

ROOF TOP PV MOUNTING SYSTEM

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2023 (8TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

THIS PRODUCT APPROVAL IS FOR THE ROOF TOP PV MOUNTING SYSTEM AS SHOWN ON THESE DRAWINGS. ROOF DETAILS, UPLIFT, SLOPE, ROOF TRUSSES AND OTHER ELEMENTS SHALL BE DESIGNED BY A FLORIDA REGISTERED ENGINEER AND REVIEWED BY THE STRUCTURAL PLANS EXAMINER OF THE CORRESPONDING BUILDING DEPARTMENT.

ENGINEER OF RECORD TO VERIFY THAT ROOF MEMBERS CAN SUPPORT THE PV MODULE ARRAY UNDER ALL CODE LEVEL LOADING CONDITIONS. INSTALLER TO MAINTAIN THE WATERPROOF INTEGRITY OF THE ROOF.

INSTALLATION OF PV PANEL ACCESSORIES SHALL BE DONE IN ACCORDANCE WITH THE CURRENT EDITION OF FLORIDA BUILDING CODE AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND ROOF COVERING.

DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

SOLAR PANELS TO BE INSTALLED PARALLEL TO THE ROOF SURFACE WITH A TOLERANCE OF LESS THAN 2 DEGREES.

CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1

DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2

SELECT LIGHT RAIL OR MAX. RAIL FOR REQUIRED LOADS FROM LANDSCAPE OR PORTRAIT RAIL CAPACITY CHARTS SHOWN ON SHEET 9.
- STEP 3

VERIFY HIDDEN & MULTI-CLAMP CAPACITY USING CHART ON SHEET 9.
- STEP 4

SELECT ROOF MOUNT TYPE CAPACITY FOR LANDSCAPE INSTALLATION USING CHARTS ON SHEET 10 AND PORTRAIT INSTALLATION USING CHARTS ON SHEET 11 WITH RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 5

THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

Sealed: 8/14/2024

FL #41396

A- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.

B- THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

C- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

D- THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.



PV PANELS NOT PART OF THIS APPROVAL. FOR PANEL DETAILS, GENERAL NOTES, COMPONENT SIZES, FIRE AND ELECTRICAL SAFETY STANDARDS, PANEL CONNECTION TO MOUNTS AND INSTALLATION REQUIREMENTS/LIMITATIONS SEE CORRESPONDING FLA. APPROVAL DWGS.

afC

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100
FBPE #3538

WWW.AFCENG.COM
SOLAR-RACK\22-21F-PS

ROOF TOP PV MOUNTING SYSTEM

Pegasus Solar Inc.
506 West Ohio Avenue
Richmond CA. 94804
Phone: (510) 210-3797
www.pegasussolar.com

revisions:

no	date	by	description
A	02.07.23		INSTAFASH MOUNT ADDED
B	08.02.23		Butyl-Foot MOUNT ADDED
C	01.08.24		Butyl-Foot ANCHORS REV.
D	07.10.24		INSTAFASH 2 ADDED

date: 08-31-22

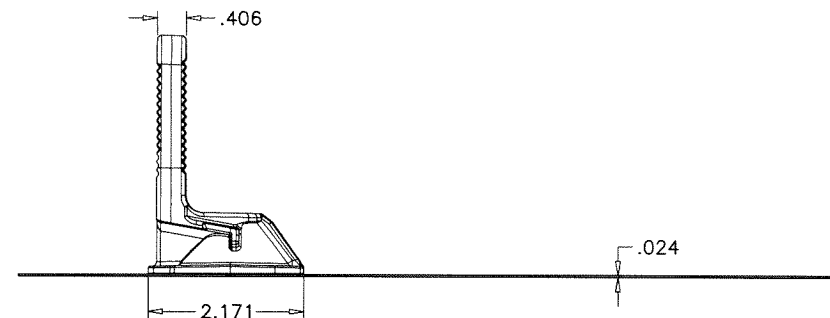
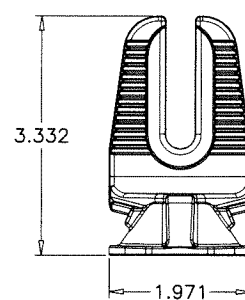
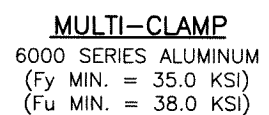
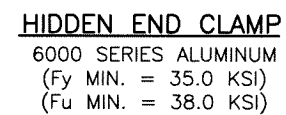
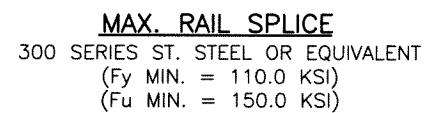
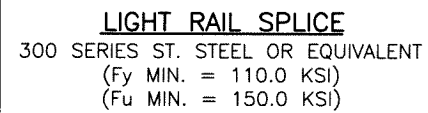
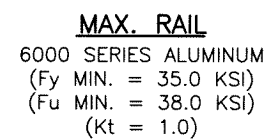
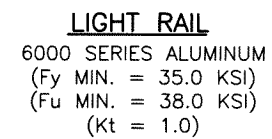
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dr. by: TARIQ

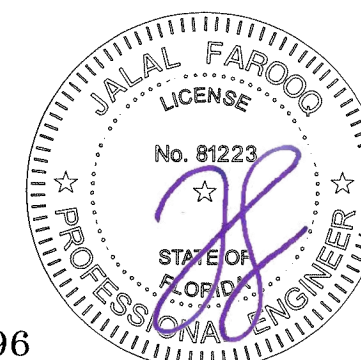
chk. by:

drawing no.
22-21F

sheet 1 of 16



COMP MOUNT GEN 2
OPEN SLOT L-FOOT
CAST ALUMINUM
(Fy MIN. = 23.0 KSI)
(Fu MIN. = 47.0 KSI)



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FL #41396

ROOF TOP PV MOUNTING SYSTEM

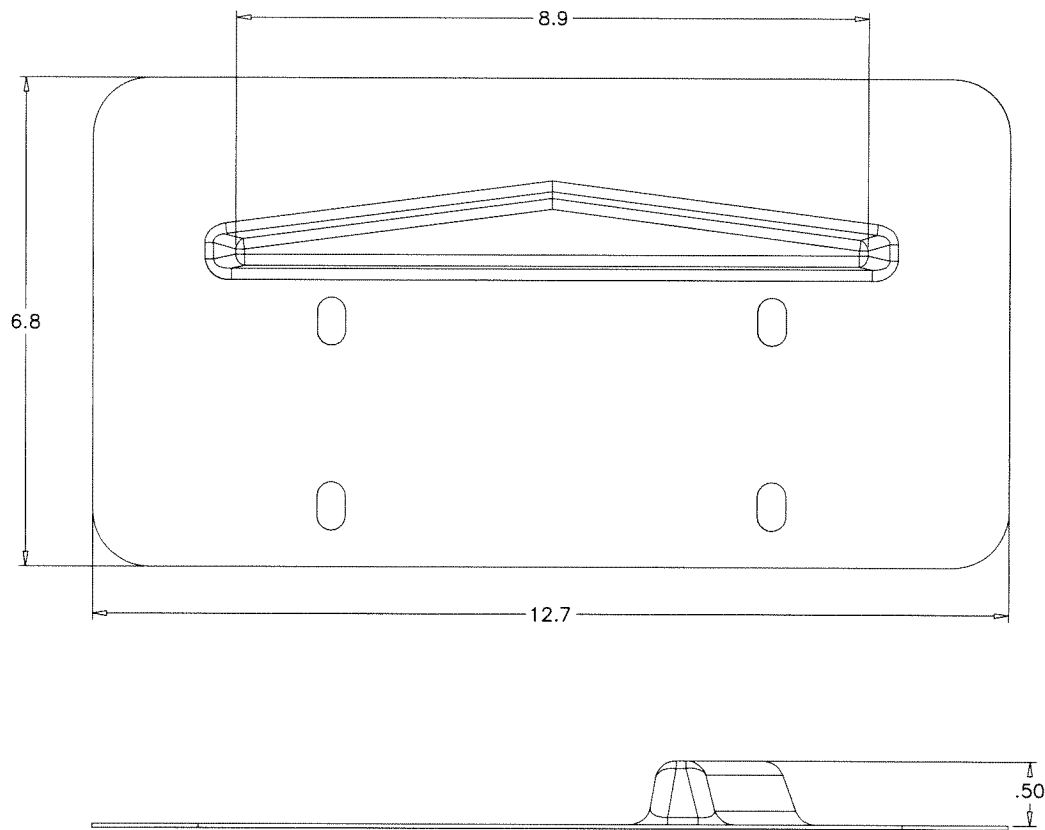
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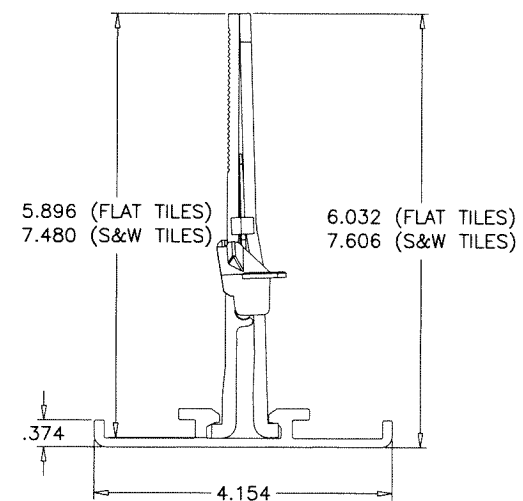
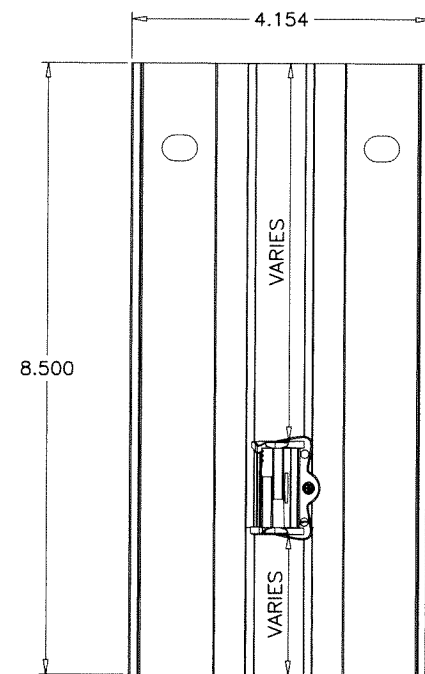
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dr. by:	TARIQ				
chk. by:					

drawing no.
22-21F

sheet 2 of 16



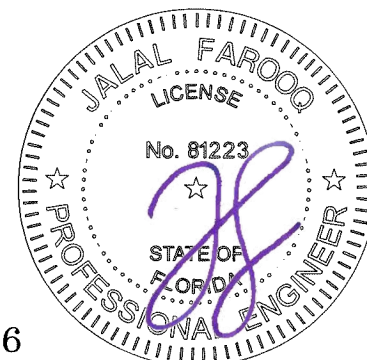
BASE FLASHING (OPTIONAL)



