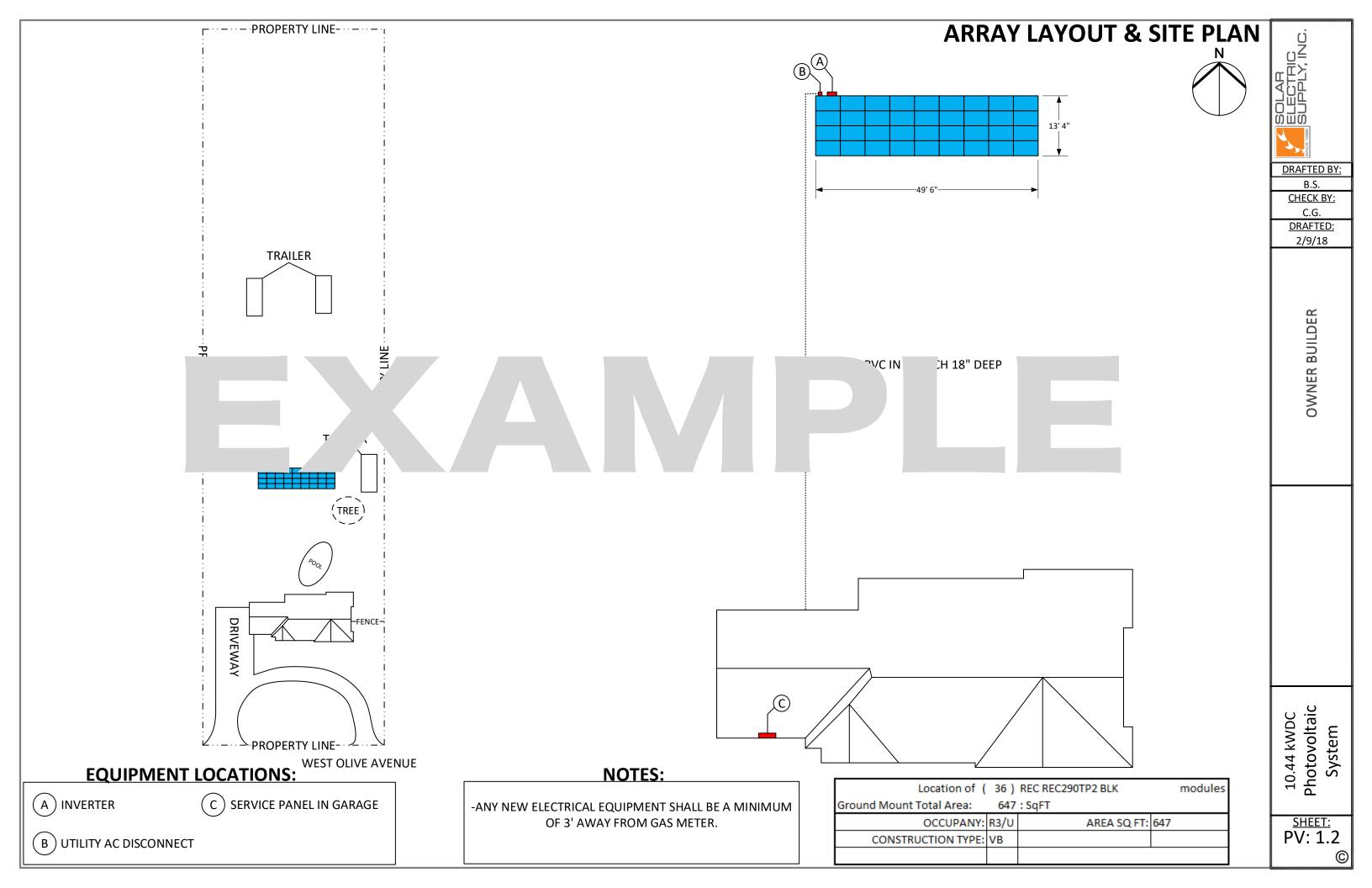
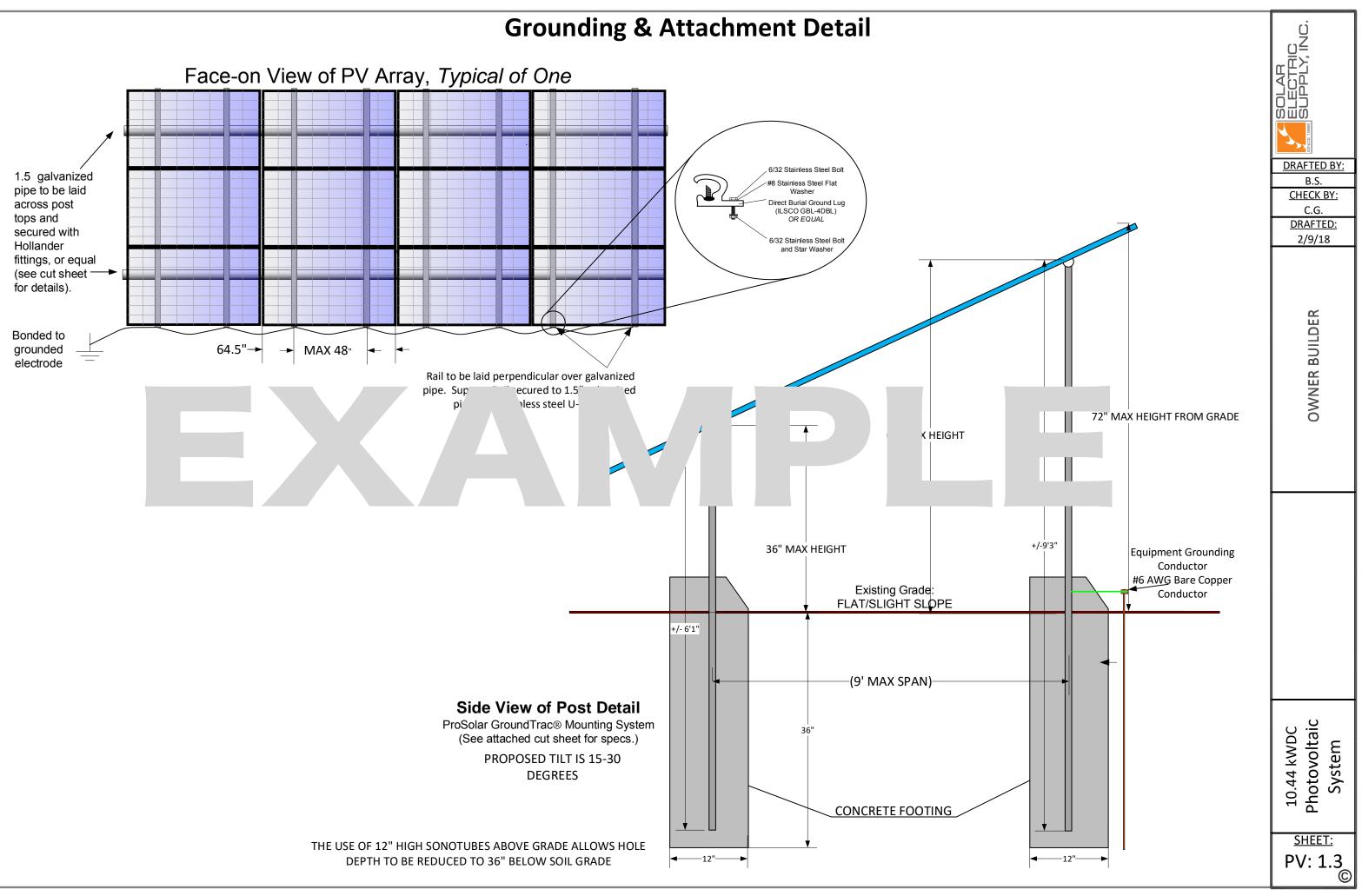
EXAMPLE RESIDENCE 10.44 kW PHOTOVOLTAIC SYSTEM

