

IRONRIDGE XR FLUSH MOUNT PHOTOVOLTAIC PANEL RACKING SYSTEM WITH QUICKMOUNT HALO ULTRAGRIP ROOF ATTACHMENTS

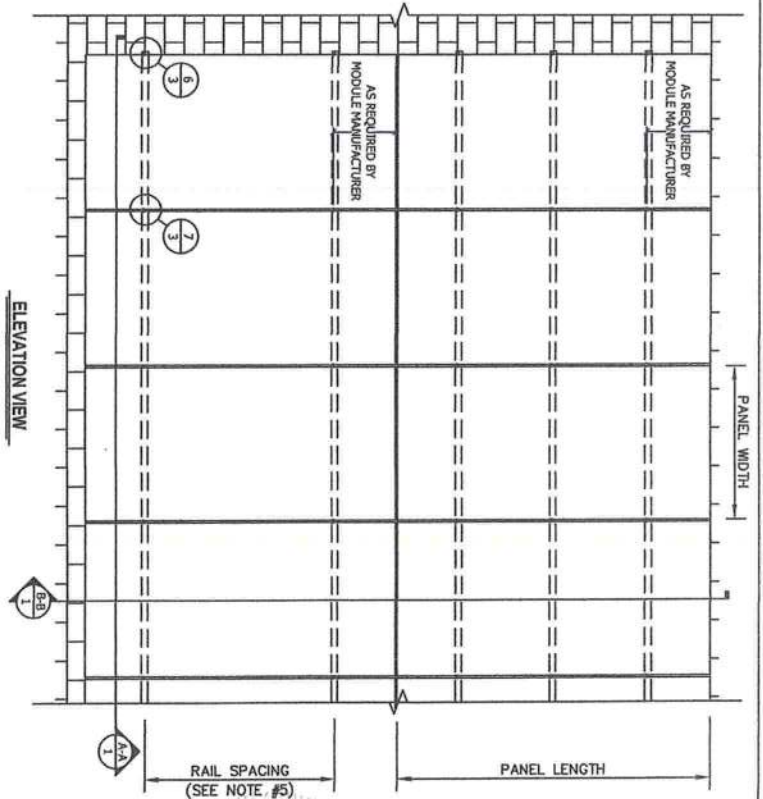
GENERAL NOTES:

1. THIS SYSTEM MEETS ALL OF THE REQUIREMENTS OF THE 8TH EDITION (2023) FLORIDA BUILDING CODE, INCLUDING THE HAZZ PROVISIONS.
2. THIS SYSTEM HAS BEEN TESTED PER TAS 100(A) AND ASTM D7147. IT IS NOT A PART OF THE BUILDING ENVELOPE, AND IMPACT RESISTANCE IS NOT REQUIRED.
3. THIS SYSTEM SHALL BE INSTALLED PER THE IRONRIDGE XR FLUSH MOUNT INSTALLATION MANUAL.
4. THE PV PANELS ARE BY OTHERS AND ARE NOT A PART OF THIS APPROVAL.
5. THE DESIGN OF THE ROOF SUBSTRATE IS THE RESPONSIBILITY OF THE ENGINEER OF RECORD OR OTHER SPECIALTY ENGINEER, AND IS NOT A PART OF THIS APPROVAL. THE SUBSTRATE MUST SAFELY TRANSMIT THE LOADS APPLIED TO THIS SYSTEM TO THE BUILDING STRUCTURE.
6. FIRE RATINGS OR FIRE RESISTANCE IS NOT A PART OF THIS REVIEW.
7. ALL ANCHORS SECURING THE SYSTEM TO PRESSURE TREATED WOOD SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE CHEMICALS IN THE WOOD.
8. MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL BE PROTECTED PER FBC REQUIREMENTS.
9. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT. CD=1.6 WAS USED FOR WOOD SCREWS ONLY.

