

iRoofA™ Structural Analysis Software

Data Input Check

***** No Roof Framing Changes are Required *****

6/7/2023

Project Information

Client	Freedom Solar, LLC	Client No:	36	iRoof #	000036-0180-1686164184
UserID	Stefan Chin	Email	schin@freedomssolarpower.com		
Project No.	36.110584	Project Directory	110584. Zachary Kennedy NC		
Project	Zachary Kennedy; Location: 5671 Elliott Bridge Road Linden Nc 28356, Linden, NC 28356				

Site

Exposure Category	B	Exposure Category (ASCE 7-16 Table 26.7.3, Page 266)
Occupancy Category	II	Building Use Occupancy / Risk Category (ASCE 7-16 Table 1.5-1, Page 4)

Code Check

IBC	2018	State Res Code	2018 International Residential Code, NC Edition
ASCE	ASCE 7-16	NEC	2017

Environmental

Wind Loading	119	mph - ASCE 7-16, Figure 26.5-1 A, B or C, pp 249-251. [(119 mph, 50 year wind MRI)]
Snow Loading	10	psf - Ground Snow Load pg (ASCE 7-16 Table 7.2-1, Page 52-53)

Equipment

Item	Manufacturer	Model	Quantity
PV Module	WAAREE ENERGIES LIMITED	WSMD-400	34
PV Inverter	Enphase	IQ7HS-66-M-US	34
Stanchion	QuickBolt	17662	
Rail / Rack	SunPower	InvisiMount 6000 series	

Electrical

Total DC Watts	13,600	w
Total Inverter Amperage	54.4	A
Min OCPD rating	68.0	A
Recommended OCPD	70	A
Min Cu 75 deg C wire	#4	AWG

per NEC 240.6 OCPD Ratings

Individual Inverter Min Wiring		
Inv 1		
#4		

Building Conditions

Framing Condition # and Name	Truss / Stick	OC Spacing (in)	Max # bays / stanchion location	Roof Average Height	Plan View Length of Building Section	Plan View Width of Building Section	Roof Shingle or Surface Material	Ex Collar Tie / Knee Wall Height
1: MP 1	Stick	16.00	3	15.00	72.00	11.00	Standard	N/A
2: MP 2	Stick	16.00	3	15.00	72.00	12.00	Standard	N/A