SCISSOR MOUNT ASSEMBLY
6000 SERIES ALUMINUM
(Fy MIN. = 35.0 KSI)
(Fu MIN. = 38.0 KSI)

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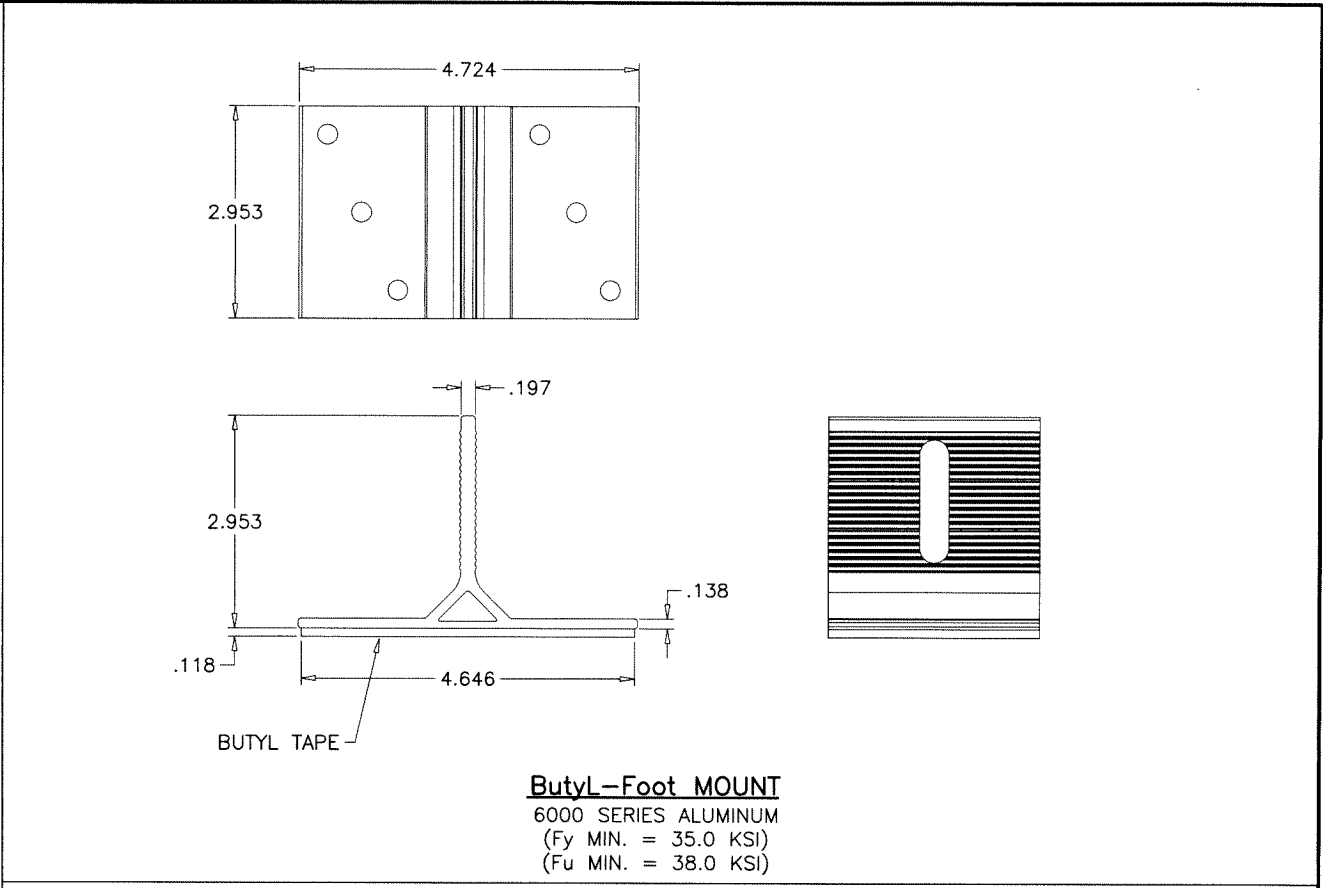
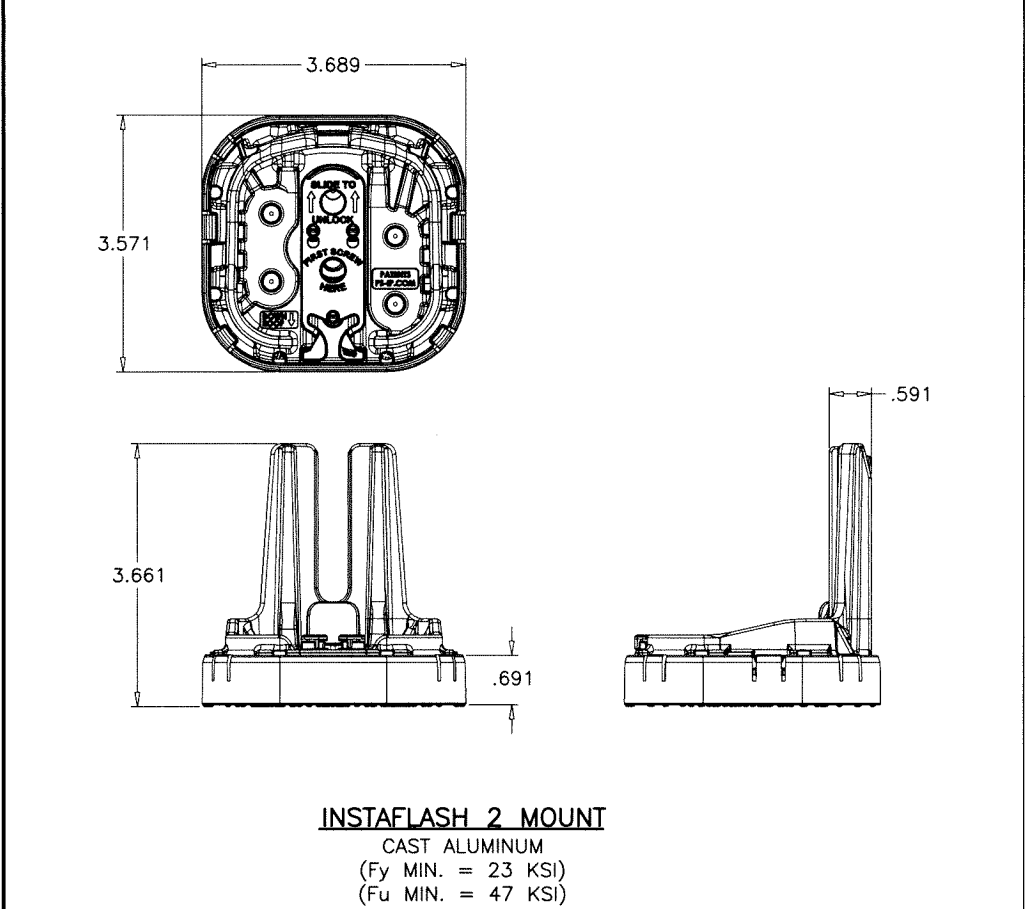
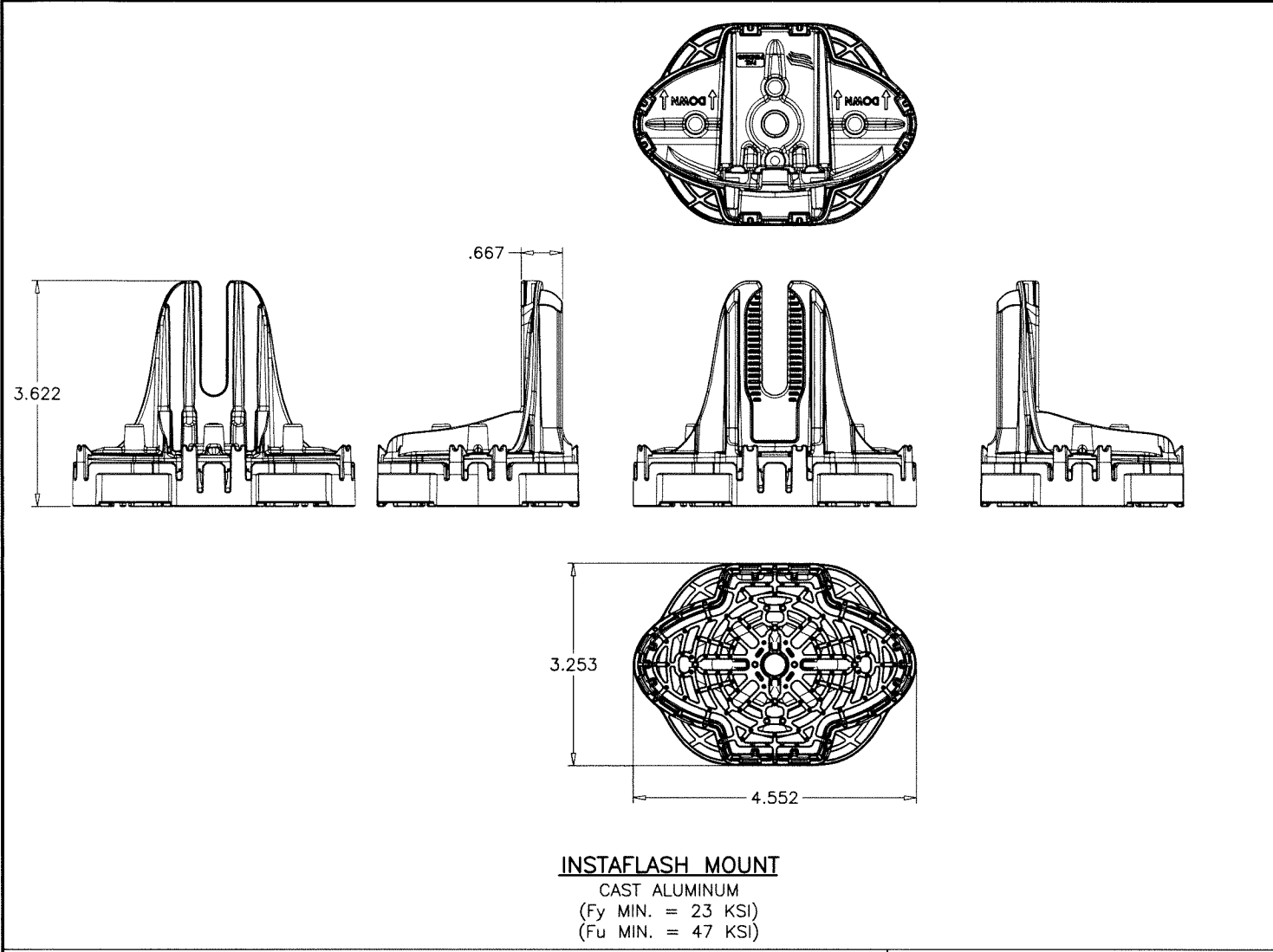
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revisions:		date		by		description	
no	date	no	date	no	date	no	date

date: 06-31-22	scale: 3/8" = 1"	dr. by: TARIQ	chk. by:
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drawing no.	no.
22-21F	
sheet 3 of 16	