WINDLOAD NOTES:

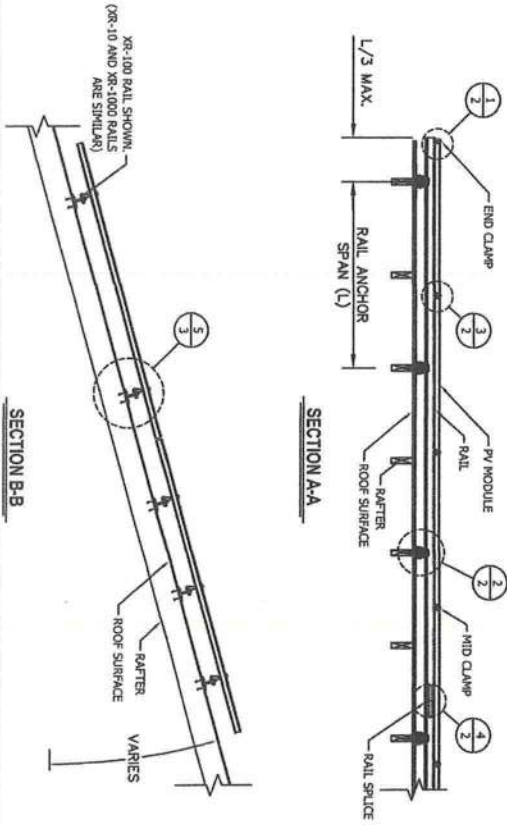
1. DESIGN WINDLOADS MUST BE CALCULATED BY A LICENSED PROFESSIONAL ENGINEER OR ARCHITECT FOR EACH PROJECT. PER ASCE 7-22 SECTION 29.4.4, DESIGN (ASD) WINDLOADS MAY NOT EXCEED THE ALLOWABLE WINDLOADS SHOWN IN THE CHARTS ON THIS SHEET OR SHEET 5.
2. PANEL SYSTEM LOCATION, HEIGHT, AND SPACING MUST MEET THE REQUIREMENTS OF ASCE 7-22 SECTION 29.4.4. WINDLOADS ACT NORMAL TO THE SURFACE OF THE PV PANEL SYSTEM.
3. OTHER CONFIGURATIONS REQUIRE PROJECT SPECIFIC ANALYSIS BY A LICENSED PROFESSIONAL ENGINEER OR ARCHITECT.
4. ALLOWABLE (ASD) WINDLOADS BELOW ARE FOR ANCHORS IN WOOD RAFTERS WITH S.G.#0.42 MIN. SEE SHEET 6 FOR ALLOWABLE FASTENER PATTERNS AND FOR ALLOWABLE WINDLOADS WHEN FASTENING INTO THE DECK ONLY.

THREE RAIL SYSTEM:

