	296.3	300.1	30
4	Short Circuit Current	l <sub>e</sub>	[A]	8.90	1.92	8.95	8.97	
-8	Open Circuit Voltage	Voc	[9]	42.62	42.65	42.69	42.72	- 4
ŝ	Current at MIPP	l <sub>an</sub>	(4)	8.35	3.41	8.46	8.51	
	Voltage at MPP	V	[9]	34.50	34.81	35.03	35.25	35
19.64	anyonest tolerances P s VVI. L. V		6.25×250 AME	Sacrontino to SC 40	BOATH TOOWNER A	MOT searchum AM I	6	

CONDUCTOR SIZING CALCULATION										
CIRCUIT DESCRIPTION	CURRENT	Imax (690.(8A))	Icont (690.(8B)(2)(a) calc	SPECIFIED CONDUCTOR	AMPACITY @ 90°C	AMBIENT TEMPERATURE °C	CURRENT CARRYING COND.	COND. OF USE APPPLIED (690.(8B)(2)(b) calc		
PV SOURCE STRING 1	7.00	8.47	8.47 x 1.25 = 10.59	#10 THWN-2	40	26-30	1-3	40A x 0.96 (amb. temp) x 1.0 (raceway fill) = 38.40A		
PV SOURCE STRING 2	7.00	8.47	8.47 x 1.25 = 10.59	#10 THWN-2	40	26-30	1-3	40A x 0.96 (amb. temp) x 1.0 (raceway fill) = 38.40A		
COMBINER BOX OUTPUT	14.00	16.94	16.94 x 1.25 = 21.18	#6 THWN-2	75	26-30	1-3	75A x 0.96 (amb. temp) x 1.0 (raceway fill) = 72.00A		
AC DISCONNECT OUTPUT	14.00	16.94	16.94 x 1.25 = 21.18	#6 THWN-2	75	26-30	1-3	75A x 0.96 (amb. temp) x 1.0 (raceway fill) = 72.00A		

IT IS A VIOLATION OF ARTICLE 145, SECTION 7209(2) OF THE NEW YORK STATE EDUCATION LAW, FOR ANY PERSON, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF THE LICENSED PROFESSIONAL ENGINEER OF RECORD, TO ALTER ANY ITEM SPECIFIED OR OTHERWISE INCLUDED ON THIS DESIGN DRAWING IN ANY WAY.

THESE DESIGN DRAWINGS HAVE BEEN PREPARED UNDER THE DIRECT SUPERVISION OF PATRICK BUSSETT, R.A., NY ARCHITECT LICENSE # 105278, ACTING AS AN INDIVIDUAL/SOLE PRACTITIONER REGISTERED ARCHITECT



DOB Stamps/ Signatures

ELECTRICAL 3-LINE & LABELS

E-002.00 Scale: NTS Page 9 of 15

67 West St, Brooklyn, NY 11222 www.venturehomesolar.com (800) 203-4158

			VENTURE SO	DLAR		
Customer Name	Bernardita Estrell	 a				
Customer Address			1001-1514, US	A		
	UNIRAC	<u> </u>	,			
	ROOF			ELECTRICAL		
Description	Qty.		Bar Code	Description	Qty.	Bar Code
Hanwha 400	14			Enphase IQ Combiner 4	1	
Portrait Q Cable - #Conn	2			Enphase Mobile Connect	1	
Landscape Q Cable- #Conn	15			Enphase IQ7 Micro	0	
Q Term	2			Enphase IQ7+ Micro	0	
Q Seal	7			Eaton 20 A Breaker	2	
Q-Conn 10M	1			IPC - 4/0 - #6 (Taps)	2	
Q-Conn 10F	1			60 A Disconnect	1	
Micro Inverter T Bolt	15			60A Set of Fuses	1	
Wire Restraints	2			100 AMP Disconnect	0	
Ground Lug	6			100A Set of Fuses	0	
	Pitched ROOF			125 A Combiner Panel	0	
Strong Hold Box (Qty.20)	2			Square D 100 A Main Breaker	0	
Unirac Rail	14			Square D 20 A Breaker	0	
Unirac Splice	9			Square D 15 A Breaker	0	
Unirac Ends	25			Enphase IQ Envoy	0	
Unirac Mids	17			Enphase IQ7A Micro	0	
Solar Seal	2			Enphase IQ8 Micro	0	
Solar Deck	1			Enphase IQ8+ Micro	14	
Consumption CT x 1Sets	100			Enphase IQ8M Micro	0	
Fire and Smoke detector x 1 No	No			Enphase IQ8H Micro	0	
			Battery Deta	nils		
Manufacturer		Type		Mfr. Part No. & Description		Qty
Enphase Energy Inc		Battery		ENCHARGE-10T-1P-INT AC Batte	ry	0
Enphase Energy Inc		Other		EP200G101-M240US01 Enpowe	r	00
Enphase Energy Inc		Moniter		COMMS-KIT-01 (Ensemble)		0
	FLAT ROOF			CONFIRMATIO	N	
Chemlink 6" E-curb Kit	0					
L- Foot Box w/ Nut & Bolt (Qty.24)	0					
4" Stand Off	0			Procurement Team Signature		
Unirac Tilt 18 - 30"	0					
Unirac Tillt 26 - 44"	0					
Unirac Tilit 40 - 72"	0			Crew Foreman Signature		
Silver Unirac Rail	0					
Silver Unirac Splice	0					
Silver Unirac End	0					
SIlver Unirac Mid	0					
4" Lag	0					
8"x8"x4" Junction Box	0					

IT IS A VIOLATION OF ARTICLE 145, SECTION 7209(2) OF THE NEW YORK STATE EDUCATION LAW, FOR ANY PERSON, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF THE LICENSED PROFESSIONAL ENGINEER OF RECORD, TO ALTER ANY ITEM SPECIFIED OR OTHERWISE INCLUDED ON THIS DESIGN DRAWING IN ANY WAY.

THESE DESIGN DRAWINGS HAVE BEEN PREPARED UNDER THE DIRECT SUPERVISION OF PATRICK BUSSETT, R.A., NY ARCHITECT LICENSE # 105278, ACTING AS AN INDIVIDUAL/SOLE PRACTITIONER REGISTERED ARCHITECT.

DOB Stamps/ Signatures

BOM

G-001.00 Scale: NTS Page 10 of 15

67 West St, Brooklyn, NY 11222 www.venturehomesolar.com (800) 203-4158

25 N Tyson Av, Floral Park, NY 11001-1514, USA Bernardita Estrella's Residence Solar Parick: (19) Hamban Q-Cell Q/PEAK DUO BLK MI.-GID: 400 Modules. Inverters: (14) USB/PLUS-72-2-US Micro-Inverters

Inverters: (14) IQ8PLUS-72-2-US Micro-Inverters Solar System DC Size: 5.60KW AC Size: 4.06KW Solar Annual Production : 8,605.00 KWH Designed By: UNIRAC

Date: 4/15/2023					
rision#	Approval Date	Description			



DOB Stamps/ Signature

BACK SIDE OF HOUSE

BOM

G-002.00

Scale: NTS

67 West St, Brooklyn, NY 11222 www.venturehomesolar.com (800) 203-4158

25 N Tyson Av, Floral Park, NY
11001-1514, USA
Bernardita Estrella's Residence
Solar Panale: (14) Hanniba O Call O PEAK DI

RLK MI.:C1101-400 Modules
Inverters: (14) IQSPLUS-72-2-US Micro-Inverters
Solar System DC Size: 5.600kW AC Size: 4.00KW
Solar Annual Production: 8.605.00 KWH
Designed By: UNIRAC

	Date: 4/15/2023								
vision#	Approval Date	Description							



DOB Stamps/ Signatures

BOM

G-003.00

Scale: NTS Page 12 of 15

67 West St, Brooklyn, NY 11222 www.venturehomesolar.com (800) 203-4158

25 N Tyson Av, Floral Park, NY 11001-1514, USA Bernardita Estrella's Residence Solar Panels: (14) Hanwha Q-Cell Q.PEAK DUO BLK ML-G10+ 400 Modules Inverters: (14) IQ8PLUS-72-2-US Micro-Inverters Solar System DC Size: 5.60KW AC Size: 4.06KW Solar Annual Production: 8,605.00 KWH Designed By: UNIRAC Date: 4/15/2023

Revision # Approval Date



DOB Stamps/ Signature

LEFT SIDE OF HOUSE

BOM G-004.00

67 West St, Brooklyn, NY 11222 www.venturehomesolar.com (800) 203-4158

25 N Tyson Av, Floral Park, N	ΙY
11001-1514, USA	

Bernardita Estrella's Residence
Solar Panels: (14) Hamwha Q-Cell Q.PEAK DUO
BLE K.M.-G.(10). 400 Modules
Investers: (14) IQSPLUS-72-2-US Micro-Investers
Solar System DC Size: 5.60KW AC Size: 4.60KW
Solar Annual Production: 8.605.00 KWH
Designed By: UNIRAC

Date: 4/15/2023

# Approval Date Description



DOB Stamps/ Signature

RIGHT SIDE OF HOUSE

BOM

G-005.00

67 West St, Brooklyn, NY 11222 www.venturehomesolar.com (800) 203-4158

25 N Tyson Av, Floral Park, NY 11001-1514, USA

Bernardita Estrella's Residence
Solar Panels: (14) Hamwha Q-Cell Q.PEAK DUO
BL K. ML-G10± 400 Modules
Inverters: (14) IQSPLUS-72-2-US Micro-Inverters
Solar System DC Size: 5.60KW AC Size: 4.06KW

Solar Annual Production : 8,605.00 KWH
Designed By: UNIRAC
Date: 4/15/2023

Revision #	Approval Date	Description

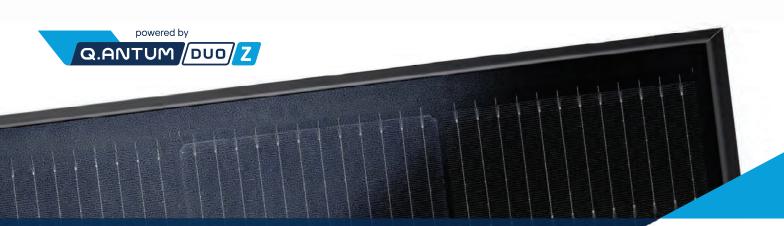


DOB Stamps/ Signatures

TOP OF HOUSE

BOM

G-006.00Scale: NTS



# Q.PEAK DUO BLK ML-G10+ 385-405

ENDURING HIGH PERFORMANCE



Quality Controlled PV

www.tuv.com ID 1111232615











### **BREAKING THE 20% EFFICIENCY BARRIER**

Q.ANTUM DUO Z Technology with zero gap cell layout boosts module efficiency up to 20.9%.



### THE MOST THOROUGH TESTING PROGRAMME IN THE INDUSTRY

Q CELLS is the first solar module manufacturer to pass the most comprehensive quality programme in the industry: The new "Quality Controlled PV" of the independent certification institute TÜV Rheinland.



### **INNOVATIVE ALL-WEATHER TECHNOLOGY**

Optimal yields, whatever the weather with excellent low-light and temperature behavior.



### **ENDURING HIGH PERFORMANCE**

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



### **EXTREME WEATHER RATING**

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



#### A RELIABLE INVESTMENT

Inclusive 25-year product warranty and 25-year linear performance warranty<sup>2</sup>.



<sup>&</sup>lt;sup>2</sup> See data sheet on rear for further information.

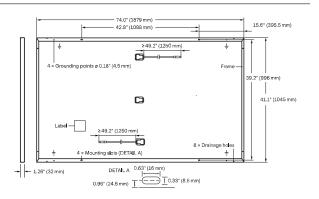
### 6 BUSBAR CELL TECHNOLOGY

12 BUSBAR

### THE IDEAL SOLUTION FOR:





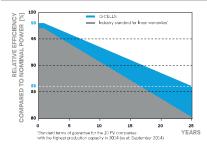


### **ELECTRICAL CHARACTERISTICS**

PO	WER CLASS			385	390	395	400	405
MIN	IIMUM PERFORMANCE AT STANDAR	D TEST CONDITIC	NS, STC1 (PO	WER TOLERANCE +	5W/-0W)			
	Power at MPP <sup>1</sup>	P <sub>MPP</sub>	[W]	385	390	395	400	405
_	Short Circuit Current <sup>1</sup>	I <sub>sc</sub>	[A]	11.04	11.07	11.10	11.14	11.17
mun	Open Circuit Voltage <sup>1</sup>	V <sub>oc</sub>	[V]	45.19	45.23	45.27	45.30	45.34
/linir	Current at MPP	I <sub>MPP</sub>	[A]	10.59	10.65	10.71	10.77	10.83
2	Voltage at MPP	$V_{\text{MPP}}$	[V]	36.36	36.62	36.88	37.13	37.39
	Efficiency <sup>1</sup>	η	[%]	≥19.6	≥19.9	≥20.1	≥20.4	≥20.6
MIN	IIMUM PERFORMANCE AT NORMAL	OPERATING CONI	DITIONS, NM	OT <sup>2</sup>				
	Power at MPP	P <sub>MPP</sub>	[W]	288.8	292.6	296.3	300.1	303.8
Ę	Short Circuit Current	I <sub>SC</sub>	[A]	8.90	8.92	8.95	8.97	9.00
Ĭ	Open Circuit Voltage	V <sub>oc</sub>	[V]	42.62	42.65	42.69	42.72	42.76
Ē	Current at MPP	I <sub>MPP</sub>	[A]	8.35	8.41	8.46	8.51	8.57
	Voltage at MPP	V <sub>MPP</sub>	[V]	34.59	34.81	35.03	35.25	35.46

¹Measurement tolerances P<sub>MPP</sub> ±3%; I<sub>SC</sub>; V<sub>CC</sub> ±5% at STC: 1000 W/m², 25±2°C, AM 1.5 according to IEC 60904-3 • ²800 W/m², NMOT, spectrum AM 1.5

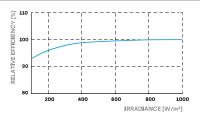
#### Q CELLS PERFORMANCE WARRANTY



At least 98% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86% of nominal power up to 25 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Q CELLS sales organisation of your respective

#### PERFORMANCE AT LOW IRRADIANCE



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

TEMPERATURE COEFFICIENTS							
Temperature Coefficient of I <sub>SC</sub>	α	[%/K]	+0.04	Temperature Coefficient of Voc	β	[%/K]	<b>-</b> 0.27
Temperature Coefficient of P <sub>MPP</sub>	γ	[%/K]	-0.34	Nominal Module Operating Temperature	NMOT	[°F]	109±5.4 (43±3°C)

### PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage $V_{\mbox{\scriptsize SYS}}$	[V]	1000 (IEC)/1000 (UL)	PV module classification	Class II
Maximum Series Fuse Rating	[A DC]	20	Fire Rating based on ANSI/UL 61730	TYPE 2
Max. Design Load, Push / Pull <sup>3</sup>	[lbs/ft <sup>2</sup> ]	75 (3600 Pa) / 55 (2660 Pa)	Permitted Module Temperature	−40°F up to +185°F
Max. Test Load, Push / Pull <sup>3</sup>	[ <b>l</b> bs/ft <sup>2</sup> ]	113 (5400 Pa) / 84 (4000 Pa)	on Continuous Duty	(-40°C up to +85°C)

3 See Installation Manual

### **QUALIFICATIONS AND CERTIFICATES**

UL 61730, CE-compliant, Quality Controlled PV - TÜV Rheinland, IEC 61215:2016, IEC 61730:2016, U.S. Patent No. 9,893,215 (solar cells)













PACKAGING INFORMATION







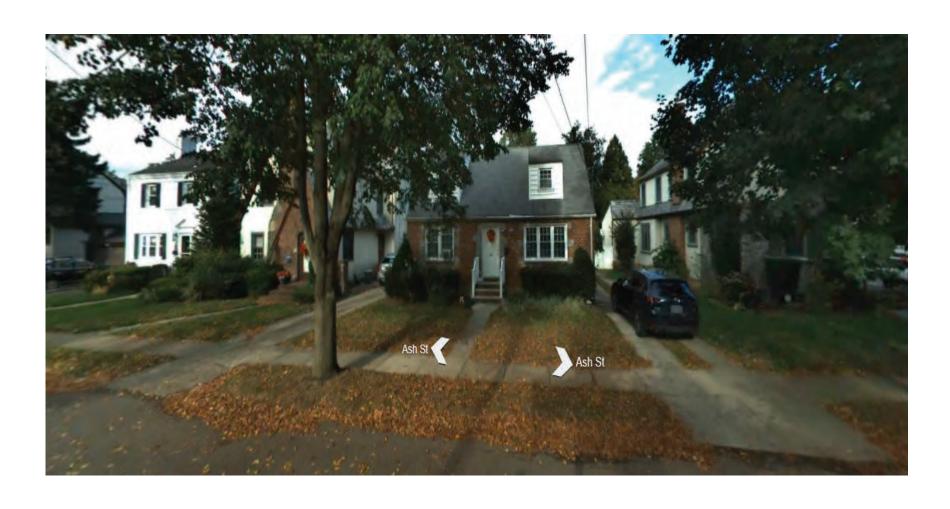


Horizontal 76.4 in 43.3 in 48.0 in 1656lbs 24 24 32 packaging 1940 mm 1100mm 1220 mm 751kg pallets pallets modules

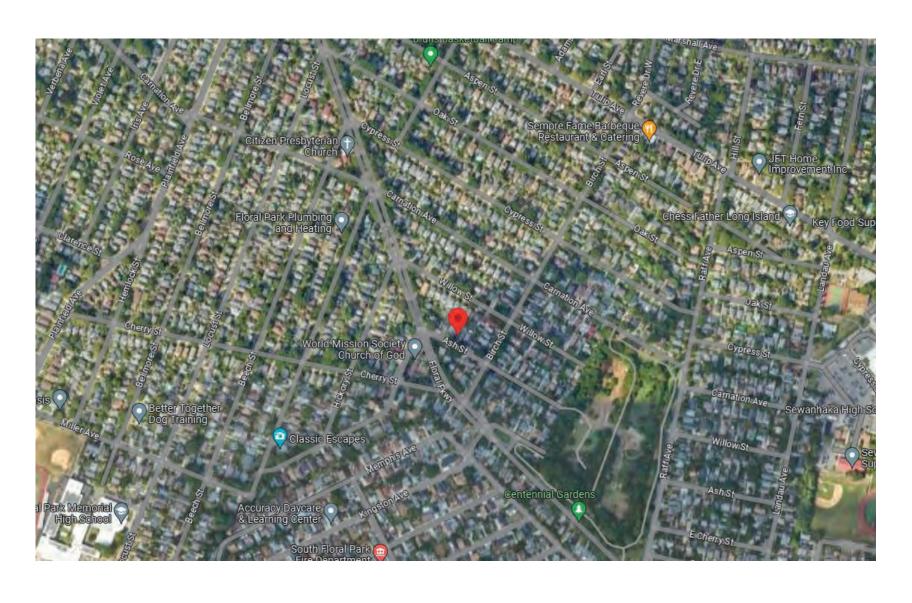
Note: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.