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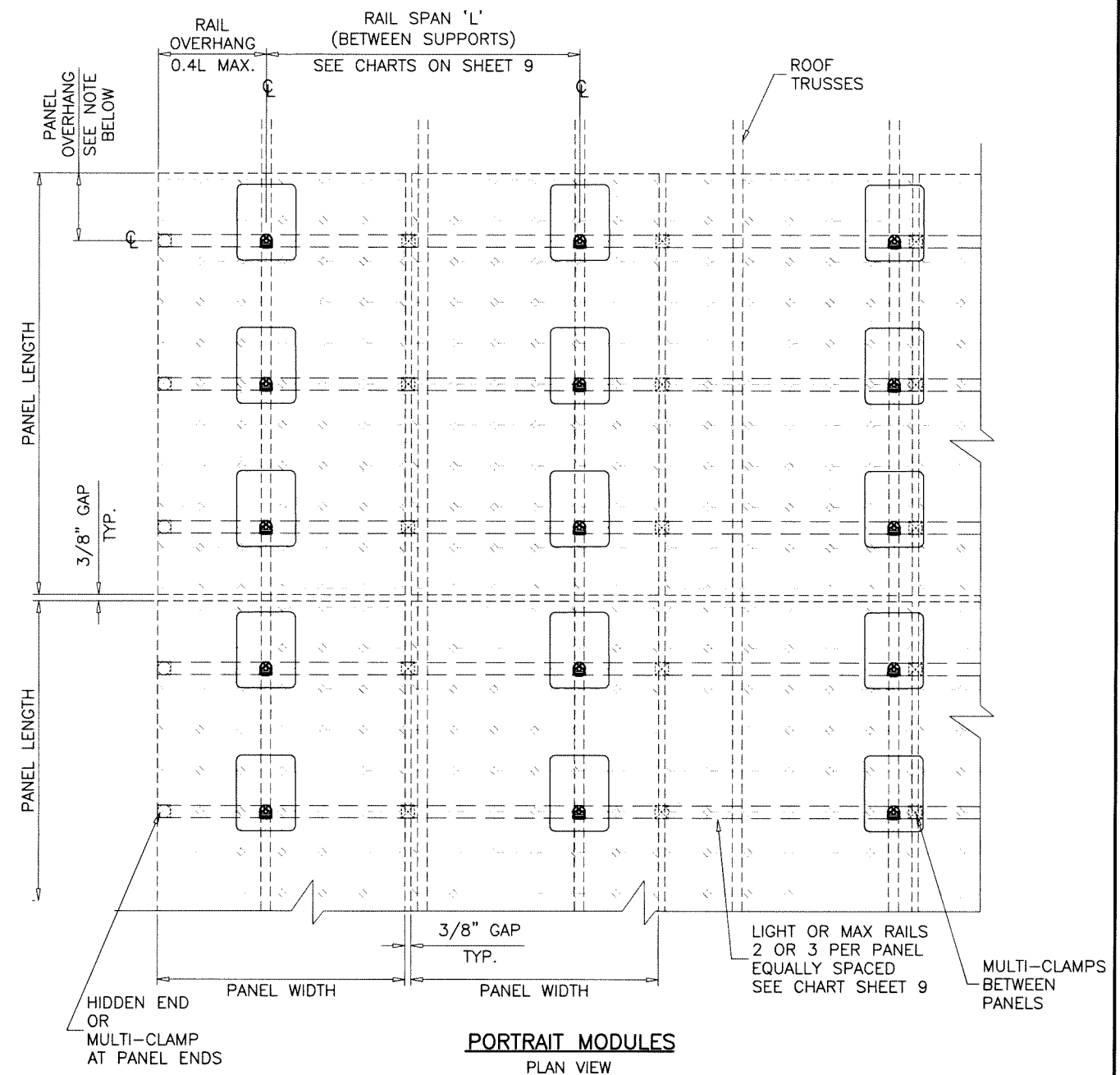
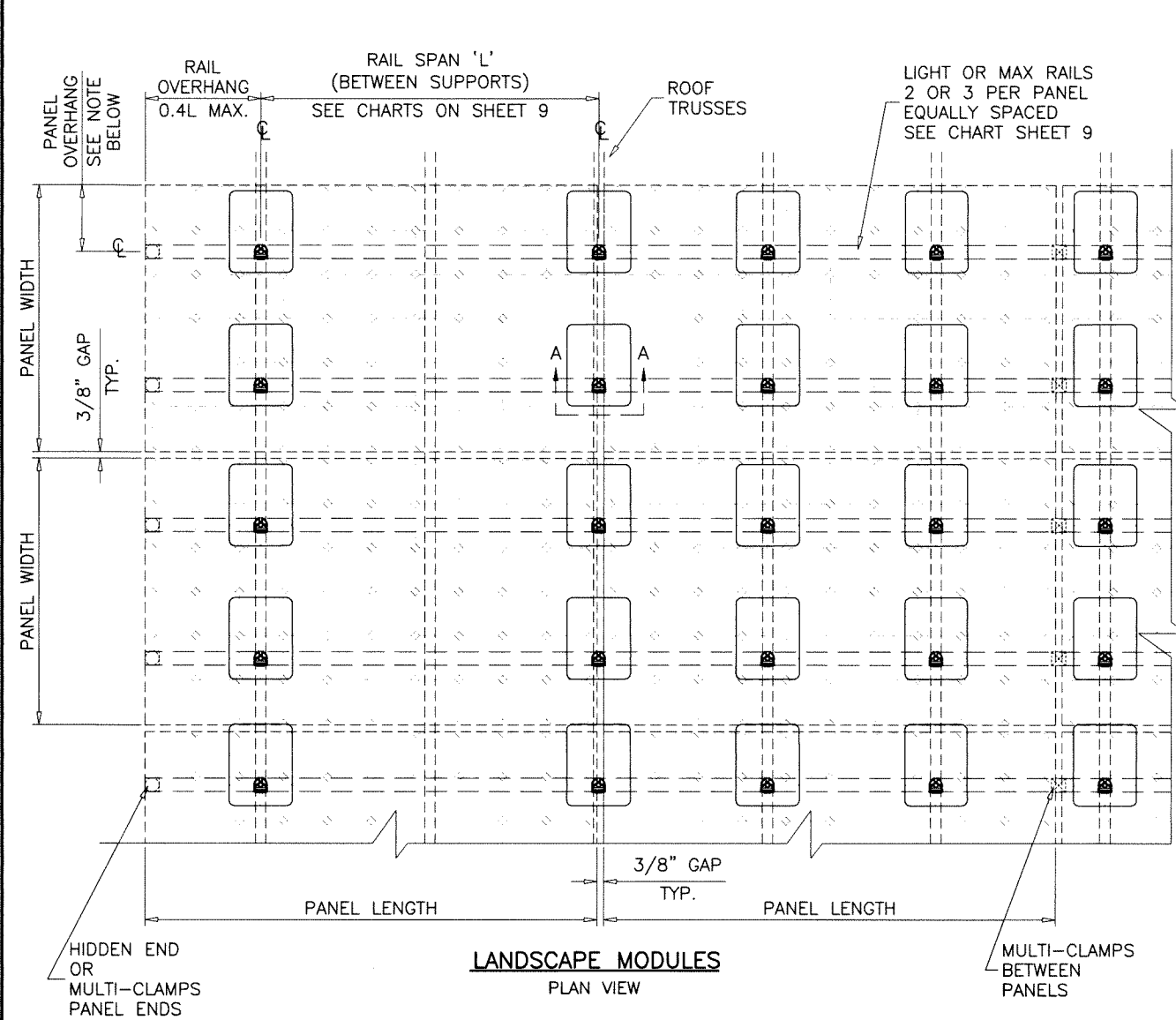
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drawing no.

22-21F

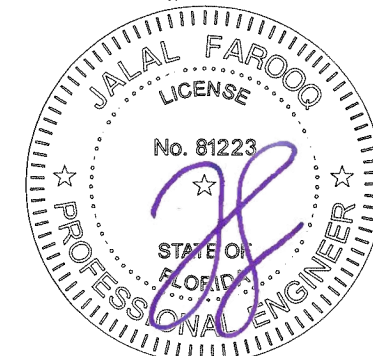
sheet 4 of 16



NOTES:
PANEL OVERHANG AS PER PANEL MANUFACTURER'S INSTRUCTIONS.
SHOULD BE EQUAL ON BOTH SIDES OF PANELS
FOR 3 RAILS SUPPORTED PANELS, OVERHANGS TO BE
BETWEEN 12-20% OF PANEL LENGTH OR WIDTH.

RAILS CAN BE JOINED WITH 6.9" LONG SPLICE TO ACHIEVE REQUIRED LENGTHS. SPLICE JOINTS TO BE ANYWHERE ALONG THE RAIL EXCEPT NO PART OF THE SPLICE SHOULD BE WITHIN THE RAIL CANTILEVER.

