

	1	2	3	4	5	6	7	
A	KAREN ZETROUER 1262 SW BLUFF DR FORT WHITE FL 32038			SOLAR CONTRACTOR: SOLAR IMPACT, INC 4509 NW 23RD AVE., STUITE 20 GAINESVILLE, FL 32606 352.338.8221 WWW.SOLARIMPACT.COM SOLAR CONTRACTOR LICENSE: CVC56761 EC13012442 PROJECT MANAGER: KJ NISSEN 530.312.3691 KJ.NISSEN@SOLARIMPACT.COM PROJECT DESIGNER: RICHIE WILHOIT 352.226.7271 RICHIE.WILHOIT@SOLARIMPACT.COM ENGINEER OF RECORD: BARRY M. JACOBSON PE#51402 SOLAR IMPACT, INC 352.338.8221 BARRY@SOLARIMPACT.COM	CLIENT: KAREN ZETROUER GENERAL CONTRACTOR: N/A AUTHORITY HAVING JURISDICTION: COLUMBIA COUNTY BUILDING DEPARTMENT UTILITY: CLAY ELECTRIC COOPERATIVE (CEC)			
B	DC:	11.64 KW-DC MODULE STC RATING		APPROVED By troy crews at 7:34 am, May 02, 2025				
	AC:	9.894 kW-AC GROSS POWER RATING						
	AC:	23KW-AC INVERTER RATING						
C	THIS IS AN EXPANSION OF AN EXISTING BATTERY BACKED-UP PHOTOVOLTAIC ARRAY. 2X NEW TESLA DC EXPANSION WILL BE ADDED INCREASING THE ONSITE STORAGE CAPACITY FROM 27KWH TO 54KWH. NO OTHER CHANGES TO BE MADE.		G01: GENERAL NOTES A01: EQUIP. LOCATIONS A02: ELECTRICAL RISER E01: LINE DIAGRAM E02: TESLA DC EXPANSION	2023 8TH EDITION FLORIDA BUILDING CODE : BUILDING 2023 8TH EDITION FLORIDA BUILDING CODE : RESIDENTIAL 2023 8TH EDITION FLORIDA BUILDING CODE : MECHANICAL 2023 8TH EDITION FLORIDA BUILDING CODE : PLUMBING 2023 8TH EDITION FLORIDA BUILDING CODE : FUEL GAS 2023 8TH EDITION FLORIDA BUILDING CODE : ENERGY CONSERVATION 2023 8TH EDITION FLORIDA BUILDING CODE : EXISTING BUILDING 2023 8TH EDITION FLORIDA BUILDING CODE : ACCESSIBILITY 2023 8TH EDITION FLORIDA FIRE PREVENTION CODE (NFPA) 2020 NATIONAL ELECTRIC CODE (NEC)				
D								
E								
	SUMMARY		PAGE INDEX	CODE REFERENCES		SITE LOCATION		
	1	2	3	4	5	6	7	

