

**DRAWING INDEX**

S1 RACKING DETAILS / SPECIFICATIONS & NOTES

**SPECIFICATIONS**

PANELS: SUNPOWER E-SERIES: E20-435-COM  
440 W MODULES  
TILT ANGLE: 25 DEGREES  
GROUND CLEARANCE: UP TO 30 IN.±

THIS DESIGN IS FOR POST DRIVEN DESIGN FOR SDE SOLAR PANEL RACKING @ 25 DEGREE TILT

CERTIFYING ENGINEER IS NOT RESPONSIBLE FOR SOLAR PANEL DESIGN OR INSTALLATION.

CONTACT CERTIFYING ENGINEER IF ROCK IS ENCOUNTERED DURING POST INSTALLATION

SYSTEM SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION GUIDE AND SPECIFICATIONS

**RACKING DESIGN CRITERIA**

TOTAL AREA BETWEEN POSTS = 41.18 x 81.38 x  
10 PANELS = 232.7 SQ.FT.  
APPLICABLE CODES AND STANDARDS: IBC 2018, ASCE 7-16  
RISK CATEGORY: I  
FLOOR LIVE LOAD (1603.1.1): NA  
ROOF LIVE LOAD (1603.1.2): 20 PSF (REDUCIBLE)  
ROOF SNOW LOAD (1603.1.3):  
Pg = 25.0 PSF  
Pf = 15.12 PSF  
Ce = 0.9  
Is = 0.8  
Ct = 1.2  
WIND LOAD (1603.1.4):  
V = 106 MPH  
Iw = 1.0  
EXPOSURE: B  
EARTHQUAKE DESIGN DATA (1603.1.5)  
Sds = 0.14  
Sd1 = 0.066  
SITE CLASS = D  
Ie = 1.0  
SDC = A  
BASE SHEAR V = 54.8 LBS

SOIL IS ASSUMED TO BE STIFF

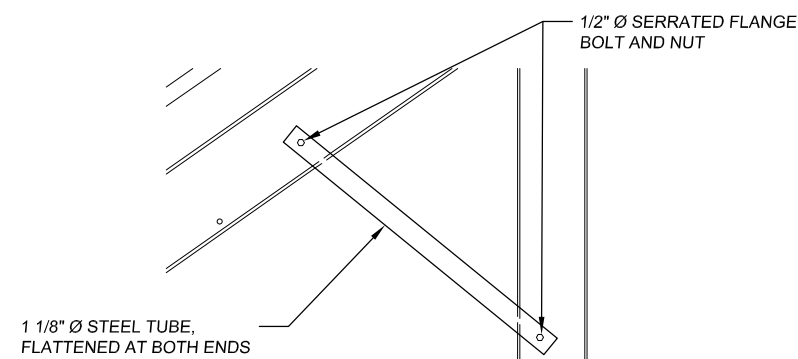
2 PANEL HIGH (PORTRAIT), 10 PANELS BETWEEN POSTS  
GROSS UPLIFT = 1610 LBS (PER POST)  
HORIZONTAL = 1840 LBS (PER POST)

**STRUCTURAL MEMBERS**

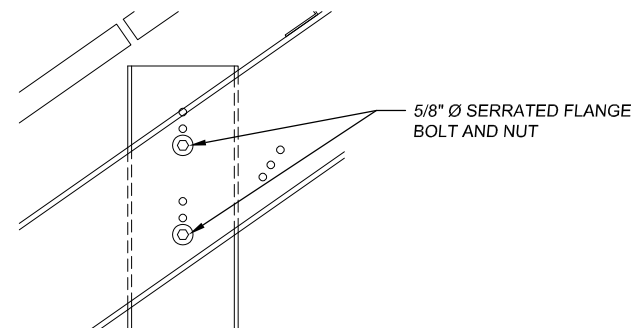
STRUCTURAL MEMBERS COLD FORMED ASTM A653 STEEL  
50 KSI MINIMUM YIELD STRENGTH  
STRUCTURAL BOLTS GRADE 5 / GRADE 8  
STRUCTURAL MEMBERS FABRICATED AND GALVANIZED PER ASTM A123  
HOLES SHALL BE 1/16" LARGER THAN BOLTS

**NOTES**

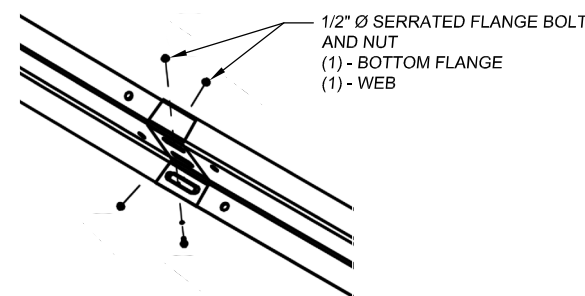
- DESIGN IS APPROVED AS SHOWN
- CERTIFYING ENGINEER SHALL BE CONSULTED IF DESIGN IS MODIFIED
- DRAINAGE SHALL BE DIVERTED AWAY FROM POSTS. POSTS SHALL NOT BE INSTALLED IN SWALES, DRAINAGE AREAS, OR WHERE WATER MAY BE ALLOWED TO FLOW OR STAND.