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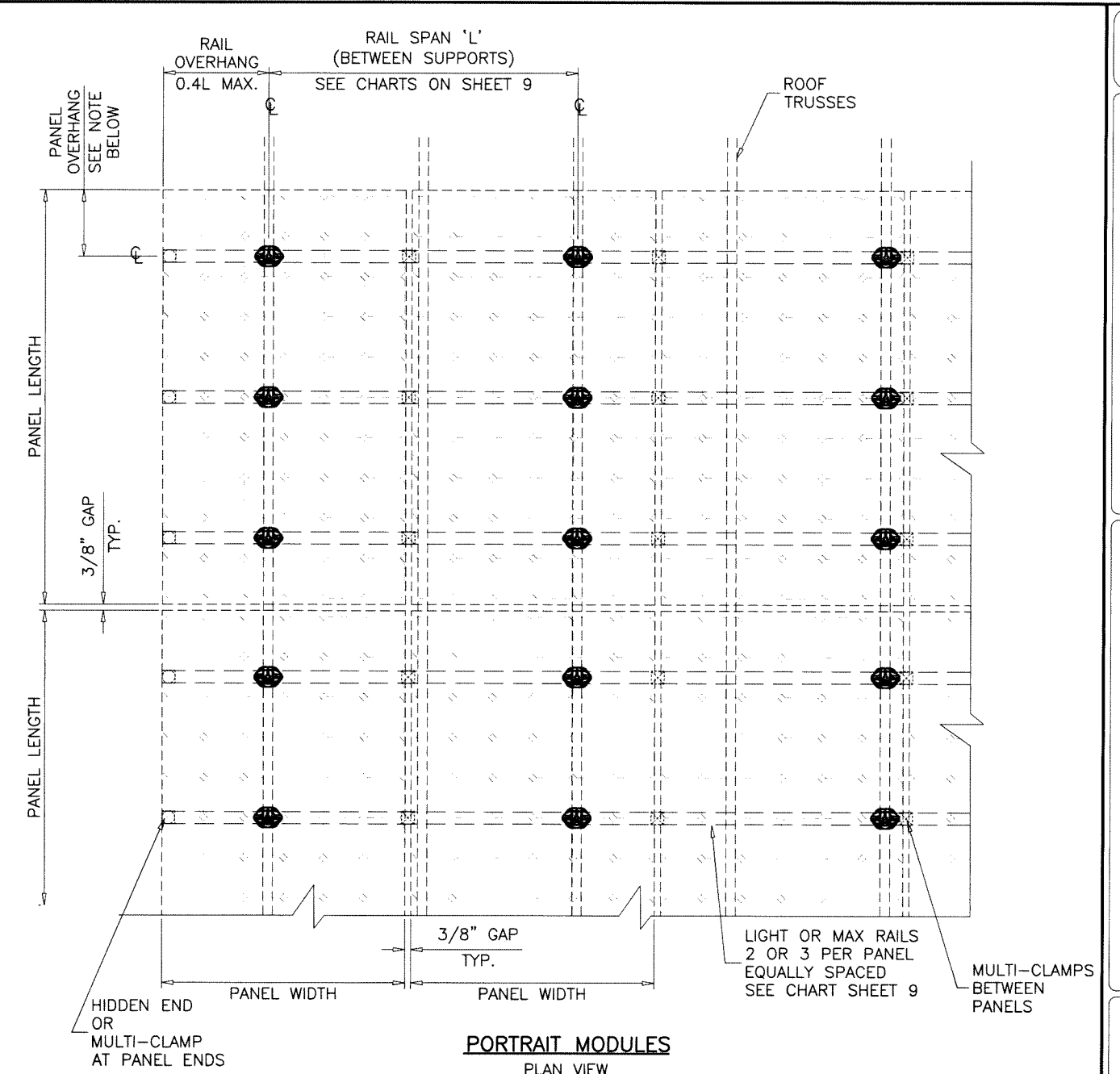
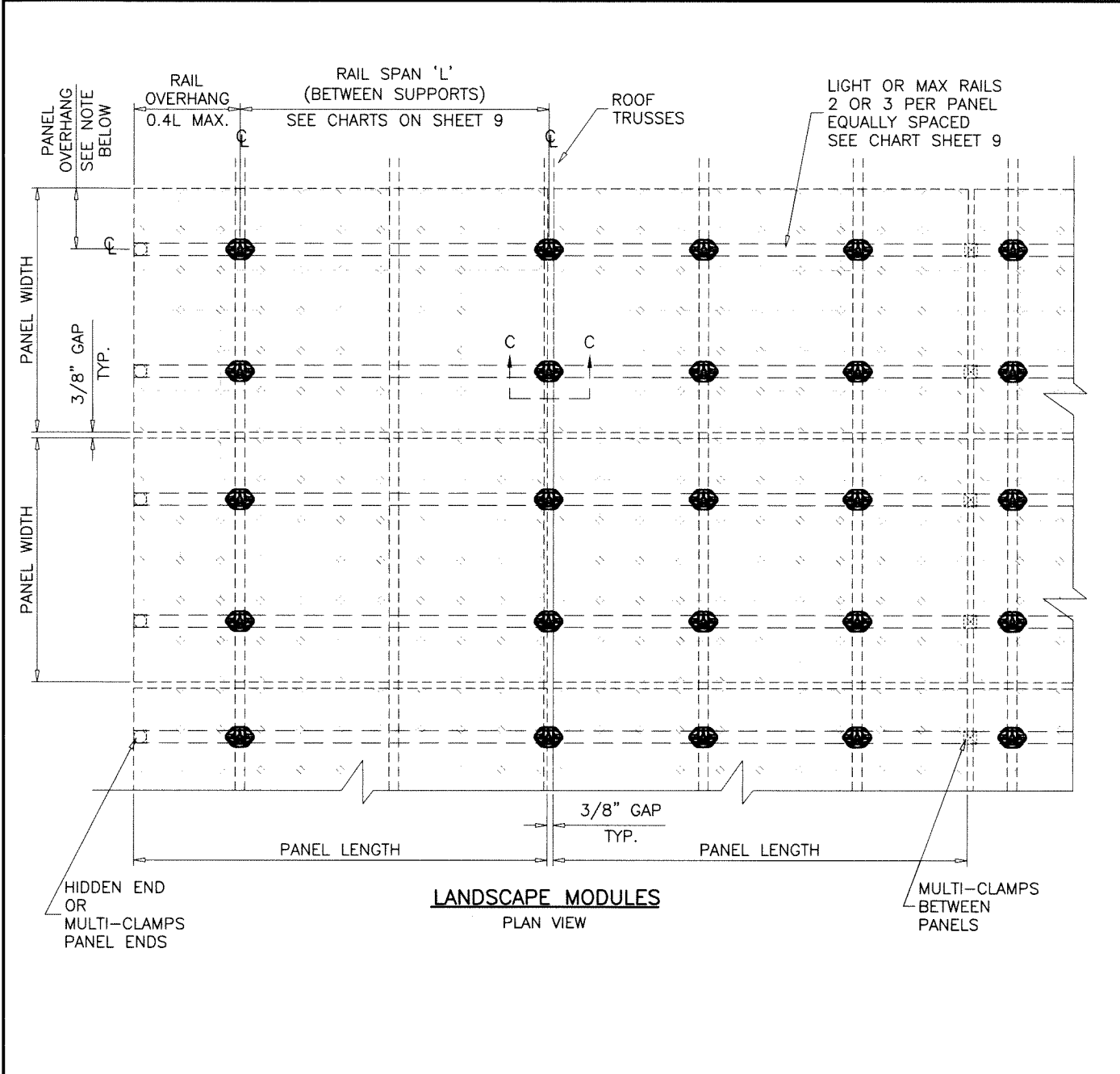
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date: 06-31-22	revisions:		
scale: 1/2"=1'-0"	no	date	by description
dr. by: TARIQ			
chk. by:			

drawing no.
22-21F

sheet 5 of 16



NOTES:
 PANEL OVERHANG AS PER PANEL MANUFACTURER'S INSTRUCTIONS.
 SHOULD BE EQUAL ON BOTH SIDES OF PANELS
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 RAILS CAN BE JOINED WITH 6.9" LONG SPLICE TO ACHIEVE REQUIRED LENGTHS.
 SPLICE JOINTS TO BE ANYWHERE ALONG THE RAIL EXCEPT NO PART OF THE
 SPLICE SHOULD BE WITHIN THE RAIL CANTILEVER.

INSTAFLASH OR INSTAFLASH 2 MOUNT

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dr. by:	TARIQ	chk. by:	
drawing no. 22-21F			
sheet 7 of 16			

LIGHT RAIL & MAX. RAIL

RAILS DESIGN LOAD CAPACITY – PSF (LANDSCAPE MODULES)												
PANEL LENGTH	NUMBER OF RAILS	SPAN 'L'	FLAT ROOFS		ROOF SLOPES UP TO 7°		ROOF SLOPES 8° TO 20°		ROOF SLOPES 21° TO 27°		ROOF SLOPES 28° TO 45°	
			LIGHT RAIL	MAX. RAIL	LIGHT RAIL	MAX. RAIL	LIGHT RAIL	MAX. RAIL	LIGHT RAIL	MAX. RAIL	MAX. RAIL	LIGHT RAIL
69–1/2"	2	16"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		24"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		32"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		48"	64.0	112.0	63.5	111.5	62.4	110.6	61.7	110.0	59.9	108.4
		64"	37.7	64.7	37.2	64.3	36.1	63.3	35.5	62.7	33.7	61.1
		72"	30.7	52.0	30.1	51.5	29.0	50.6	28.4	50.0	26.6	48.4
	3	16"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		24"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		32"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		48"	75.7	115.0	75.2	115.0	74.1	115.0	73.4	115.0	71.7	115.0
		64"	44.4	76.6	43.8	76.2	42.7	75.2	42.1	74.6	40.3	73.0
		72"	35.9	61.4	35.4	60.9	34.2	60.0	33.6	59.4	31.8	57.8
80"	2	16"	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7
		24"	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7
		32"	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7
		48"	64.0	76.7	63.5	76.7	62.4	76.7	61.7	76.7	59.9	76.7
		64"	37.7	64.7	37.2	64.3	36.1	63.3	35.5	62.7	33.7	61.1
		72"	30.7	52.0	30.1	51.5	29.0	50.6	28.4	50.0	26.6	48.4
	3	16"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		24"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		32"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		48"	75.7	115.0	75.2	115.0	74.1	115.0	73.4	115.0	71.7	115.0
		64"	44.4	76.6	43.8	76.2	42.7	75.2	42.1	74.6	40.3	73.0
		72"	35.9	61.4	35.4	60.9	34.2	60.0	33.6	59.4	31.8	57.8

