

: XX XU") " u"= " a8K a8N =X Xv 8NEhs, " Ut wt E(i(nb
: " XI W X "X, Pa, s, n
8 X=1 m f "
7 UUX 1, ss fx f XS am x K XanS P, sP#

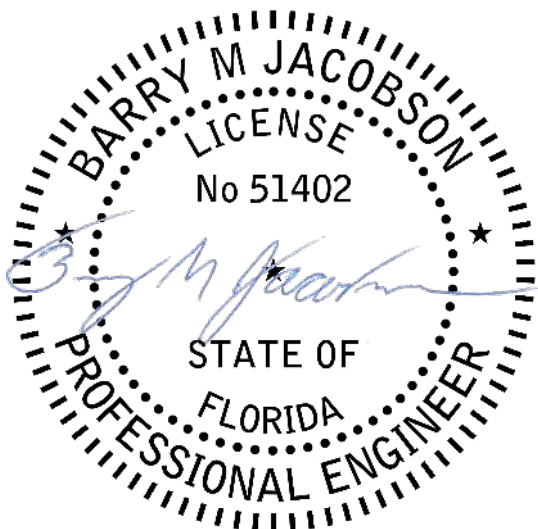
RKX" U MK" " R Gg " G RKX G U K, h "X, eK " b , hr
=K=X X J RKX X= GKX G KXX KX8w "X " XU M" XU K" G X Ghln,
XI 7 ft Nim(K"U X G G " U X " " X KX G G=X, 5JhJhb "
XUG KX G X= K " J RKXUX M U XU nPs KJ

G wt , : rwh c 9, wnn

Roof Zone	Max Force (psf)	Attachment Spacing (in)	# Rails per Module	Module Area per Attachment	Uplift (lb)
1/2e	-27.65	72 in	2	19.8	548.1
2n/2r/3e	-36.19	62 in	2	17.0	614.5
3r	-43.03	52 in	2	14.3	614.5

G ht , : rwh 9, wnn

Roof Zone	Max Force (psf)	Attachment Spacing (in)	# Rails per Module	Module Area per Attachment	Uplift (lb)
1/2e	-41.47	54 in	2	14.8	614.5
2n/2r/3e	-54.28	41 in	2	11.3	614.5
3r	-64.54	35 in	2	9.5	614.5



This item has been electronically signed and sealed by Barry M Jacobson on the date adjacent to the seal using a SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.
2021.11.23 11:04:03 -05'00'

G 4t , :rvh c 9, vn

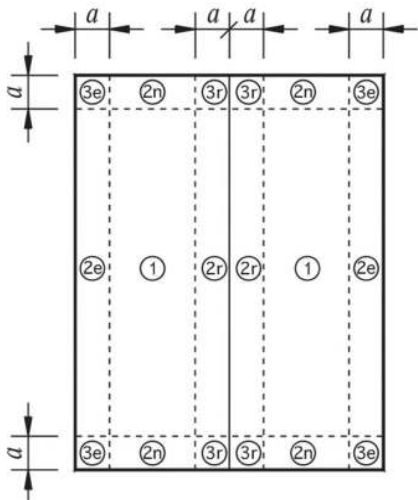
Roof Zone	Max Force (psf)	Attachment Spacing (in)	# Rails per Module	Module Area per Attachment	Uplift (lb)
1/2e	-27.65	72 in	2	19.8	548.1
2n/2r/3e	-36.19	59 in	2	16.2	587.9
3r	-43.03	52 in	2	14.3	614.5

G :t , :rvh 9, vn

Roof Zone	Max Force (psf)	Attachment Spacing (in)	# Rails per Module	Module Area per Attachment	Uplift (lb)
1/2e	-41.47	54 in	2	14.8	614.5
2n/2r/3e	-54.28	41 in	2	11.3	614.5
3r	-64.54	35 in	2	9.5	614.5

g G XvP “PGns PGns “X“ KX X= X GKX G g G XvPX “PGns PGns “X“ KX X= X GKX G g G Xv, KX“ X“ K“ K XvP “U K PGns GKX G UMI g G Xv, KX“ X“ K“ K XvP “U K PGns GKX G“ XJ g G Xv, X KX“ X“ K“ K XvP “U K PGns GKX GX“ XJ g G Xvn KX X “X“ GKX GK“ K KX KX XJ

