11/16/2017

Attn: Mr. Marshall Green
Quick Mount PV
2700 Mitchell Dr.
Walnut Creek, CA, 94598

RE: Quick Mount PV QHook Mount System for use with Everest CrossRail 48 PV Panel Mounting System SEI Project No.: 17054.00

Dear Mr. Green

Structural Enginuity Inc. (SEI) has completed its review of the Quickmount PV QHook Mount System for use in conjunction with the Everest CrossRail 48 PV Panel Mounting System. The QHook product line includes the Quick Hook for Side Mount Rails (QMHSS & QMHLS) mounts.

The review was based on the following reference data:

- Moment Engineering+Design, CrossRail PV Panel Mounting System Evaluation, January 13, 2017
- Applied Materials & Engineering, Laboratory Load Test of the QMHSS with 6061 Base Plate, Project Number 114490C, March 18, 2015
- Applied Materials & Engineering, Laboratory Load Test of the QMHLS with 6061 Base Plate, Project Number 114490C, March 10, 2015
- Structural Enginuity, Inc., Quick Mount PV Quick Hook Compliance Letter, Project Number 16054.00, October 16, 2017

SEI has determined that the QHook Mount is suitable for use with the Everest CrossRail 48 System. The approved installation and allowable loads for the Quick Mount PV QHook products is outlined in the Structural Enginuity, Inc. letters referenced above. The allowable load values are shown below, no additional load duration factors may be applied to these values.

Table 1: QHook Allowable Loads

Load Direction	Mount Type	Allowable Load
Uplift	QMHSS	506 lb.
	QMHLS	418 lb.
Lateral	QMHSS	367 lb.
	QMHLS	323 lb.
Compression	QMHSS	378 lb.
	QMHLS	338 lb.

SEI has prepared allowable rail span charts for the Everest CrossRail 48 System used in conjunction with the Quick Mount PV QHook products. These span tables serve as a quick reference for looking up maximum rail spans based on building and site conditions and follow the 2016 CBC, 2015 IBC/IRC and applicable ASCE 7-10 load cases. The tables take into account the strength of the rail system as well as the allowable tension, compression, and lateral forces of the QHook Mount. A site specific analysis is required if the site conditions or building characteristics do not meet the requirements listed in the attached tables. In all cases, the tables are meant to be used in conjunction with Everest CrossRail System Structural Report and Calculations and all requirements listed are still applicable for these tables including edge zones and edge distances.

Please contact our office if you have any further questions relating to this matter.

Sincerely,

Peter Martin
Engineer II
pmartin@structuralenginuityinc.com

Allan T. Myket, P.E.
President/Founder
amyket@structuralenginuityinc.com

LICENSED PROFESSIONAL ENGINEER
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11/28/2017

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Rail Spans (in.) for Everest X48 Rails for use with QMHSS Products

Table 1A Roof Height: 0 - 30 feet Roof Angle: $7 < \theta \leq 27$ degrees Panel Orientation: Portrait

Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
B		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >7° to 27°	110	94	87	58	43	34	28	88	87	58	43	34	28	76	76	58	43	34	28
	115	94	87	57	42	34	28	85	85	57	42	34	28	73	73	57	42	34	28
	120	94	86	57	42	33	28	83	83	57	42	33	28	68	68	57	42	33	28
	130	93	83	55	41	33	27	78	78	55	41	33	27	58	58	55	41	33	27
	140	90	79	53	40	32	27	68	68	53	40	32	27	49	49	49	40	32	27
	150	86	75	52	39	32	27	67	67	52	39	32	27	43	43	43	39	32	27
	160	82	72	50	38	31	26	58	58	50	38	31	26	37	37	37	37	31	26
	170	78	68	48	37	30	26	51	51	48	37	30	26	33	33	33	33	30	26
	180	74	65	47	36	30	25	45	45	45	36	30	25	29	29	29	29	29	25
	200	68	59	43	34	28	24	36	36	36	34	28	24	23	23	23	23	23	23

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

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Rail Spans (in.) for Everest X48 Rails for use with QMHLS Products

Table 1B Roof Height: 0 - 30 feet Roof Angle: $7 < \theta \leq 27$ degrees Panel Orientation: Portrait

Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
B		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >7° to 27°	110	94	81	52	38	30	25	88	81	52	38	30	25	68	68	52	38	30	25
	115	94	79	51	38	30	25	85	79	51	38	30	25	62	62	51	38	30	25
	120	94	77	51	38	30	25	83	77	51	38	30	25	56	56	51	38	30	25
	130	93	74	49	37	29	24	75	74	49	37	29	24	48	48	48	37	29	24
	140	90	70	48	36	29	24	64	64	48	36	29	24	41	41	41	36	29	24
	150	86	67	46	35	28	24	55	55	46	35	28	24	35	35	35	35	28	24
	160	82	64	45	34	28	23	48	48	45	34	28	23	31	31	31	31	28	23
	170	78	61	43	33	27	23	42	42	42	33	27	23	27	27	27	27	27	23
	180	74	58	42	32	27	22	37	37	37	32	27	22	24	24	24	24	24	22
	200	59	53	39	31	25	22	30	30	30	30	25	22	19	19	19	19	19	19

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

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Rail Spans (in.) for Everest X48 Rails for use with QMHSS Products

Table 2A

Roof Height: 0 - 30 feet
Roof Angle: $7 < \theta \leq 27$ degrees

Panel Orientation: Portrait

Exposure C	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >7° to 27°	110	93	82	55	41	33	27	78	78	55	41	33	27	57	57	55	41	33	27
	115	91	80	54	41	32	27	75	75	54	41	32	27	52	52	52	41	32	27
	120	89	78	53	40	32	27	72	72	53	40	32	27	48	48	48	40	32	27
	130	84	74	51	39	31	26	63	63	51	39	31	26	40	40	40	39	31	26
	140	80	70	49	38	31	26	54	54	49	38	31	26	35	35	35	35	31	26
	150	76	66	47	36	30	25	47	47	47	36	30	25	30	30	30	30	30	25
	160	72	62	45	35	29	25	41	41	41	35	29	25	26	26	26	26	26	25
	170	67	59	43	34	28	24	36	36	36	34	28	24	23	23	23	23	23	23
	180	62	55	41	33	27	23	32	32	32	32	27	23	21	21	21	21	21	21
	200	50	49	38	31	26	22	26	26	26	26	26	22	17	17	17	17	17	17

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

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Rail Spans (in.) for Everest X48 Rails for use with QMHLS Products

Table 2B Roof Height: 0 - 30 feet Roof Angle: $7 < \theta \leq 27$ degrees Panel Orientation: Portrait

Exposure C	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >7° to 27°	110	93	74	49	37	29	24	75	74	49	37	29	24	47	47	47	37	29	24
	115	91	72	48	36	29	24	68	68	48	36	29	24	43	43	43	36	29	24
	120	89	70	47	36	29	24	62	62	47	36	29	24	39	39	39	36	29	24
	130	84	66	46	35	28	24	52	52	46	35	28	24	33	33	33	33	28	24
	140	80	62	44	34	27	23	45	45	44	34	27	23	29	29	29	29	27	23
	150	76	59	42	33	27	23	39	39	39	33	27	23	25	25	25	25	25	23
	160	66	55	40	32	26	22	34	34	34	32	26	22	22	22	22	22	22	22
	170	58	52	39	31	25	22	30	30	30	30	25	22	19	19	19	19	19	19
	180	51	49	37	29	25	21	26	26	26	26	25	21	17	17	17	17	17	17
	200	41	41	34	27	23	20	21	21	21	21	21	20	14	14	14	14	14	14

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

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Rail Spans (in.) for Everest X48 Rails for use with QMHSS Products

