

FIRE DEPARTMENT OF NEW YORK NOTES:
ALL WORK RELATED TO INSTALLATION SHALL BE IN STRICT COMPLIANCE WITH THE NEW YORK CITY FIRE CODE IN ITS ENTIRETY, SECTION 504 BUILDING AND ROOF ACCESS, SECTION 512 ROOF TOP SOLAR PANEL INSTALLATIONS
FDNY 512.4.2 - PHOTOVOLTAIC SOLAR PANEL INSTALLATION MARKINGS:
INDOOR AND OUTDOOR DIRECT CURRENT CONDUIT, ENCLOSURES, RACEWAYS, CABLE ASSEMBLIES, JUNCTION BOXES, COMBINER BOXES, AND MAIN SERVICE AND OTHER DISCONNECTS SHALL HAVE DURABLE, RETROREFLECTIVE AND, IF OUTDOORS, WEATHERPROOF, MARKINGS, IN WHITE CAPITAL LETTERS WITH A HEIGHT OF NOT LESS THAN 3⁄8 INCH (9.5MM) ON A RED BACKGROUND, READING "WARNING: PHOTOVOLTAIC POWER SOURCE." CONTINUOUS INSTALLATIONS, INCLUDING CONDUIT, RACEWAYS, ENCLOSURES AND CABLE ASSEMBLIES, SHALL BE MARKED EVERY 10 FEET (3048MM), WITHIN 1 FOOT (305MM) OF ALL TURNS OR BENDS, AND WITHIN 1 FOOT (305MM) ABOVE AND BELOW ALL PENETRATIONS OF ROOF OR CEILING ASSEMBLIES AND ALL WALLS.

FDNY 504.4.7 - ROOFTOP CONDUITS AND PIPING:
TO THE MAXIMUM EXTENT PRACTICABLE, CONDUITS, INCLUDING CABLE TRAYS, AND PIPING, SHALL BE INSTALLED AT ROOFTOP LOCATIONS WHERE THEY DO NOT OBSTRUCT ROOFTOP ACCESS LANDINGS, CLEAR PATH OR REQUIRED CLEARANCES. IF IT IS IMPRACTICABLE TO AVOID THESE AREAS, CONDUITS AND PIPING SHALL BE DESIGNED AND INSTALLED TO FACILITATE ACCESS AND MINIMIZE TRIPPING HAZARDS. STEPS OR RAMPS (OR PLATFORMS WITH STEPS, RAMPS OR LADDERS) SHALL BE PROVIDED THAT ARE CONSTRUCTED OF NONCOMBUSTIBLE MATERIAL, EQUIPPED WITH RAILINGS, AND DESIGNED TO ALLOW ANY CONDUIT OR PIPING INSTALLATIONS THAT EXCEED 1 FOOT (305MM) IN HEIGHT ABOVE THE ROOF SURFACE, OR MORE THAN 24 INCHES (610MM) IN WIDTH, TO BE READILY TRAVERSED. STEPS, RAMPS, PLATFORMS AND LADDERS SHALL NOT BE PLACED IN AREAS OR IN A MANNER THAT WOULD OBSTRUCT ANY DOOR OR MEANS OF EGRESS. ALL CONDUITS AND PIPING INSTALLATIONS SHALL BE COLOR CODED WITH CONTINUOUS, DURABLE AND WEATHERPROOF REFLECTIVE OR LUMINESCENT MARKINGS AS FOLLOWS, AND FOR CONDUIT AND PIPING INSTALLED AFTER JULY 1, 2014, SHALL BE CONTINUOUSLY LABELED IN AN APPROVED MANNER TO INDICATE ITS CONTENTS.

1. HIGH VOLTAGE WIRING – RED. 2. LOW VOLTAGE WIRING – ORANGE. 3. NATURAL GAS PIPING – YELLOW. 4. OTHER COMPRESSED GAS PIPING – YELLOW, LABELED AT REGULAR INTERVALS WITH THE TYPE OF GAS. 5. FUEL OIL PIPING – YELLOW WITH BLACK STRIPES.