### Hanwha Q CELLS America Inc.

Case No.	Approximate Time	Address #	Street	Description	Owner	Design Professional	
5	8:20 p.m.	11	Ash Street	Solar	Fatima Hoque	Sunrun	



# 11 Ash Street (Aerial View)

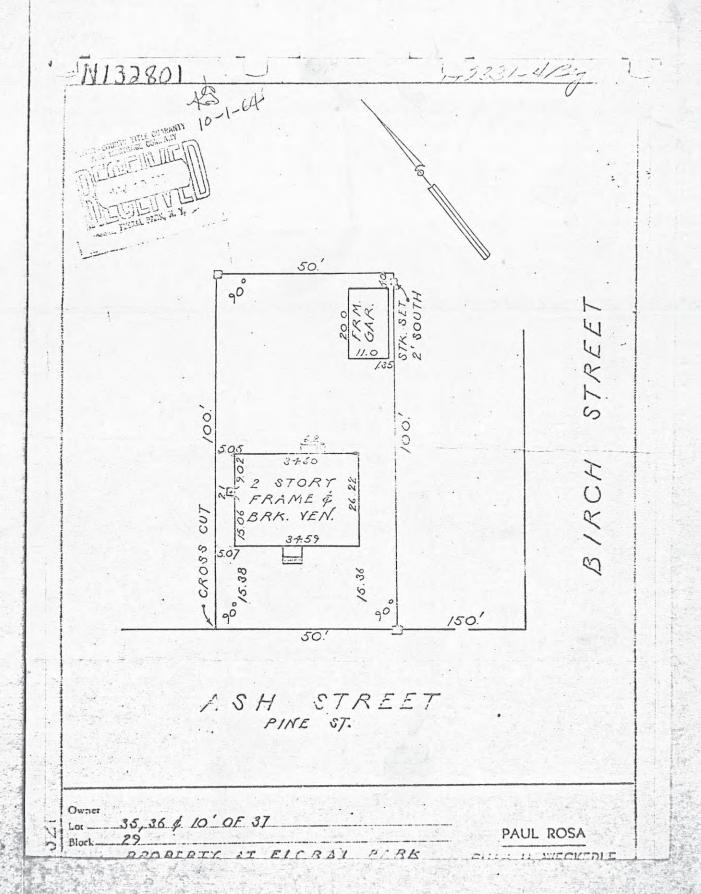


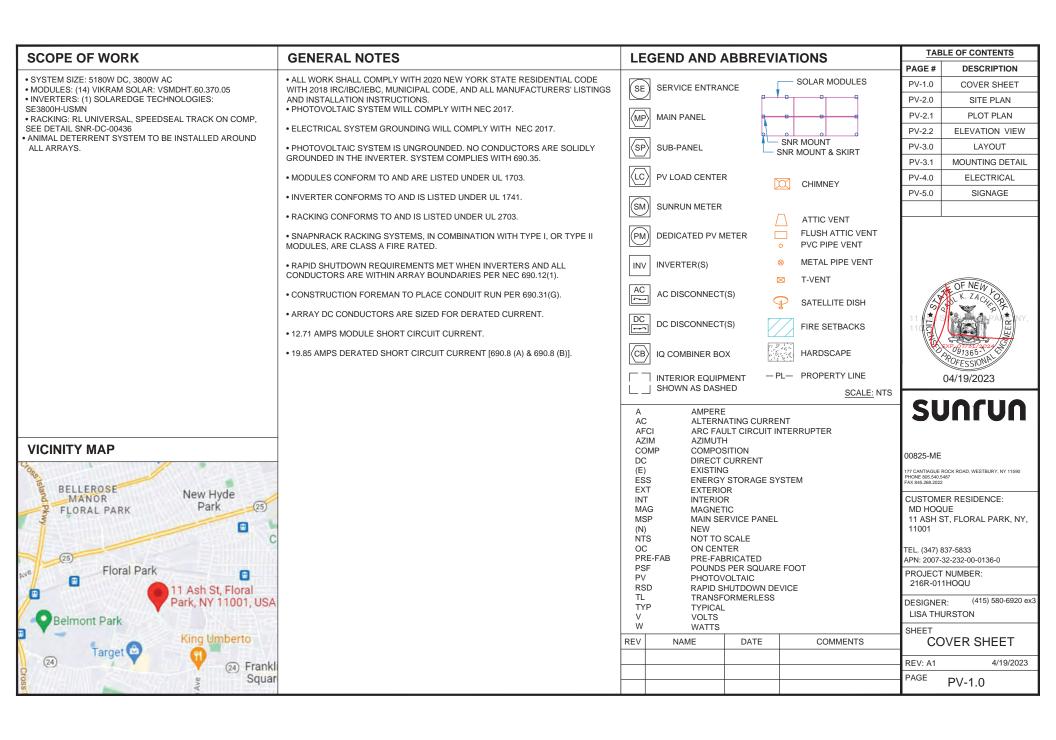












| ARRAY | TRUE | MAG | PV AREA | PITCH | AZIM | AZIM | (SQFT) | AR-01 | 14° | 30° | 42° | 279.5



# SUNTUN

04/19/2023

00825-ME

177 CANTIAGUE ROCK ROAD, WESTBURY, NY 11590 PHONE 805.540.5487 FAX 845.268.2022

CUSTOMER RESIDENCE: MD HOQUE

11 ASH ST, FLORAL PARK, NY, 11001

TEL. (347) 837-5833

APN: 2007-32-232-00-0136-0

PROJECT NUMBER: 216R-011HOQU

DESIGNER: (415) 580-6920 ex3

DESIGNER: (415) 580-6920 69 LISA THURSTON

SHEET

SITE PLAN

REV: A1

4/19/2023

PAGE

PV-2.0

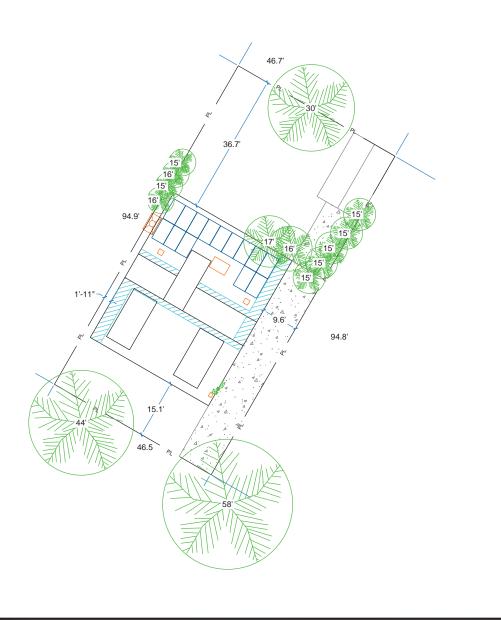
(E) GARAGE
GROUND ACCESS POINT  (E) GATE  ROOF PATHWAYS (3' TYP)  (E) RESIDENCE  FIRE SETBACKS (18" TYP)  SE AC INV

SITE PLAN - SCALE = 1/16" = 1'-0"

| ARRAY | TRUE | MAG | PV AREA | PITCH | AZIM | AZIM | (SQFT) | AR-01 | 14° | 30° | 42° | 279.5







# SUNTUN

00825-ME

177 CANTIAGUE ROCK ROAD, WESTBURY, NY 11590 PHONE 805.540.5487 FAX 845.268.2022

CUSTOMER RESIDENCE: MD HOQUE

11 ASH ST, FLORAL PARK, NY, 11001

TEL. (347) 837-5833

APN: 2007-32-232-00-0136-0

PROJECT NUMBER: 216R-011HOQU

DESIGNER: (4

(415) 580-6920 ex3

GNER: (413) 300-0920 67

LISA THURSTON

SHEET

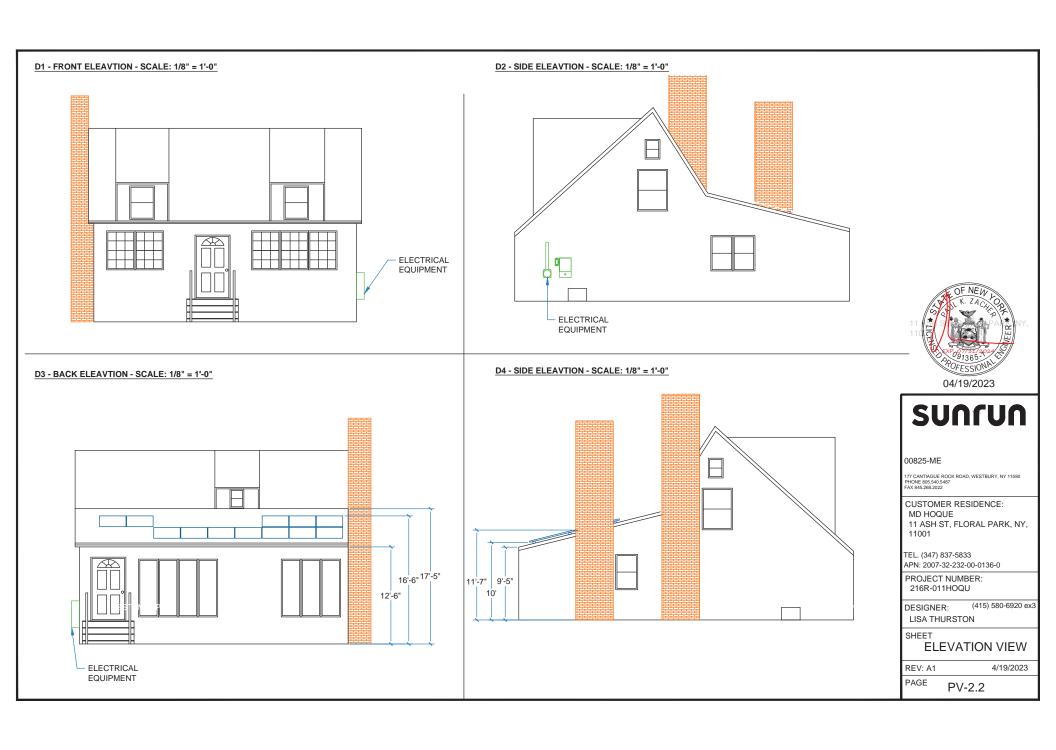
PLOT PLAN

REV: A1

4/19/2023

PAGE

PV-2.1



Г		ROOF INFO		FRAMING INFO				ATTACHMENT INFORMATION					
١	Name	Туре	Height	Туре	Max Span	OC Spacing	Detail	Max Landscape OC Spacing	Max Landscape Overhang	Max Portrait OC Spacing	Max Portrait Overhang		M/ SN
A	AR-01	COMP SHINGLE - RLU	1-Story	2X8 RAFTERS	14' - 2"	16"	RL UNIVERSAL, SPEEDSEAL TRACK ON COMP, SEE DETAIL SNR-DC-00436	5' - 4"	2' - 1"	NA	NA		12 <b>S.S</b>
													E 14

**DESIGN CRITERIA** MAX DISTRIBUTED LOAD: 3 PSF SNOW LOAD: 25 PSF

WIND SPEED: 120 MPH 3-SEC GUST. .S.LAG SCREWS:

5/16": 2.5" MIN EMBEDMENT STRUCTURAL NOTES: INSTALLERS SHALL NOTIFY

- **ENGINEER OF ANY POTENTIAL** STRUCTURAL ISSUES OBSERVED PRIOR TO PROCEEDING W/ INSTALLATION.
- IF ARRAY (EXCLUDING SKIRT) IS WITHIN 12" BOUNDARY REGION OF ANY ROOF PLANE EDGES (EXCEPT VALLEYS), THEN ATTACHMENTS NEED TO BE ADDED AND OVERHANG REDUCED WITHIN THE 12" BOUNDARY REGION ONLY AS FOLLOWS:
- •• ALLOWABLE ATTACHMENT SPACING INDICATED ON PLANS TO BE REDUCED BY
- •• ALLOWABLE OVERHANG INDICATED ON PLANS TO BE 1/5TH OF ALLOWABLE ATTACHMENT SPACING INDICATED ON PLANS

## SUNTUN

00825-ME

177 CANTIAGUE ROCK ROAD, WESTBURY, NY 11590 PHONE 805.540.5487 FAX 845.268.2022

CUSTOMER RESIDENCE: MD HOQUE

11 ASH ST, FLORAL PARK, NY. 11001

TEL. (347) 837-5833 APN: 2007-32-232-00-0136-0

PROJECT NUMBER: 216R-011HOQU

DESIGNER:

(415) 580-6920 ex3

LISA THURSTON

SHEET

**LAYOUT** 

REV: A1

4/19/2023

PAGE

PV-3.0

-31'-2" --3'-2" 6'-10" -13'-11" --10'-4" -**∤**10" 5'-3" 0 0 1'-5"

> INSTALLERS SHALL NOTIFY ENGINEER OF ANY POTENTIAL STRUCTURAL ISSUES OBSERVED PRIOR TO PROCEEDING W/ INSTALLATION.

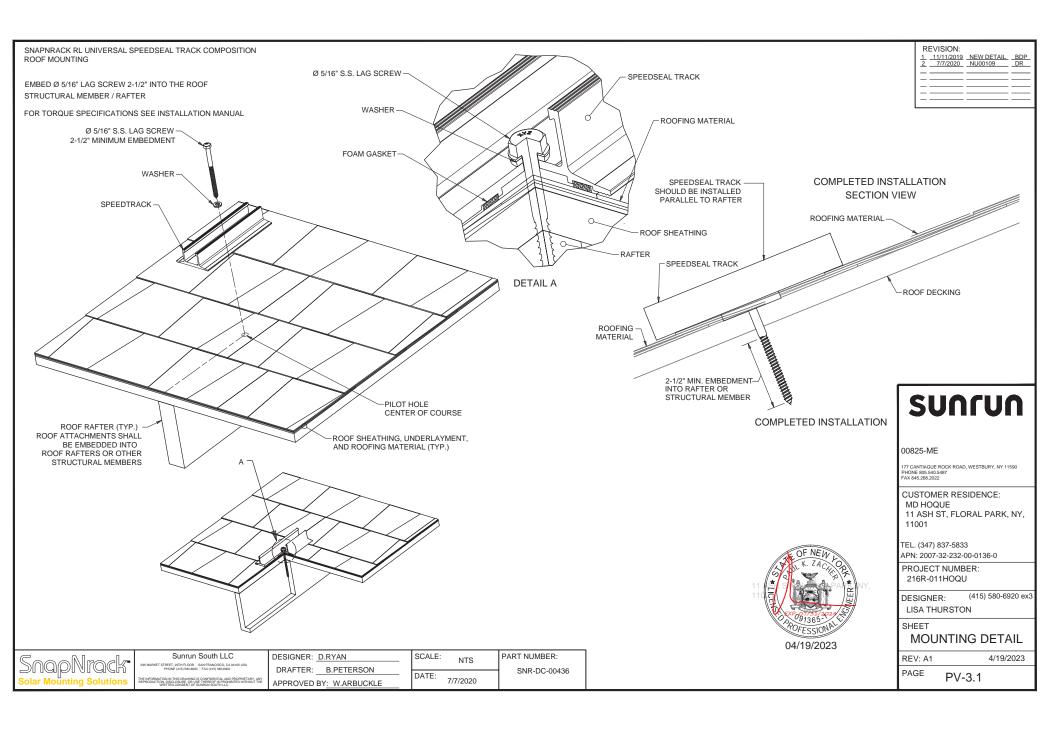
\* IF ARRAY (EXCLUDING SKIRT) IS WITHIN 12" BOUNDARY REGION OF ANY ROOF PLANE EDGES (EXCEPT VALLEYS), THEN ATTACHMENTS NEED TO BE ADDED AND OVERHANG REDUCED WITHIN THE 12" BOUNDARY REGION ONLY AS FOLLOWS: \*\* ALLOWABLE ATTACHMENT SPACING INDICATED ON PLANS TO BE REDUCED BY 50%. \*\* ALLOWABLE OVERHANG INDICATED ON PLANS TO BE 1/5TH OF ALLOWABLE ATTACHMENT SPACING INDICATED ON PLANS.