Table 3A

Roof Height: 0 - 30 feet
Roof Angle: 7 < θ ≤ 27 degrees

Panel Orientation: Portrait

Exposure	Ultimate Wind Speed,	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
D	V (mph)	0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >7° to 27°	110	90	78	53	40	32	27	72	72	53	40	32	27	48	48	48	40	32	27
	115	87	76	52	39	32	27	69	69	52	39	32	27	44	44	44	39	32	27
	120	84	74	51	39	31	26	63	63	51	39	31	26	40	40	40	39	31	26
	130	79	69	49	37	31	26	53	53	49	37	31	26	34	34	34	34	31	26
	140	74	65	46	36	30	25	45	45	45	36	30	25	29	29	29	29	29	25
	150	70	61	44	35	29	24	39	39	39	35	29	24	25	25	25	25	25	24
	160	66	57	42	34	28	24	34	34	34	34	28	24	22	22	22	22	22	22
	170	59	54	40	32	27	23	30	30	30	30	27	23	20	20	20	20	20	20
	180	52	50	38	31	26	23	27	27	27	27	26	23	17	17	17	17	17	17
	200	42	42	35	29	24	21	22	22	22	22	22	21	14	14	14	14	14	14

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

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Rail Spans (in.) for Everest X48 Rails for use with QMHLS Products

Table 3B

Roof Height: 0 - 30 feet
Roof Angle: 7 < θ ≤ 27 degrees

Panel Orientation: Portrait

Exposure	Ultimate Wind Speed,	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
D	V (mph)	0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >7° to 27°	110	90	70	47	36	29	24	62	62	47	36	29	24	40	40	40	36	29	24
	115	87	68	46	35	28	24	57	57	46	35	28	24	36	36	36	35	28	24
	120	84	66	45	35	28	24	52	52	45	35	28	24	33	33	33	33	28	24
	130	79	62	43	34	27	23	44	44	43	34	27	23	28	28	28	28	27	23
	140	74	58	42	32	27	22	37	37	37	32	27	22	24	24	24	24	24	22
	150	64	54	40	31	26	22	32	32	32	31	26	22	21	21	21	21	21	21
	160	55	51	38	30	25	21	28	28	28	28	25	21	18	18	18	18	18	18
	170	49	48	36	29	24	21	25	25	25	25	24	21	16	16	16	16	16	16
	180	43	43	34	28	23	20	22	22	22	22	22	20	14	14	14	14	14	14
	200	34	34	31	26	22	19	18	18	18	18	18	18	12	12	12	12	12	12

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

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Rail Spans (in.) for Everest X48 Rails for use with QMHSS Products

Table 4A Roof Height: 0 - 30 feet Roof Angle: 27 < θ ≤ 45 degrees Panel Orientation: Portrait

Exposure	Ultimate Wind Speed,	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
B	V (mph)	0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >27° to 45°	110	91	76	52	39	32	26	91	76	52	39	32	26	91	76	52	39	32	26
	115	89	73	51	39	31	26	89	73	51	39	31	26	89	73	51	39	31	26
	120	87	71	49	38	31	26	84	71	49	38	31	26	87	71	49	38	31	26
	130	84	67	47	37	30	25	84	67	47	37	30	25	84	67	47	37	30	25
	140	81	62	45	35	29	25	81	62	45	35	29	25	81	62	45	35	29	25
	150	72	58	43	34	28	24	72	58	43	34	28	24	72	58	43	34	28	24
	160	65	55	41	33	27	23	65	55	41	33	27	23	65	55	41	33	27	23
	170	59	51	39	31	26	23	59	51	39	31	26	23	59	51	39	31	26	23
	180	53	48	37	30	25	22	53	48	37	30	25	22	53	48	37	30	25	22
	200	44	42	33	28	24	21	44	42	33	28	24	21	44	42	33	28	24	21

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Everest X48 Rails for use with QMHLS Products

Table 4B		Roof Height: 0 - 30 feet Roof Angle: 27 < θ ≤ 45 degrees												Panel Orientation: Portrait					
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
B		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >27° to 45°	110	91	68	46	35	28	24	91	68	46	35	28	24	91	68	46	35	28	24
	115	89	66	45	34	28	23	89	66	45	34	28	23	89	66	45	34	28	23
	120	87	63	44	34	27	23	84	63	44	34	27	23	87	63	44	34	27	23
	130	81	59	42	33	27	23	81	59	42	33	27	23	81	59	42	33	27	23
	140	72	56	40	32	26	22	72	56	40	32	26	22	72	56	40	32	26	22
	150	65	52	38	30	25	21	65	52	38	30	25	21	65	52	38	30	25	21
	160	58	49	37	29	24	21	58	49	37	29	24	21	58	49	37	29	24	21
	170	52	46	35	28	23	20	52	46	35	28	23	20	52	46	35	28	23	20
	180	47	43	33	27	23	20	47	43	33	27	23	20	47	43	33	27	23	20
	200	39	38	30	25	21	18	39	38	30	25	21	18	39	38	30	25	21	18