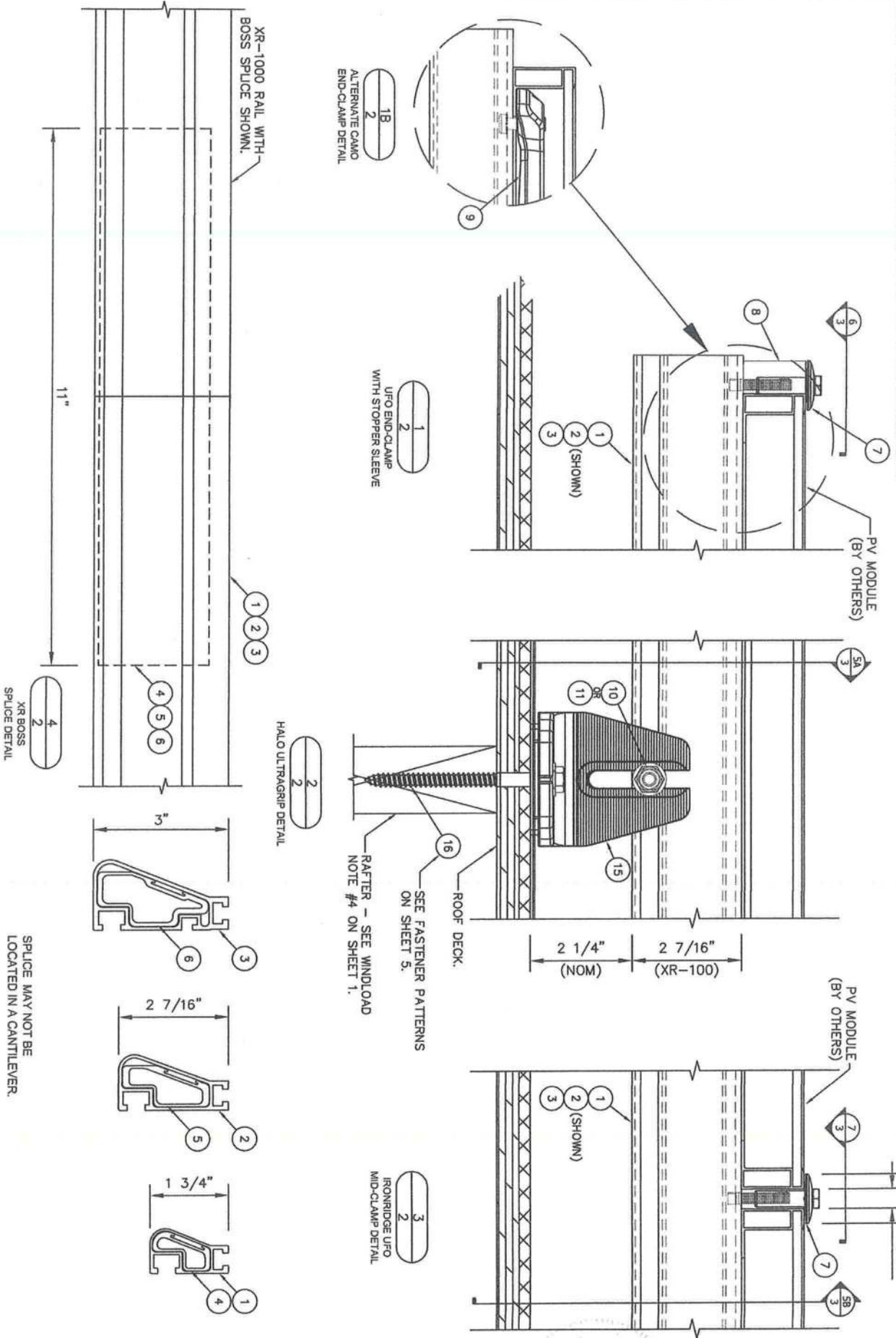


TWO RAIL SYSTEM:

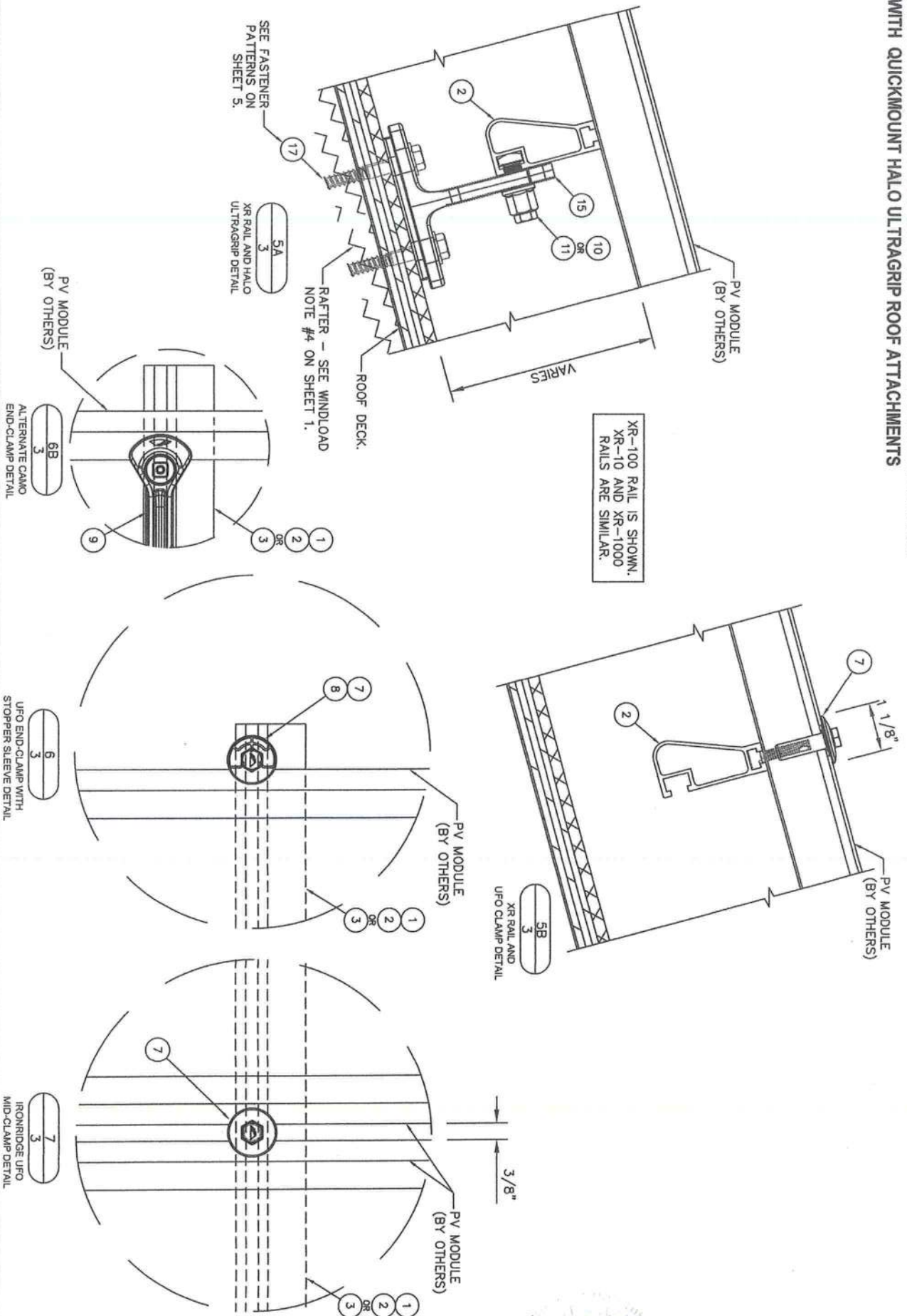
TWO RAIL SYSTEM				THREE RAIL SYSTEM			
PANEL WIDTH (in)	PANEL LENGTH (in)	ANCHOR SPAN (in)	FASTENER PATTERN #1 OR #2			PANEL WIDTH (in)	PANEL LENGTH (in)
			XR-10 RAIL (+/- psf)	XR-100 RAIL (+/- psf)	XR-1000 RAIL (+/- psf)		
45	86	16	56.4	90	90	45	86
		24	32	36	40.8		
		32	36	40.8	44.4		
		48	36	40.8	44.4		
45	92 1/2	16	56.4	90	90	45	92 1/2
		24	32	36	40.8		
		32	36	40.8	44.4		
		48	36	40.8	44.4		



IRONRIDGE XR FLUSH MOUNT PHOTOVOLTAIC PANEL RACKING SYSTEM WITH QUICKMOUNT HALO ULTRAGRIP ROOF ATTACHMENTS



IRONRIDGE XR FLUSH MOUNT PHOTOVOLTALIC PANEL RACKING SYSTEM WITH QUICKMOUNT HALO ULTRAGRIP ROOF ATTACHMENTS



IRONRIDGE XR FLUSH MOUNT PHOTOVOLTAIC PANEL RACKING SYSTEM WITH QUICKMOUNT HALO ULTRAGRIP ROOF ATTACHMENTS

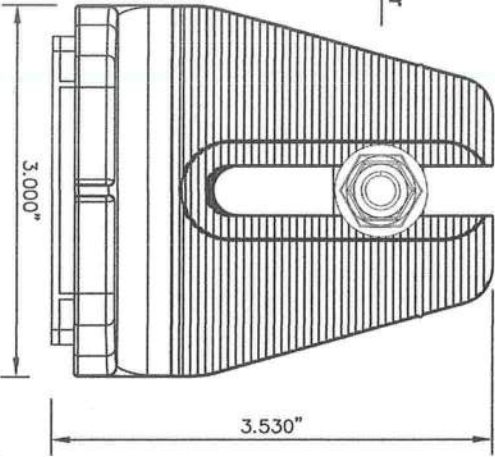
BILL OF MATERIALS- QuickMount Halo Ultra Grip (HUG)	
#	DESCRIPTION
15	HALO ULTRAGRIP BASE, MILL OR BLACK
16	ULTRAGRIP FLASHING SYSTEM
17	SCREW, #14 X 3" WITH EPDM BACKED WASHER