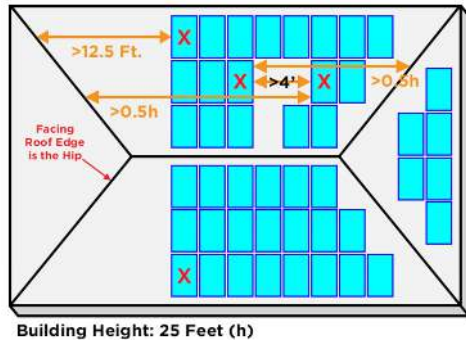
RKXX G X XX KX “ U X K K“ “X“ XXmM XnbJ g G“ “K X X X U M ”X U KX “ U X K“ KX “X M“ X “=XJ“= U M KX G X GKX “ U XJ FG“ “ U X ”X XX X Xa KX “ “K X “X “=XJ“= U M KX GKX “ U X K“ M G“ X“ Eso GKX U X K K“ XJ FGX K“ Eso GKX U X K “ Xa KX X KX X “ “K X “= M GKX X UX X“ K K“ “ U XJ m X“ Xa G“ “ U X K“ X hso XP“ U X (so X, KX KX X “ “ “K X “X “=XJ” XP X X X “ U KX X K“ G“ X “=XJ X, X X X J L KX KX K“ Ua G(so XP“ Uhso X, KX “ “ “K X “X “=XJ”“ X XP X X X J RKXXX“ X “ X K“ XP“ “K X “= M X K“ X, “= M



k wt ,

N“=K “ G“ “=K X ”X X= XU Kf “ m “ “=K X M ndheU“ ane M
 En(e KX KX“U K ””X X“ M UX UX“ X“ (nhJE U GUX M r “ “
 K“ “GX G= G, J

7 U X UXG XU“ X XU X fX= , 5hJh G7 ft Ni m(b GKXU “ =XG “ G GXX
 XLMK “ XLMK K = X= KX U Xb G= M GXLMK X“ Xa UMa “ Xa K b
 MX“ X K“ K“ GKX X“ GKXMK “” XM“UX n(G, c, 2 # Gn b7 W GKXU “ =XG
 GXXLMK “ KX “U“=X “ “ U X MX“ X K“ h Gs XXmM X, bJ



k ht I

. Xf “ m “ “=K X M ndheU“ ane MEn(e KX KX“U K ””X X“ M F “ KX
 “ “=K X KX, h ”X , eK “ bJ

. XF g UMa" gns " gns “ J 7 U “ “ G= X “ U UX “ ”X XU K X
 = G “ G KXXM XX GX= UJ

f “ U X K“ ”X=“ XXXU X K“ KX “ “ “” X=“ XX UX” KX “
 “ G= X XXR“” X(b“ UK“ GKX“ “” X “= MG K“ X XXR“” Xn K MK
 R“” Xhbl

7 “=K X ”X XX “ U X “ U “= ”X”X XX s “ Un Gi Pdh G KXXU GKX
 “ U XJ

f “ U X K“ ”X “ XU K i GKX GXLMK =K“ MK G XJ

RKX=“ =F g UMa” UXU =X K“ ”X “ XU KX=X X ndP G X “ a KX X, dP
 GXU “ a K “ X X J RKX U“ XUF g UMa) Lff) UXUf = “ f =bUX
 K“ X “=X X X X X J

W “ U =X G F g UMa= X K“ ”X XU KX X M R“” XEJ

G 2t M ,

FX	f = X	R X
) UŲf =Xf=X	En(	,s r”
. nL t “	i n(	#s r”
g“ 3 U MS MW	i n(	#s r”
3 U MS MRX “ f=X	i n(	,s r”
N “ u W	i n(	#s r”
A = X X k W	i n(	#s r”

G pt C (M , k (E (G M , k C (

	Zf f				Zf			
	s				s			
ZdM	2	2	2	2	2	2	2	2
M dMda	2	2	2	2	2	2	2	2
a	2	2	2	2	2	2	2	2