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LICENSE

No 51402

STATE OF FLORIDA

PROFESSIONAL ENGINEER

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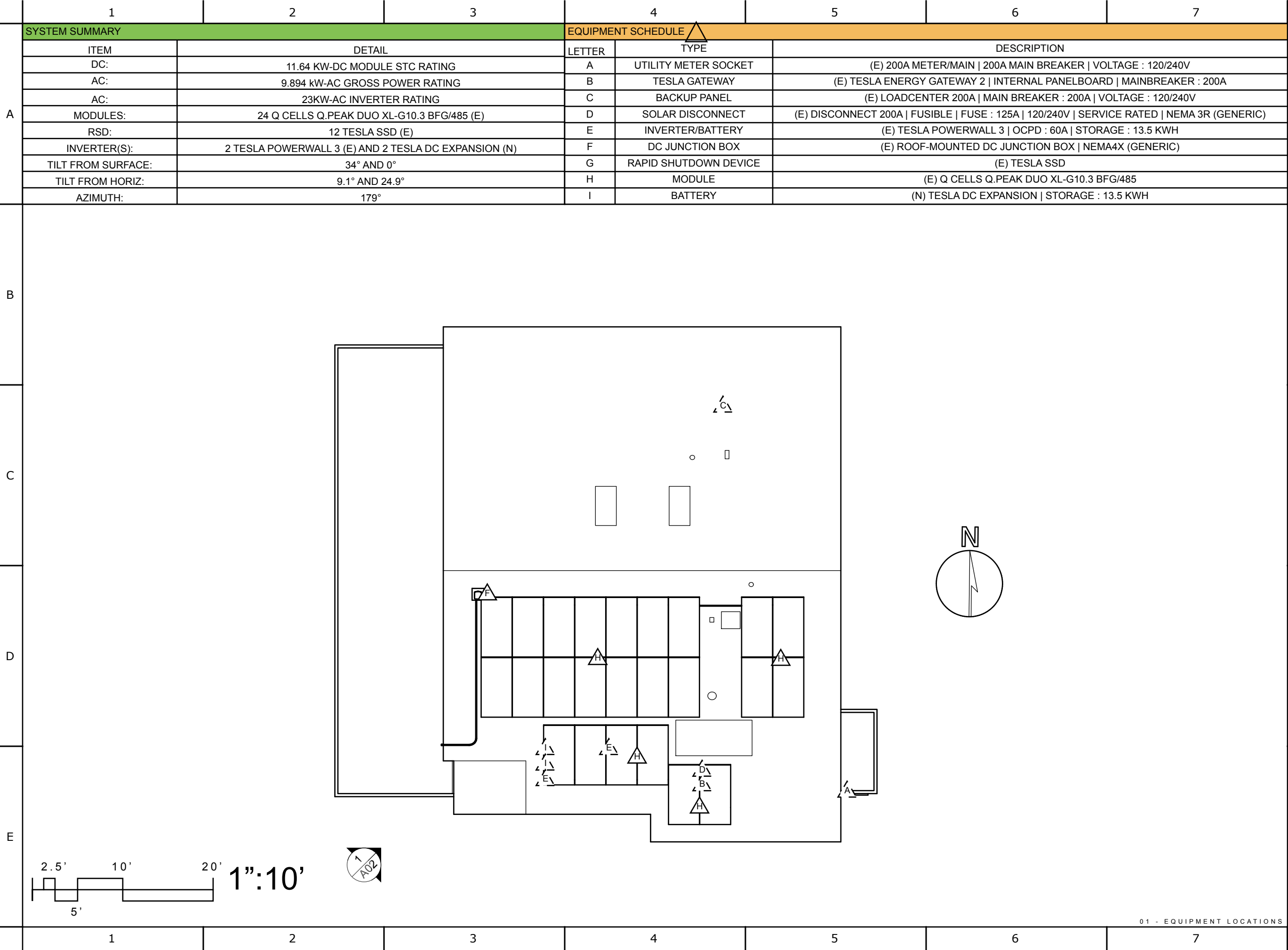
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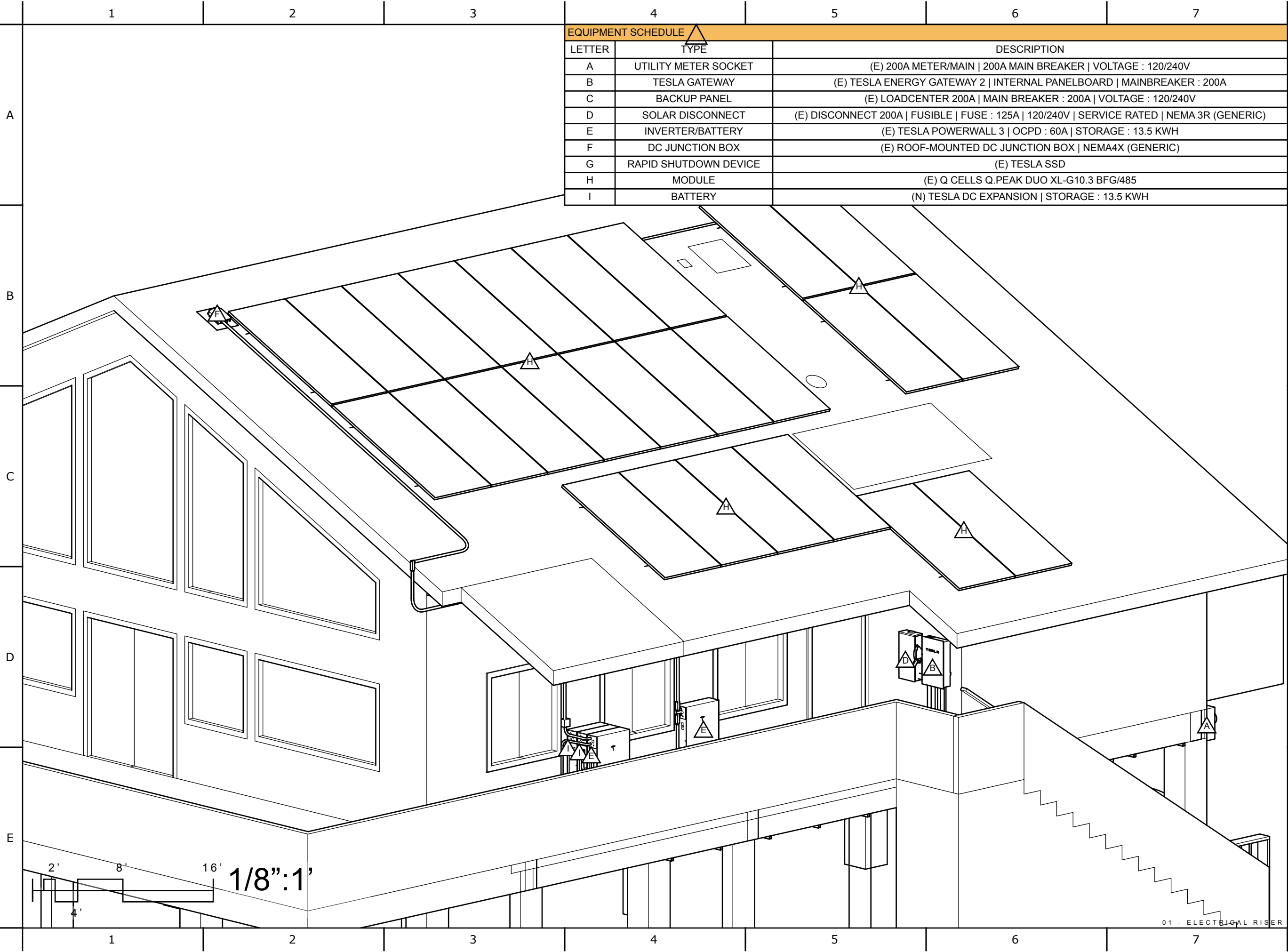
KAREN ZETROUER