STRUCTURAL NOTES

1. A FIELD INSPECTION WITH MEASUREMENTS WAS CONDUCTED ON THE EXISTING STRUCTURE AND SUBSEQUENT STRUCTURAL ANALYSIS PERFORMED. THE EXISTING STRUCTURE HAS ADEQUATE STRUCTURAL CAPACITY TO SUPPORT THE LOAD OF THE NEW SOLAR ARRAY

2. STRUCTURAL LOADS:
- DEAD LOADS = 10PSF (+3.5PSF ,NEW SOLAR PANELS) = 13.5PSF.

- SNOW LOADS = 30PSF (24.5PSF- FACTORED PER ASCE 7-10)

- *WIND LOADS = 115MPH WIND SPEED {ZONES 1,2 & 3(+)= 13PSF ; ZONE 1(-) = -21.3PSF, ZONE 2 (-) = -35.6PSF, ZONE 3(-) = -48} *WIND LOADS PER ASCE 7-10 .

- IMPORTANCE FACTOR - 1.0 RISK CATEGORY II WIND EXPOSURE CATEGORY - B

3. WIND LOAD DESIGN PRESSURE IN COMPLIANCE TO NYC 2014 BUILDING CODE SECTION 16 AND ALL AMENDMENTS INCLUSIVE

SUBSTANTIAL IMPROVEMENT CALCULATION

MARKET VALUE OF STRUCTURE

=

ESTIMATED MARKET VALUE (TOTAL)

X

ACTUAL AV (TOTAL) - ACTUAL AV (LAND)
ACTUAL AV (TOTAL)

\$451,005.90

=

\$620,000

X

\$18,630-

\$5,078

\$18,630

\$451,005.90

X

50%

=

\$225,502.95

>

\$49,275.00

PROPOSED SYSTEM COST IS LESS THAN 50% OF THE MARKET VALUE OF STRUCTURE CALCULATED ABOVE AND SHALL NOT BE CONSIDERED AS SUBSTANTIAL IMPROVEMENT.

ENERGY ANALYSIS FOR RESIDENTIAL PROPERTY TAX ABATEMENT					DEPT OF BLDGS340889248	Job Number	ES
APPLICATION TYPE : ALT-2		SCOPE OF WORK: SOLAR PHOTOVOLTAIC ARRAY INSTALLATION					
CLIMATE ZONE: 4A		NYCECC2020 CHAPTER 4 (RESIDENTIAL ENERGY EFFICIENCY)					
PROFESSIONAL STATEMENT: THIS APPLICATION IS IN COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND JUDGEMENT.							
ITEM DESCRIPTION:	PROPOSED VALUE:	PRESCRIPTIVE VALUE & CITATION:	SUPPORTING DOCUMENTATION:		PROGRESS INSPECTION NUMBER AND DESCRIPTION:		
ANCHOR SOLAR PANEL SUPPORT STRUCTURE TO BUILDING STRUCTURE BY LAG BOLTING TO STRUCTURAL MEMBERS	SEALING ALL OPENINGS AND PENETRATIONS AS PRESCRIBED IN ECC. 402.4.1 & ECC. TABLE 402.4.2	CAULKING GASKETING WEATHER STRIPPING OR OTHER MATERIAL IN ACCORDANCE WITH SECTION ECC. 402.4.1	T-100.00	G-104.00	IA6: AIR BARRIER - VISUAL INSPECTION		
			T-101.00	S-100.00			
			T-102.00				
			A-100.00		OPENINGS & PENETRATIONS IN THE BUILDING ENVELOPE, INCLUDING SITE BUILT FENESTRATION AND DOORS SHALL BE VISUALLY INSPECTED TO VERIFY THAT THEY ARE PROPERLY SEALED IN ACCORDANCE WITH TABLE 402.4. 2		
			A-101.00				
			A-102.00				
			A-103.00				
			A-104.00				
			G-100.00				
			G-101.00				
			G-102.00				
			G-103.00				