ALLOWABLE LOADS QUICKMOUNT HALO ULTRAGRIP			
LOAD DIRECTION	FASTENER PATTERN #1 or #2	FASTENER PATTERN #3	
	(lb)	7/16" or 15/32" OSB	19/32" OSB
F1 - UPLIFT	1004	195	273
F2 - SHEAR	240	117	117
F3 - SHEAR	368	117	117

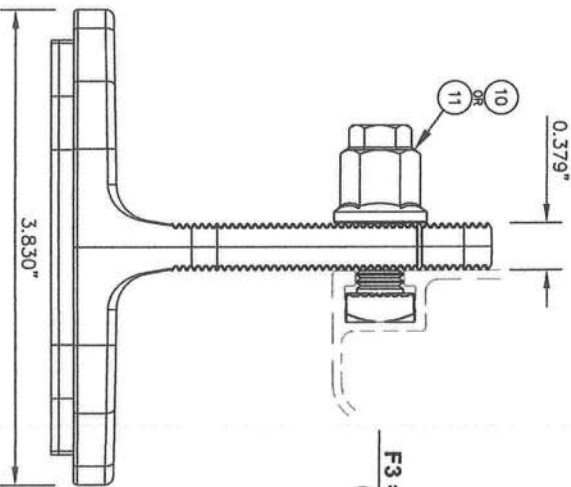
Direct Tension/Uplift
(See Chart)

SEE CHARTS ON SHEETS 1 AND 5 FOR
ALLOWABLE WIND LOADS BASED ON
RAFTER SPECIFIC GRAVITY.

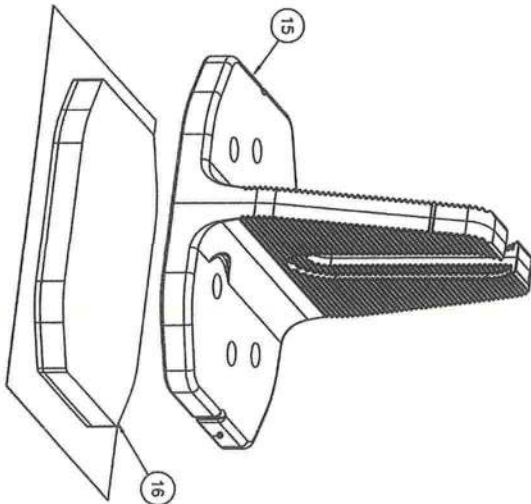
F2 = Lateral Shear
(See Chart)



15



F3 = Lateral Shear
(See Chart)



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FL PE# 62354
WOLTERS ENGINEERING
(COA# 27194)
15211 97TH ROAD N.
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(561) 225-1982



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DWG: XR-HUG
SHEET: 4/7

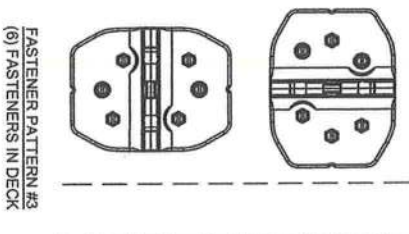
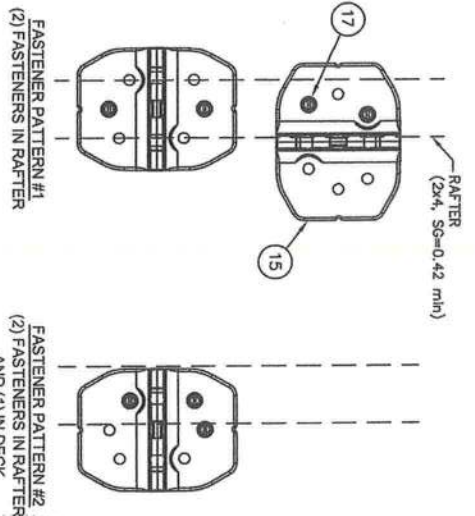
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ALLOWABLE WINDLOADS (+/- psf)