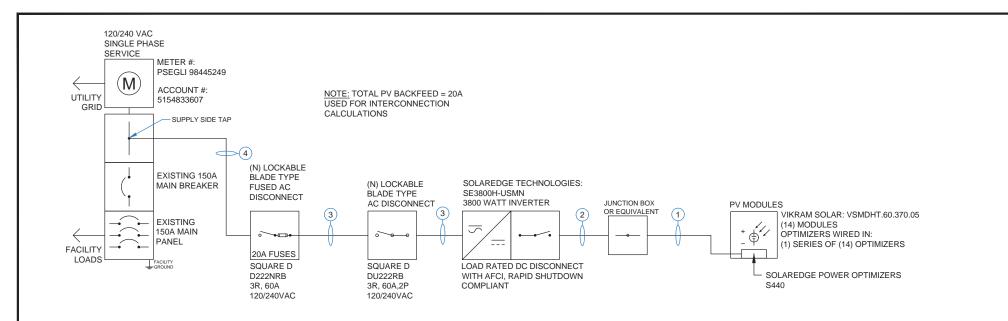


SEE SITE PLAN FOR NORTH ARROW

D1 - AR-01 - SCALE: 1/4" = 1'-0"

AZIM: 30° PITCH: 14°





CON	DUIT SCHEDULE			
#	CONDUIT	CONDUCTOR	NEUTRAL	GROUND
1	NONE	(2) 10 AWG PV WIRE	NONE	(1) 6 AWG BARE COPPER
2	1" PVC OR EQUIV.	(2) 10 AWG THHN/THWN-2	NONE	(1) 10 AWG THHN/THWN-2
3	1" PVC OR EQUIV.	(2) 10 AWG THHN/THWN-2	(1) 10 AWG THHN/THWN-2	(1) 8 AWG THHN/THWN-2
4	1" PVC OR EQUIV.	(2) 6 AWG THHN/THWN-2	(1) 8 AWG THHN/THWN-2	(1) 8 AWG THHN/THWN-2

#### MODULE CHARACTERISTICS

 VIKRAM SOLAR: VSMDHT.60.370.05:
 370 W

 OPEN CIRCUIT VOLTAGE:
 41.1 V

 MAX POWER VOLTAGE:
 34.9 V

 SHORT CIRCUIT CURRENT:
 12.71 A

### S440 OPTIMIZER CHARACTERISTICS:

MIN INPUT VOLTAGE: 8 VDC
MAX INPUT VOLTAGE: 60 VDC
MAX INPUT ISC: 14.5 ADC
MAX OUTPUT CURRENT: 15 ADC

### **SYSTEM CHARACTERISTICS - INVERTER 1**

SYSTEM SIZE: 5180 W
SYSTEM OPEN CIRCUIT VOLTAGE: 14 V
SYSTEM OPERATING VOLTAGE: 380 V
MAX ALLOWABLE DC VOLTAGE: 480 V
SYSTEM OPERATING CURRENT: 13.63 A
SYSTEM SHORT CIRCUIT CURRENT: 15 A

# SUNTUN

00825-ME

177 CANTIAGUE ROCK ROAD, WESTBURY, NY 11590 PHONE 805.540.5487 FAX 845.268.2022

CUSTOMER RESIDENCE: MD HOQUE

11 ASH ST, FLORAL PARK, NY, 11001

TEL. (347) 837-5833 APN: 2007-32-232-00-0136-0

PROJECT NUMBER: 216R-011HOQU

DESIGNER: (415) 580-6920 ex3

LISA THURSTON

SHEET

ELECTRICAL

REV: A1

\_\_\_\_\_

4/19/2023

PAGE PV-4.0



ELECTRICAL SHOCK HAZARD

TERMINALS ON LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

LABEL LOCATION:

INVERTER(S), AC/DC DISCONNECT(S), AC COMBINER PANEL (IF APPLICABLE). PER CODE(S): NEC 2017: 690.13(B)



POWER SOURCE OUTPUT CONNECTION

DO NOT RELOCATE THIS OVERCURRENT DEVICE

LABEL LOCATION:
ADJACENT TO PV BREAKER (IF APPLICABLE).
PER CODE(S): NEC 2017:
705.12(B)(2)(3)(b)

### **MARNING**

PHOTOVOLTAIC SYSTEM COMBINER PANEL

DO NOT ADD LOADS

LABEL LOCATION:
PHOTOVOLTAIC AC COMBINER (IF APPLICABLE).

PER CODE(S): NEC 2017: 705.12(B)(2)(3)(c)

INVERTER 1

### PHOTOVOLTAIC DC DISCONNECT

MAXIMUM SYSTEM VOLTAGE:

MAXIMUM CIRCUIT CURRENT:

MAX RATED OUTPUT CURRENT OF THE CHARGE

CONTROLLER OR DC-TO-DC CONVERTER (IF INSTALLED): 15 ADC

LABEL LOCATION: INVERTER(S), DC DISCONNECT(S).

PER CODE(S): CEC 2019: 690.53, NEC 2017: 690.53

NOTES AND SPECIFICATIONS:

- SIGNS AND LABELS SHALL MEET THE REQUIREMENTS OF THE NEC 2017 ARTICLE 110.21(B), UNILESS SPECIFIC INSTRUCTIONS ARE REQUIRED BY SECTION 690, OR IF REQUESTED BY THE LOCAL AHJ.
- SIGNS AND LABELS SHALL ADEQUATELY WARN OF HAZARDS USING EFFECTIVE WORDS, COLORS AND SYMBOLS.
- LABELS SHALL BE PERMANENTLY AFFIXED TO THE EQUIPMENT OR WIRING METHOD AND SHALL NOT BE HAND WRITTEN.
- LABEL SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.
- SIGNS AND LABELS SHALL COMPLY WITH ANSI Z535.4-2011, PRODUCT SAFETY SIGNS AND LABELS. UNLESS OTHERWISE SPECIFIED.
- DO NOT COVER EXISTING MANUFACTURER LABELS.

### <u>!</u>WARNING

DUAL POWER SUPPLY

SOURCES: UTILITY GRID AND PV SOLAR ELECTRIC SYSTEM

LABEL LOCATION: UTILITY SERVICE METER AND MAIN SERVICE PANEL

PER CODE(S): NEC 2017: 705.12(B)(3)

# RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM

LABEL LOCATION:

INSTALLED WITHIN 3' OF RAPID SHUT DOWN SWITCH PER CODE(S): NEC 2017: 690.56(C)(3), IFC 2012: 605.11.1, IFC 2018: 1204.5.3

# WARNING: PHOTOVOLTAIC POWER SOURCE

LABEL LOCATION:

INTERIOR AND EXTERIOR DC CONDUIT EVERY 10 FT, AT EACH TURN, ABOVE AND BELOW PENETRATIONS, ON EVERY JB/PULL BOX CONTAINING DC CIRCUITS. PER CODE(5): NEC 2017: 690.31(G)(3), 690.31(G)(4), IFC 2012: 695.11.1.4

PHOTOVOLTAIC AC DISCONNECT

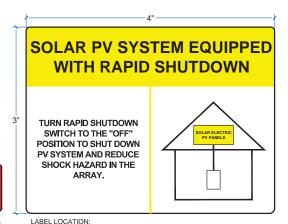
MAXIMUM AC OPE**RATINIAMORR**RENT:

NOMINAL OPERATING AC VOLTAGE: 240 VAC

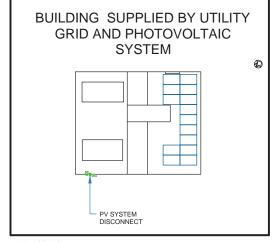
LABEL LOCATION:

AC DISCONNECT(S), PHOTOVOLTAIC SYSTEM POINT OF INTERCONNECTION.

PER CODE(S): NEC 2017: 690.54



LABEL LOCATION:
ON OR NO MORE THAT 1 M (3 FT) FROM THE SERVICE
DISCONNECTING MEANS TO WHICH THE PV SYSTEMS
ARE CONNECTED.
PER CODE(S): NEC 2017: 690.56(C)(1)(a)



LABEL LOCATION:
POINT OF INTERCONNECTION
(PER CODE: NEC690.56(B), NEC705.10, 225.37, 230.2(E))

# SUNTUN

00825-ME

177 CANTIAGUE ROCK ROAD, WESTBURY, NY 11590 PHONE 805.540.5487 FAX 845.268.2022

CUSTOMER RESIDENCE: MD HOQUE

11 ASH ST, FLORAL PARK, NY, 11001

TEL. (347) 837-5833

APN: 2007-32-232-00-0136-0

PROJECT NUMBER: 216R-011HOQU

DESIGNER: (415) 580-6920 ex3 LISA THURSTON

SHEET

SIGNAGE

REV: A1

4/19/2023

PAGE PV-

PV-5.0

# PREXOS

# SERIES 6

Monocrystalline Solar PV Modules, Bifacial, MBB, M6 Half-Cell, PREXOS VSMDHT.60.AAA.05

340-375 | 20.22

MAXIMUM EFFICIENCY %

POSITIVE POWER TOLERANCE WP

0~+4.99

CELLS (HALF CUT)

M6 120





### **EFFECTIVE GAIN OF 1% OF CELL ACTIVE AREA** by using cylindrical tabbing wire



Bypass diodes and innovative seriesparallel connections enable the module to perform better in PARTIAL SHADOW CONDITIONS



### BETTER TOLERANCE TO MICRO CRACK

Higher number of busbar makes the PV modules less prone to loss in efficiency due to micro-cracks.



IMPROVED FIELD RELIABILITY due to multiple contact points on the cell.



### SUPERIOR PRICE PERFORMANCE

half-cut improves the output of the module without adding much to cost



**UP TO 15% POWER GAIN** from ground facing side

### INCREASED SHADE TOLERANCE



HALF-CELL MODULE

Functions like two parallel modules, enabling the half-cell string to work in partial shading











### **APPLICATIONS**

- On-grid large scale utility systems
- On-arid rooftop industrial and commercial systems
- Rooftop residential systems







# TECHNICAL DATA PREXOS SERIES 6 120CELLS - MBB

### THIS DATASHEET IS APPLICABLE FOR: PREXOS VSMDHT.60.AAA.05 (AAA=340-375)

### Electrical Data<sup>1,2</sup> All data refers to STC (AM 1.5, 1000 W/m², 25°C)

Peak Power P <sub>max</sub> (0 ~ +4.99Wp)	340	345	350	355	360	365	370	375
Maximum Voltage V <sub>mpp</sub> (V)	34.5	34.6	34.6	34.7	34.7	34.8	34.9	34.9
Maximum Current I <sub>mpp</sub> (A)	9.88	10.01	10.13	10.27	10.41	10.53	10.65	10.75
Open Circuit Voltage V <sub>oc</sub> (V)	40.6	40.7	40.8	40.8	40.9	41	41.1	41.1
Short Circuit Current I <sub>sc</sub> (A)	10.9	11.01	11.13	11.25	11.35	11.45	11.55	11.65
Module Efficiency η(%)	18.34	18.61	18.88	19.14	19.41	19.68	19.95	20.22

1] STC:1000 W/m² irradiance, 25°C cell temperature, AM1.5g spectrum according to EN 60904-3. | 2) Power measurement uncertainty is within +/- 2%.

### Electrical Parameters at NOCT<sup>3</sup>

Power (W)	251.6	255.3	259	262.7	266.4	270.1	273.8	277.5
V@P <sub>max</sub> (V)	31.9	32	32	32.1	32.1	32.2	32.2	32.2
I@P <sub>max</sub> (A)	7.9	8.01	8.1	8.22	8.33	8.42	8.52	8.6
V <sub>oc</sub> (V)	37.9	38	38.1	38.1	38.2	38.3	38.4	38.4
I <sub>sc</sub> (A)	9.93	10.03	10.14	10.25	10.34	10.43	10.52	10.61

### **Equivalent Bifacial Output**

Bifacial Gain								
5%	357	362.25	367.5	372.75	378	383.25	388.5	393.75
10%	374	379.5	385	390.5	396	401.5	407	412.5
15%	391	396.75	402.5	408.25	414	419.75	425.5	431.25

### Temperature Coefficients (Tc) permissible operating conditions

Tc of Open Circuit Voltage (β)	-0.27%/°C	
Tc of Short Circuit Current (α)	0.050%/°C	
Tc of Power (γ)	-0.35%/°C	
Maximum System Voltage	1500V	
NOCT	45°C ± 2°C	
Temperature Range	-40°C to + 85°C	

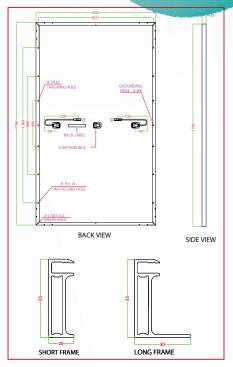
### Mechanical Data

Length × Width × Height	<mark>1766</mark> × 1050 × 35mm (69.53 × 41.34 × 1.38 inches)
Weight	20.3 Kg (44.75 lbs)
Junction Box	IP68, Split Junction Box with individual bypass diodes
Cable & Connectors#	200 mm (+ve terminal) and 300 mm(-ve terminal) length cables,MC4 Compatible/MC4 Connectors
Application Class	Class A (Safety class II)
Superstrate	3.2 mm [0.125 inches] high transmission low iron tempered glass, AR coated
Cells	60 Mono-PERC (120 half-cells)
Back Sheet	High Transmittance Composite film with Clear Tedlar® from Dupont®
Frame	Anodized aluminium frame with twin wall profile
Encapsulant	Polyolefin (POE)
Mechanical Load Test	5400 Pa (Snow load), 2400 Pa (Wind load)
Maximum Series Fuse Rating	20 A

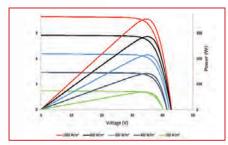
### Warranty and Certifications

Product Warranty**	12 years
Performance Warranty**	Linear Power Warranty for 27 years with 2% for 1st year degradation and 0.55% from year 2 to year 27
Approvals and Certificates	IEC 61215 : 2016, IEC 61730 : 2016, IEC 61701, IEC 62716, IEC 60068-2-68^, IEC 62804, CEC (California), UL 61215, UL61730, CAN-CSA, CE

### Dimensions in mm

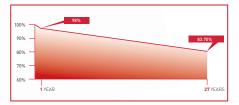


### Typical I-V Curves4



4) Average relative efficiency reduction of 5% at 200 W/m² according to EN 60904-1.

### Performance Warranty



### **Packaging Information**

Quantity /Pallet	31
Pallets/Container (40'HC)	26
Quantity/Container (40'HC)	806

CAUTION: READ SAFETY AND INSTALLATION MANUAL BEFORE USING THE PRODUCT.

Specifications included in this datasheet are subject to change without notice. Electrical data without quarantee. Please confirm your exact requirement with the company representative while placing your order \*Vikram Solar & Prexos and the accompanying Logos are trademarks of Vikram Solar Limited registered in India.





<sup>^</sup> All [^] certifications under progress.

\*\* Refer to Vikram Solar's warranty document for terms and conditions.

\*\* 400mm [15.3's inches], 1000mm [3.37 inches], 1200mm [4.7.24 inches]
cable lengths are also available.



# **SolarEdge Single Phase Inverters**

### For North America

SE3000A-US / SE3800A-US / SE5000A-US / SE7600A-US / SE10000A-US / SE11400A-US



### The best choice for SolarEdge enabled systems

- Integrated arc fault protection (Type 1) for NEC 2011 690.11 compliance
- Superior efficiency (98%)
- Small, lightweight and easy to install on provided bracket
- Built-in module-level monitoring
- Internet connection through Ethernet or Wireless
- Outdoor and indoor installation
- Fixed voltage inverter, DC/AC conversion only
- Pre-assembled Safety Switch for faster installation
- Optional revenue grade data, ANSI C12.1



# Single Phase Inverters for North America

SE3000A-US / SE3800A-US / SE5000A-US / SE6000A-US / SE7600A-US / SE10000A-US / SE11400A-US

	SE3000A-US	SE3800A-US	SE5000A-US	SE6000A-US	SE7600A-US	SE10000A- US	SE11400A-US	
OUTPUT								
Nominal AC Power Output	3000	3800	5000	6000	7600	9980 @ 208V 10000 @240V	11400	VA
Max. AC Power Output	3300	4150	5400 @ 208V 5450 @240V	6000	8350	10800 @ 208V 10950 @240V	12000	VA
AC Output Voltage MinNomMax. <sup>(1)</sup> 183 - 208 - 229 Vac	-	-	<b>✓</b>	-	-	✓	-	
AC Output Voltage MinNomMax. <sup>(1)</sup> 211 - 240 - 264 Vac	/	/	/	/	<b>✓</b>	✓ ·	✓	
AC Frequency MinNomMax. <sup>(1)</sup>	59.3 - 60 - 60.5 (with HI country setting 57 - 60 - 60.5)							Hz
Max. Continuous Output Current	12.5	16	24 @ 208V	25	32	48 @ 208V	47.5	A
GFDI Threshold			21 @ 240V	1		42 @ 240V		A
Utility Monitoring, Islanding Protectio	l n Country Confi	gurahle Thresh	olds	. Yes	•			Yes
INPUT	ii, country conii	guiable Tillesii	olus	163				163
Maximum DC Power (STC)	4050	5100	6750	8100	10250	13500	15350	W
Transformer-less, Ungrounded	1.550	1 0200	1 3.30	Yes	1 20200	1 23300	20000	
Max. Input Voltage		•	•	500	•			Vd
Nom. DC Input Voltage	†		325	@ 208V / 350	@ 240V	•		Vd
	9.5	13	16.5 @ 208V	1	Ī	33 @ 208V	24.5	Ad
Max. Input Current <sup>(2)</sup>	9.5	13	15.5 @ 240V	18	23	30.5 @ 240V	34.5	
Max. Input Short Circuit Current			•	. 45	•			Ad
Reverse-Polarity Protection			•	. Yes				
Ground-Fault Isolation Detection		ī	Î	600kΩ Sensitiv	1 '	î .		
Maximum Inverter Efficiency	97.7	98.2	98.3	98.3	98	98	98	%
CEC Weighted Efficiency	97.5	98	97.5 @ 208V 98 @ 240V	97.5	97.5	97 @ 208V 97.5 @ 240V	97.5	%
Nighttime Power Consumption			< 2.5			<	4	W
ADDITIONAL FEATURES								
Supported Communication Interfaces		•	. RS485, RS2	32, Ethernet, Zi	gBee (optional)	•		
Revenue Grade Data, ANSI C12.1	Optional <sup>(3)</sup>							
Rapid Shutdown – NEC 2014 690.12		Functiona	ality enabled who	en SolarEdge ra	pid shutdown k	it is installed <sup>(4)</sup>		
STANDARD COMPLIANCE								
Safety			. UL1741,	UL1699B, UL19	98 , CSA 22.2			
Grid Connection Standards		IEEE1547						
Emissions				FCC part15 clas	ss B			
INSTALLATION SPECIFICATIONS								
AC output conduit size / AWG range	3/4" minimum / 16-6 AWG					3/4" minimu	m / 8-3 AWG	
DC input conduit size / # of strings /	3/4" minimum / 1-2 strings / 16-6 AWG			3/4" minimum / 1-2 strings /				
AWG range		5/4 IIIIIIIIIIII / 1-2 Strings / 10-6 AVVG				14-6		
Dimensions with Safety Switch		30.5 x 12	2.5 x 7.2 / 775 x 3	315 x 184		30.5 x 12.		in
(HxWxD) Weight with Safety Switch	51.2	/ วว ว	1	54.7 / 24.7		88.4	15 x 260	l mn
Weight with Salety Switch	31.2	. 23.2	I	. 34./ / 24./	Natural	00.4	40.1	10/
					convection			
Cooling	Natural Convection and internal fan (user					Fans (user r	eplaceable)	
J						rans (aser replaceasie)		
					replaceable)			
Noise		<	25			< 50		dB/
MinMax. Operating Temperature	-13 to +140 / -25 to +60 (-40 to +60 version available <sup>(5)</sup> )						°F/	
Range								「/
Protection Rating				NEMA 3R				