Project Address:

1262 SW BLUFF DR
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PAGE TITLE:	PAGE #:
GENERAL NOTES	G01



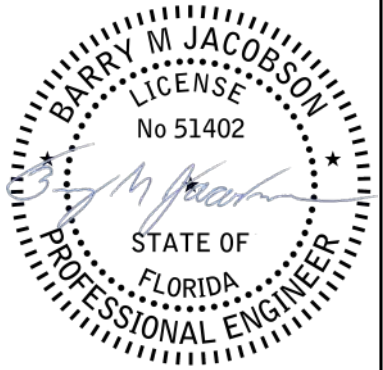


EQUIPMENT SCHEDULE		
LETTER	TYPE	DESCRIPTION
A	UTILITY METER SOCKET	(E) 200A METER/MAIN 200A MAIN BREAKER VOLTAGE : 120/240V
B	TESLA GATEWAY	(E) TESLA ENERGY GATEWAY 2 INTERNAL PANELBOARD MAINBREAKER : 200A
C	BACKUP PANEL	(E) LOADCENTER 200A MAIN BREAKER : 200A VOLTAGE : 120/240V
D	SOLAR DISCONNECT	(E) DISCONNECT 200A FUSIBLE FUSE : 125A 120/240V SERVICE RATED NEMA 3R (GENERIC)
E	INVERTER/BATTERY	(E) TESLA POWERWALL 3 OCPD : 60A STORAGE : 13.5 KWH
F	DC JUNCTION BOX	(E) ROOF-MOUNTED DC JUNCTION BOX NEMA4X (GENERIC)
G	RAPID SHUTDOWN DEVICE	(E) TESLA SSD
H	MODULE	(E) Q CELLS Q.PEAK DUO XL-G10.3 BFG/485
I	BATTERY	(N) TESLA DC EXPANSION STORAGE : 13.5 KWH