ALLOWABLE WINDLOADS (+/- psf)									
TWO RAIL SYSTEM					THREE RAIL SYSTEM				
PANEL WIDTH (in)	PANEL LENGTH (in)	ANCHOR SPAN (L) (in)	FASTENER PATTERN #3		PANEL WIDTH (in)	PANEL LENGTH (in)	ANCHOR SPAN (L) (in)	FASTENER PATTERN #3	
			ALL RAILS	19/32" OSB (+/- psf)				ALL RAILS	19/32" OSB (+/- psf)
45	67 1/2	16	22.2	31.1	45	86	16	33.3	46.7
		24	21.3	29.8			24	32.0	44.7
		32	20.3	28.5			32	30.5	42.8
		36	18.5	25.9			36	27.8	38.9
	80	48	17.3	24.3	80	80	48	26.0	36.5
		64	12.2	17.1			64	18.3	25.7
		72	10.7	14.9			72	16.1	22.4
		16	18.7	26.2			16	28.1	39.3
	45	24	17.9	25.1	45	86	24	26.9	37.7
		32	17.2	24.0			32	25.8	36.0
		36	15.6	21.8			36	23.4	32.7
		48	14.6	20.5			48	21.9	30.8
86	64	10.3	14.5	86	86	64	15.5	21.8	
	72	9.0	12.6			72	13.5	18.9	
	16	17.6	24.4			16	26.4	36.6	
	24	16.7	23.4			24	25.1	35.1	
45	86	32	16.0	22.3	86	86	32	24.0	33.5
		36	14.5	20.3			36	21.8	30.5
		48	13.6	19.0			48	20.4	28.5
		64	9.6	13.4			64	14.4	20.1
	92 1/2	72	8.4	11.7	92 1/2	92 1/2	72	12.6	17.6
		16	16.2	22.7			16	24.3	34.1
		24	15.5	21.7			24	23.3	32.6
		32	14.8	20.8			32	22.2	31.2
	92 1/2	36	13.5	18.9	92 1/2	92 1/2	36	20.3	28.4
		48	12.6	17.7			48	18.9	26.6
		64	8.9	12.5			64	13.4	18.8
		72	7.7	10.9			72	11.6	16.4
LANDSCAPE LAYOUT:					LANDSCAPE LAYOUT:				
45	92 1/2	16	16.2	22.7	45	92 1/2	16	24.3	34.1
		24	15.5	21.7			24	23.3	32.6
		32	14.8	20.8			32	22.2	31.2
		36	13.5	18.9			36	20.3	28.4
86	92 1/2	48	13.5	18.9	86	92 1/2	48	20.3	28.4
		64	13.5	18.9			64	20.3	28.4
		72	13.5	18.9			72	20.3	28.4
		72	13.5	18.9			72	20.3	28.4

UP/DOWN SLOPE RAILS:

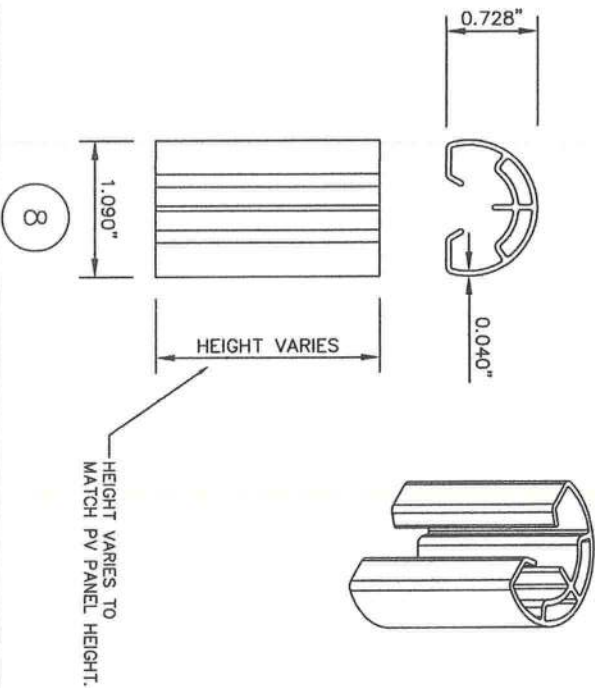
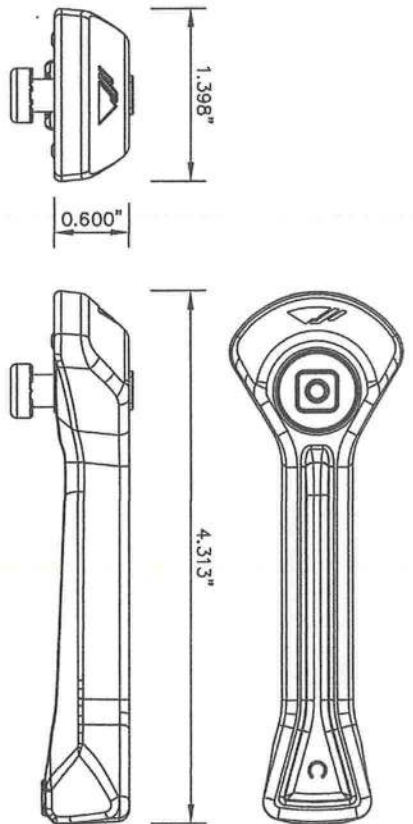
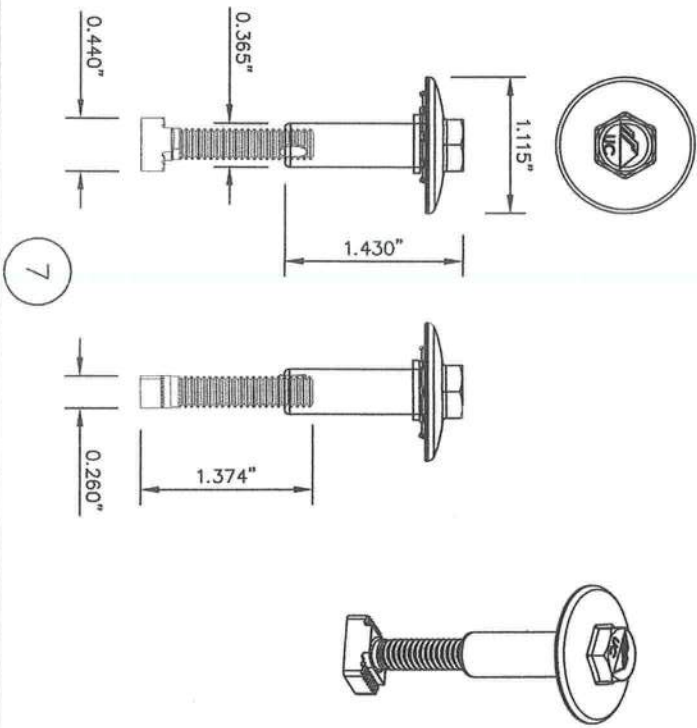
ACROSS SLOPE RAILS:



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BILL OF MATERIALS- XR System	
#	DESCRIPTION
1	XR-10 RAIL
2	XR-100 RAIL
3	XR-1000 RAIL
4	XR-10 BOSS SPLICE
5	XR-100 BOSS SPLICE
6	XR-1000 BOSS SPLICE
7	UFO UNIVERSAL MODULE CLAMP
8	STOPPER SLEEVE
9	CAMO HIDDEN END CAM
10	3/8" X 1" SQUARE BOLT BONDING HARDWARE
11	3/8" X 1" T-BOLT BONDING HARDWARE
12	XR-10 RAIL END CAP (OPTIONAL)
13	XR-100 RAIL END CAP (OPTIONAL)
14	XR-1000 RAIL END CAP (OPTIONAL)