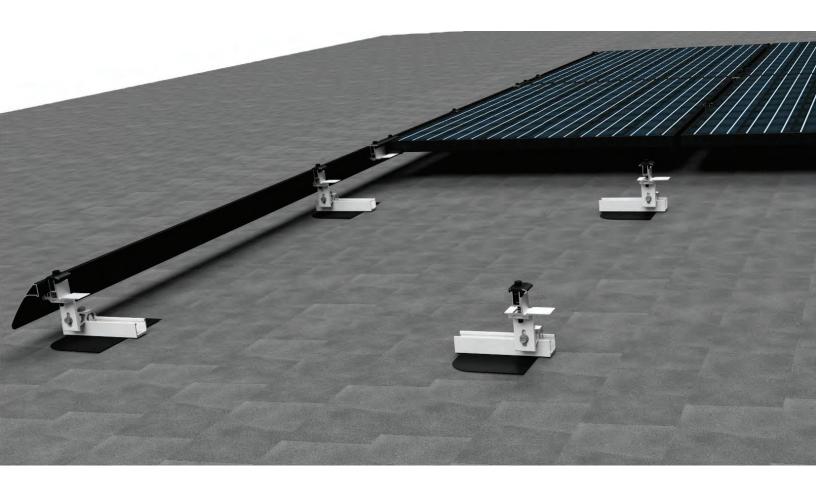




<sup>(</sup>i) For other regional settings please contact SolarEdge support.
(2) A higher current source may be used; the inverter will limit its input current to the values stated.
(3) Revenue grade inverter P/N: SEXXXXA-US000NNR2 (for 7600W inverter:SE7600A-US002NNR2).
(6) Rapids hutdown kit P/N: SEXXXXA-US000NNU4 (for 7600W inverter:SE7600A-US002NNU4).
(5) -40 version P/N: SEXXXXA-US000NNU4 (for 7600W inverter:SE7600A-US002NNU4).



# **RL Universal**



# Installing Solar Has Never Been This Fast & Easy



System designed with maximum versatility for any arrays including staggered



Simple design allows system to be installed by single installer on the roof



All parts fit in a box for easy logistics



Drop-in features make the install process intuitive and fast



Listed to UL Standard 2703 for Grounding/Bonding and Fire Classification

### **SnapNrack RL Universal**

is designed to provide the fastest, most intuitive install experience for residential roofs. The direct mount system features four basic components for easy material management. Features incredible flexibility with a single Universal mounts that fit module heights from 32 - 40 mm and the highest spans of any current rail less system.



### Flash Track with Patented Umbrella Technology

- Single Umbrella lag screw secures flashing and flash track to roof in one complete action
- Umbrella technology provides weatherproofing with a longlasting mechanical seal
- Flash track is designed for maximum versatility with 6 inches of North-South adjustability for all Mounts

### **Mounts**

- Single mount used at all locations on array
- Extreme time saver by eliminating link interference through the flexibility of the Mount to change orientation
- Features a rock-in channel nut design for easy attachment to Flash Track
- Slotted riser provides leveling for easy height adjustments





### Links

- Simple design provides mounting platform between two to four modules
- Clamps onto top of modules securing them in place while providing row-to-row bonding
- Next row of modules easily slides into place as with the Mounts

### Skirt

- Easily locks to bottom of module mounts and links for clean aesthetics
- Ensures a strong structure for leveling and alignment of first row of modules
- Skirt length is compatible with both portrait and landscape module orientations



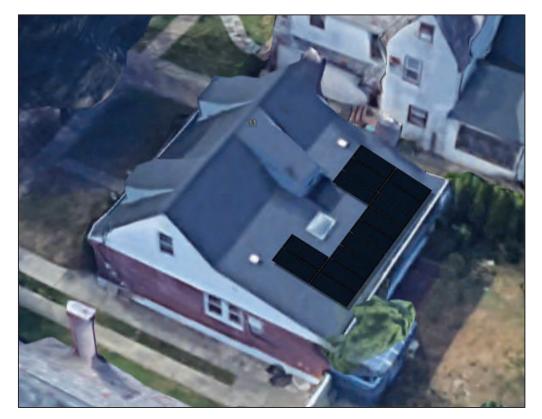
# Quality. Innovative. Superior.

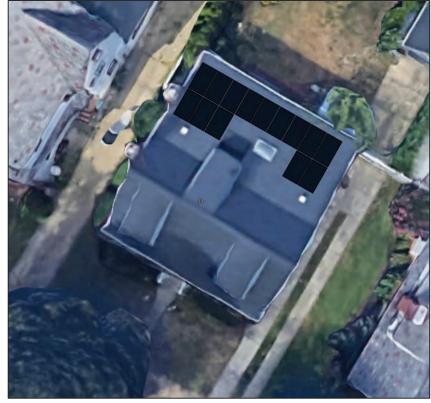
SnapNrack Solar Mounting Solutions are engineered to optimize material use and labor resources and improve overall installation quality and safety.

877-732-2860

www.snapnrack.com

contact@snapnrack.com







# SUNTUN

177 CANTIAGUE ROCK ROAD, WESTBURY, NY 11590 PHONE 805.540.5487 FAX 845.268.2022

CUSTOMER RESIDENCE: MD HOQUE 11 ASH ST, FLORAL PARK, NY, 11001

PROJECT NUMBER: 216R-011HOQU

REV: A1

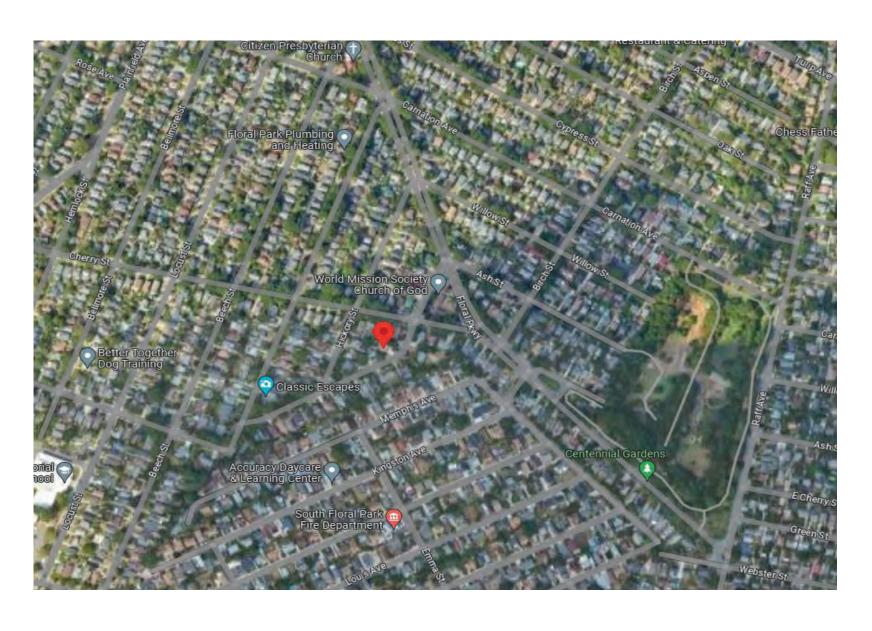
4/24/2023

PAGE ARB RENDERING

Case No.	Approximate Time	Address #	Street	Description	Owner	Design Professional	
6	8:25 p.m.	24	Cedar Place	Solar	Nico Cappuccio	Momentum Solar	



# 24 Cedar Place (Aerial View)



2

24 Cedar THLE NO FO GZION 33-217-

CHERRY (GARLIE ST.) (GO'WIPE) 59.48 MAP 5 67 57 E (90ED) (GD,B9 9000) 142.07 BRICK NO. 192 2 2:2% 8 401100 BLOCK 7-61 W (peep) LOTE 99 100 101 & PARTOF 102 BLOCK 34

" MAP OF PROPERTY OF FLORAL PARK VILLA CO."

DERTIFIED TO: COLONIAL MORTOLOG CORPORATION
JOHN M. MODES, JAMET A. MODES

ERLANDSEN-CROWELL & SHAW Civil Engineers & City Surveyors

ERLANDSEN-CROWELL & SHAW

241 JERICEO TPRE. NEW MYDE PARK, NY 11940

516-526-4855 718-526-6269

PLAN KEY						
PV-1	COVER PAGE					
PV-1(2)	COVER PAGE CONT.					
PV-2	PANEL LAYOUT					
PV-2(2)	PLOT LAYOUT					
PV-3	ELEVATION 1					
PV-4	ELEVATION 2					
PV-5	ELEVATION 3					
PV-6	SUPERIMPOSED PHOTOS					
PV-7	SUPERIMPOSED PHOTOS					
PV-8	ELECTRICAL					
PV-9	EQUIPMENT LABELS					

SYSTEM INFORMATION					
MODULE	HANWHA Q.PEAK DUO BLK-G10+ 365				
INVERTER	ENPHASE IQ8PLUS-72-2-US				
RACKING	ROOFTECH RT-APEX				
SYSTEM SIZE (DC)	4.745 KW				
LOCATION	40.7164828,-73.7004099				

#### **GENERAL NOTES:**

THIS PV SYSTEM HAS BEEN DESIGNED TO MEET THE MINIMUM DESIGN STANDARDS FOR BUILDING AND OTHER STRUCTURES OF THE ASCE 7-16, 2020 NYS BUILDING CODE AND 2020 NYS RESIDENTIAL CODE, NEC 2017 AND ALL LOCAL CODES & ORDINANCES.

AN 18" WIDE (FREE OF SOLAR EQUIPMENT) SHALL BE PROVIDED ON BOTH SIDES OF THE ROOF. NOT FEWER THAN TWO PATHWAYS, ON SEPARATE ROOF PLANES FROM LOWEST ROOF EDGE TO RIDGE AND NOT LESS THAN 36 INCHES (914 MM) WIDE, SHALL BE PROVIDED ON ALL BUILDINGS. NOT FEWER THAN ONE PATHWAY SHALL BE PROVIDED ON THE STREET OR DRIVEWAY SIDE OF THE ROOF. FOR EACH ROOF PLANE WITH A PHOTOVOLTAIC ARRAY, A PATHWAY NOT LESS THAN 36 INCHES WIDE (914 MM) SHALL BE PROVIDED FROM THE LOWEST ROOF EDGE TO RIDGE ON THE SAME ROOF PLANE AS THE PHOTOVOLTAIC ARRAY, ON AN ADJACENT ROOF PLANE, OR STRADDLING THE SAME AND ADJACENT ROOF PLANES.

ROOF SHALL HAVE NO MORE THAN TWO LAYERS OF COVERING IN ADDITION TO THE SOLAR EQUIPMENT.

INSTALLATION OF SOLAR EQUIPMENT SHALL BE FLUSH MOUNTED, PARALLEL TO AND NO MORE THAN 6-INCHES ABOVE THE SURFACE OF THE ROOF.

WEIGHT OF THE INSTALLED SYSTEM SHALL NOT EXCEED MORE THAN 5-PSF FOR PHOTOVOLTAIC AND NO MORE THAN 6-PSF FOR RESIDENTIAL SOLAR HOT WATER SYSTEMS.

ANY PLUMBING VENTS ARE NOT TO BE CUT OR COVERED FOR SOLAR EQUIPMENT INSTALLATION. ANY RELOCATION OR MODIFICATION OF THE VENT REQUIRES A PLUMBING PERMIT AND INSPECTION.

#### **INVERTER PLACEMENT:**

SYSTEM UTILIZES "ENPHASE" MICRO-INVERTERS WITH RAPID SHUTDOWN CONTROL LOCATED ON THE BACK SIDE OF EACH MODULE.

#### **BUILDING REVIEW NOTE:**

TOWN BUILDING PLANS EXAMINER HAS RECEIVED THE ENCLOSED DOCUMENT FOR MINIMUM ACCEPTABLE PLAN SUBMITTAL REQUIREMENTS OF THE TOWN AS SPECIFIED IN THE BUILDING AND/OR RESIDENTIAL CODE OF THE STATE OF NEW YORK. THISREVIEW DOES NOT GUARANTEE COMPLIANCE OF THAT CODE. THAT RESPONSIBILITY IS GUARANTEED UNDER THE SEAL AND SIGNATURE OF THE NEW YORK LICENSED DESIGN PROFESSIONAL OF RECORD. THAT SEAL AND SIGNATURE HAS BEEN INTERPRETED AS AN ATTESTATION THAT, TO THE BEST OF THE LICENSEE'S BELIEF AND INFORMATION, THE WORK IN DOCUMENT IS:

- ACCURATE
- CONFORMS WITH GOVERNING CODES APPLICABLE AT THE TIME OF THE SUBMISSION
- CONFORMS WITH REASONABLE STANDARDS OF PRACTICE AND WITH VIEW TO THE SAFEGUARDING OF LIFE, HEALTH, PROPERTY AND PUBLIC WELFARE IS THE RESPONSIBILITY OF THE LICENSEE.

THE RESPONSIBLE LICENSED DESIGN PROFESSIONAL SHALL PROVIDE A SIGNED AND SEALED LETTER CERTIFYING THE INSTALLATION WAS INSPECTED AND CONFORMS TO THE PLANS AND REQUIREMENTS OF THE 2020 NYS BUILDING CODE AND 2020 NYS RESIDENTIAL CODE. THIS INSPECTION AND CERTIFICATION LETTER SHALL BE PERFORMED AFTER INSTALLATIONS ARE COMPLETED AND SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT PRIOR TO SCHEDULING OF FINAL INSPECTION.

THE UL CERTIFICATE OF ELECTRICAL INSPECTIONS SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT PRIOR TO SCHEDULING OF FINAL INSPECTION.

**BILL OF MATERIALS** 

13

13

43

23

17

3

3

8

5

1

1

1

2

MODULES

INVERTERS

ROOFTECH BASE

MID CLAMP

END CLAMP

**END SPLICE** 

END FLOATING SPLICE

MID FLOATING SPLICE

SKIRTS

ENPHASE COMBINER BOX

SOLAR AC DISCONNECT

20A OCPD

125A LINE TAPS



PRO CUSTOM SOLAR LLC D.B.A. MOMENTUM SOLAR 3096 HAMILTON BLVD. BUILDING B, S.PLAINFIELD, NJ (732) 902-6224, MOMENTUMSOLAR.COM

#### PROFESSIONAL ENGINEERING



MINA A MAKAR, P.E. NY LICENSE # 104488 (732)-902-2224
30968 HAMILTON BUYDSOUTH PAINFIELD, NI 07068 FOR WIND
AND LOAD CALCULATIONS FOR SOLAR INSTALLATIONS FOR WIND
AND LOAD CALCULATIONS FOR SOLAR INSTALLATION SPANS &
ATTACHMENTS TO MEET LOCAL AND STATE BUILDING CODE
COMPLIANCE. WARNING THAT IT IS A VIOLATION OF THE LAW FOR
ANY PERSON, LINLESS ACTING LINDER THE DIRECTION OF A
LICENSED PROFESSIONAL, TO ALTER AN ITEM IN ANY WAY.

#### **CUSTOMER INFORMATION**

NICO CAPPUCCIO - MS124314 24 CEDAR PL FLORAL PARK, NY 11001 9176970578

JURISTICTION: NASSAU UTILITY: PSEGLI UTILITY ACCT #: UTILITY METER #:

## PV SYSTEM INFORMATION

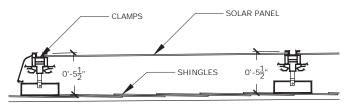
SYSTEM SIZE (DC ): 4.745 KW SYSTEM SIZE (AC ): 3.77 KVA 13 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365 (SAFE HARBOR MODULES: 0)

13 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION								
NITIAL	DATE: 4/14/2023	DESIGNER: NA						
REV:	DATE:	DESIGNER:						
REV:	DATE:	DESIGNER:						

**COVER PAGE** 

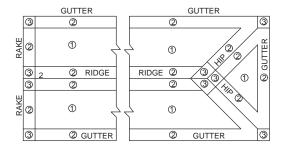
- 1. ALL WIND DESIGN CRITERIA ARE FOR LOW SLOPE ROOFS, GABLE AND HIP ROOFS CONSIDERED FROM AN ANGLE OF MIN. 9.5 ° ( $\frac{2}{12}$ ) TO MAX. 45° ( $\frac{12}{12}$ ) NOT TO EXCEED 30' MEAN ROOF HEIGHT ATTACHED WITH FASTENERS AS SPECIFIED BY THE
- SPAN TABLES ARE DERIVED FROM MECHANICAL LOAD TESTS PERFORMED BY THE MANUFACTURERS INDEPENDENT TESTING AGENCIES ON BEHALF OF THE MANUFACTURER.
- ROOF SEALANTS SHALL CONFORM TO ASTMC920 AND ASTM 6511
- ALL ATTACHMENTS SHALL BE INSTALLED IN STRICT COMPLIANCE WITH MANUFACTURERS PRINTED INSTRUCTIONS.



#### CROSS SECTION OF ROOF SHOWING ATTACHMENT DETAILS

SCALE: 1-1/2" = 1"

ATTACHMENT SPACING EXCEED MANUFACTURERS SPECIFICATIONS FOR WIND LOADS AS PER ASCE 07-16. RISK CATEGORY II TOPOGRAPHIC EFFECTS B,C, & D AND ROOF WIND ZONES 1,2,& 3. ROOF ZONES 2 & 3 ARE WITHIN 48" OF ANY OUTER EDGE, HIP, RIDGE, OR GUTTER LINE FOR STRUCTURES 30'- 0" OR LESS MEAN ROOF HEIGHT.