Olympia Mission Springs Felton Covell Henry Covell Redwoods State Park 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
PROJECT ADDRESS	-UL ' DUCTS: PHOTOVOL' LAR ML UL 1703, -r 'ODULE ARE TC' DMBUST . ERIL 'JIT IS TO B' 'ULLDIN' (HICI JIT I: CHED .ONSTRU 'ALL CO' ITH THE 2016 'S OF RNIA CODE DRNIA ICAL CODE, CALIFORNI/ (LII J CALIFORNI/ CO' L UTILITY PROV LL E FIED PH USE AI VATIC VY SOLAR PHOTOVOLT/
PROJECT DIRECTORY:	J CALIFORNI/ COF LUTILITY PROV \LL E FIED PF USE AI VATIC \VY SOLAR PHOTOVOLT. -ALL MODULES AND RACKING GROUNDING LUGS SHALL BE UL 467 APPROVED (ILSCO GBL-4DBT) -NO SHEET METAL OR TECH SCREWS SHALL BE USED TO GROUND DISCONNECT ENCLOSURE WITH TIN-PLATED ALUMINUM LUGS, PROPER GROUNDING/GROUND BAR -FERROUS METAL RACEWAYS ENCLOSING GEC CONDUCTORS SHALL BE ELECTRICALLY CONTINUOUS OR BONDED IN ACCORDANCE WITH ART 250.64€ -THE CONTRACTOR SHALL PROVIDE A WRITTEN LETTER TO THE BUILDING INSPECTOR IF REQUESTED, STATING THAT ALL INACCESSIBLE STRUCTURAL CONNECTIONS HAR REQUIREMENTS OR THE APPROVED PLANS -APPLICATIONS FOR WHICH NO PERMIT IS ISSUED WITHIN 180 DAYS FOLLOWING THE DATE OF APPLICATION SHALL AUTOMATICALLY EXPIRE -THIS PERMIT ISSUED SHALL BECOME INVALID UNLESS WORK AUTHORIZED IS COMMENCED WITHIN 180 DAYS, A SUCCESSFUL INSPECTION IS NOT OBTAINED IN 180 DA/ A PERIOD OF 180 DAYS, PERMITS WHICH HAVE BECOME INVALID SHALL BE A RENEWAL FEE OF 50% OF THE ORIGINAL PERMIT FEE -SMOKE ALARMS TO BE INSTALLED PER JURISDICTIONS REQUEST OUTSIDE EACH SEPARATE SLEEPING AREA, IN EACH ROOM FOR SLEEPING PURPOSES, IN EACH STORY, -CARBON MONOXIDE DETECTORS TO BE INSTALLED AS COMBINATION UNITS WITH SMOKE DETECTORS IN ALL REQUIRED LOCATIONS PER JURISDICTIONS REQUEST - THE SOLAR PV INSTALLATION SHALL NOT OBSTRUCT ANY PLUMBING, MECHANICAL, OR BUILDING ROOF VENTS. - ALDDER SHALL BE IN PLACE FOR INSPECTION IN COMPLIANCE WITH OSHA REGULATIONS. - THE SOLAR PV INSTALLATION SHALL NOT OBSTRUCT ANY P
PROJECT SCOPE: 1. The installation consists of (36) 290 Watt solar photovoltaic modules ground mounted and connected to (1) inverter and related electrical switchgear as required by applicable codes and by the utility company. Total Size: 10.44 kW DC 2. The system will be interconnected and will be operated in parallel with the utility electrical grid per the requirements of the utility and applicable codes. SERVING UTILITY WILL BE NOTIFIED BEFORE ACTIVATION OF PV SYSTEM.	ELECTRICAL NOTES: -ALL EXPOSED ARRAY WIRING SHALL BE USE-2 TYPE RATED FOR (90 [*] C) WET CONDITIONS. OTHER OUTDOOR WIRING SHALL BE COPPER THWN-2 RATED FOR (90 [*] C) API -ALL DC WIRING WILL BE: DC UNGROUNDED CONDUCTOR=BLACK, DC GOUNDED CONDUCTOR=WHITE -WHERE METALLIC CONDUIT CONTAINING DC CONDUCTOR=BLACK, DC GOUNDED CONDUCTOR=WHITE -WHERE METALLIC CONDUIT CONTAINING DC CONDUCTORS IS USED INSIDE THE BUILDING, IT SHALL BE IDENTIFIED AS "CAUTION: HIGH VOLTAGE DC CIRCUIT" EVERY -#10AWG SOLID BARE COPPER GROUND WILL BE USED AS AN EQUIPMENT GROUND TO CONNECT THE PV RACKING STRUCTURE WHEN NOT EXPOSED TO DAMAGE. IF I -ALL DISCONNECT SWITCHES SHALL BE WIRED SUCH THAT THE LINE SIDE WILL HAVE LIVE CONDUCTORS WHEN THE SWITCH IS IN THE OPEN POSITION -MAKING OF THE "PV SYSTEM DISCONNECT" SHALL BE ACCORDANCE WITH 690.17. MARKING OF THE DC PV POWER SOURCE SHALL BE IN ACCORDANCE WITH NEC 690 POINT OF CONNECTION SHALL BE IN ACCORDANCE WITH 690.54 -ALL EXTERIOR CONDUIT, FITTINGS, AND JUNCTION BOXES SHALL BE RAIN TIGHT AND APPROVED FOR USE IN A WET LOCATION -GROUNDING ELECTRODE CONDUCTORS SHALL BE NO LESS THAN #8AWG AND NO GREATER THAN #6AWG COPPER AND BONDED TO THE EXISTING GROUNDING ELECT - EACH MODULE WILL BE GROUNDED USING THE SUPPLIED CONNECTIONS POINTS IDENTIFIED ON THE MODULE AND THE MANUFACTURER'S INSTALLATION INSTRUCT - EXPOSED NON-CURRENT CARRYING METAL PARTS OF MODULE FRAMES, EQUIPMENT, AND CONDUCTOR ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH ' - ROPPER ACCESS AND WORKING CLEARANCE AROUND EXISTING AND PROPOSED ELECTRICAL EQUIPMENT WILL BE PROVIDED AS PER SECTION 110.26 CEC.