LIMIT MAXIMUM POSITIVE(+) LOADS TO 75.0 PSF

LIGHT RAIL & MAX. RAIL

RAILS DESIGN LOAD CAPACITY – PSF (PORTRAIT MODULES)												
PANEL LENGTH	NUMBER OF RAILS	SPAN 'L'	FLAT ROOFS		ROOF SLOPES UP TO 7°		ROOF SLOPES 8° TO 20°		ROOF SLOPES 21° TO 27°		ROOF SLOPES 28° TO 45°	
			LIGHT RAIL	MAX. RAIL	LIGHT RAIL	MAX. RAIL	LIGHT RAIL	MAX. RAIL	LIGHT RAIL	MAX. RAIL	LIGHT RAIL	MAX. RAIL
69–1/2"	2	16"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		24"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		32"	83.8	115.0	83.3	115.0	82.2	115.0	81.5	115.0	79.8	115.0
		48"	39.5	67.9	38.9	67.4	37.8	66.4	37.2	65.8	35.4	64.2
		64"	24.0	39.9	23.4	39.5	22.3	38.5	21.7	37.9	19.9	36.3
		72"	19.8	32.4	19.2	31.9	18.1	31.0	17.5	30.4	15.7	28.8
	3	16"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		24"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		32"	99.5	115.0	98.9	115.0	97.8	115.0	97.2	115.0	95.4	115.0
		48"	46.4	80.4	45.9	79.9	44.8	78.9	44.1	78.4	42.4	76.7
		64"	27.9	47.0	27.3	46.5	26.2	45.5	25.6	44.9	23.8	43.3
		72"	22.9	37.9	22.3	37.5	21.2	36.5	20.6	35.9	18.8	34.3
80"	2	16"	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7
		24"	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7
		32"	73.3	76.7	72.8	76.7	71.7	76.7	71.1	76.7	69.3	76.7
		48"	34.8	59.5	34.3	59.0	33.2	58.0	32.5	57.5	30.8	55.9
		64"	21.3	35.2	20.8	34.8	19.7	33.8	19.0	33.2	17.3	31.6
		72"	17.7	28.7	17.2	28.2	16.1	27.2	15.4	26.6	13.6	25.0
	3	16"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		24"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		32"	86.9	115.0	86.4	115.0	85.3	115.0	84.6	115.0	82.9	115.0
		48"	40.9	70.3	40.3	69.9	39.2	68.9	38.6	68.3	36.8	66.7
		64"	24.7	41.3	24.2	40.9	23.1	39.9	22.4	39.3	20.7	37.7
		72"	20.4	33.5	19.9	33.0	18.7	32.1	18.1	31.5	16.3	29.9

LIMIT MAXIMUM POSITIVE(+) LOADS TO 75.0 PSF

HIDDEN CLAMP & MULTI-CLAMP

CLAMP DESIGN LOAD CAPACITY – PSF (LANDSCAPE & PORTRAIT MODULES)							
PANEL LENGTH	NUMBER OF RAILS	SPAN 'L'	FLAT ROOFS	ROOF SLOPES UP TO 7°	ROOF SLOPES 8° TO 20°	ROOF SLOPES 21° TO 27°	ROOF SLOPES 28° TO 45°
69–1/2"	2	16" TO 72"	72.2	71.2	69.4	68.3	65.7
	3	16" TO 72"	85.5	84.6	82.7	81.7	79.1
80"	2	16" TO 72"	63.2	62.3	60.4	59.4	56.8
	3	16" TO 72"	74.8	73.9	72.0	71.0	68.4

LOADS SHOWN IN CHARTS ABOVE ARE FOR 60 CELLS PANEL (41.1" X 69.5") AND 72 CELLS PANEL (41.1" X 80").

Sealed: 8/14/2024



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sheet **9** of **16**

a f c

SOLAR – RACK \ 22 – 21 F – PS

COMP MOUNT, SCISSOR MOUNT, INSTAFLASH MOUNT, INSTAFLASH 2 MOUNT & ButyL-Foot MOUNT

ROOF MOUNTS DESIGN LOAD CAPACITY – PSF (LANDSCAPE MODULES)																											
PANEL LENGTH	NUMBER OF RAILS	SPAN 'L'	FLAT ROOFS					ROOF SLOPES UP TO 7°					ROOF SLOPES 8° TO 20°					ROOF SLOPES 21° TO 27°					ROOF SLOPES 28° TO 45°				
			COMP MOUNT	SCISSOR MOUNT	INSTAFLASH MOUNT	INSTAFLASH 2 MOUNT	ButyL-Foot MOUNT	COMP MOUNT	SCISSOR MOUNT	INSTAFLASH MOUNT	INSTAFLASH 2 MOUNT	ButyL-Foot MOUNT	COMP MOUNT	SCISSOR MOUNT	INSTAFLASH MOUNT	INSTAFLASH 2 MOUNT	ButyL-Foot MOUNT	COMP MOUNT	SCISSOR MOUNT	INSTAFLASH MOUNT	INSTAFLASH 2 MOUNT	ButyL-Foot MOUNT	COMP MOUNT	SCISSOR MOUNT	INSTAFLASH MOUNT	INSTAFLASH 2 MOUNT	ButyL-Foot MOUNT
69–1/2"	2	16"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		24"	115.0	93.0	115.0	115.0	115.0	115.0	91.8	115.0	115.0	115.0	115.0	89.5	115.0	115.0	115.0	115.0	88.2	115.0	115.0	115.0	115.0	85.1	115.0	115.0	115.0
		32"	115.0	70.7	115.0	115.0	115.0	115.0	69.5	115.0	115.0	115.0	115.0	67.2	115.0	115.0	115.0	115.0	66.0	115.0	115.0	115.0	115.0	62.8	115.0	115.0	115.0
		48"	102.1	48.5	99.0	85.7	81.3	99.7	47.3	98.3	84.8	81.1	95.2	45.0	96.9	83.2	80.5	92.9	43.7	96.1	82.2	80.2	87.2	40.6	94.0	79.8	79.0
		64"	77.6	37.4	75.2	65.3	62.0	75.2	36.2	74.5	64.4	61.8	70.7	33.9	73.2	62.7	61.2	68.3	32.6	72.4	61.8	60.8	62.7	29.4	70.3	59.3	59.7
		72"	69.4	33.7	67.3	58.5	55.6	67.0	32.5	66.6	57.6	55.3	62.5	30.2	65.2	55.9	54.8	60.2	28.9	64.5	55.0	54.4	54.5	25.7	62.4	52.5	53.2
	3	16"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		24"	115.0	110.4	115.0	115.0	115.0	115.0	109.2	115.0	115.0	115.0	115.0	106.9	115.0	115.0	115.0	115.0	105.6	115.0	115.0	115.0	115.0	102.5	115.0	115.0	115.0
		32"	115.0	83.8	115.0	115.0	115.0	115.0	82.6	115.0	115.0	115.0	115.0	80.3	115.0	115.0	115.0	115.0	79.0	115.0	115.0	115.0	115.0	75.9	115.0	115.0	115.0
		48"	115.0	57.2	115.0	101.7	115.0	115.0	56.0	115.0	100.8	96.3	114.5	53.7	115.0	99.2	115.0	112.1	52.4	114.7	98.2	95.3	106.4	49.3	112.6	95.8	94.2
		64"	92.0	43.9	89.2	77.3	73.4	89.6	42.7	88.5	76.4	73.1	85.1	40.4	87.1	74.7	72.6	82.8	39.1	86.3	73.8	72.2	77.1	36.0	84.2	71.3	71.0
		72"	82.2	39.5	79.7	69.1	65.7	79.8	38.3	79.0	68.3	65.4	75.3	36.0	77.6	66.6	64.9	73.0	34.7	76.9	65.6	64.5	67.3	31.5	74.8	63.2	63.3
80"	2	16"	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7
		24"	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7
		32"	76.7	70.7	76.7	76.7	76.7	76.7	69.5	76.7	76.7	76.7	76.7	67.2	76.7	76.7	76.7	76.7	66.0	76.7	76.7	76.7	76.7	62.8	76.7	76.7	76.7
		48"	76.7	48.5	76.7	76.7	76.7	76.7	47.3	76.7	76.7	76.7	76.7	45.0	76.7	76.7	76.7	76.7	43.7	76.7	76.7	76.7	76.7	40.6	76.7	76.7	76.7
		64"	76.7	37.4	75.2	65.3	62.0	75.2	36.2	74.5	64.4	61.8	70.7	33.9	73.2	62.7	61.2	68.3	32.6	72.4	61.8	60.8	62.7	29.4	70.3	59.3	59.7
		72"	69.4	33.7	67.3	58.5	55.6	67.0	32.5	66.6	57.6	55.3	62.5	30.2	65.2	55.9	54.8	60.2	28.9	64.5	55.0	54.4	54.5	25.7	62.4	52.5	53.2
	3	16"	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
		24"	115.0	110.4	115.0	115.0	115.0	115.0	109.2	115.0	115.0	115.0	115.0	106.9	115.0	115.0	115.0	115.0	105.6	115.0	115.0	115.0	115.0	102.5	115.0	115.0	115.0
		32"	115.0	83.8	115.0	115.0	115.0	115.0	82.6	115.0	115.0	115.0	115.0	80.3	115.0	115.0	115.0	115.0	79.0	115.0	115.0	115.0	115.0	75.9	115.0	115.0	115.0
		48"	115.0	57.2	115.0	101.7	115.0	115.0	56.0	115.0	100.8	96.3	114.5	53.7	115.0	99.2	115.0	112.1	52.4	114.7	98.2	95.3	106.4	49.3	112.6	95.8	94.2
		64"	92.0	43.9	89.2	77.3	73.4	89.6	42.7	88.5	76.4	73.1	85.1	40.4	87.1	74.7	72.6	82.8	39.1	86.3	73.8	72.2	77.1	36.0	84.2	71.3	71.0
		72"	82.2	39.5	79.7	69.1	65.7	79.8	38.3	79.0	68.3	65.4	75.3	36.0	77.6	66.6	64.9	73.0	34.7	76.9	65.6	64.5	67.3	31.5	74.8	63.2	63.3

LIMIT MAXIMUM POSITIVE(+) LOADS TO 75.0 PSF

SEE SHEET 12 FOR COMP MOUNT INSTALLATION
SEE SHEET 13 FOR SCISSOR MOUNT INSTALLATION
SEE SHEET 14 FOR INSTAFLASH MOUNT INSTALLATION
SEE SHEET 15 FOR INSTAFLASH 2 MOUNT INSTALLATION
SEE SHEET 16 FOR ButyL-Foot MOUNT INSTALLATION

LOADS SHOWN IN CHARTS ABOVE ARE FOR 60 CELLS PANEL (41.1" X 69.5")
AND 72 CELLS PANEL (41.1" X 80").