ROOF WIND ZONES AS PER IRC R301.2(7) ROOF ZONES 2 & 3 ARE 48" FROM OUTTER ROOF EDGES, RIDGES, HIPS, RAKES, AND GUTTER EDGES FOR STRUCTURES BELOW 30'-0" MEAN ROOF HT.

TOTAL WEIGHT OF PV MODULES AND RAILS	544.05 LBS
TOTAL NUMBER OF ATTACHMENT POINTS	40
WEIGHT PER ATTACHMENT POINT	13.60125 LBS
TOTAL SURFACE AREA OF PV MODULES	235.82 SQFT
DISTRIBUTED WEIGHT OF PV MODULE ON ROOF	2.31 LBS./SQFT



CLIMATIC & GEOGRAPHIC DESIGN CRITERIA

TABLE R301.2(1)

25

120

В

NO

2

В

4A

В

GROUND SNOW LOAD(LBS/SF)

SPEED (MPH)

TOPOGRAPHIC EFFECTS

SPECIAL WIND REGION

WIND BORNE DEBRIS ZONE

SEISMIC DESIGN CATEGORY

**CLIMATE ZONE** 

WIND EXPOSURE CATEGORY



THE EXISTING STRUCTURE IS ADEQUATE TO SUPPORT THE NEW LOADS IMPOSED BY THE PHOTOVOLTAIC MODULE SYSTEM INCLUDING UPLIFT & SHEAR.EXISTING RAFTER SIZES & DIMENSIONS CONFIRM TO 2020 NYS BUILDING CODE AND RESIDENTIAL CODE TABLE R802.5(1)-JOIST SPANS.

MOUNTING BRACKETS AND HARDWARE MEET OR EXCEED NEW 13 MODULES: HANWHA Q.PEAK DUO YORK STATE CODE REQUIREMENTS FOR THE DESIGN CRITERIABLK-G10+ 365 OF THE TOWN.



HANWHA Q.PEAK DUO BLK-G10+ 365 365 WATT MODULE 67.6" X 41.1" X 1.26 (SEE DATASHEET)



PRO CUSTOM SOLAR LLC D.B.A. MOMENTUM SOLAR 3096 HAMILTON BLVD. BUILDING B, S.PLAINFIELD, NJ (732) 902-6224, MOMENTUMSOLAR.COM

#### PROFESSIONAL ENGINEERING



INVA. MANAR, P.E. NY LICENSE 9 ID4480 (133)-902-8224 (1998) AND MICHORY BUDSOUTH PLANSED (137)-902-824 (1998) AND MICHORY BUDSOUTH PLANSED (137)-1005 FOR WIND UD LOND CALCULATIONS FOR SOLD MINSTALLATION SPANS & TACHMENT'S TO MEET LOCAL AND STATE BUILDING CODE TACHMENT'S TO MEET LOCAL AND STATE BUILDING CODE TO MEET LOCAL AND STATE BUILDING CODE OF THE LAW FOR STATE OF THE LAW FOR STATE OF THE LAW FOR THE LAW FOR STATE OF THE LAW FOR THE LAW FOR THE LAW FOR STATE OF THE LAW FOR THE

#### **CUSTOMER INFORMATION**

NICO CAPPUCCIO - MS124314 24 CEDAR PL FLORAL PARK, NY 11001 9176970578

JURISTICTION: NASSAU UTILITY: PSEGLI UTILITY ACCT #: UTILITY METER #:

#### PV SYSTEM INFORMATION

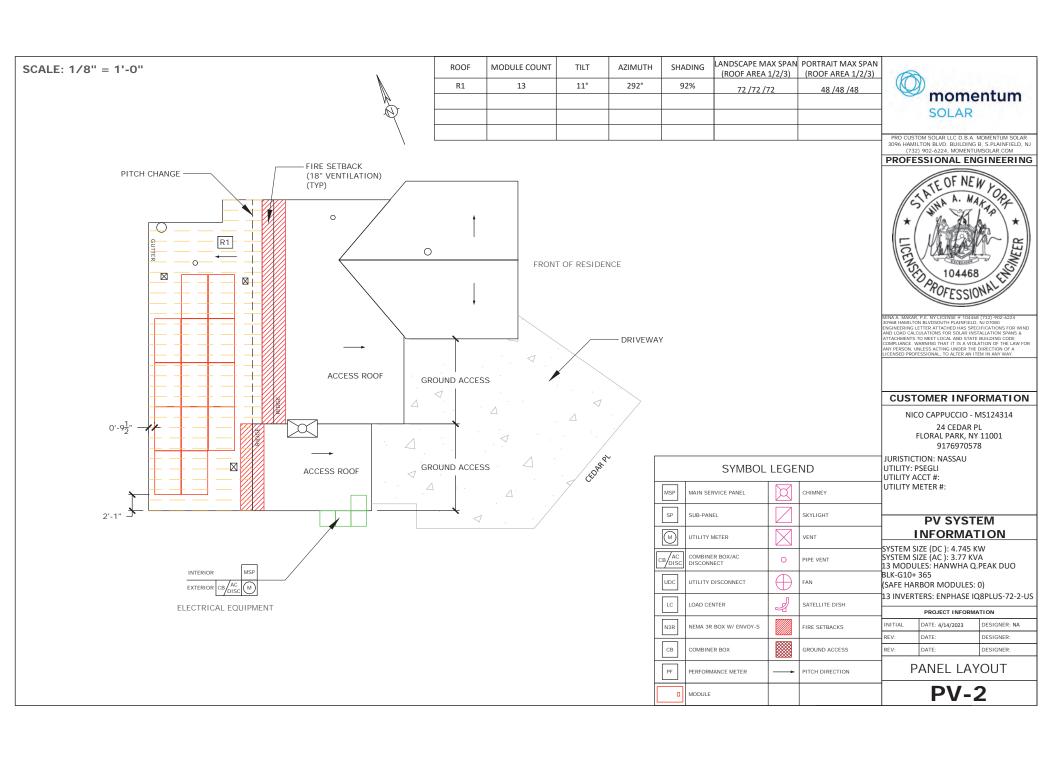
SYSTEM SIZE (DC.): 4.745 KW SYSTEM SIZE (AC ). 3 77 KVA

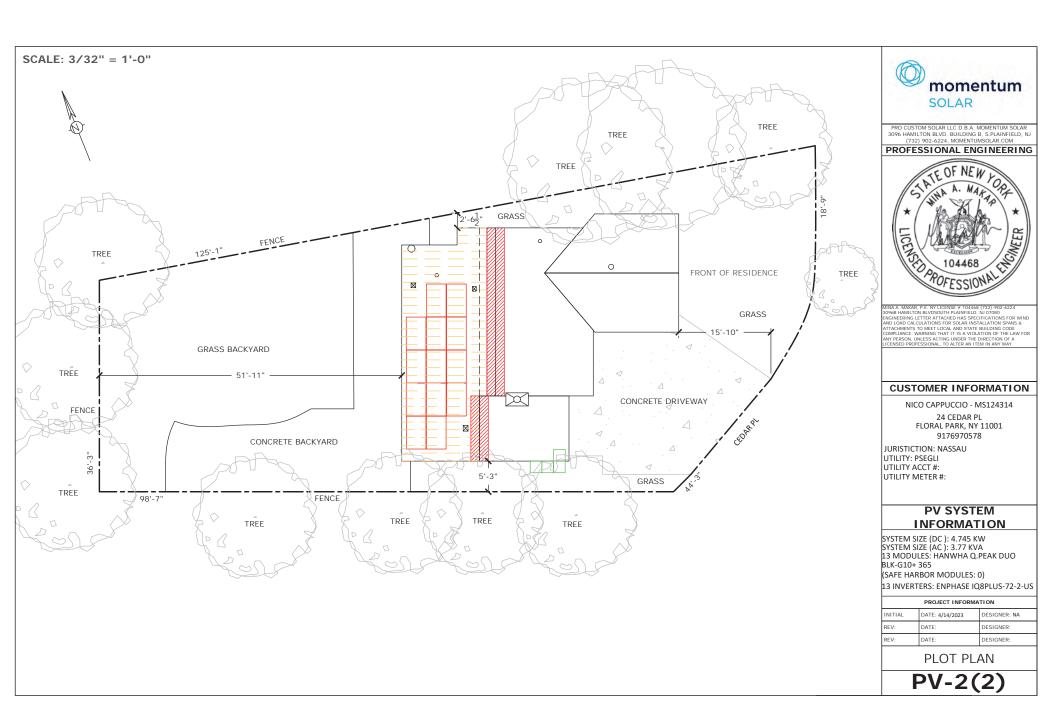
(SAFE HARBOR MODULES: 0)

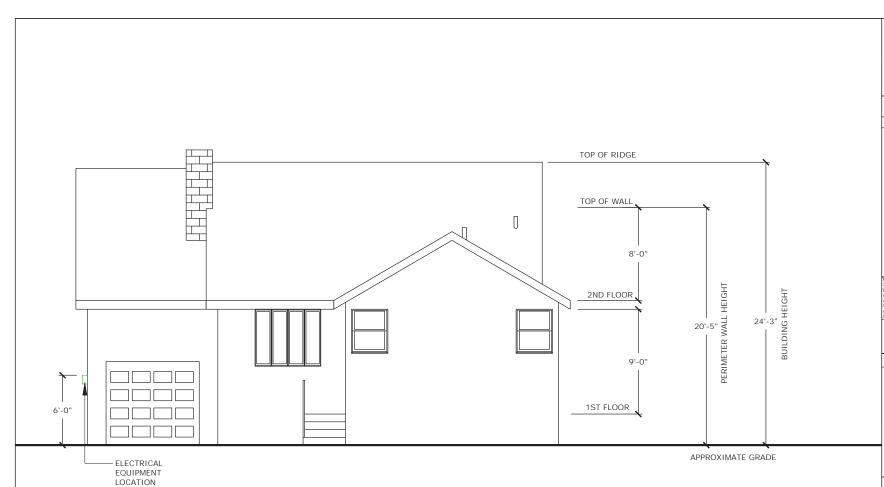
13 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION							
NITIAL	DATE: 4/14/2023	DESIGNER: NA					
REV:	DATE:	DESIGNER:					
REV:	DATE:	DESIGNER:					

ATTACHMENT DETAIL







FRONT ELEVATION SCALE: 3/16" = 1'-0"



PRO CUSTOM SOLAR LLC D.B.A. MOMENTUM SOLAR 3096 HAMILTON BLVD. BUILDING B, S.PLAINFIELD, NJ (732) 902-6224, MOMENTUMSOLAR.COM

#### PROFESSIONAL ENGINEERING



JIINA A. MAKAR, P.E. NYLLEESES F. 104468 17337-903-6224
20565 JAMIL OL BUYGOUNDE, 10416 JU 2070-6224
20565 JAMIL OL BUYGOUNDE, 10416 JU 2070-6224
20565 JAMIL OL BUYGOUNDE, 10416 JU 2070-6224
20565 JAMIL OL BUYGOUNDE, 10416 JAMIL SPECIFICATIONS FOR WIND
AND LOAD CALLOLATIONS FOR SCHOOL RISTALLATION SPANS &
ATTACHMENTS TO MEET LOCAL AND STATE BUILDING CODE
COMPLIANCE, WARNING THAT IT IS A VIOLATION OF THE JAWF OR
ANY PERSON, UNLESS ACTING UNDER THE DURETION OF A
LEFENER PROPERSIONAL, TO ALTER AN TERM AND THE MY OFFI

#### **CUSTOMER INFORMATION**

NICO CAPPUCCIO - MS124314 24 CEDAR PL FLORAL PARK, NY 11001 9176970578

JURISTICTION: NASSAU UTILITY: PSEGLI UTILITY ACCT #: UTILITY METER #:

## PV SYSTEM INFORMATION

SYSTEM SIZE (DC ): 4.745 KW SYSTEM SIZE (AC ): 3.77 KVA 13 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365

(SAFE HARBOR MODULES: 0)

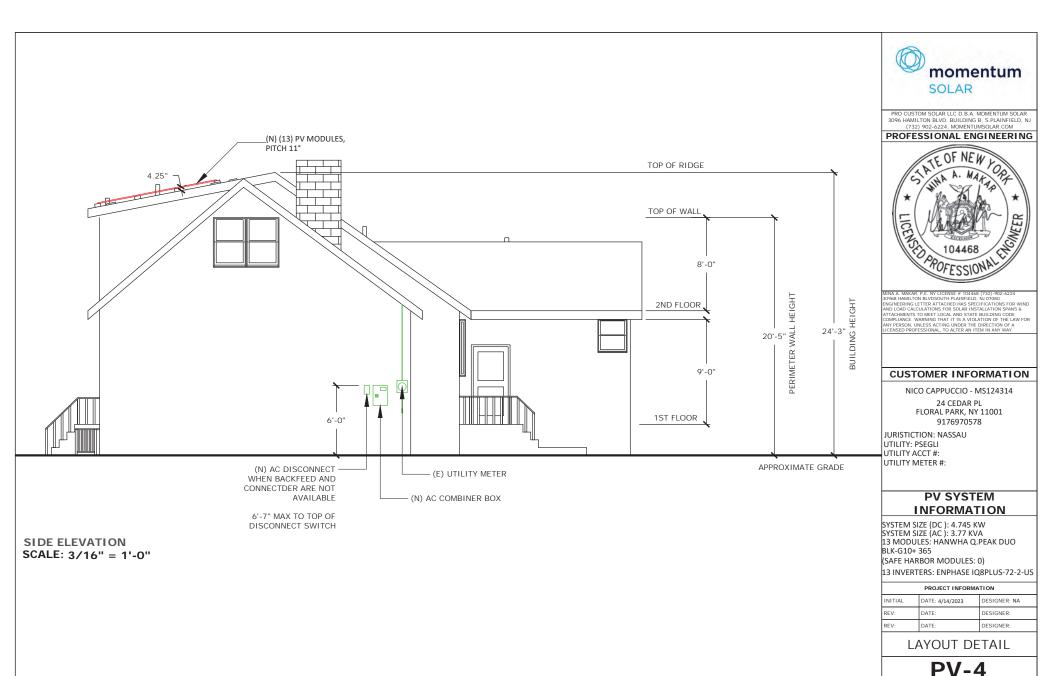
13 INVERTERS: ENPHASE IQ8PLUS-72-2-US

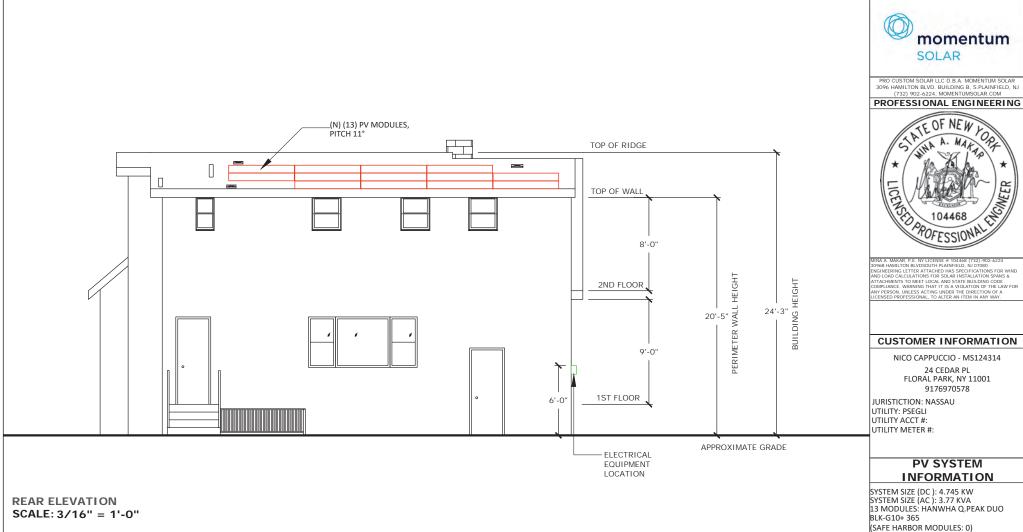
PROJECT INFORMATION

INITIAL DATE: 4/14/2023 DESIGNER: NA

EV:	DATE:	DESIGNER:
EV:	DATE:	DESIGNER:

LAYOUT DETAIL





momentum



MINA A MAKAR, P.E. NY LICENSE # 104468 (732)-902-6224
3096B HAMILTON BLUDSUHT PLANNFIELD, NJ 07080 FGR WIND
3096B HAMILTON BLUDSUHT PLANNFIELD, NJ 07080 FGR WIND
AND LOAD CALCULATIONS FOR SCALAR INSTALLATION SPANS &
ATTACHMENT TO MEET LOCAL AND STATE BUILDING CODE
COMPLIANCE WHOM THAT IT IS A VIOLATION OF THE LAW FOR
ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A
LETESCE PROFESSIONAL. TO ARTER AN ITAM IN ANY MET.