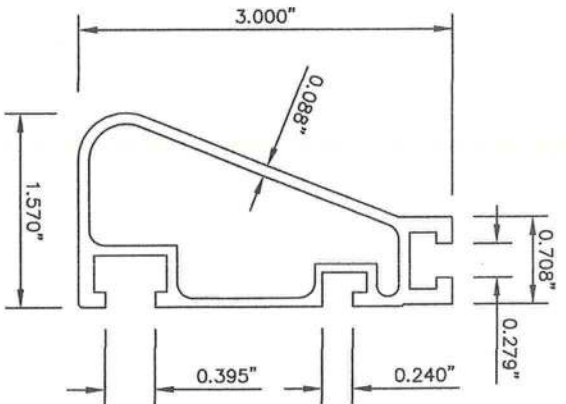
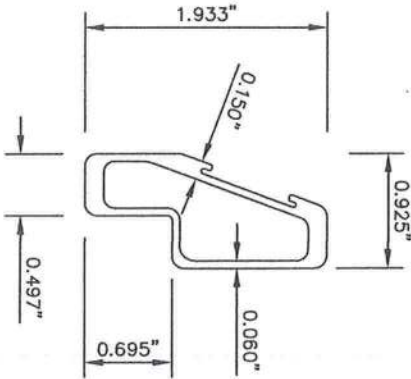
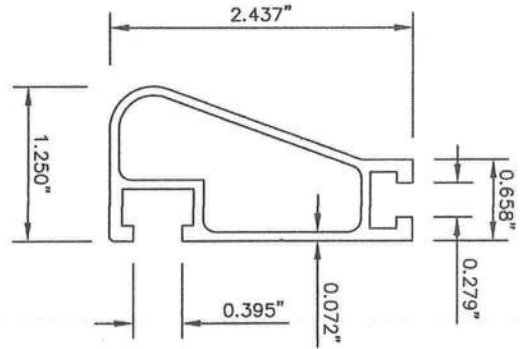
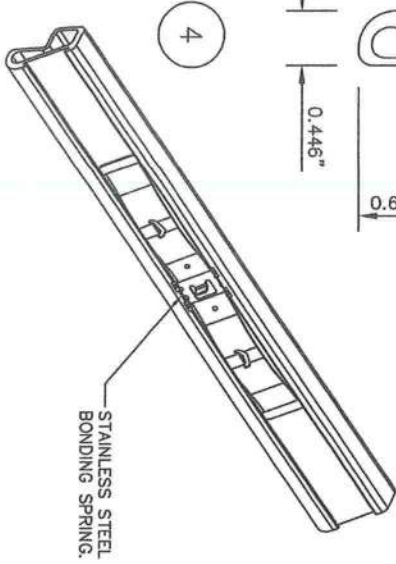
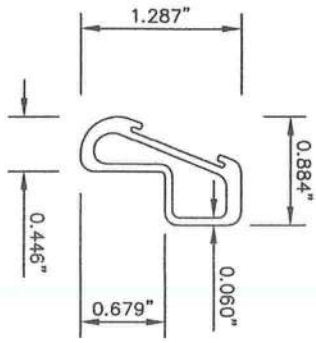
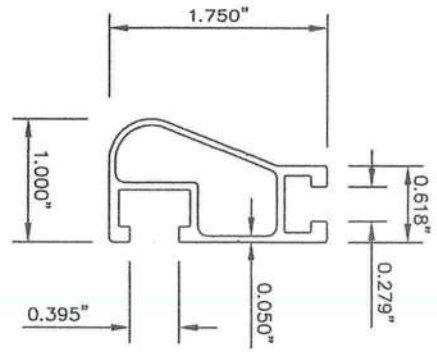
FOR 6000 SERIES EXTRUSIONS F_y=38 ksi min, F_t=34 ksi min.
FOR 300 SERIES STAINLESS STEEL F_y=65 ksi min.



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IRONRIDGE XR FLUSH MOUNT PHOTOVOLTAIC PANEL RACKING SYSTEM
WITH QUICKMOUNT HALO ULTRAGRIP ROOF ATTACHMENTS



IRONRIDGE

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SEAL: *Scott Wolters*
No. 62354

STATE OF
FLORIDA
OCT 18 2023

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2023 CODE UPDATE
1ST SUBMITTAL
PRINTS ISSUED FOR

DWG: XR-HUG
SHEET: 7/7