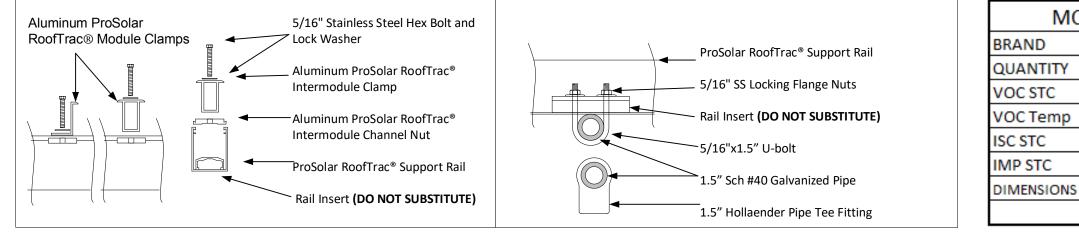
	DRAFTED BY: B.S. CHECK BY: C.G. DRAFTED: 2/9/18
IF CALIFORNIA FIRE CODE,	OWNER BUILDER
AVE BEEN INSTALLED IN CONFORMATION WITH THE DAYS, OR IF WORK IS SUSPENDED OR ABANDON FOR BEEN EXPIRED FOR UP TO 1 YEAR. WHEN A PERMIT 7, INCLUDING BASEMENT	RESIDENCE
PPLICATIONS IN EMT CONDUIT 5 FEET EXPSED TO DAMAGE, #6AWG WILL BE USED 0.53. MARKING OF THE INVERACTIVE SYSTEM CTRODE TO PROVIDE FOR A COMPLETE SYSTEM.	10.44 kWDC Photovoltaic System
TIONS. 1250.134 OR 250.136 (A) REGARDLESS OF VOLTAGE	<u>SHEET:</u> PV: 1.1 ©