#### CUSTOMER INFORMATION

24 CEDAR PL FLORAL PARK, NY 11001

### INFORMATION

13 MODULES: HANWHA Q.PEAK DUO

13 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION									
INITIAL	DATE: 4/14/2023	DESIGNER: NA							
REV:	DATE:	DESIGNER:							
REV:	DATE:	DESIGNER:							

LAYOUT DETAIL



FRONT OF HOUSE

FRONT OF HOUSE WITH ADJACENT STRUCTURE



PRO CUSTOM SOLAR LLC D.B.A. MOMENTUM SOLAR 3096 HAMILTON BLVD. BUILDING B, S.PLAINFIELD, NJ (732) 902-6224, MOMENTUMSOLAR.COM

#### PROFESSIONAL ENGINEERING



INA A MACAR, P.E. NY LICENSE # 104468 (732)-992-6224 0968 HAMILTON BLYDSOUTH PLAINFIELD, N. 107080 NGINEERING, LETTER ATTA-HED HAS SPECIFICATIONS FOR WINE ND LOAD CALCULATIONS FOR SOLAR INSTALLATION SPANS & TRACHMENTS OF MEET LOCAL AND STATE BULLIONS CODE OMPLIANCE. WARNING THAT IT IS A VIGLATION OF THE LAW FOR VY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A

#### **CUSTOMER INFORMATION**

NICO CAPPUCCIO - MS124314 24 CEDAR PL FLORAL PARK, NY 11001 9176970578

JURISTICTION: NASSAU UTILITY: PSEGLI UTILITY ACCT #: UTILITY METER #:

## PV SYSTEM INFORMATION

SYSTEM SIZE (DC ): 4.745 KW SYSTEM SIZE (AC ): 3.77 KVA 13 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365

(SAFE HARBOR MODULES: 0)

13 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION							
INITIAL	DATE: 4/14/2023	DESIGNER: NA					
REV:	DATE:	DESIGNER:					
REV:	DATE:	DESIGNER:					

SUPERIMPOSED PHOTOS





PRO CUSTOM SOLAR LLC D.B.A. MOMENTUM SOLAR 3096 HAMILTON BLVD. BUILDING B, S.PLAINFIELD, NJ (732) 902-6224, MOMENTUMSOLAR.COM

#### PROFESSIONAL ENGINEERING



IÑA A. MAKAR, P.E. NY LICENSE # 104480 (732)-902-6224 YOBE HAMILTON BUVESOUTH PLAINFIELD, NI O7800 KOINEERING LETTER ATTACHED HAS SPECIFICATIONS FOR WIND NO LOND CALCULATIONS FOR SOLAR INSTALLATION SPANS & TTACHMENT'S TO MEET LOCAL AND STATE BUILDING CODE THE STATE OF THE STATE OF THE STATE OF THE STATE OF FOR WY PERSON, LIGHES ACTIFIES (LINEET THE DIRECTION OF ACCESSED PROFESSIONAL, TO ALTER AN ITEM IN ANY WAY.

#### SOUTHWEST ELEVATION NORTHEAST ELEVATION



#### CUSTOMER INFORMATION

NICO CAPPUCCIO - MS124314 24 CEDAR PL FLORAL PARK, NY 11001 9176970578

JURISTICTION: NASSAU UTILITY: PSEGLI UTILITY ACCT #: UTILITY METER #:

#### **PV SYSTEM** INFORMATION

SYSTEM SIZE (DC ): 4.745 KW SYSTEM SIZE (AC ): 3.77 KVA 13 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365

(SAFE HARBOR MODULES: 0)

13 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION								
INITIAL	DATE: 4/14/2023	DESIGNER: NA						
REV:	DATE:	DESIGNER:						
REV:	DATE:	DESIGNER:						

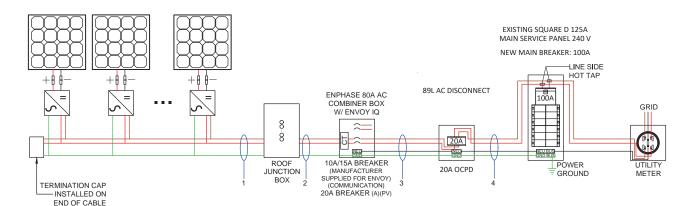
#### SUPERIMPOSED PHOTOS

**PV-7** 

**BACK OF HOUSE** 

#### 13 HANWHA Q.PEAK DUO BLK-G10+ 365 365W MODULES PAIRED WITH 13 ENPHASE IQ8PLUS-72-2-US MICRO-INVERTERS

BRANCH CIRCUIT A 13 MICRO-INVERTERS



#### SOLAR INSTALLER NOTES: 100A MAIN BREAKER INSTALL REQUIRED

#### **ELECTRICAL NOTES:**

- 1. ALL CALCULATIONS FOR VOC, VMAX, IMP AND ISC HAVE BEEN CALCULATED USING THE MANUFACTURED STRING CALCULATOR BASED ON ASHRAE 2% HIGH AND EXTREME MINIMUM TEMPERATURE COEFICIENTS.
- 2. THE ENTIRE ARRAY IS BONDED ACCORDING TO (NEC 690.46 250.120 PARAGRAPH C)
- 3. BRANCH CIRCUIT CALCULATION FOR WIRE TAG 1 DISPLAYS THE LARGEST 9, SYSTEM IS CONSIDERED AN AC MODULE SYSTEM, NO DC BRANCH CIRCUIT IN SYSTEM. OTHER BRANCH CIRCUITS WILL HAVE LOWER DESIGN CURRENT THAN THE ONE SHOWN.
- 4. THIS SYSTEM COMPLIES WITH NEC 2017
- 89L LESS THAN 10FT TO THE MAIN BREAKER/METER.

- 5. ALL CONDUCTORS ARE SIZED BASED ON NEC 2017 ARTICLE 310 6. ALL EQUIPMENT INSTALLED IS RATED AT 75°C UNLESS NOTED 7. INVERTER NOC (NOMINAL OPEN CURRENT) OBTAINED FROM **EQUIPMENT DATA SHEET**
- 8. GROUNDING CONDUCTOR RUN WITH PHASE CONDUCTOR IN THE SAME CONDUIT.
- CONDUCTORS ARE PRESENT IN CONDUIT, COMBINER, JUNCTION BOX, DISCONNECT. AND COMPILES WITH 690.6- NO DC. DISCONNECT AND ASSOCIATED DC CABLING ARE REQUIRED.
- 10. SYSTEM COMPLIES WITH 690.12 RAPID SHUTDOWN AND ASSOCIATED LABELING AS PER 690.56(C)(3). AC VOLTAGE AND SYSTEM OPERATING
- CIRCUITS AND NOT PV SOURCE CIRCUITS 690.6.
- 12. ALL GROUNDING SHALL COMPLY WITH 690.47(A) IN THAT THE AC MODULES SHALL COMPLY WITH 250.64.
- 14. WHERE APPLICABLE, INTERCONNECTION SHALL COMPLY WITH



PRO CUSTOM SOLAR LLC D.B.A. MOMENTUM SOLAR 3096 HAMILTON BLVD. BUILDING B, S.PLAINFIELD, NJ (732) 902-6224, MOMENTUMSOLAR.COM

#### PROFESSIONAL ENGINEERING



INVA. WARMAR, P.E. NY LICENSE # (104ENS) (132)-902-9224 MARIAN BURSOCUTH PRINTED. NJ 0706 NY 100 N

#### **ELECTRICIAN**

RO CUSTOM SOLAR DBA MOMENTUM SOLAR EFFREY MARINELLO, (732) 902-6224 096 HAMILTON BLVD. BUILDING B, SOUTH PLAINFIELD, NJ 07080

#### **CUSTOMER INFORMATION**

NICO CAPPUCCIO - MS124314 24 CEDAR PL FLORAL PARK, NY 11001 9176970578

JURISTICTION: NASSAU UTILITY: PSEGLI UTILITY ACCT #: UTILITY METER #:

#### PV SYSTEM INFORMATION

SYSTEM SIZE (DC): 4.745 KW SYSTEM SIZE (AC ): 3 77 KVA 3 MODULES: HANWHA Q.PEAK DUO LK-G10+ 365

SAFE HARBOR MODULES: 0)

3 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION							
NITIAL	DATE: 4/14/2023	DESIGNER: NA					
REV:	DATE:	DESIGNER:					
REV:	DATE:	DESIGNER:					

**ELECTRICAL** 

**PV-8** 

CURRENT SHALL BE PROVIDED AS PER 690.52. 11. CONDUCTORS IN CONDUIT ARE AC CONDUCTORS - BRANCH

13.NO TERMINALS WILL BE ENERGIZED IN THE OPEN POSITION IN THIS AC MODULE SYSTEM 690.6, 690.17.

705.12(A) OR 705.12(B) AS PERMITTED BY 230.82(6)

Wire Tag	Conduit	Wire Qty	Wire Gauge	Wire Type	Temp. Rating	Wire Ampacity (A)	Temp. Derate	Conduit Fill Derate	Derated Ampacity (A)	Inverter Qty	NOC (A)	NEC Correction	Design Current (A)	Ground Size	Ground Wire Type
1	OPEN AIR	2	12 AWG	Trunk Cable	90°C	30	0.96	1	28.80	13	1.21	1.25	19.66	12 AWG	Trunk Cable
2	3/4" PVC	2	10 AWG	THWN-2	90°C	40	0.96	1	38.40	13	1.21	1.25	19.66	08 AWG	THWN-2
3	3/4" PVC	3	10 AWG	THWN-2	75°C	35	0.96	1	33.60	13	1.21	1.25	19.66	08 AWG	THWN-2
4	3/4" PVC	3	06 AWG	THWN-2	75°C	65	0.96	1	62.40	13	1.21	1.25	19.66	08 AWG	THWN-2

TAG	LA	BEL	QUANTITY	LOCATION	NOTE
A	CAUTION: AC SOLAR VOLTAGE		12	AC CONDUITS	1 AT EVERY SEPARATION BY ENCLOSURES / WALLS / PARTITIONS / CEILINGS / FLOORS OR NO MORE THAN 10'
B	! WARNING PHOTOVOLTAIC POWER SOURCE	PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN	1	COMBINER BOX	1 AT ANY COMBINER BOX
©	ELECTRICAL SHOCK HAZARD TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION		1	JUNCTION BOX	1 AT ANY JUNCTION BOX
0	PV SYSTEM AC DISCONNECT RATED AC OUTPUT CURRENT A  NOMINAL OPERATING AC VOLTAGE 240 V  CAUTION  POWER TO THIS SERVICE IS ALSO SUPPLIED FROM ON-SITE SOLAR GENERATION AC SYSTEM DISCONNECT	ELECTRICAL SHOCK HAZARD TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION  RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM	1	AC DISCONNECT	1 OF EACH AT FUSED AC DISCONNECT COMPLETE VOLTAGE AND CURRENT VALUES ON DISCONNECT LABEL
(E)		PV METER	1	PV METER SOCKET	1 AT PV METER SOCKET AND ONE DIRECTORY PLACARD
Ē	DUAL POWER SOURCE SECOND SOURCE IS PHOTOVOLTAIC SYSTEM	REVENUE METER	1	UTILITY METER	1 AT UTILITY METER AND ONE DIRECTORY PLACARD
(G)	SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN  TURN RAPD SHUTDOWN SWITCH TO THE OFF POSITION TO SHUTDOWN PY SYSTEM AND REDUCE SHOOK HOZARD IN ARREAY	DUAL POWER SOURCE SECOND SOURCE IS PHOTOVOLTAIC SYSTEM	1	INTERCONNECTION POINT	1 OF EACH AT BUILDING
	WARNING: INVERTER OUTPUT CONNECT DO NOT RELOCATE THIS OVERCURRENT DEVICE	ION	1	BACKFEED PANEL	INTERCONNECTION POINT AND ONE DIRECTORY PLACARD
H	NOMINAL OPERATING AC VOLTAGE: 240 NOMINAL OPERATING AC FREQUENCY: I MAXIMUM AC POWER: 230VA MAXIMUM AC CURRENT: A MAXIMUM OVERCURRENT DEVICE RATIN AC MODULE PROTECTION: 20A	60HZ	1	AC CURRENT PV MODULES	



EXAMPLES







PRO CUSTOM SOLAR LLC D.B.A. MOMENTUM SOLAR 3096 HAMILTON BLVD. BUILDING B, S.PLAINFIELD, NJ (732) 902-6224, MOMENTUMSOLAR.COM

#### PROFESSIONAL ENGINEERING



IIINA A. MAKAR, PE. NY LICENSE # 104468 (732)-902-6224 (1965 HAMILTON BLYGSUTH PLAINTIELD NI 07680 HONG 1968 HAMILTON BLYGSUTH PLAINTIELD NI 07680 FOR WIND AND LOAD CALLUATIONS FOR SOME INSTITULATIONS FOR SOME NISTITULATION SPANS & ATTACHMENTS TO MEET LOCAL AND STATE BUILLINGS ODE COMPLIANCE, WARMING THAIT IT LIST AVIOLATION OF THE LAW FOR COMPLIANCE, WARMING THAIT IT LIST AVIOLATION OF THE LAW FOR LICENSED PROFESSIONAL, TO ALTER AN ITEM IN ANY WAY.

#### **CUSTOMER INFORMATION**

NICO CAPPUCCIO - MS124314 24 CEDAR PL FLORAL PARK, NY 11001 9176970578

JURISTICTION: NASSAU UTILITY: PSEGLI UTILITY ACCT #: UTILITY METER #:

## PV SYSTEM INFORMATION

SYSTEM SIZE (DC ): 4.745 KW SYSTEM SIZE (AC ): 3.77 KVA 13 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365

(SAFE HARBOR MODULES: 0)

13 INVERTERS: ENPHASE IQ8PLUS-72-2-US

	PROJECT INFORMATION			
NITIAL	DATE: 4/14/2023	DESIGNER: NA		
REV:	DATE:	DESIGNER:		
REV:	DATE:	DESIGNER:		

**EQUIPMENT LABELS** 

**PV-9** 





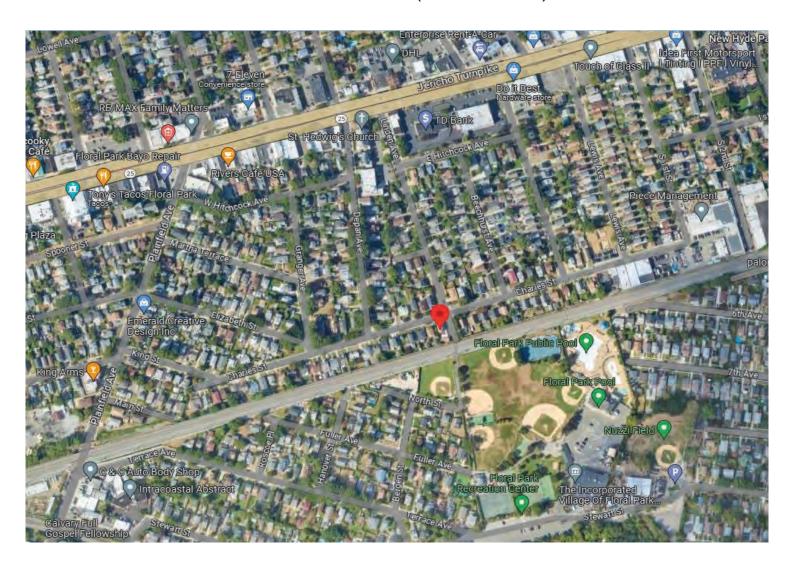


**©** BACKFEED

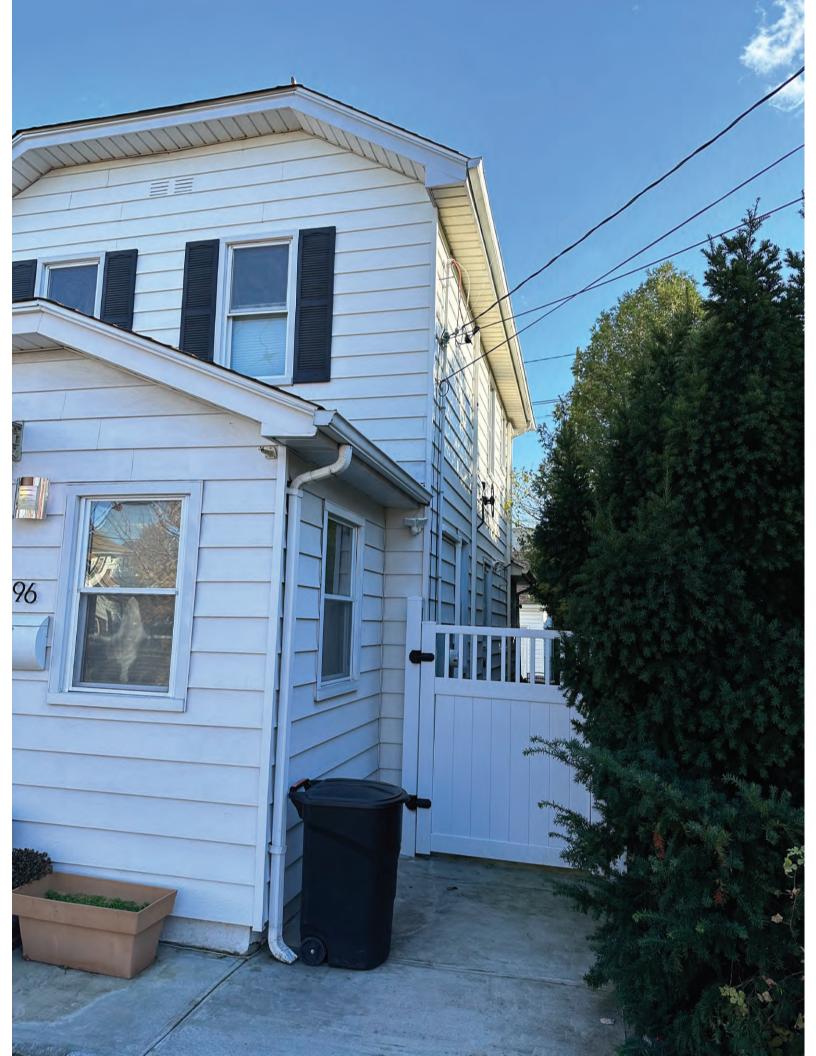
Case No.	Approximate Time	Address #	Street	Description	Owner	Design Professional
7	8:30 p.m.	96	Charles Street	Solar	Wing Chung	All Air Specialists Inc.