Sealed: 8/14/2024



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SOLAR-RACK\22-21F-PS
FBPE #3538

ROOF TOP PV MOUNTING SYSTEM

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revisions:

no	date	by	description

date: 06-31-22

scale: -

dr. by: TARIQ

chk. by:

drawing no.
22-21F

sheet 10 of 16

COMP MOUNT, SCISSOR MOUNT, INSTAFLASH MOUNT, INSTAFLASH 2 MOUNT & ButyL-Foot MOUNT																											
ROOF MOUNTS DESIGN LOAD CAPACITY - PSF (PORTRAIT MODULES)																											
PANEL LENGTH	NUMBER OF RAILS	SPAN 'L'	FLAT ROOFS					ROOF SLOPES UP TO 7°					ROOF SLOPES 8° TO 20°					ROOF SLOPES 21° TO 27°					ROOF SLOPES 28° TO 45°				
			COMP MOUNT	SCISSOR MOUNT	INSTAFLASH MOUNT	INSTAFLASH 2 MOUNT	ButyL-Foot MOUNT	COMP MOUNT	SCISSOR MOUNT	INSTAFLASH MOUNT	INSTAFLASH 2 MOUNT	ButyL-Foot MOUNT	COMP MOUNT	SCISSOR MOUNT	INSTAFLASH MOUNT	INSTAFLASH 2 MOUNT	ButyL-Foot MOUNT	COMP MOUNT	SCISSOR MOUNT	INSTAFLASH MOUNT	INSTAFLASH 2 MOUNT	ButyL-Foot MOUNT	COMP MOUNT	SCISSOR MOUNT	INSTAFLASH MOUNT	INSTAFLASH 2 MOUNT	ButyL-Foot MOUNT
69-1/2"	2	16"	115.0	82.9	115.0	115.0	115.0	115.0	81.7	115.0	115.0	115.0	115.0	79.4	115.0	115.0	115.0	115.0	78.2	115.0	115.0	115.0	115.0	75.0	115.0	115.0	115.0
		24"	115.0	56.6	115.0	100.6	95.5	115.0	55.4	115.0	99.8	95.3	113.2	53.1	114.2	98.1	94.7	110.8	51.8	113.5	97.1	94.3	105.1	48.7	111.4	94.7	93.2
		32"	91.1	43.5	88.2	76.5	72.6	88.7	42.3	87.5	75.6	72.4	84.2	40.0	86.2	73.9	71.8	81.8	38.7	85.4	73.0	71.4	76.1	35.5	83.3	70.5	70.3
		48"	62.0	30.3	60.2	52.3	49.7	59.6	29.1	59.5	51.5	49.5	55.1	26.8	58.1	49.8	48.9	52.8	25.5	57.3	48.8	48.6	47.1	22.4	55.2	46.4	47.4
		64"	47.5	23.7	46.1	40.2	38.3	45.1	22.5	45.4	39.4	38.1	40.6	20.2	44.1	37.7	37.5	38.3	19.0	43.3	36.7	37.1	32.6	15.8	41.2	34.3	36.0
		72"	42.7	21.5	41.4	36.2	34.5	40.3	20.3	40.8	35.4	34.3	35.8	18.0	39.4	33.7	33.7	33.4	16.8	38.6	32.7	33.3	27.8	13.6	36.5	30.3	32.2
	3	16"	115.0	98.4	115.0	115.0	115.0	115.0	97.2	115.0	115.0	115.0	115.0	94.9	115.0	115.0	115.0	115.0	93.6	115.0	115.0	115.0	115.0	90.5	115.0	115.0	115.0
		24"	115.0	66.9	115.0	115.0	113.4	115.0	65.7	115.0	115.0	113.2	115.0	63.4	115.0	115.0	112.6	115.0	62.2	115.0	115.0	112.2	115.0	59.0	115.0	113.6	111.1
		32"	108.1	51.2	104.7	90.7	86.0	105.7	50.0	104.0	89.8	85.8	101.2	47.7	102.7	88.1	85.2	98.8	46.4	101.9	87.2	84.9	93.2	43.3	99.8	84.7	83.7
		48"	73.4	35.5	71.1	61.8	58.7	71.0	34.3	70.5	60.9	58.5	66.5	32.0	69.1	59.2	57.9	64.1	30.7	68.3	58.3	57.5	58.5	27.5	66.2	55.9	56.4
		64"	56.1	27.6	54.4	47.3	45.0	53.7	26.4	53.7	46.5	44.8	49.2	24.1	52.3	44.8	44.2	46.8	22.8	51.5	43.8	43.8	41.1	19.7	49.4	41.4	42.7
		72"	50.3	25.0	48.8	42.5	40.5	47.9	23.8	48.1	41.7	40.2	43.4	21.5	46.7	40.0	39.7	41.0	20.2	45.9	39.0	39.3	35.3	17.0	43.8	36.6	38.1
80"	2	16"	76.7	72.6	76.7	76.7	76.7	76.7	71.4	76.7	76.7	76.7	76.7	69.1	76.7	76.7	76.7	76.7	67.8	76.7	76.7	76.7	76.7	64.6	76.7	76.7	76.7
		24"	76.7	49.7	76.7	76.7	76.7	76.7	48.5	76.7	76.7	76.7	76.7	46.2	76.7	76.7	76.7	76.7	44.9	76.7	76.7	76.7	76.7	41.8	76.7	76.7	76.7
		32"	76.7	38.3	76.7	67.0	63.6	76.7	37.1	76.5	66.1	63.4	72.7	34.8	75.1	64.4	62.8	70.4	33.5	74.3	63.5	62.4	64.7	30.4	72.2	61.0	61.3
		48"	54.4	26.9	52.8	46.0	43.7	52.0	25.7	52.1	45.1	43.5	47.5	23.3	50.7	43.4	42.9	45.2	22.1	49.9	42.5	42.6	39.5	18.9	47.9	40.1	41.4
		64"	41.8	21.1	40.6	35.5	33.8	39.4	19.9	39.9	34.6	33.6	34.9	17.6	38.5	32.9	33.0	32.5	16.4	37.7	32.0	32.6	26.9	13.2	35.7	29.6	31.5
		72"	37.6	19.2	36.5	32.0	30.5	35.2	18.0	35.8	31.1	30.3	30.7	15.7	34.5	29.4	29.7	28.3	14.5	33.7	28.5	29.3	22.7	11.3	31.6	26.1	28.2
	3	16"	115.0	86.0	115.0	115.0	115.0	115.0	84.8	115.0	115.0	115.0	115.0	82.5	115.0	115.0	115.0	115.0	81.2	115.0	115.0	115.0	115.0	78.1	115.0	115.0	115.0
		24"	115.0	58.7	115.0	104.4	99.0	115.0	57.5	115.0	103.5	98.8	115.0	55.2	115.0	101.8	98.2	115.0	53.9	115.0	100.9	97.9	109.7	50.7	115.0	98.5	96.7
		32"	94.4	45.0	91.5	79.3	75.3	92.0	43.8	90.8	78.4	75.1	87.5	41.5	89.4	76.7	74.5	85.2	40.2	88.7	75.8	74.1	79.5	37.1	86.6	73.4	73.0
		48"	64.3	31.3	62.3	54.2	51.5	61.9	30.1	61.7	53.3	51.3	57.4	27.8	60.3	51.7	50.7	55.0	26.6	59.5	50.7	50.3	49.4	23.4	57.4	48.3	49.2
		64"	49.2	24.5	47.8	41.6	39.6	46.8	23.3	47.1	40.8	39.4	42.3	21.0	45.7	39.1	38.8	40.0	19.7	44.9	38.2	38.5	34.3	16.6	42.8	35.7	37.3
		72"	44.2	22.2	42.9	37.5	35.7	41.8	21.0	42.2	36.6	35.5	37.3	18.7	40.8	34.9	34.9	34.9	17.4	40.0	34.0	34.5	29.3	14.3	38.0	31.5	33.4

LIMIT MAXIMUM POSITIVE(+) LOADS TO 75.0 PSF

SEE SHEET 12 FOR COMP MOUNT INSTALLATION
SEE SHEET 13 FOR SCISSOR MOUNT INSTALLATION
SEE SHEET 14 FOR INSTAFLASH MOUNT INSTALLATION
SEE SHEET 15 FOR INSTAFLASH 2 MOUNT INSTALLATION
SEE SHEET 16 FOR ButyL-Foot MOUNT INSTALLATION

LOADS SHOWN IN CHARTS ABOVE ARE FOR 60 CELLS PANEL (41.1" X 69.5")
AND 72 CELLS PANEL (41.1" X 80").