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Everest X48 Rails for use with QMHSS Products

Table 5A		Roof Height: 0 - 30 feet Roof Angle: 27 < θ ≤ 45 degrees												Panel Orientation: Portrait					
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
C		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >27° to 45°	110	84	66	47	37	30	25	84	66	47	37	30	25	84	66	47	37	30	25
	115	83	64	46	36	29	25	83	64	46	36	29	25	83	64	46	36	29	25
	120	79	61	45	35	29	24	79	61	45	35	29	24	79	61	45	35	29	24
	130	69	57	42	33	28	24	69	57	42	33	28	24	69	57	42	33	28	24
	140	61	53	40	32	27	23	61	53	40	32	27	23	61	53	40	32	27	23
	150	54	49	37	30	26	22	54	49	37	30	26	22	54	49	37	30	26	22
	160	49	45	35	29	25	21	49	45	35	29	25	21	49	45	35	29	25	21
	170	44	42	33	28	24	21	44	42	33	28	24	21	44	42	33	28	24	21
	180	39	39	31	26	23	20	39	39	31	26	23	20	39	39	31	26	23	20
	200	32	32	28	24	21	18	32	32	28	24	21	18	32	32	28	24	21	18

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

Rail Spans (in.) for Everest X48 Rails for use with QMHLS Products

Table 5B		Roof Height: 0 - 30 feet Roof Angle: 27 < θ ≤ 45 degrees												Panel Orientation: Portrait					
Exposure	Ultimate Wind Speed,	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
C	V (mph)	0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >27° to 45°	110	81	59	42	33	27	23	81	59	42	33	27	23	81	59	42	33	27	23
	115	76	57	41	32	26	22	76	57	41	32	26	22	76	57	41	32	26	22
	120	71	55	40	31	26	22	71	55	40	31	26	22	71	55	40	31	26	22
	130	62	51	38	30	25	21	62	51	38	30	25	21	62	51	38	30	25	21
	140	55	47	35	29	24	20	55	47	35	29	24	20	55	47	35	29	24	20
	150	49	43	33	27	23	20	49	43	33	27	23	20	49	43	33	27	23	20
	160	43	40	32	26	22	19	43	40	32	26	22	19	43	40	32	26	22	19
	170	39	37	30	25	21	18	39	37	30	25	21	18	39	37	30	25	21	18
	180	35	35	28	23	20	18	35	35	28	23	20	18	35	35	28	23	20	18
	200	29	29	25	21	18	16	29	29	25	21	18	16	29	29	25	21	18	16

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

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Rail Spans (in.) for Everest X48 Rails for use with QMHSS Products

Table 6A Roof Height: 0 - 30 feet Roof Angle: 27 < θ ≤ 45 degrees Panel Orientation: Portrait

Exposure	Ultimate Wind Speed,	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
D	V (mph)	0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >27° to 45°	110	79	62	45	35	29	24	79	62	45	35	29	24	79	62	45	35	29	24
	115	74	59	43	34	28	24	74	59	43	34	28	24	74	59	43	34	28	24
	120	69	57	42	33	28	24	69	57	42	33	28	24	69	57	42	33	28	24
	130	60	52	39	32	27	23	60	52	39	32	27	23	60	52	39	32	27	23
	140	53	48	37	30	25	22	53	48	37	30	25	22	53	48	37	30	25	22
	150	47	44	35	29	24	21	47	44	35	29	24	21	47	44	35	29	24	21
	160	42	40	32	27	23	20	42	40	32	27	23	20	42	40	32	27	23	20
	170	37	37	30	26	22	19	37	37	30	26	22	19	37	37	30	26	22	19
	180	34	34	28	24	21	19	34	34	28	24	21	19	34	34	28	24	21	19
	200	28	28	25	22	19	17	28	28	25	22	19	17	28	28	25	22	19	17

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

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Rail Spans (in.) for Everest X48 Rails for use with QMHLS Products

