Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A1	Attic	5	1	Job Reference (ontional)	160372558

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:23 ID:mYsmblxyYcArRj?LeVX2KyzRQmV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

	-0-10-8 0-10-8	<u>6-4-0</u> 6-4-0	<u>12-2-12</u> 5-10-12	<u>  16-3-0</u>   4-0-4	) 17-8-0 <u>21-1-</u> 1-5-0 3-5-6 6x8=	- <u>8   24-6-8   2</u> 8 3-5-0 2	2 <u>7-5-8 31</u> 2-11-0 3-	<u>-5-0</u> 32-9-7 11-8 1-4-7 6xi	7 <u>39-</u> 6-6	<u>4-4</u> -13	- 4	<u>6-2-1</u> -10-1	5 I 2	<u>53-5-0</u> 7-2-1	-1
	5x6 ≠ 1 45 3x5 ⊪	55	$6^{12}$ 4x6 = 5 $57^{58}$ 56 4x6 = 5 56 4x6 = 5 56 4x6 = 5 56 4x6 = 5 56 4x6 = 5 56 4x6 = 5 56 4x6 = 5 4x6 = 5 56 4x6 = 5 4x6 = 5 5x10 = 4x6 = 8 8x	2 40 39 22 40 3x:	4x8 = 7 47 5x6 II 46 3x6 = 333 36 35 37 65 35 5 3x5 3x 3x6 II	4x8= 8 59 96 51 48 12x11 0-9-0 32 30 28 2 55 2x4 II 3x 3x6= 3x5= 65	4x8= 0 10 50 6 11 2x4 11 7 25 23 5 3x5= x8=	12x16= 11 49 49 22 20 219 5x6= 10x1		т т 18 4x6=	8x10 = 61 82 6	53	14 16 2x4 II	64	150 20 20 20
	Ļ	<u>6-4-0</u> 6-4-0	12 12	14-10- 13-7-8 -4-8 1 -12 16 -12 1-3-0	8 17-4-8 6-1-12 19-10- -1-8 18-7-8 2- 	2x4 II 22x8n12 25-3 -8 24-11- 1-3-4 23-8-8 26 	3-0 827-5-829- 6-2-828-8-8 1-1-1-1 1-8 1-3-0	32-8 11-832-5-8 31-2-8 1-3-0	-4 <u>36-4-0</u> 3-7-12	39-4-4 3-0-4	4 4 6	<u>6-2-1</u> -10-1	5	<u>53-5-0</u> 7-2-1	4
Scale = 1:95.4			0-1	1-12 1- 1-3-0	3-0 1-3-0 <u>1-2-12</u>	) 1-0-8 1-3-0	1-3-0 1- 11-8	3-0 1-3-0	12						
Plate Offsets (	X, Y): [2:0	-2-11,0-2-8	], [11:0-11-0,0-3-0],	[13:0-5-0,	0-4-8], [15:Edg	ge,0-0-11], [17:0	-3-0,0-2-12	, [19:0- <b>4</b> -0,0	)-3-0], [44	l:0-3-8,0	-2-8], [47:	0-3-0	,0-2-0], [4 <mark></mark> 8	:Edge,0-6-0]	
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDI		(psf) 20.0 20.0 10.0 0.0*	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	1-4-0 1.15 1.15 YES IRC201	18/TPI2014	CSI TC BC WB Matrix-MSH	0.51 0.93 0.98	DEFL Vert(LL) Vert(CT) Horz(CT) Attic	in -0.31 -0.50 0.08 -0.20	(loc) 30-32 32 15 21-38	l/defl >999 >788 n/a >966	L/d 240 180 n/a 360	PLATES MT20	GRIP 244/190 14 lb FT - 20%	_
		10.0				14 45- 71/127	42 44- 4/2	256		2) \//in		7 16.	Vult_120m	r = 20	ct)
TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD WEBS JOINTS REACTIONS	2x6 SP N 2x6 SP 2 No.2, 41- 2x4 SP N No.2, 48- Structura 3-11-14 c 2-0-0 cc Rigid ceil bracing, 6-0-0 cc 2-2-0 cc 3-8-0 cc 4-7-0 cc 4-7-0 cc 4-8-0 cc 6-0-0 cc 1 0-0-0 cc 1 Row at 1 Brace a 39, 24, 31 46, 48, 50 (size)	lo.2 400F 2.0E : 33,33-21:2: lo.3 *Excep 12,48-6,21- il wood shei oc purlins, (- purlins (4-8 ling directly Except: bracing: 19 bracing: 24 bracing: 2	*Except* 18-15:2x6 x4 SP No.2 t* 12-19,38-6:2x6 SI -17:2x4 SP No.2 athing directly applie except end verticals -2 max.): 7-11. applied or 10-0-0 or -20,17-19. -39, 36-38 -34 -36 -26 -41 2-24, 21-22 5-42, 12-50, 13-21 manical, 19=0-3-8,	SP P d or , and C W	VEBS	40-42=0/2575, 32-35=0/4191, 25-28=0/4271, 19-20=-1253/24 16-17=0/2821, 39-41=-62/206, 36-38=-255/13; 31-34=-2232/0, 26-29=-2195/0, 22-24=-169/777; 3-44=-709/6, 3-44=-709/6, 5-41=-221/26, 12-21=-13/924, 14-17=-385/13; 47-51=-1411/44 49-50=-1444/44 2-42=0/2372, 20-22=-1645/0, 22-23=0/1145, 36-37=-294/56, 25-26=-652/0, 32-34=0/340, 29-30=-155/7, 5-46=-241/7, 7-54=-541/7, 7-54=-541/7	37-40=0/22 30-32=0/44 23-25=0/30 5, 17-19=-9i 15-16=0/28 , 38-39=-25i 3, 34-36=-11 , 29-31=-222 , 24-26=-14i 0, 21-22=0/2 42=0/535, 4 19-21=-571i , 13-17=-188 5, 12-49=- 10-21=0/125 37-39=0/52 , 24-25=0/74 38-36=0/94i 47=-53/347	51, 35-37=0, 87, 28-30=0, 95, 20-23=0, 30/168, 21, 3/155, 161/0, 32/0, 55/207, 2490 11-42=-256/2 168, 1/424/485, 1949/0, 7, 40-41=-20 1/304, 1, 23-24=-11 10, 35-36=0/ 0, 26-28=0/2, 3, 31-32=-8/2, 5, 6-46=0/10 9-48=-131/	/2778, /4487, /1240, 29, 757/4, 03/63, 101/0, 965, 234, 14, 00, '94,	Vas Cat. zon 4-5- Inte 53-5 vert forc DOI 3) TCL Plat DOI cs= 4) Unb desi 5) This loac over 6) Prov 7) All p	d=103mp II; Exp B e and C-C 5 to 10-1- 5 to 10-1- 10 rior (1) 38 5-0 zone; ical left ar es & MWI L=1.60 pla L=1.60 pla L: ASCE te DOL=1: L=1.15); l: alanced s ign. s truss has d of 12.0 p rhangs nc vide adeq plates are	h; TC ;; Encl C Exte -12, E -12, E -1	DL=6.0psf losed; MWI rrior(2E) -0 xterior(2R) to 48-1-3, ever left an ht exposed or reactions ip DOL=1.6 Pr=20.0 psf ; Rough Ca loads have n designed 1.00 times neurrent wit drainage to MT20 unles	BCDL=6.0psf; h FRS (envelope) e 10-8 to 4-5-5, lin 10-1-12 to 38-1 Exterior(2E) 48- d right exposed ; G-C for member s shown; Lumber 50 sf (roof LL: Lum I G(Lum DOL=1.15 at B; Fully Exp.; C been considered for greater of mi flat roof load of 2 th other live loads prevent water pr is otherwise indic	=25ft; exterior terior (1) 1-4, 1-3 to ; end s and r DOL=1.15 Plate Ce=0.9; d for this n roof live 0.0 psf on s. onding. iated.