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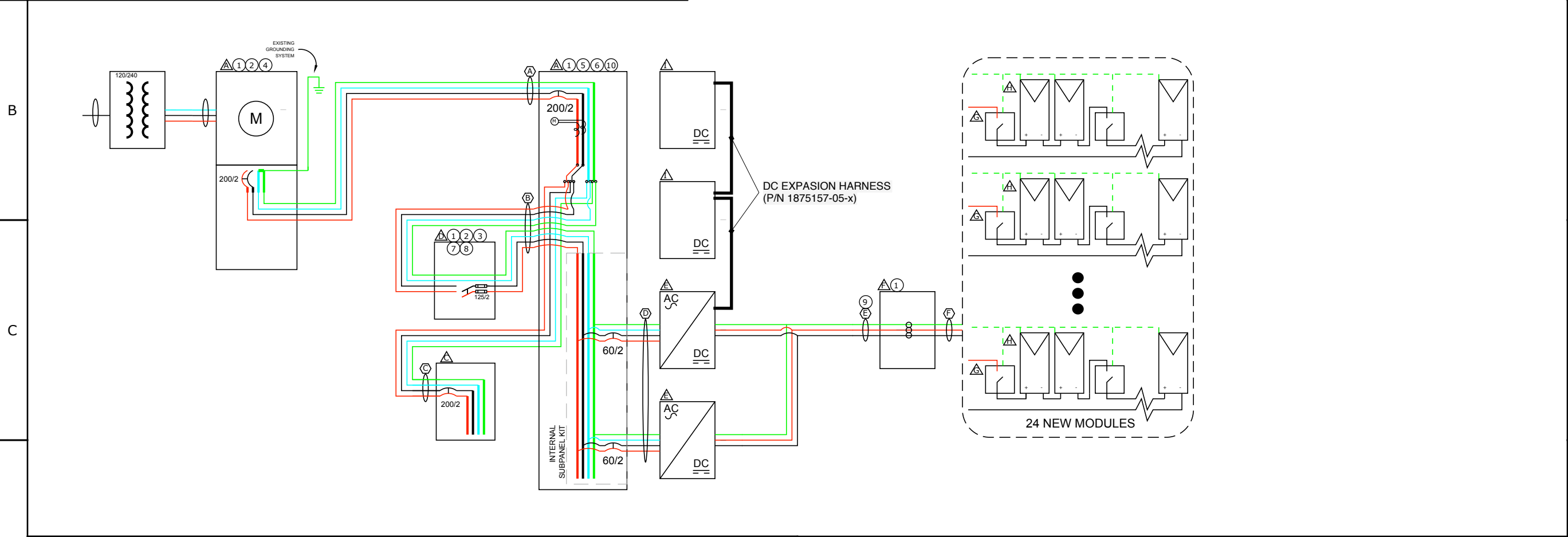
Project Name:
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PAGE TITLE: ELECTRICAL RISER

PAGE #: A02

	1		2		3		4		5		6		7	
A	EQUIPMENT SCHEDULE						CONDUCTOR SIZES						FIELD APPLIED PLACARDS	
	LETTER	TYPE	DESCRIPTION				A	(1 SET) 2X #3/0 CU + 1X #3/0 CU NTRL + 1X #6 CU GRD IN 2" PVC SCH 40/HPDE					1	SEE PLACARDS PAGE FOR DETAILS
	A	UTILITY METER SOCKET	(E) 200A METER/MAIN 200A MAIN BREAKER VOLTAGE : 120/240V				B	(1 SET) 2X #1 CU + 1X #1 CU NTRL + 1X #6 CU GRD IN 1.5" PVC SCH 40/HPDE					*Note: NEC 705.95(B) says "Neutral Conductor for Instrumentation, Voltage Detection or Phase Detection. A conductor used solely for instrumentation, voltage detection, or phase detection and connected to a single-phase or 3-phase utility-interactive inverter, shall be permitted to be sized at less than the ampacity of the other current-carrying conductors and shall be sized equal to or larger than the equipment grounding conductor."	
	B	TESLA GATEWAY	(E) TESLA ENERGY GATEWAY 2 INTERNAL PANELBOARD MAINBREAKER : 200A				C	(1 SET) 2X #3/0 CU + 1X #3/0 CU NTRL + 1X #6 CU GRD IN 2" PVC SCH 40/HPDE						
	C	BACKUP PANEL	(E) LOADCENTER 200A MAIN BREAKER : 200A VOLTAGE : 120/240V				D	(1 SET) 4X #6 CU + 2X #6 CU NTRL + 1X #10 CU GRD IN 1.25" EMT						
	D	SOLAR DISCONNECT	(E) DISCONNECT 200A FUSIBLE FUSE : 125A 120/240V SERVICE RATED NEMA 3R (GENERIC)				E	(1 SET) 8X #10 CU + 2X #10 CU GRD IN 1" EMT						
	E	INVERTER/BATTERY	(E) TESLA POWERWALL 3 OCPD : 60A STORAGE : 13.5 KWH				F	(1 SET) 8X #10 CU + 1X #4 CU GRD IN FREE AIR						
	F	DC JUNCTION BOX	(E) ROOF-MOUNTED DC JUNCTION BOX NEMA4X (GENERIC)											
	G	RAPID SHUTDOWN DEVICE	(E) TESLA SSD											
	H	MODULE	(E) Q CELLS Q.PEAK DUO XL-G10.3 BFG/485											
I	BATTERY	(N) TESLA DC EXPANSION STORAGE : 13.5 KWH												