Table 6B	Roof Height: 0 - 30 feet Roof Angle: 27 < θ ≤ 45 degrees													Panel Orientation: Portrait					
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
D		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >27° to 45°	110	71	55	40	31	26	22	71	55	40	31	26	22	71	55	40	31	26	22
	115	66	53	39	31	25	22	66	53	39	31	25	22	66	53	39	31	25	22
	120	61	51	38	30	25	21	61	51	38	30	25	21	61	51	38	30	25	21
	130	54	46	35	28	24	20	54	46	35	28	24	20	54	46	35	28	24	20
	140	47	43	33	27	23	20	47	43	33	27	23	20	47	43	33	27	23	20
	150	42	39	31	25	22	19	42	39	31	25	22	19	42	39	31	25	22	19
	160	37	36	29	24	21	18	37	36	29	24	21	18	37	36	29	24	21	18
	170	33	33	27	23	20	17	33	33	27	23	20	17	33	33	27	23	20	17
	180	30	30	25	22	19	17	30	30	25	22	19	17	30	30	25	22	19	17
	200	25	25	22	19	17	15	25	25	22	19	17	15	25	25	22	19	17	15

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in portrait orientation with a maximum length of 67"

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Rail Spans (in.) for Everest X48 Rails for use with QMHSS Products

Table 7A Roof Height: 0 - 30 feet Roof Angle: $7 < \theta \leq 27$ degrees Panel Orientation: Landscape

Exposure	Ultimate Wind Speed,	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
B	V (mph)	0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >7° to 27°	110	94	87	76	65	54	45	88	87	76	65	54	45	76	76	76	65	54	45
	115	94	87	76	65	54	45	85	85	76	65	54	45	73	73	73	65	54	45
	120	94	87	76	65	53	44	83	83	76	65	53	44	70	70	70	65	53	44
	130	93	86	75	65	52	44	78	78	75	65	52	44	65	65	65	65	52	44
	140	90	85	74	64	51	43	68	68	68	64	51	43	56	56	56	56	51	43
	150	86	83	73	63	50	42	68	68	68	63	50	42	56	56	56	56	50	42
	160	82	82	72	61	49	42	64	64	64	61	49	42	52	52	52	52	49	42
	170	78	78	70	59	48	41	60	60	60	59	48	41	49	49	49	49	48	41
	180	74	74	69	58	47	40	57	57	57	57	47	40	46	46	46	46	46	40
	200	68	68	65	55	45	39	51	51	51	51	45	39	37	37	37	37	37	37

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

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Rail Spans (in.) for Everest X48 Rails for use with QMHLS Products

Table 7B	Roof Height: 0 - 30 feet Roof Angle: 7 < θ ≤ 27 degrees													Panel Orientation: Landscape					
Exposure	Ultimate Wind Speed,	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
B	V (mph)	0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >7° to 27°	110	94	87	76	61	48	40	88	87	76	61	48	40	76	76	76	61	48	40
	115	94	87	76	61	48	40	85	85	76	61	48	40	73	73	73	61	48	40
	120	94	87	76	60	48	40	83	83	76	60	48	40	70	70	70	60	48	40
	130	93	86	75	59	47	39	78	78	75	59	47	39	65	65	65	59	47	39
	140	90	85	74	57	46	38	68	68	68	57	46	38	56	56	56	56	46	38
	150	86	83	73	56	45	38	68	68	68	56	45	38	56	56	56	56	45	38
	160	82	82	71	55	44	37	64	64	64	55	44	37	49	49	49	49	44	37
	170	78	78	69	53	43	36	60	60	60	53	43	36	43	43	43	43	43	36
	180	74	74	66	52	42	36	57	57	57	52	42	36	38	38	38	38	38	36
	200	68	68	62	49	40	34	48	48	48	48	40	34	31	31	31	31	31	31

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Everest X48 Rails for use with QMHSS Products