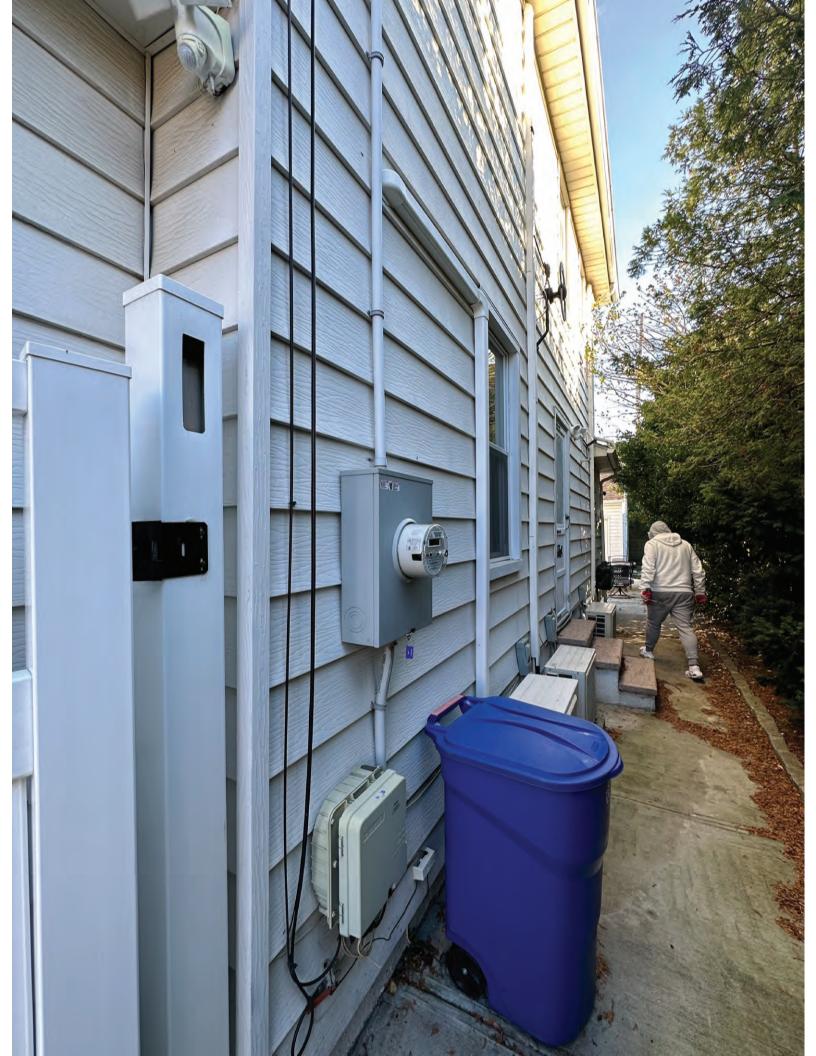


## 96 Charles Street (Aerial View)

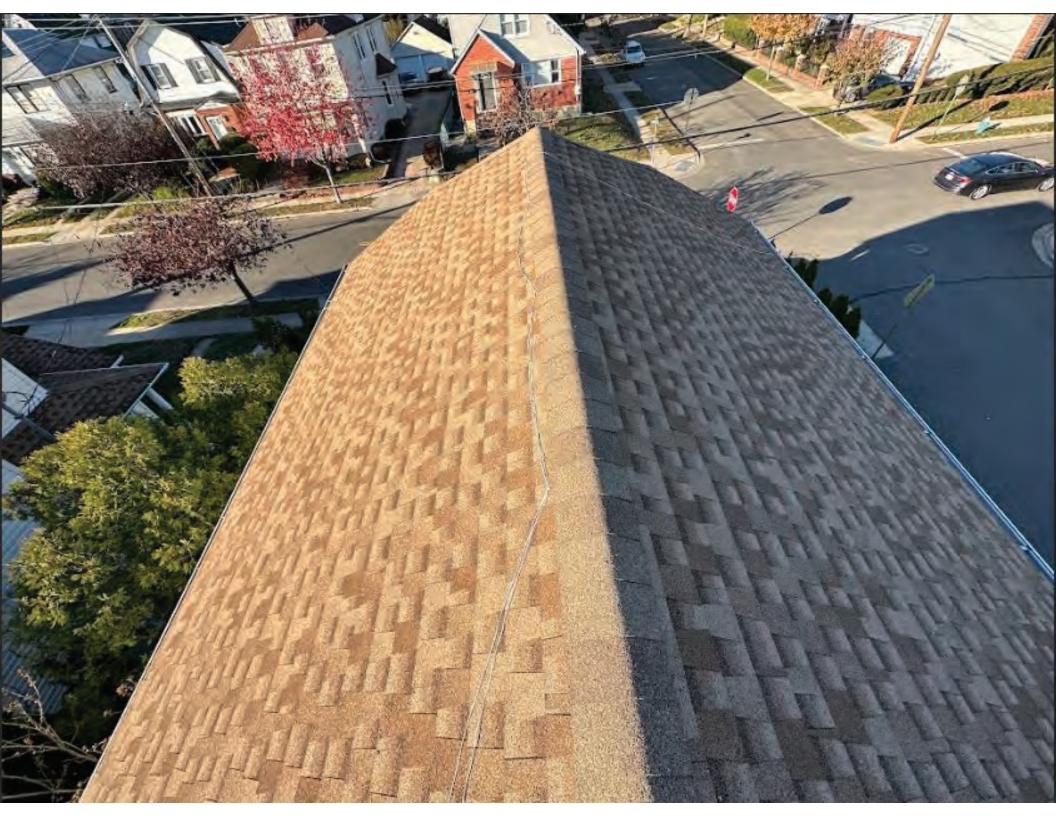


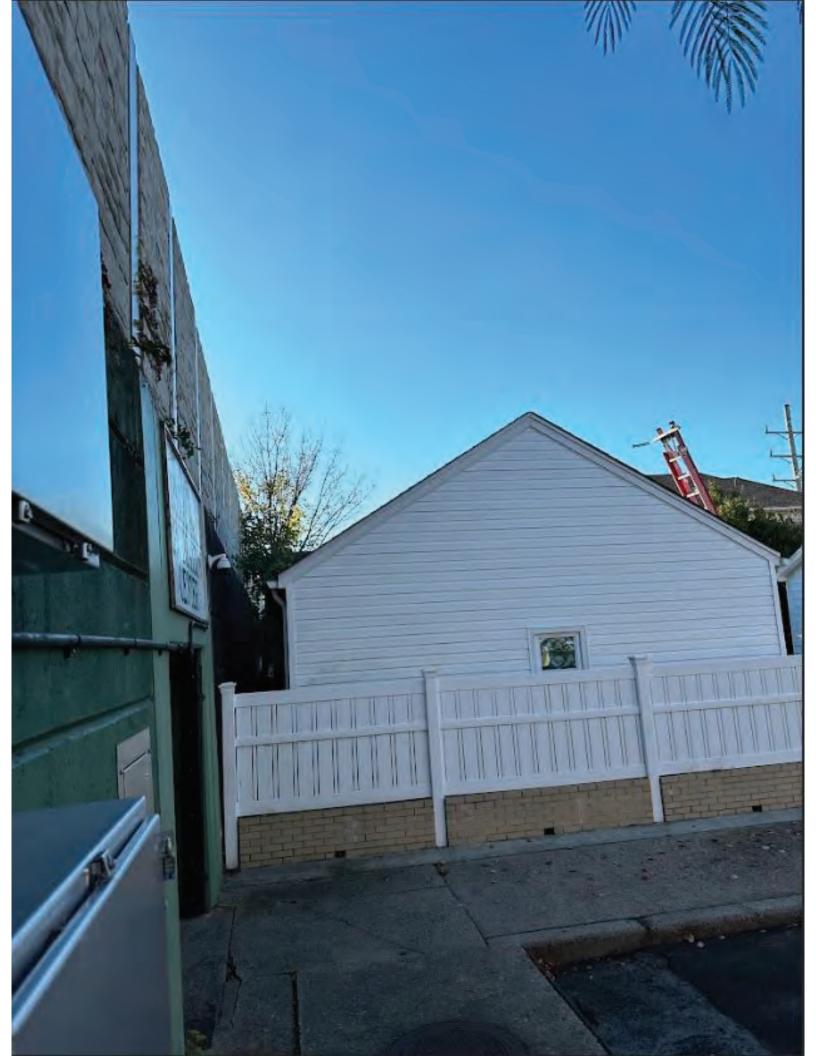


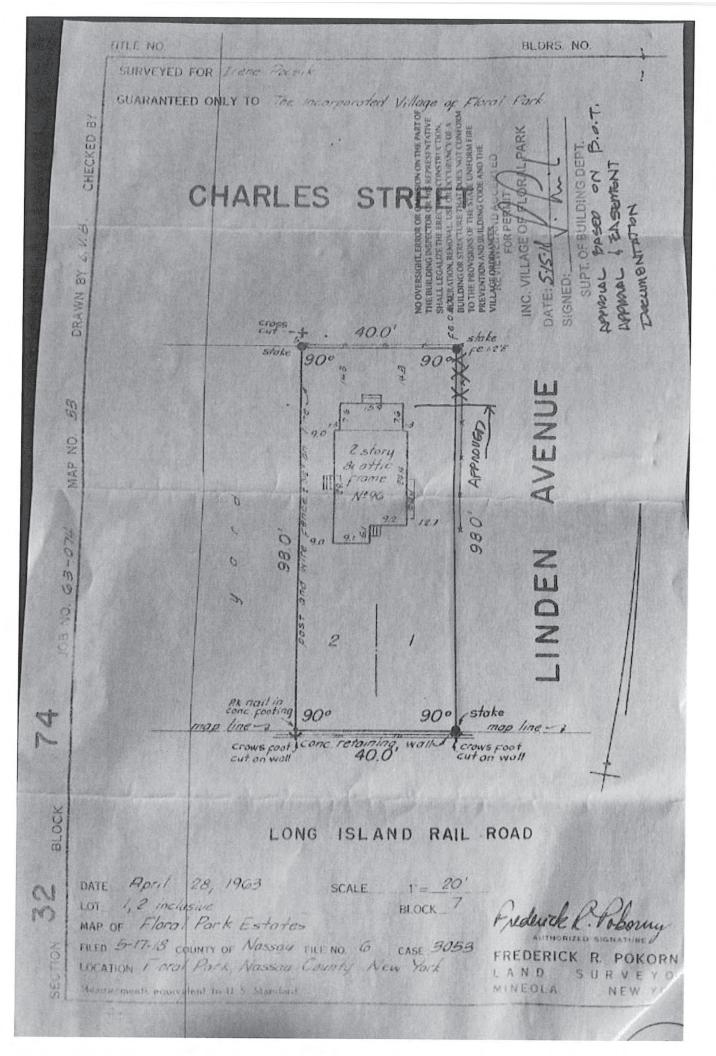














ROOF MATERIAL:	COMPOSITE SHINGLE
ARRAY A	The second secon
NUMBER OF MODULES:	8
TOTAL MOD. WEIGHT (1bs):	329.6
RACKING WEIGHT (1bs):	138. 16
ARRAY WEIGHT (1bs):	467. 76
ARRAY AREA (sqft):	144
ARRAY DEAD LOAD (Ibs/sqft):	2, 4
NUMBER OF MOUNTS:	24
LOAD PER MOUNT(1bs):	19.49
ARRAY B	
NUMBER OF MODULES:	8
TOTAL MOD. WEIGHT (1bs);	329.6
RACKING WEIGHT (1bs);	138, 16
ARRAY WEIGHT (1bs):	467. 76
ARRAY AREA (sqft):	144
ARRAY DEAD LOAD (1bs/sqft):	2.4
NUMBER OF MOUNTS:	24
LOAD PER MOUNT(1bs):	19. 49

APPLICABLE CODES:
NOTES TO INSTALLER:
2020 NYS EXIST. BUILDING CODE
2020 NYS FIRE CODE
2020 NYS RESIDENTIAL CODE
2020 NYS PLUMBING CODE
2020 NYS ENERGY CONSERVATION CODE
2017 NATIONAL ELECTRICAL CODE
CONTRACTOR INFORMATION:
EZ ELECTRIC POMONA
9 DARIEN COURT
POMONA, NY 10970

#### **LOT DIAGRAM**

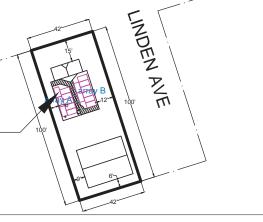
SCALE: 1" = 40'



96 CHARLES ST, FLORAL PARK, NY 11001

CHARLES ST

DETACHED 2 STORY BUILDING (25'-1" IN HEIGHT) PROPOSED ROOF MOUNTED SOLAR ENERGY INSTALLATION (16) PANELS TOTAL SYSTEM 6.24 KW







AMERGY SOLAR 100 PROSPECT ST METUCHEN, NJ. 08840

OWNER: WING CHUNG

PROJECT

Residential Rooftop Grid-tied Solar PV System 96 CHARLES ST, FLORAL PARK, NY 11001

R. A. SEAL

North



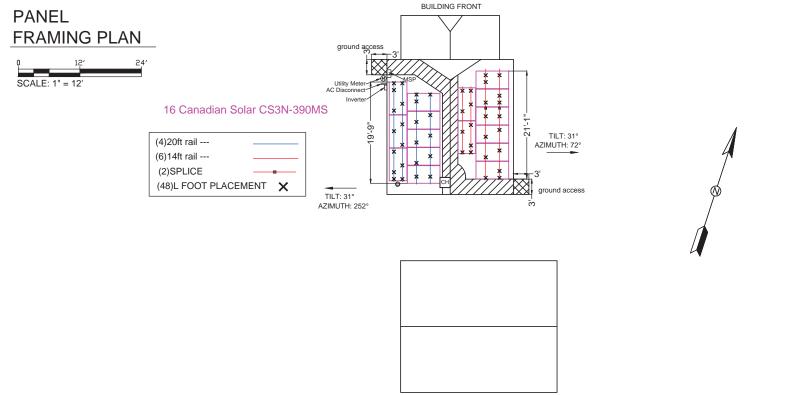
T DIAGRA
)

SCALE	1"=40'	DWG#		
DATE	12/04/2022	A-001.00		
JOB#	225447	1 OF 6		

Canadian Solar CS3N-390MS panels are to be installed. Each solar panel has a dimension about 61.4"x41.2"x1.8" and weighs approximately 41 lb. each. The supporting racking system is Solar Mount by UniRac located at 1411 Broadway Boulevard NE Albuquerque NM 87102-1545.

#### Installation Notes:

- 1. Each module will be securely fastened at a minimum 4 points (7mm x 11.5mm) using Solar Mount by UniRac. That is at least two points along each long side of the panel. It is important that the clip centerlines are between 1/4 and 3/4 from the end of the module;
- 2. All fasteners shall be stainless steel or galvanized steel and other components of the racking system shall be made of galvanized or stainless steel or aluminum;
- 3. Follow manufacture mounting instruction strictly.
- 4. Stainless lag bolts shall be used to fasten the racking system to the roof rafters and they need to be minimum 5/16" shaft and 3" long.
- 5. Lag bolts spacing shall be no more than 48" O.C. along the direction of the racking system. Lag bolts should be installed staggered, that is, the lag bolts at every other rail should be staggered by 24" so they are fastened into alternating rafters.
- 6. Thread must be embedded in the side grain of a rafter.
- 7. Lag bolts must be located in the middle third of the structural member.
- 8. Install lag bolts with head and washer flush to surface. Do not over-torque.
- 9. Proper water proofing and proper sealant shall be applied at every penetration.







AMERGY SOLAR 100 PROSPECT ST METUCHEN, NJ. 08840 WWW.AMERGYSOLAR.COM

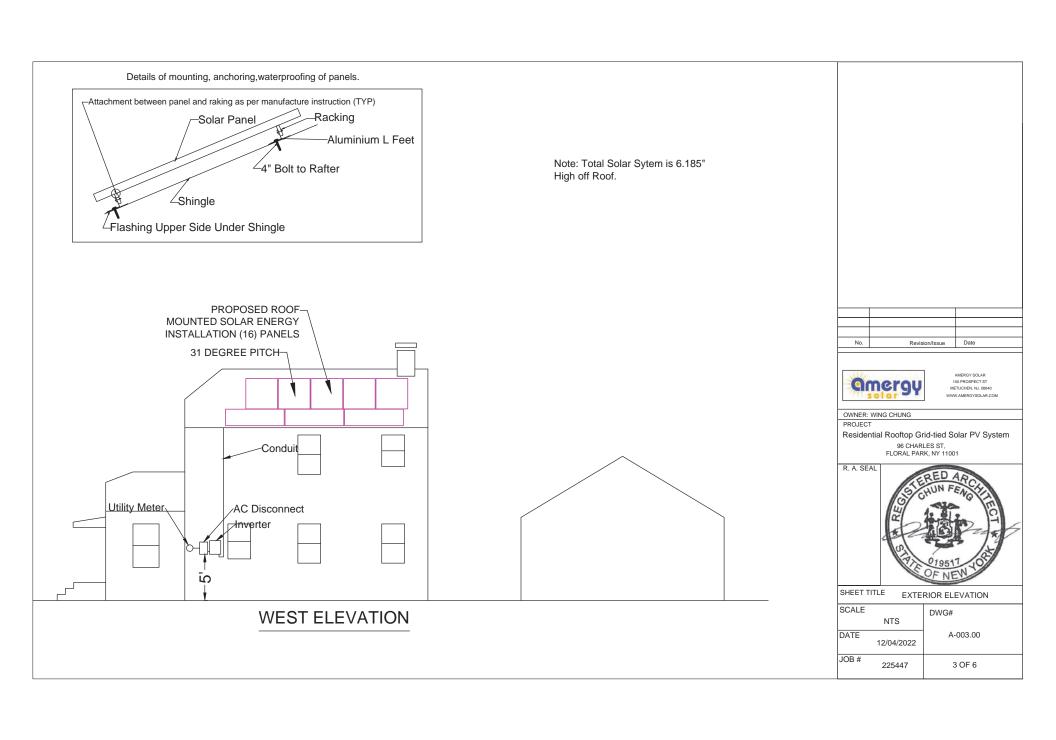
OWNER: WING CHUNG PROJECT

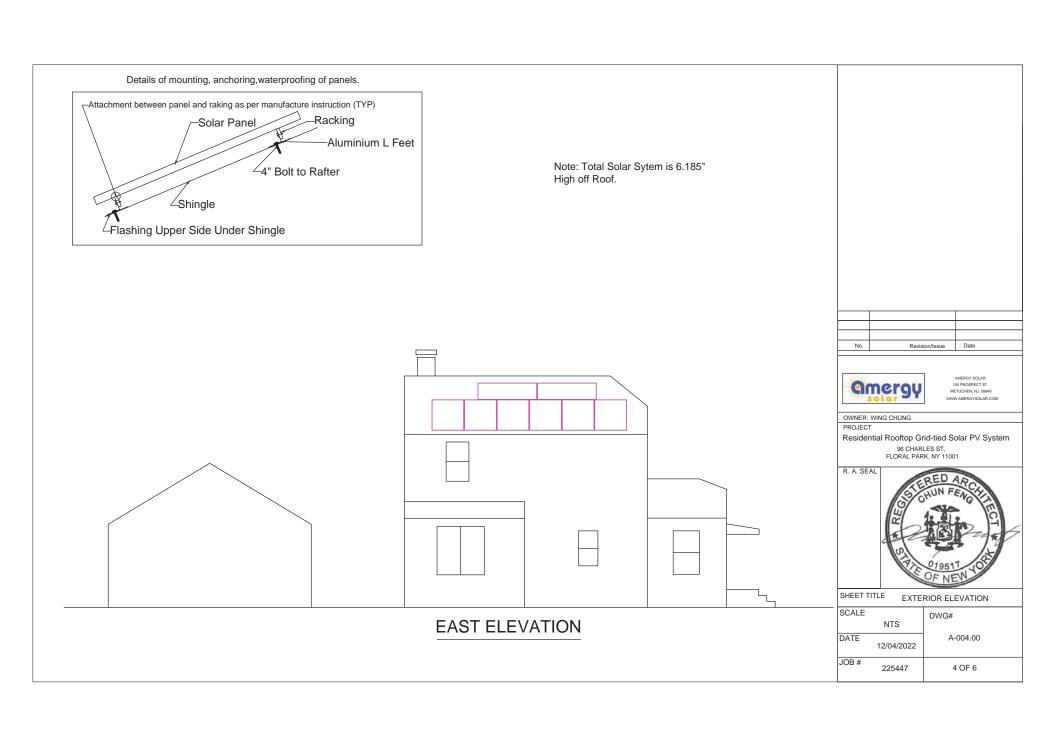
Residential Rooftop Grid-tied Solar PV System 96 CHARLES ST, FLORAL PARK, NY 11001