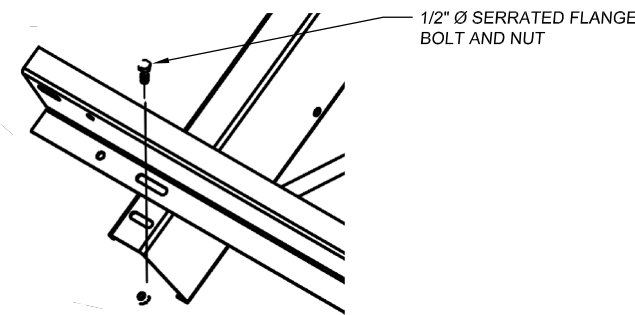
**STRUT CONNECTIONS**  
SCALE: NONE



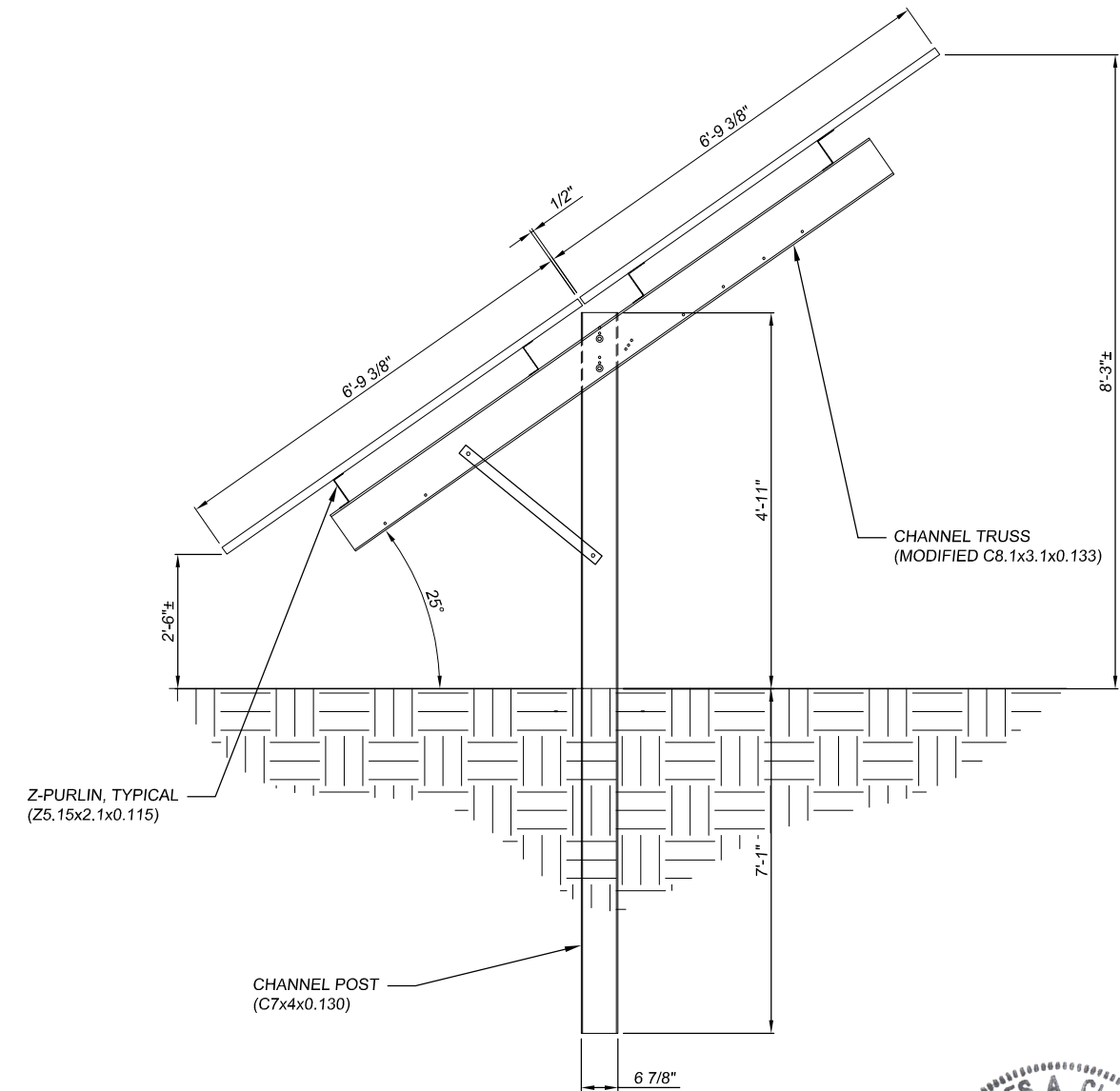
**TRUSS TO POST CONNECTION**  
SCALE: NONE



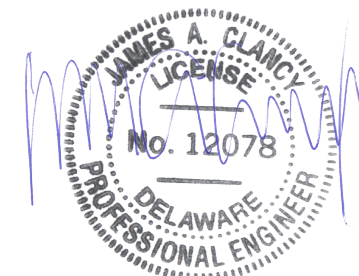
**PURLIN OVERLAP CONNECTION**  
SCALE: NONE



**PURLIN TO TRUSS CONNECTION**  
SCALE: NONE



**RACKING SIDE ELEVATION VIEW**  
SCALE: NONE



PROJECT INFORMATION:		RACKING STANDARDS	
RACKING DETAILS / SPECIFICATIONS & NOTES		1522 SLAUGHTER STATION RD. HARTLY, DE 19953	
SCALE	VARIES	PROJECT No.	210803-2
DATE		RELEASE DATE	08/03/21
BY		APPR	INT
NO		DRAWN BY	DMS
DESCRIPTION		SHEET No.	S1
REVISIONS		REV	0
ISSUED FOR CONSTRUCTION			
DESCRIPTION			
NO			