Table 8A		Roof Height: 0 - 30 feet Roof Angle: 7 < θ ≤ 27 degrees												Panel Orientation: Landscape					
Exposure	Ultimate Wind Speed,	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
C	V (mph)	0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >7° to 27°	110	93	86	75	65	52	44	78	78	75	65	52	44	65	65	65	65	52	44
	115	91	85	75	65	52	43	75	75	75	65	52	43	62	62	62	62	52	43
	120	89	85	74	64	51	43	72	72	72	64	51	43	59	59	59	59	51	43
	130	84	83	73	62	50	42	67	67	67	62	50	42	54	54	54	54	50	42
	140	80	80	71	60	49	41	62	62	62	60	49	41	50	50	50	50	49	41
	150	76	76	69	58	48	40	57	57	57	57	48	40	47	47	47	47	47	40
	160	72	72	67	56	46	39	54	54	54	54	46	39	42	42	42	42	42	39
	170	67	67	65	54	45	38	50	50	50	50	45	38	37	37	37	37	37	37
	180	63	63	63	53	44	37	48	48	48	48	44	37	33	33	33	33	33	33
	200	57	57	57	49	41	36	41	41	41	41	41	36	27	27	27	27	27	27

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

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Rail Spans (in.) for Everest X48 Rails for use with QMHLS Products

Table 8B Roof Height: 0 - 30 feet Roof Angle: $7 < \theta \leq 27$ degrees Panel Orientation: Landscape

Exposure C	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >7° to 27°	110	93	86	75	59	47	39	78	78	75	59	47	39	65	65	65	59	47	39
	115	91	85	75	58	46	39	75	75	75	58	46	39	62	62	62	58	46	39
	120	89	85	74	57	46	38	72	72	72	57	46	38	59	59	59	57	46	38
	130	84	83	73	55	45	38	67	67	67	55	45	38	53	53	53	53	45	38
	140	80	80	70	54	44	37	62	62	62	54	44	37	46	46	46	46	44	37
	150	76	76	67	52	43	36	57	57	57	52	43	36	40	40	40	40	40	36
	160	72	72	64	50	41	35	54	54	54	50	41	35	35	35	35	35	35	35
	170	67	67	61	49	40	34	47	47	47	47	40	34	31	31	31	31	31	31
	180	63	63	59	47	39	34	42	42	42	42	39	34	27	27	27	27	27	27
	200	57	57	54	44	37	32	34	34	34	34	34	32	22	22	22	22	22	22

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

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Rail Spans (in.) for Everest X48 Rails for use with QMHSS Products

Table 9A	Roof Height: 0 - 30 feet Roof Angle: 7 < θ ≤ 27 degrees													Panel Orientation: Landscape					
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
D		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >7° to 27°	110	90	85	74	64	51	43	72	72	74	64	51	43	59	59	59	59	51	43
	115	87	84	73	63	51	42	69	69	69	63	51	42	57	57	57	57	51	42
	120	84	83	73	62	50	42	66	66	66	62	50	42	54	54	54	54	50	42
	130	79	79	71	60	49	41	61	61	61	60	49	41	50	50	50	50	49	41
	140	74	74	69	58	47	40	56	56	56	56	47	40	46	46	46	46	46	40
	150	70	70	67	56	46	39	53	53	53	53	46	39	40	40	40	40	40	39
	160	66	66	65	54	45	38	49	49	49	49	45	38	35	35	35	35	35	35
	170	62	62	62	52	43	37	46	46	46	46	43	37	31	31	31	31	31	31
	180	58	58	58	50	42	36	43	43	43	43	42	36	28	28	28	28	28	28
	200	52	52	52	46	39	34	34	34	34	34	34	34	22	22	22	22	22	22

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

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Rail Spans (in.) for Everest X48 Rails for use with QMHLS Products

Table 9B	Roof Height: 0 - 30 feet Roof Angle: 7 < θ ≤ 27 degrees													Panel Orientation: Landscape					
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
D		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >7° to 27°	110	90	85	74	57	46	38	72	72	74	57	46	38	59	59	59	57	46	38
	115	87	84	73	56	45	38	69	69	69	56	45	38	57	57	57	56	45	38
	120	84	83	72	55	45	38	66	66	66	55	45	38	53	53	53	53	45	38
	130	79	79	69	53	44	37	61	61	61	53	44	37	45	45	45	45	44	37
	140	74	74	66	52	42	36	56	56	56	52	42	36	38	38	38	38	38	36
	150	70	70	63	50	41	35	52	52	52	50	41	35	33	33	33	33	33	33
	160	66	66	60	48	40	34	45	45	45	45	40	34	29	29	29	29	29	29
	170	62	62	58	46	39	33	40	40	40	40	39	33	26	26	26	26	26	26
	180	58	58	55	44	37	32	35	35	35	35	35	32	23	23	23	23	23	23
	200	52	52	50	41	35	30	28	28	28	28	28	28	18	18	18	18	18	18