G dt I 7 E s.q ER I 7 I z .k 4nt4chz 4nt4ch6 hnt: cdR

Z	sZe/M\$
M	sZe/M\$
M	sMcZv
M	sMcZv
a	sMcZv
a	sMvVS

G ut M

° &<3 ^<	Z	RSf	
7 N8 ^	7 N8 ^		
7 ND: ^ &	7 ND:	°	
B :K_ ^	B :K_	P	
3 / : ^	3 / : ^		
3 / : ^D: ^ &	3 / : ^D:	i o g3 a	
C: ^ ^ 8 ^	C: ^ 8 ^	h5w/ oh/ o t5hr/	
C: ^ ^ 5	C: ^ 5		
x: ^1^&_	x_	Rf	
P &<j ° &_4^ ^ <&: 7&j^	°	Swif	
P &<j 9^ j_4: : ^ 7&j^	9	Swif	
3 N8° &_	61	Rw	
3 ^ N7 N	3 ^	oZri	
x ^L: ^j	xL	.	
D < ^D <^	D <D <^	7BQUB G Qi ErT off	
D & B :K_ ^ 3 :K&j	D &B3	Ri	
D: B :K_ ^ 3 :K&j	D: B3	ti	
D < ^6 & : &	6 &	5	
9 D < ^1^&_ B/ ^7 N	1t	ST	ay b N
D < ^8& N 7 N	^j:	f	
4: : ^1^&_	_	f	
3: M C: K	3: M C: K	r	
O^ & B :K_ ^ k &W	B :K_ k	htAyc /	
D < ^9^ j _	9	nbyl &	hyht N
D < ^° &_	°	l byA &	l yru N
L^ L	L^ L	nr	
D & 3 &^G ^O&: K^	3 &^D &	aya &	
D: 3 &^G ^O&: K^	3 &^D:	t byn&	
7 NB j ^	8^:	tuyA	
7 N3 ^L: ^j	3 ^	CB93x	
7&j^1^&_	71	rryl N	
7 N1^&_ 7^M^ K^	7 N1 7^N	^: N^&_ :/ ^j :<^	
7 N1^&_	_	thyr N	
1: N7 N1^&_	_r	uyt N	
B ^: N3 : D < ^	B	rtya Nr	
3 : D < ^4 ^ ^x : &: & C: K	w:	ayhhc	C& ^rbyATu
° &_N G ^r: <l O^ ^ &: &	:	l yua N	:E : d fayaAR_f &ayAR_fayt R° fayt R9W
9^: P &<j 1 &O&	P	l uyaa N	PE &e' f9V
D ^: 7 N1^&_ s9^: P &<j 1 &O&	_M	ayAl	
9 :<C: K P: ^< 3 ^ j _O^ &	9C	t	
8 j : _&C: K	2	t	8 j : _&C: K &t &K^ j : _&M: ^ ^K&&<
° &<O&^K & : & C: K	2<	ayuc	8:/ ^rhyhTt <Eayuc N / &<j
w <x^ : & C: K	2^	t	8:/ ^rhybTtyZ: ^ Nt ya & ^ & &^N : ^^ : &
Z^ K& 4 ^ ^x ^L ^N&&	2_	aycum	8:/ ^rhytaTt &_Qtc ^ 2_EryatRet cMj V erM _: V ^ ^&_QE j _^ 2_EryatRe Mj V erM _: W
Z^ K& 4 ^ ^: D^: 7 N1^&_	_	rt yh N	VfzdZV p hdzldVLF(A (A (A (A (V=(b8
x ^L: ^j L ^N&& : _:	: _:	ma	8:/ ^rhytTt
x ^L: ^j L ^N&& j	j	t fraa N	8:/ ^rhytTt
4: : ^1^&_ C: K	w	ayb N	x V9j KE g p heZ^td95 t =
4: ^ L <C: K	wK	t yaa	x V9j KE g p hdzF5dzlF(b teV^dn=
U : &^< &<: ^:	B	bhyAl	8 V9j KE+ pedddt hb tL= V(+
U : &^<P &<j 9^ j _	9/	b ybt	8 V9j KE b p hldz(h(h t b= dzL*#=
1&_D < ^1^&_ B/ ^7 N	1r	l yca &	ayr b N
9& &N B<: K^ D < ^	<t* & &	Ayaa N	<t* & &E : eAR_rfANV
D & 1 &O& P^ ^ ^ D < ^ 5 7 Nk<j ^	<* &1 &	aycu N	<* &1 &ErR_r