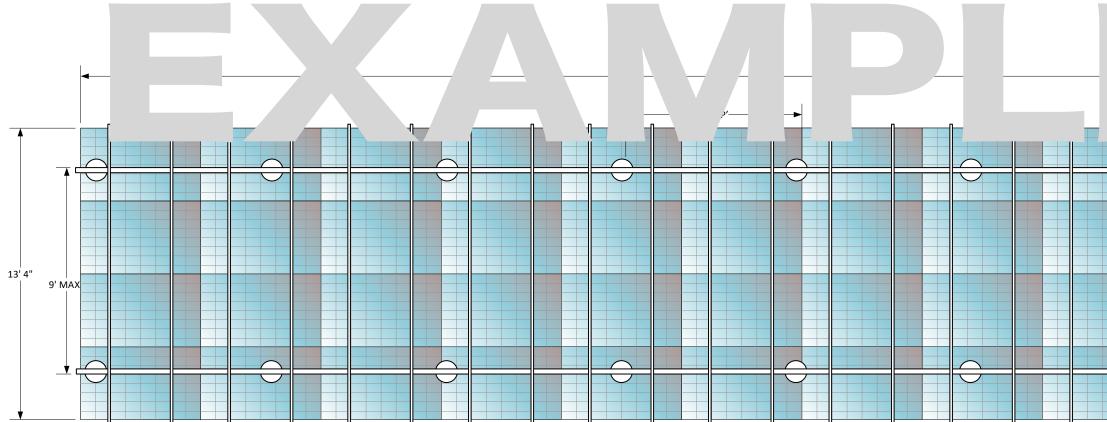




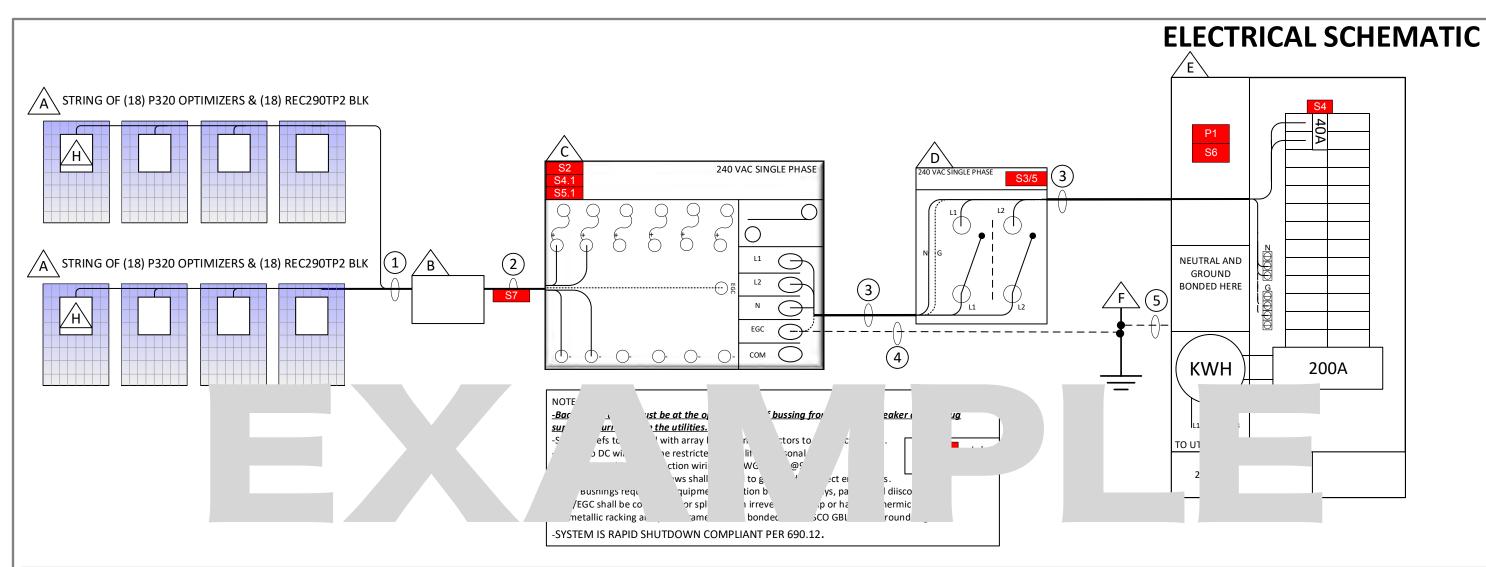
NOTE: ARRAY PLACEMENT IS NOT TO SCALE. SEE PV1.2 FOR LOCATIONS

Mounting and Connection Detail

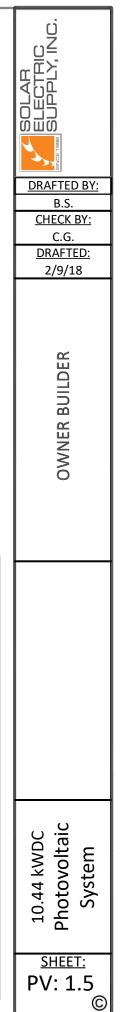


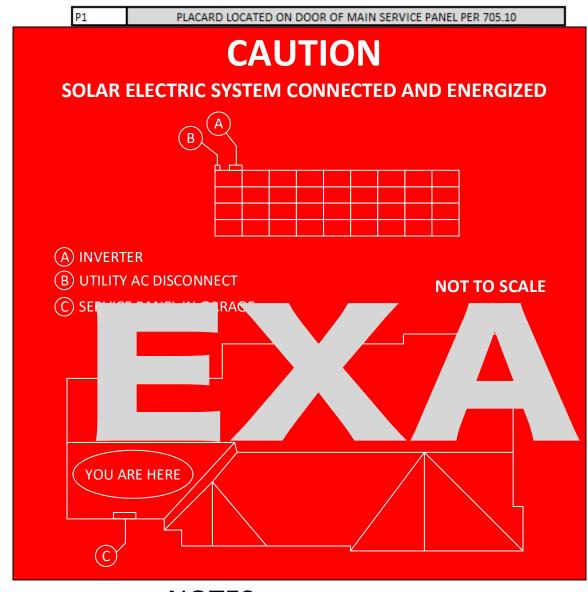


SOLAR ELECTRIC SUPPLY, INC. **ATTACHMENT DETAIL** (36) Modules Ground Mount Array Showing Placement of (14) Post Holes (drawing not to scale) 3, MODULE SPECIFICATIONS: DRAFTED BY: REC REC290TP2 BLK B.S. 36 CHECK BY: C.G. 38.8 VDC OTHER NOTES: DRAFTED: 38.8 VDC MODULE 2/9/18 9.58 AMPS (TCvOC=.35%/C) 9.05 AMPS WIDTH= 39.25 HEIGHT= 65.94 **OWNER BUILDER** WEIGHT= 40.8 DEPTH= 1>,<2 1.5" **iALVANIZED** IPE **PRO SOLAR** 3" RAIL ∠ POSTS 10.44 kWDC Photovoltaic System SHEET: PV: 1.4 ©