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

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Rail Spans (in.) for Everest X48 Rails for use with QMHSS Products

Table 10A

Roof Height: 0 - 30 feet
Roof Angle: 27 < θ ≤ 45 degrees
Panel Orientation: Landscape

Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
B		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >27° to 45°	110	91	86	73	63	50	42	91	86	73	63	50	42	91	86	73	63	50	42
	115	89	85	73	61	50	42	89	85	73	61	50	42	89	85	73	61	50	42
	120	87	84	72	60	49	41	84	84	72	60	49	41	87	84	72	60	49	41
	130	84	82	70	58	48	40	84	82	70	58	48	40	84	82	70	58	48	40
	140	81	79	68	56	46	39	81	79	68	56	46	39	81	79	68	56	46	39
	150	79	76	67	54	45	38	78	76	67	54	45	38	78	76	67	54	45	38
	160	77	73	65	52	43	37	74	73	65	52	43	37	74	73	65	52	43	37
	170	73	71	62	50	42	36	70	70	62	50	42	36	70	70	62	50	42	36
	180	70	69	59	48	41	35	66	66	59	48	41	35	66	66	59	48	41	35
	200	64	64	53	44	38	33	59	59	53	44	38	33	59	59	53	44	38	33

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

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Rail Spans (in.) for Everest X48 Rails for use with QMHLS Products

Table 10B

Roof Height: 0 - 30 feet
Roof Angle: 27 < θ ≤ 45 degrees

Panel Orientation: Landscape

Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
B		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >27° to 45°	110	91	86	73	56	45	38	91	86	73	56	45	38	91	86	73	56	45	38
	115	89	85	72	55	44	37	89	85	72	55	44	37	89	85	72	55	44	37
	120	87	84	70	54	44	37	84	84	70	54	44	37	87	84	70	54	44	37
	130	84	82	67	52	43	36	84	82	67	52	43	36	84	82	67	52	43	36
	140	81	79	64	50	41	35	81	79	64	50	41	35	81	79	64	50	41	35
	150	79	76	61	48	40	34	78	76	61	48	40	34	78	76	61	48	40	34
	160	77	73	58	47	39	33	74	73	58	47	39	33	74	73	58	47	39	33
	170	73	71	55	45	37	32	70	70	55	45	37	32	70	70	55	45	37	32
	180	70	68	53	43	36	31	66	66	53	43	36	31	66	66	53	43	36	31
	200	63	60	48	40	34	29	59	59	48	40	34	29	59	59	48	40	34	29

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Everest X48 Rails for use with QMHSS Products

Table 11A		Roof Height: 0 - 30 feet Roof Angle: 27 < θ ≤ 45 degrees												Panel Orientation: Landscape					
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
C		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >27° to 45°	110	84	82	70	58	48	40	84	82	70	58	48	40	84	82	70	58	48	40
	115	83	80	69	57	47	40	83	80	69	57	47	40	83	80	69	57	47	40
	120	81	78	68	56	46	39	81	78	68	56	46	39	81	78	68	56	46	39
	130	78	75	66	53	44	38	77	75	66	53	44	38	77	75	66	53	44	38
	140	75	72	63	51	43	37	72	72	63	51	43	37	72	72	63	51	43	37
	150	71	69	60	49	41	35	67	67	60	49	41	35	67	67	60	49	41	35
	160	67	66	56	46	39	34	63	63	56	46	39	34	63	63	56	46	39	34
	170	64	64	53	44	38	33	59	59	53	44	38	33	59	59	53	44	38	33
	180	60	60	50	42	36	32	56	56	50	42	36	32	56	56	50	42	36	32
	200	52	52	44	38	33	29	50	50	44	38	33	29	50	50	44	38	33	29

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

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Rail Spans (in.) for Everest X48 Rails for use with QMHLS Products