Sealed: 8/14/2024



AL-FAROOQ CORPORATION
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MIAMI, FLORIDA 33173
TEL. (305) 264-8100
WWW.AFCENG.COM

SOLAR - RACK \ 22 - 21F - PS

ROOF TOP PV MOUNTING SYSTEM

Pegasus Solar Inc.
506 West Ohio Avenue
Richmond CA. 94804
Phone: (510) 210-3797
www.pegasussolar.com

revisions:

no	date	by	description

date: 06-31-22

scale: -

dr. by: TARIQ

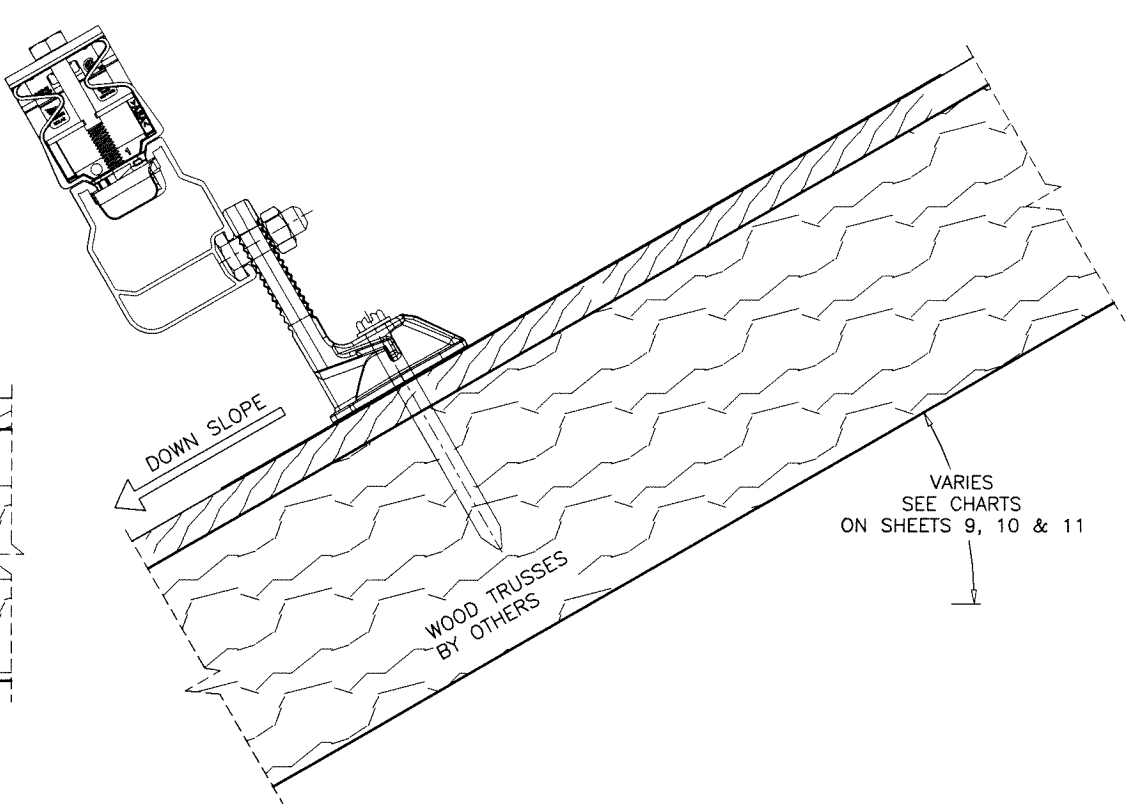
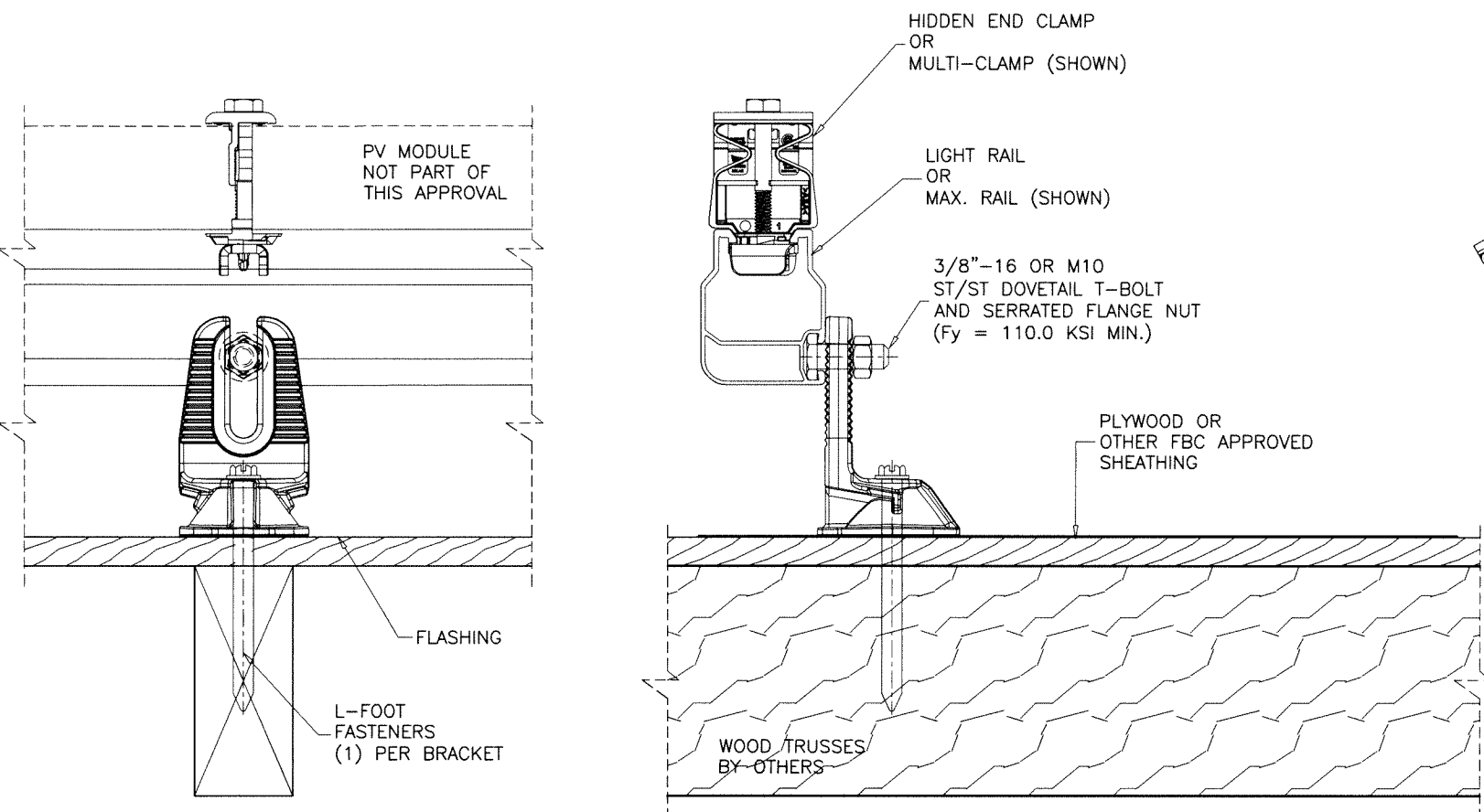
chk. by:

drawing no.

22-21F

sheet 11 of 16

COMP MOUNT GEN2 L-FOOT



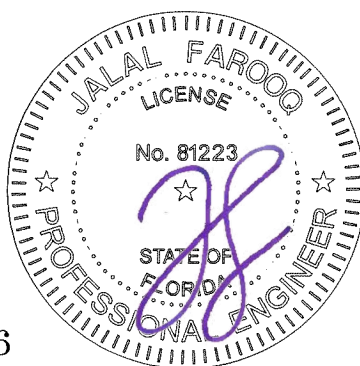
L-FOOT FASTENERS:

5/16" X 4-1/2" ST/ST LAG SCREWS (Fy = 65 KSI MIN.)
2-1/2" MIN. THREAD PENETRATION INTO WOOD TRUSSES
CENTERED AT WOOD TRUSSES (SG = 0.50 MIN.)

WIND LOAD UPLIFT RESISTANCE (PERPENDICULAR TO ROOF) = 806.7 Lbs MAX.
SHEAR RESISTANCE (PERPENDICULAR TO RAFTER) = 165.9 Lbs MAX.

Sealed: 8/14/2024

FL #41396



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FBPE #3538

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revisions:	
no	date by description

date: 06-31-22

scale: 3/8" = 1"