SPECIAL INSPECTIONS FOR SOLAR TAX ABATEMENT

SPECIAL PROGRESS INSPECTIONS

TR1	SPECIAL INSPECTION ITEMS	RESPONSIBLE PARTY
	STRUCTURAL STABILITY -EXISTING BUILDINGS - BC 1704.20.1	MINA MAKAR, PE
	FIRE RESISTANT JOINTS AND PENETRATIONS- BC 1704.27	MINA MAKAR, PE
	PROGRESS INSPECTION ITEMS	MINA MAKAR, PE
	ENERGY CODE COMPLIANCE INSPECTIONS - BC 110.3.5	MINA MAKAR, PE
	POST INSTALL ANCHORS INSPECTION	MINA MAKAR, PE
	FINAL INSPECTION	MINA MAKAR, PE

FOR , SPECIAL FLOOD AREA COMPLIANCE INFORMATION, REFER TO DRAWING G-103.00,G-104.00.

MINA MAKAR, PE

ENERGY CODE PROGRESS INSPECTIONS

TR8	INSPECTION ITEMS	RESPONSIBLE PARTY
	AIR BARRIER - VISUAL INSPECTION	MINA MAKAR, PE

FOR COMPLIANCE WITH NYCECC & RCNY 5000-01(h)(1)

FLOOD ZONE NOTES:

THIS PROPERTY IS LOCATED IN AN AREA THAT MAY BE AFFECTED BY THE FOLLOWING:	
TIDAL WETLANDS MAP CHECK:	no
FRESHWATER WETLANDS MAP CHECK:	no
COASTAL EROSION HAZARD AREA MAP CHECK:	no
SPECIAL FLOOD HAZARD AREA MAP CHECK:	YES

I CERTIFY THIS PROPERTY IS NOT IN A TIDAL WETLANDS, SPECIAL FLOOD HAZARD AREA, FRESHWATER WETLANDS, OR COASTAL EROSION HAZARD AREA, AND THE CATEGORY OF WORK DOES NOT REQUIRE COMPLIANCE WITH LL21/09.

NYC DOB APPROVAL STAMP



PRO CUSTOM SOLAR LLC D.B.A. MOMENTUM SOLAR
3096 B HAMILTON BLVD, S. PLAINFIELD, NJ 07080
(732) 902-6224
MOMENTUMSOLAR.COM

STRUCTURAL ENGINEERING



MINA A. MAKAR, P.E. NY LICENSE # 104468 (732)-902-6224
3096B HAMILTON BLVD SOUTH PLAINFIELD, NJ 07080
ENGINEERING LETTER ATTACHED HAS SPECIFICATIONS 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, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL, TO ALTER AN ITEM IN ANY WAY.

CUSTOMER INFORMATION

BEVERLEY BOOKER - MS122332/MS122335

1793 ROCKAWAY PARKWAY
BROOKLYN, NY 11236

9178644983

JURISDICTION: BROOKLYN

UTILITY: CONED

UTILITY ACCT # 1: 65-5124-1118-0101-1

UTILITY METER # 1: 009435038

UTILITY ACCT # 2: 65-5124-1118-0204-3

UTILITY METER # 2: 009435040

PV SYSTEM INFORMATION

TOTAL SYSTEM SIZE (DC)/(AC): 9.855 KW/7.83 KVA

SYSTEM SIZE (DC)/(AC) #1: 7.3 KW/5.8 KVA

20 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365

20 INVERTERS: ENPHASE IQ7PLUS-72-2-US-208

SYSTEM SIZE (DC)/(AC) #2: 2.555 KW/2.03 KVA

7 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365

7 INVERTERS: ENPHASE IQ7PLUS-72-2-US-208

PROJECT INFORMATION

INITIAL	DATE: 4/18/2023	DESIGNER: KA
REV:	DATE:	DESIGNER:
REV:	DATE:	DESIGNER:

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T-102.00