D	SOLAR SCHEDULE															
	INVERTER	MODEL	MODULE	RSD	STRING # 1		STRING # 2									
					MODULE	RSD	MODULE	RSD								
	1	TESLA POWERWALL 3	Q Cells 485 W	Tesla SSD	6	3	6	3								
	2	TESLA POWERWALL 3	Q Cells 485 W	Tesla SSD	6	3	6	3								
E	<u>ELECTRICAL NOTES</u> 1.) ALL EQUIPMENT TO BE LISTED BY UL OR OTHER NRTL, AND LABELED FOR ITS APPLICATION. 2.) ALL CONDUCTORS SHALL BE COPPER, RATED FOR 600 V AND 90 DEGREE C WET ENVIRONMENT. 3.) WIRING, CONDUIT, AND RACEWAYS MOUNTED ON ROOFTOPS SHALL BE ROUTED DIRECTLY TO, AND LOCATED AS CLOSE AS POSSIBLE TO THE NEAREST RIDGE, HIP, OR VALLEY. 4.) WORKING CLEARANCES AROUND ALL NEW AND EXISTING ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC 110.26. 5.) DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS. CONTRACTOR SHALL FURNISH ALL NECESSARY OUTLETS, SUPPORTS, FITTINGS AND ACCESSORIES TO FULFILL APPLICABLE CODES AND STANDARDS. 6.) WHERE SIZES OF JUNCTION BOXES, RACEWAYS, AND CONDUITS ARE NOT SPECIFIED, THE CONTRACTOR SHALL SIZE THEM ACCORDINGLY. 7.) ALL WIRE TERMINATIONS SHALL BE APPROPRIATELY LABELED AND READILY VISIBLE. 8.) MODULE GROUNDING CLIPS TO BE INSTALLED BETWEEN MODULE FRAME AND MODULE SUPPORT RAIL, PER THE GROUNDING CLIP MANUFACTURER'S INSTRUCTION. 9.) MODULE SUPPORT RAIL TO BE BONDED TO CONTINUOUS COPPER G.E.C. VIA WEEB LUG OR ILSCO GBL-4DBT LAY-IN LUG. 10.) THE POLARITY OF THE GROUNDED CONDUCTORS IS NEGATIVE								<u>ADDITIONAL NOTES:</u> 1. EACH MODULE TO BE GROUNDED USING THE SUPPLIED CONNECTION POINT PER MANUFACTURER'S REQUIREMENTS. ALL SOLAR MODULES, EQUIPMENT, AND METALLIC COMPONENTS ARE TO BE BONDED. IF THE EXISTING GROUNDING ELECTRODE SYSTEM CAN NOT BE VERIFIED OR IS ONLY METALLIC WATER PIPING, IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL A SUPPLEMENTAL GROUNDING ELECTRODE. 2. ALL PLAQUES AND SIGNAGE REQUIRED BY THE LATEST EDITION OF NATIONAL ELECTRICAL CODE. LABEL SHALL BE METALLIC OR PLASTIC, ENGRAVED OR MACHINE PRINTED IN A CONTRASTING COLOR TO THE PLAQUE. PLAQUE SHALL BE UV RESISTANT IF EXPOSED TO SUNLIGHT. 3. DC CONDUCTORS SHALL BE RUN IN EMT AND SHALL BE LABELED, "CAUTION DC CIRCUIT" OR EQUIV. EVERY 5 FT. 4. EXPOSED NON-CURRENT CARRYING METAL PARTS OF ELECTRICAL EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH 250.134 OR 250.136(A). 5. CONFIRM LINE SIDE VOLTAGE AT ELECTRIC UTILITY SERVICE PRIOR TO CONNECTING INVERTER. VERIFY SERVICE VOLTAGE IS WITHIN INVERTER VOLTAGE OPERATIONAL RANGE. 6. OUTDOOR EQUIPMENT SHALL BE NEMA-3R RATED OR BETTER. 7. ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT EXPANSION JOINTS AND ANCHOR CONDUIT RUNS AS REQUIRED PER NEC. 8. ALL WIRING MUST BE PROPERLY SUPPORTED BY DEVICES OR MECHANICAL MEANS DESIGNED AND LISTED FOR SUCH USE, AND FOR ROOF-MOUNTED SYSTEMS, WIRING MUST BE PERMANENTLY AND COMPLETELY HELP OFF OF THE ROOF SURFACE. NEC 110.2 - 110.4 / 300.4							
	01 - LINE DIAGRAM															