	Max Horiz Max Uplift Max Grav	45=0-5-8 45=-125 ( 19=-51 (L 15=1676 ( 38), 45=2	LC 12) C 15) (LC 46), 19=1069 (L 196 (LC 36)	.C	OTES	11-49=-29/517, 8-47=-1104/207 10-48=-164/27 17-21=0/3125,	, 10-50=0/46 7, 8-48=-19 5, 10-49=-12 13-21=-392	5, 8-51=0/47 7/297, 235/188, /216	,		Winn	0	i e torte	SEAL	
FORCES	(lb) - Max Tension	kimum Com	pression/Maximum	1	) Unbalanced	roof live loads	have been o	considered for	or		E		03	86322	<u> </u>
TOP CHORD	1-2=0/18 5-6=-269 8-9=-233 10-11=-9 12-14=-2 2-45=-21	, 2-3=-2565 2/0, 6-7=-1 8/356, 9-10 37/95, 11-1 849/21, 14- 23/16	;/0, 3-5=-2939/0, 154/79, 7-8=-1131/5 )=-2338/356, 2=-1054/106, -15=-3213/0,	54,	this design.						(III)		RIC A Au	GILBER	3
Continued on WARN Design v a truss sy building of is always fabricatio and BCS	page 2 IING - Verify de valid for use on ystem. Before design. Bracir s required for s on, storage, de SI Building Co	esign paramete ly with MiTek@ use, the buildi ng indicated is stability and to slivery, erectior omponent Sat	ITS and READ NOTES ON Connectors. This design ing designer must verify th to prevent buckling of ind prevent collapse with pos and bracing of trusses a fety Information availab	THIS AND II is based on he applicabil lividual truss ssible person and truss sys ble from the s	NCLUDED MITEK I ly upon parameter ity of design paran web and/or chord al injury and prope tems, see <b>ANSI/T</b> Structural Building	REFERENCE PAGE s shown, and is for a teters and properly i members only. Ado erty damage. For ge <b>P11 Quality Criteria</b> Component Associa	MII-7473 rev. 1 an individual bu ncorporate this ditional tempora meral guidance a and DSB-22 ation (www.sbc	2/2023 BEFOR ilding compone design into the ry and permane regarding the available from acomponents.co	E USE. nt, not overall ent bracing Truss Plate om)	Institute (v	vww.tpinst.o	rg)	818 Sound Edenton, I	A MITER Affilia A MITER Affilia deside Road NC 27932	ate

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A1	Attic	5	1	Job Reference (optional)	160372558

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) Ceiling dead load (5.0 psf) on member(s). 6-47, 47-51, 48-51, 48-50, 42-50, 12-49, 5-46; Wall dead load (5.0 psf) on member(s).12-21, 38-46, 6-46
- (a)period and the load (40.0 psf) and additional bottom chord live load (5.0 psf) applied only to room. 36-38, 34-36, 31-34, 29-31, 26-29, 24-26, 22-24, 21-22
- 12) Refer to girder(s) for truss to truss connections.
- 13) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 19. This connection is for uplift only and does not consider lateral forces.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 16) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:23 ID:mYsmblxyYcArRj?LeVX2KyzRQmV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A1GE	Attic Supported Gable	1	1	Job Reference (optional)	160372559

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:27 ID:HvYYHe4LpHmiz2Dld9nw5TzRQov-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

Under Base         Alse			-0-10-8   - 0-10-8	8-4-0 8-4-0		<u>16-3-9</u> 7-11-9	17-8-0 21-4 1-4-7 3-8- 5x6=	<u>-8 24-6</u> 8 3-2-	<u>-8 27-8</u> -0 2-1	5-8 31 1-0 3-	<u>-5-0</u> 32-9-7 11-8 1-4-7 6x8	<u>39-</u> 6-6	<u>4-4</u> -13		<u>45-2-4</u> 5-10-0		<u>53-5</u> 8-2-1	-02	-1