Table 11B	Roof Height: 0 - 30 feet Roof Angle: 27 < θ ≤ 45 degrees													Panel Orientation: Landscape					
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
C		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >27° to 45°	110	84	82	67	52	43	36	84	82	67	52	43	36	84	82	67	52	43	36
	115	83	80	65	51	42	35	83	80	65	51	42	35	83	80	65	51	42	35
	120	81	78	64	50	41	35	81	78	64	50	41	35	81	78	64	50	41	35
	130	78	75	60	48	40	34	77	75	60	48	40	34	77	75	60	48	40	34
	140	75	72	57	46	38	33	72	72	57	46	38	33	72	72	57	46	38	33
	150	71	69	53	43	37	32	67	67	53	43	37	32	67	67	53	43	37	32
	160	67	64	50	41	35	30	63	63	50	41	35	30	63	63	50	41	35	30
	170	62	59	47	39	34	29	59	59	47	39	34	29	59	59	47	39	34	29
	180	56	55	45	37	32	28	56	55	45	37	32	28	56	55	45	37	32	28
	200	46	46	40	34	30	26	46	46	40	34	30	26	46	46	40	34	30	26

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

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Rail Spans (in.) for Everest X48 Rails for use with QMHSS Products

Table 12A

Roof Height: 0 - 30 feet
Roof Angle: 27 < θ ≤ 45 degrees
Panel Orientation: Landscape

Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
D		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >27° to 45°	110	81	78	68	56	46	39	81	78	68	56	46	39	81	78	68	56	46	39
	115	79	76	67	55	45	38	79	76	67	55	45	38	79	76	67	55	45	38
	120	78	74	66	53	44	38	76	74	66	53	44	38	76	74	66	53	44	38
	130	74	72	63	51	42	36	71	71	63	51	42	36	71	71	63	51	42	36
	140	70	69	59	48	40	35	66	66	59	48	40	35	66	66	59	48	40	35
	150	66	66	55	45	39	34	61	61	55	45	39	34	61	61	55	45	39	34
	160	62	62	52	43	37	32	57	57	52	43	37	32	57	57	52	43	37	32
	170	59	59	48	41	35	31	54	54	48	41	35	31	54	54	48	41	35	31
	180	54	54	45	39	34	30	51	51	45	39	34	30	51	51	45	39	34	30
	200	44	44	40	35	31	27	44	44	40	35	31	27	44	44	40	35	31	27

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"

Rail Spans (in.) for Everest X48 Rails for use with QMHLS Products

Table 12B		Roof Height: 0 - 30 feet Roof Angle: 27 < θ ≤ 45 degrees												Panel Orientation: Landscape					
Exposure	Ultimate Wind Speed, V (mph)	Roof Wind Pressure Zone 1						Roof Wind Pressure Zone 2						Roof Wind Pressure Zone 3					
		Roof Snow Load (psf)						Roof Snow Load (psf)						Roof Snow Load (psf)					
D		0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
Roofs >27° to 45°	110	81	78	64	50	41	35	81	78	64	50	41	35	81	78	64	50	41	35
	115	79	76	62	49	40	34	79	76	62	49	40	34	79	76	62	49	40	34
	120	78	74	60	48	39	34	76	74	60	48	39	34	76	74	60	48	39	34
	130	74	72	56	45	38	33	71	71	56	45	38	33	71	71	56	45	38	33
	140	70	68	53	43	36	31	66	66	53	43	36	31	66	66	53	43	36	31
	150	66	63	49	41	35	30	61	61	49	41	35	30	61	61	49	41	35	30
	160	60	58	46	39	33	29	57	57	46	39	33	29	57	57	46	39	33	29
	170	53	53	43	36	32	28	53	53	43	36	32	28	53	53	43	36	32	28
	180	48	48	41	35	30	27	48	48	41	35	30	27	48	48	41	35	30	27
	200	40	40	36	31	27	24	40	40	36	31	27	24	40	40	36	31	27	24

Notes:

1. Tables are based on critical rail span for load combinations as specified in chapter 2 of the ASCE 7-10 and allowable tension, compression, and lateral values of Quick Mount products per test reports.
2. Panels are assumed to be in landscape orientation with a maximum width of 42"