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FORT WHITE FL 32038

PAGE TITLE:	PAGE #:
LINE DIAGRAM	E01

Powerwall 3 Expansion Technical Specifications

Battery Technical Specifications

Model Number	1807000-xx-y
Nominal Battery Energy	13.5 kWh
Voltage Range	52 – 92 V DC ⁹
⁹ Powerwall 3 Expansion units are connected in parallel and are not field serviceable.	

Environmental Specifications

Operating Temperature	–20°C to 50°C (–4°F to 122°F) ¹⁰
Operating Humidity (RH)	Up to 100%, condensing
Storage Temperature	–20°C to 30°C (–4°F to 86°F), up to 95% RH, non-condensing, State of Energy (SOE): 25% initial
Maximum Elevation	3000 m (9843 ft)
Environment	Indoor and outdoor rated
Enclosure Rating	NEMA 3R
Ingress Rating	IP67
Pollution Rating	PD3
¹⁰ Performance may be de-rated at operating temperatures above 40°C (104°F).	

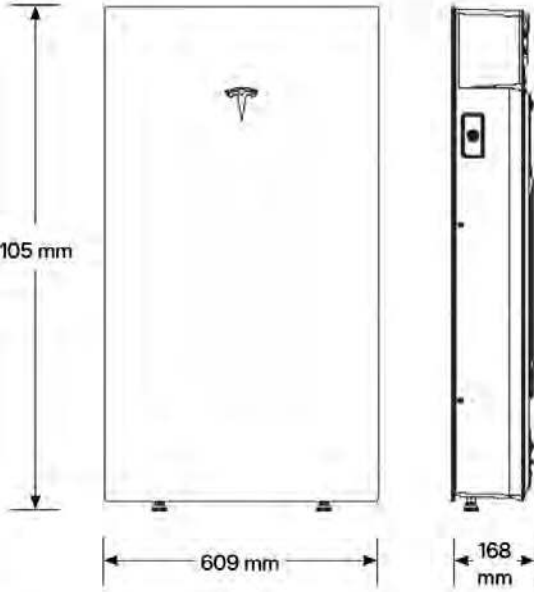
Compliance Information

Certifications	UL 1973, UL 9540
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Mechanical Specifications

Dimensions	1105 x 609 x 168 mm (43.5 x 24 x 6.6 in) ¹¹
Total Weight of Wall-Mounted Expansion Unit	118.5 kg (261.2 lb)
Weight of Expansion Unit	110 kg (242.5 lb)
Weight of Glass Front Cover	6.5 kg (14.5 lb)
Weight of Wall Bracket	1.9 kg (4.2 lb)
Weight of Expansion Accessories	0.7 kg (1.5 lb)
Mounting Options	Floor or wall mount
Stacking Capability (Floor Mount Only)	Up to (3) Expansion units behind a Powerwall 3
Compatibility with Other Systems	Only compatible with Powerwall 3
Connection to Powerwall 3 or Expansions	Powerwall 3 Expansion harness ¹²

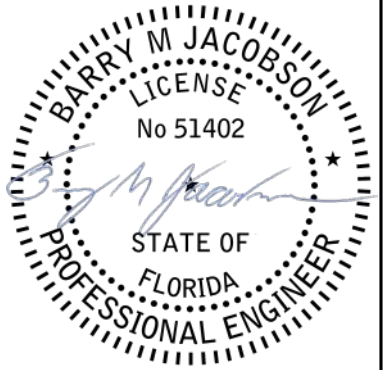
¹¹ These dimensions include the glass front cover being installed on Powerwall 3 Expansion.
¹² The Powerwall 3 Expansion harness is a listed component of the UL 9540 certification.



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TESLA DC EXPANSION	E02