R. A. SEAL



SHEET TITLE PANEL DETAILS		
SCALE	1"=12'	DWG#
DATE	12/04/2022	A-002.00
JOB#	225447	2 OF 6





NEC 690.17(4)



**ELECTRIC SHOCK HAZARD** 

DO NOT TOUCH TERMINALS
TERMINALS ON BOTH THE LINE
AND LOAD SIDES MAY BE
ENERGIZED IN THE OPEN POSITION

Service Panel - AC Disconnect

NEC 690.14(2)

PHOTOVOLTAIC SYSTEM DISCONNECT

Main Solar Disconnect

NEC 690.14(2)

**AC DISCONNECT** 

**AC Disconnect** 

NEC 690.14(2)

#### SOLAR BREAKER

Main Service Panel NEC 690.4(F), 690.31(E)(4)

#### **CAUTION SOLAR CIRCUIT**

Conduit every 10' and 3' from boxes NEC 690.56

DO NOT RELOCATE THIS

Main Service Panel

NEC 690.35(F)

## MARNING MARNING

#### **ELECTRIC SHOCK HAZARD**

THE DC CONDUCTOR OF THIS
PHOTOVOLTAIC SYSTEM ARE
UNGROUNDED AND MAY BE
ENERGIZED

Combiner box - Junction box

NEC 690.5(C)

## ⚠ WARNING 🏂

**ELECTRIC SHOCK HAZARD** 

IF GROUND FAULT IS INDICATED
ALL NORMALLY GROUNDED
CONDUCTOR MAY BE
UNGROUNDED AND ENERGIZED

Inverter or near GFI reset

### NEC690.56(C)

SOLAR PV SYSTEM IS EQUIPPED WITH RAPID SHUTDOWN.

TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN THE ARRAY.



NEC 690.64, 705.12(4)

## ⚠ WARNING ⚠ DUAL POWER SUPPLY

SOURCES: UTILITY GRID
AND PHOTOVOLTAIC SYSTEM

Service Panel

NEC 690.53

## PHOTOVOLTAIC SYSTEM DC DISCONNECT

Maximum DC Voltage Vdc

Nominal Operating Voltage Vdc

Maximum DC Current Adc

Nominal Operating Current Adc

DC Disconnect

NEC 690.54

PHOTOVOLTAIC SYSTEM AC DISCONNECT

OPERATING VOLTAGE OPERATING CURRENT

VOLTS AMPS

**AC Disconnect** 

AFFIX B.I.S STICKER HERE

DOB STAMP

A FOR SUBMITTAL

No. Revision/Issue Date



AMERGY SOLAR 100 PROSPECT ST METUCHEN, NJ. 08840

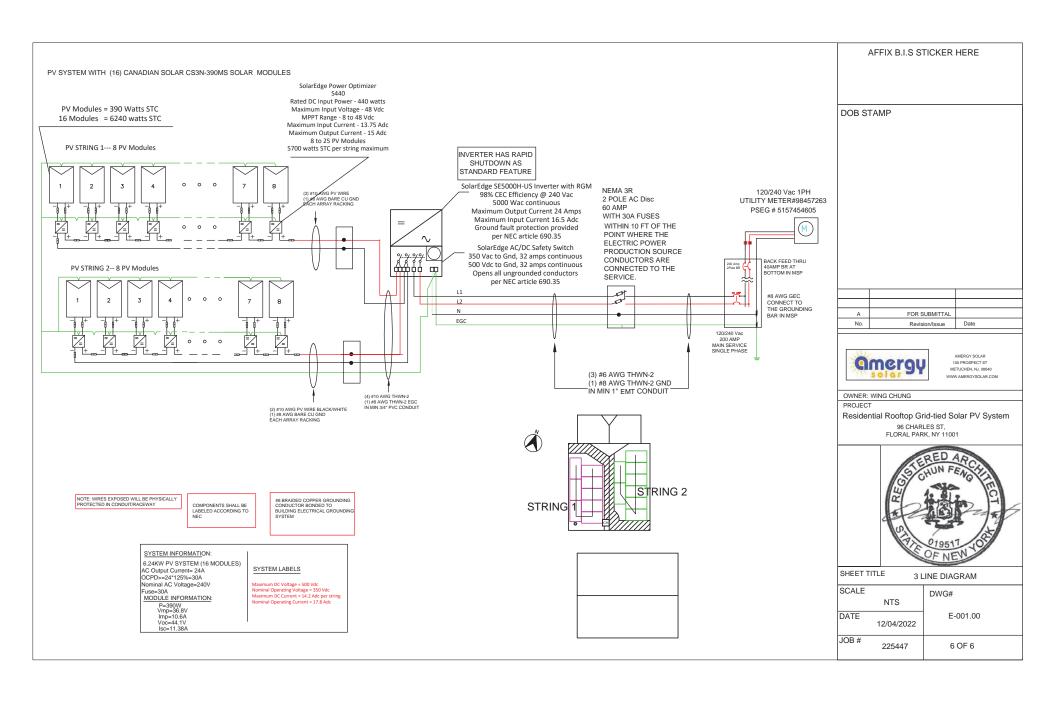
OWNER: WING CHUNG
PROJECT
Residential Rooftop Grid-tied Solar PV System

96 CHARLES ST, FLORAL PARK, NY 11001



SHEET TITLE SAFETY LABELS

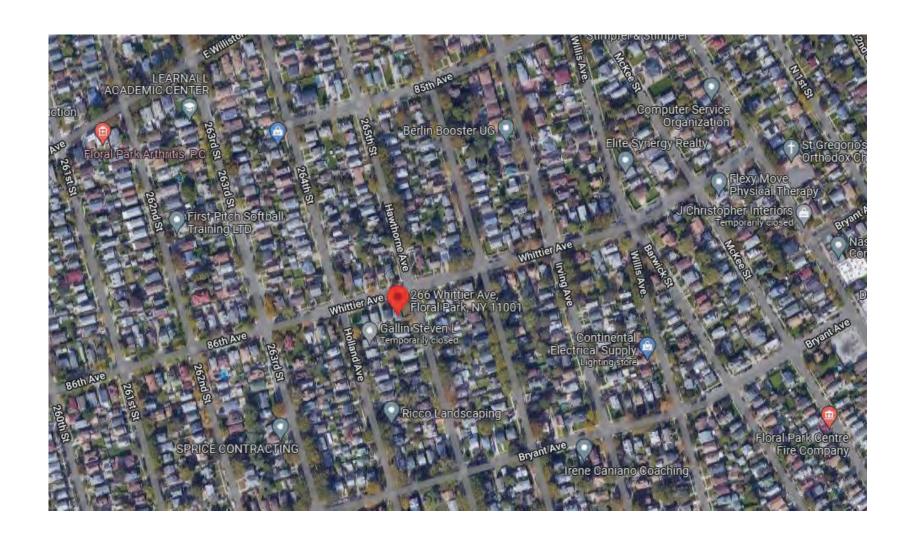
SCALE		DWG#
	NTS	
DATE	12/04/2022	A-005.00
JOB#	225447	5 OF 6



Case No.	Approximate Time	Address #	Street	Description	Owner	Design Professional
8	8:35 p.m.	266	Whittier Avenue	Re-submission – Brick Color Change	Rajinder Kaur	M. Azeem PE



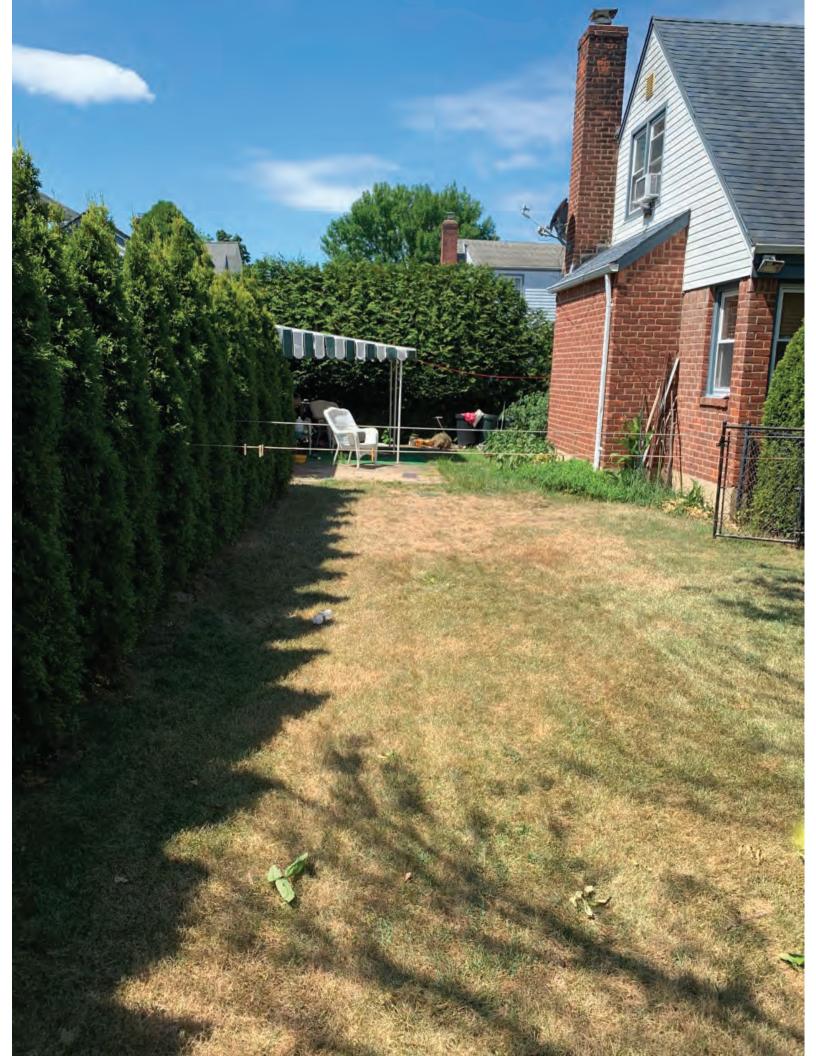
## 266 Whittier Avenue (Aerial View)

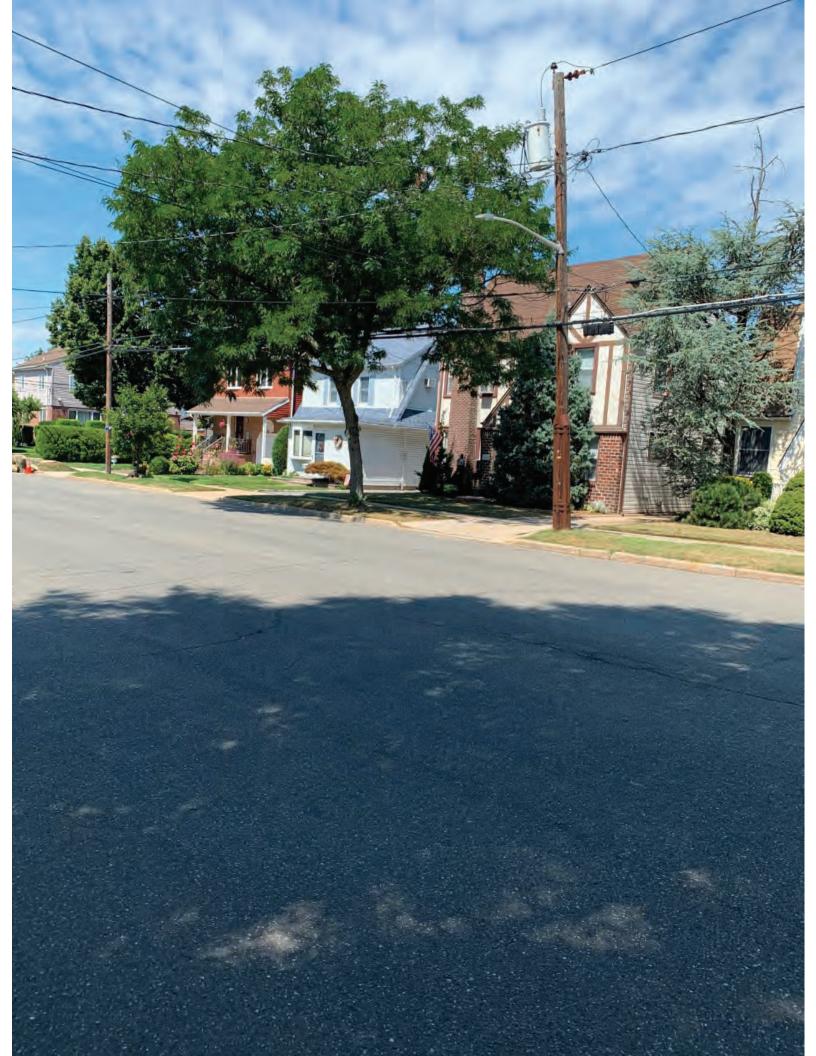








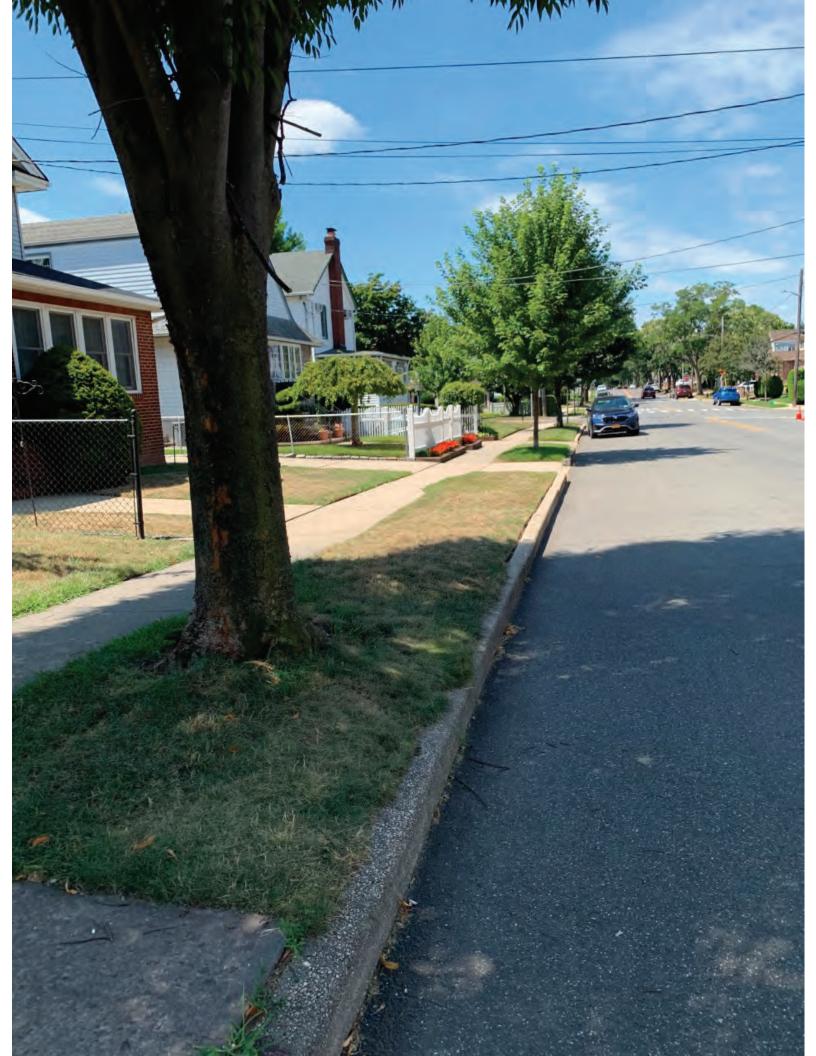














Belden Brick Belcrest 760 Simula Spaulding Brick



@ Q simulated belcrest 760 brick houses

## PREVIOUS SUBMISSION

# BELDEN

THE BELDEN BRICK COMPANY

P.O. BOX 20910 CANTON, OHIO 44701-0910 (330) 456-0031



ISO 9001 & ISO 14001 Compliant Quality Management System Modular Belcrest 560

18-31, other