dr. by: TARIQ

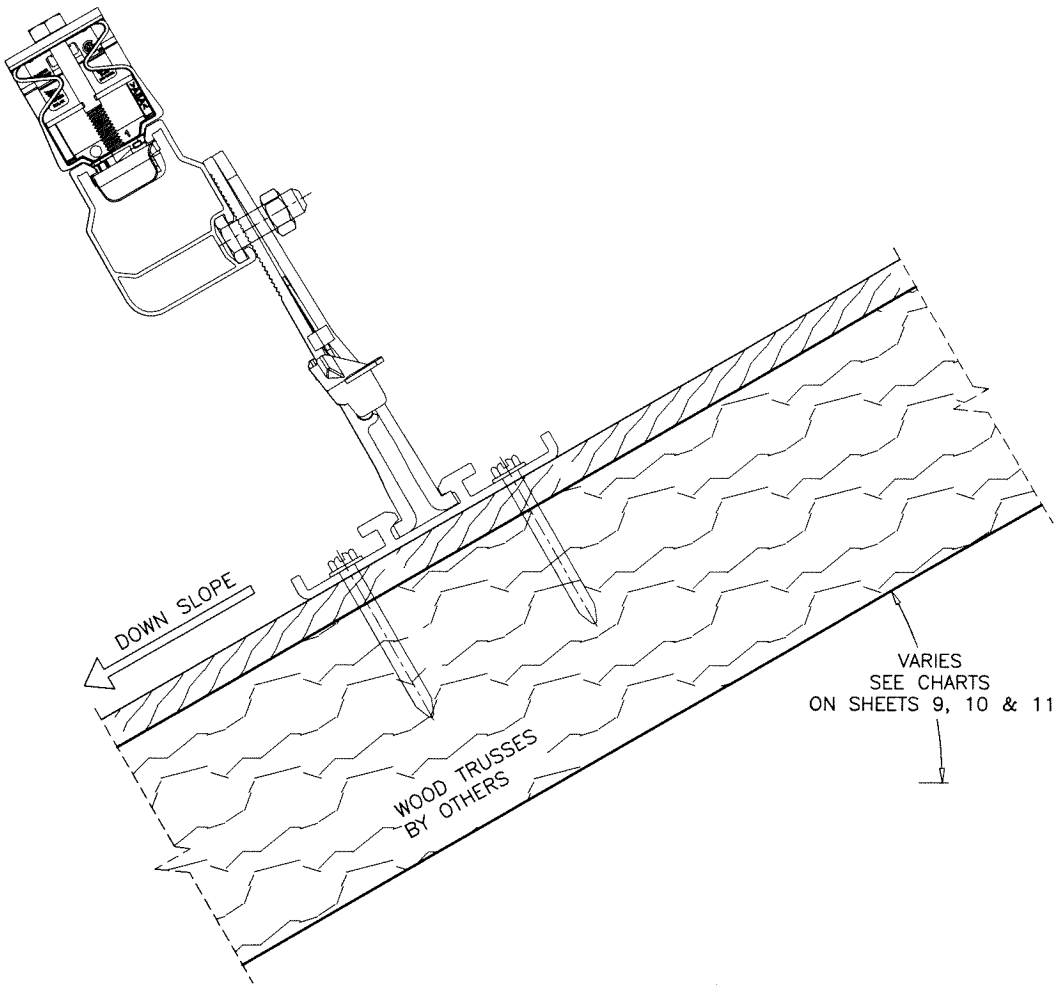
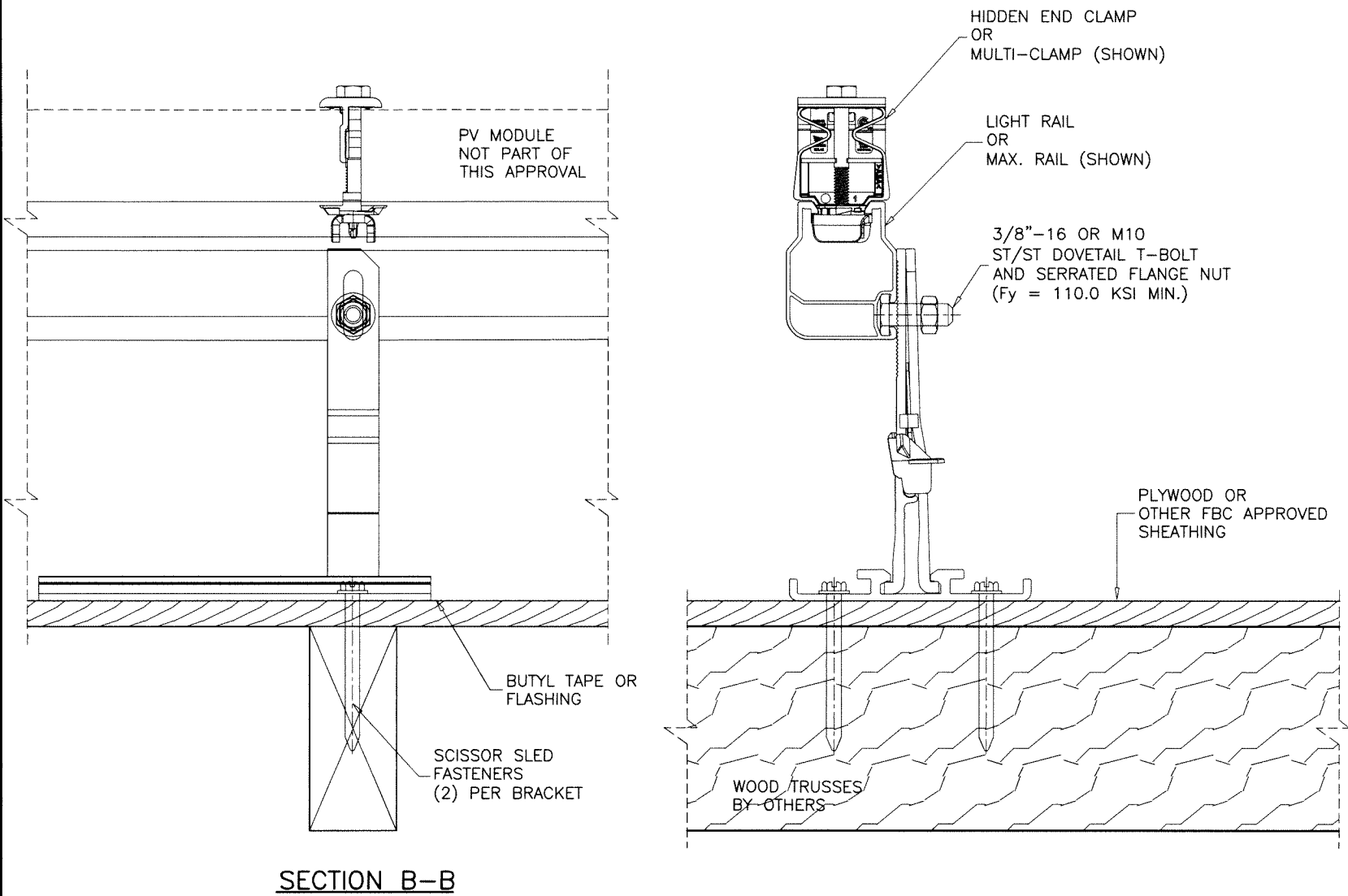
chk. by:

drawing no.

22-21F

sheet 12 of 16

SCISSOR MOUNT ASSEMBLY



SCISSOR SLED FASTENERS:

5/16" X 3-1/2" ST/ST LAG SCREWS (Fy = 65 KSI MIN.)
2-1/2" MIN. THREAD PENETRATION INTO WOOD TRUSSES
CENTERED AT WOOD TRUSSES (SG = 0.50 MIN.)

WIND LOAD UPLIFT RESISTANCE (PERPENDICULAR TO ROOF) = 365.7 Lbs MAX.
SHEAR RESISTANCE (PERPENDICULAR TO RAFTER) = 153.1 Lbs MAX.

Sealed: 8/14/2024

FL #41396



af c
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revisions:		date:		scale:		dr. by:		chk. by:	
no	description	no	date	no	date	no	date	no	date

drawing no.
22-21F
sheet 13 of 16

PV MODULE
NOT PART OF
THIS APPROVAL

FLASHING

INSTAFASH
FASTENERS
(1) PER BRACKET

Technical drawing illustrating a roof truss connection detail. The drawing shows a cross-section of a roof assembly. A hidden end clamp or multi-clamp is shown, which is attached to a light rail or maximum rail. This rail is connected to a 3/8 inch-16 or M10 ST/ST dovetail T-bolt and serrated flange nut. The nut is secured with a serrated flange nut. The assembly is supported by a plywood or other FBC approved sheathing. The bottom of the drawing shows the wood trusses, with a note indicating they are by others.

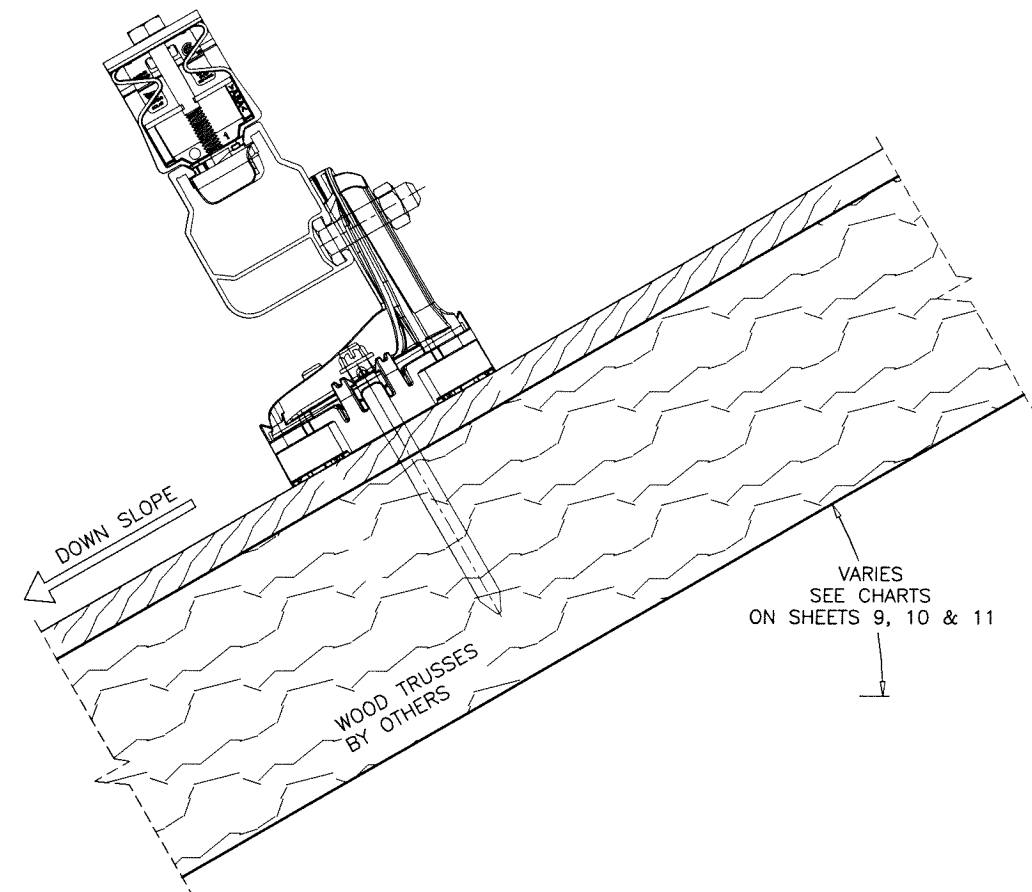
HIDDEN END CLAMP
OR
MULTI-CLAMP (SHOWN)

LIGHT RAIL
OR
MAX. RAIL (SHOWN)

3/8"-16 OR M10
ST/ST DOVETAIL T-BOLT
AND SERRATED FLANGE NUT
(Fy = 110.0 KSI MIN.)

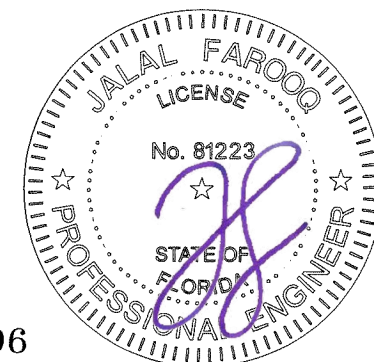
PLYWOOD OR
OTHER FBC APPROVED
SHEATHING

WOOD TRUSSES
BY OTHERS



WIND LOAD UPLIFT RESISTANCE (PERPENDICULAR TO ROOF) = 780.5 Lbs MAX.
SHEAR RESISTANCE (PERPENDICULAR TO RAFTER) = 587.7 Lbs MAX.

FL #41396



date: 06-31-22		revisions:	
scale: 3/8" = 1"	no	date	by description
dr. by: TARIQ			
chk. by:			
drawing no. 22-21F			
sheet 14 of 16			

drawing no.
22-21F
sheet 16 of 16