EQUIPMENT SCHEDULE: VOLTS, AMPS, GROUNDING, OVERCURRENT PROTECTION:																		
	REC REC290TP2 BLK			Current Carrying Amps		Amps	Amps Max	Fuse or	V	Voltage		One way	Design	Grounding Conductors			Worst Case	
	36 Total Modules	v	WIRE RUN AND CONDUIT LEGEND: (TYPICAL OF ONE)	Qty	AWG	(Imp)	(Isc)	w/ NEC Multiplier	Breaker Amps	Min VMP	Max VOC	DC/ AC	Dist. (ft)	Vdrop (≤)	Qty	EGC AWG (Qty AVC	Vdrop
	500V RATED NEMA 3R JUNCTION BOX USED TO	\frown	ARRAY TO JUNCTION BOX	6	10	9.05	9.58	14.97	20.00	350.0	350.0	DC	25	2%	1	6		0.17%
	RANSITION FROM PV WIRE TO THWN-2	(1)	CONDUCTORS ARE (6) #10 AWG PV WIRE IN FREE AIR															
	olarEdge SE7600H-US INVERTER WITH	\smile	UNDER ARRAY GROUND IS #6 AWG BARE COPPER															
	NTEGRATED DC DISCONNECT & AFCI		JUNCTION BOX TO INVERTER	6	10	9.05	9.58	14.97	20.00	350.0	350.0	DC	50	2%	1	8		0.34%
N	MAX POWER: 8350 W	(2)	CONDUCTORS ARE (6) #10 AWG THWN-2															
c	CEC EFFICIENCY: 97.50% %	\smile	(FROM J-BOX TO INVERTER) IN 3/4" EMT/PVC															
N	MAX AC OUTPUT: 32.0 A		INVERTER THROUGH AC DISCONNECT TO POC	3	8		32	40	40.00	24	40	AC	100	1%	1	8	1 6	2.00%
(@125% NEC): 40 A	(3)	CONDUCTORS ARE (3) # 8 AWG THWN-2		Maximum Allowable Solar Backfee						ed Breaker Calculation:					Total DC Vdrop		0.51%
	50 A UNFUSED AC DISCONNECT	\sim	IN 1" EMT/PVC OR # 8 -3 OR FMC (NOT IN WET LOCATIONS)		120%	% X 200 A Buss		A Bussin	g	=	= 240 Ar					Total	AC Vdrop	2.00%
	WITCH UL LISTED (KNIFE BLADE)		BOND #6 AWG BARE COPPER WITH IRREVERSIBLE SPLICE OR LISTED		240	-	200	A Main I	Breaker	=	40	Bac	kfeed E	Breaker		Avg	, Ambier	t Temp (F)
	EXISTING SERVICE 200 AMP CABINET	(4)	ACORN CLAMP CONNECTION TO GROUNDING ELECTRODE CONDUCTOR		Typical of One						e:							84
ZEZ	MAIN BREAKER 200 A		OR EXISTING HOUSE UFFER For Module:						For Ar	ray:]	Min Historical Temp (F)			
		5 EXISTING #2 AWG BARE COPPER GROUNDING ELEC CONDUCTOR SIZED PER NEC 250.102[C][1]	EXISTING #2 AWG BARE COPPER GROUNDING ELECTRODE		Voc	32.10 Vlts Opn Circt-Mod			Isc 28.74 Amps Short Circuit				Circuit	1	22			
EXISTING UFFER OR GROUNDING ELECTRODE	AISTING OFFER OR GROUNDING ELECTRODE		CONDUCTOR SIZED PER NEC 250.102[C][1]		Vmp 30.00 Vits Max Powr: Mod			Powr: Mod		Voc	465.6 Average]	Temp Adder (F) 310.15(B)(2)c		
	APID SHUTDOWN SYSTEM FROM INVERTER					Total For System:			Vmp	385.2 Average				1	30			
	MANUFACTURE (SEE DATASHEET)					9,438 AC Watts			Imp	27.15 Amps]	Max/Free-Air Temp (F)			
					Total For System:					Total For System:					Max Conduit/THWN-2 Temp (F)			
<u>\</u>	SOLAREDGE P320 OPTIMIZERS					10,440	Wat	ts STC			9,43	8	Watt	s PTC				114
	· · · · · · · · · · · · · · · · · · ·																	





NOTES:

-Alternate power source placard(Map) shall be plastic, engraved in a contrasting color to the plaque. This plaque will be attached by pop rivets or screws or other approved method. Durable adhesive materials must be suitable for the environment. If exposed to sunlight, it shall be UV resistant.

-All plaques and signage req. by 2014 NEC will be installed as req.

Signage and Labeling Specifications shall be: -Red background with white lettering for caution signage. -3/8" letter heights -All capital letters -Reflective -Arial or similar font, Non-Bold

-Weather resistant material (i.e. engraved plastic).

-Permanent labels shall be provided. No sharpie marker will be allowed within main service panel or subpanel.

(Placards and Stickers shown here are for illustration purposes only. Actual size will be compliant with the requirements of the jurisdiction in which they will be installed)