Loading TCLL (root)         (pst) 20.0 (pst)         Spacing Plate Grp DOL         2-0-0 1.15 (pst)         CSI TC         DEFL TC         in         (loc)         Udel IL Id         PLATES         GRIP           Sowu (P)         20.0 (TCLL         0.0 <sup>+</sup> 10.0         Plate Grp DOL         1.15 (pst)         BCL         0.0 <sup>+</sup> Vert(IT)         n/a         -         n/a         99         MT20         244/190           BCL         0.0 <sup>+</sup> 10.0         Code         IRC2018/TPI2014         Weight: 608 Ib         FT = 20%           LUMBER TOP CHORD         2x6 SP No.2 "Except" 12-18.2x4 SP No.2 S342x4 SP No.3         Sac SP No.2 "Except" 12-18.2x4 SP No.2 S342x4 SP No.3         BOT CHORD         66-66-117/180, 64-65-117/180, 64-65-117/180, 64-65-117/180, 64-65-117/180, 64-65-117/180, 64-65-117/180, 64-65-117/180, 64-65-117/180, 64-65-117/180, 64-65-117/180, 64-65-117/180, 64-65-117/180, 64-65-117/180, 64-65-117/180, 64-65-116/280, 74-61-62/200, 56-66-111/180, 64-65-116/280, 74-61-62/200, 56-66-64-17/180, 64-65-116/280, 74-61-66-64-64-17/180, 64-65-116/280, 74-61-66-64-64-64-64-64-64-64-64-64-64-64-64-	Loading TCLL (roof)         (psf) 200         Spacing Plate Grip DOL Lumber DOL E0LL         20-0 11.15         CSI TC         DEFL 0.51         in (noc)         I/deft         PLATES         GRIP           Max Sove (F)         20.0         Immer DOL Lumber DOL BCDL         0.0         Code         III.52         BC         0.51         Vert(CT)         n/a         m/a         999           Max Sove (F)         0.0         Code         III.22018/TPI2014         Matrix-MBH         Vert(CT)         n/a         m/a         999           DOP CHORD         246 SP No.2 S04 SP No.2 S04 SP No.2 S04 SP No.2         Code         III.22018/TPI2014         Max Grav         31=417 (LC 23), 32=224 (LC 44), 33=143 (LC 43), 48=71 (LC 23), 33=143 (LC 43), 48=71 (LC 23), 33=143 (LC 43), 48=71 (LC 23), 33=143 (LC 43), 48=71 (LC 23), 33=141 (LC 23), 35=156 (LC 34), 41=673 (LC 44), 41=673 (LC 44), 41=673 (LC 44), 42=105 (LC 44), 41=673 (LC 45), 42=105 (LC 44), 41=673 (LC 45), 43=36=10231, 37=4=102251, 54=58=10231, 37=4=102251, 54=58=10231, 37=4=102251, 54=38=10231, 37=4=102251, 54=38=10231, 37=4=102251, 54=38=10231, 37=4=102251, 55=7=4/132, 50=58=-17/208, 43=36=102251, 32=34=102251, 55=7=4/132, 50=58=-17/208, 44=46=110237, 43=4=102271, 55=57=4/132, 50=58=-17/208, 44=46=110237, 43=4=102187, 44=46=10237, 43=4=102187, 44=46=10237, 43=4=102187, 44=46=10237, 43=4=102187, 44=46=10237, 43=4=102187, 44=46=10237, 43=4=102187, 44=46=10237, 43=4=102187, 44=46=10237, 43=4=102187, 44=46=10237, 43=4=102187, 44=46=10237, 43=4=1021	0-8-11 0-8-11 0-0-0-2 Scale = 1:92 Plate Offset	$ \begin{array}{c} 6x8 & \text{II} & 3 \\ 1 & 2 & \text{IIII} \\ 88 & 83 \\ 66 & & & & & & \\ 4x5 = & 66 \\ x & & & & & \\ x $	5 4 86 5 64 8 6 11 3x6 11 8-4-0 0-3-0,0-2-0	$6^{-1/2}$ 4x6 = 4x5 = 8 927 84 84 84 3x 3x 55 63 62 4x5 = 14 5	9 4 6 8 3 3 6 1 8 3 3 6 1 4 - - - - - - - - - - - - -	4x8 = 12 13 10 71 8x10= 8x10= 8x10= 6009 58 56 55 4x6= 4x5= 4 3x6 II 3x5= 10k7 2 - 8 10k7 2	4x8= 14 9 14 9 14 14 14 14 14 14 14 14 14 14 14 14 14 1	3 1594	4x8= 16 69 69 69 10 10 10 10 10 10 10 10 10 10	5x6= 17 18 10 17 10 8x10= 10 8x10= 10 8x10= 10 10 10 10 10 10 10 10 10 10	20 20 20 74 300 m 73 = 4 37.6-0 4-9-12 2 , [60:0-2:	21 76 3x8 II 75 40 7 4x6 = 0 -0,0-2-0]	8x10 2223952 8 8 8 73938 3x6 4x8= 1-4 4	4 96 25 80 326 37 5-10-0 3-0,0-3	4x5x 2627 81 3x6 II 3x6 II 3x6 II 4], [71:0-3	28 929 4 33 53-5 8-2-1	30 32 0 2	31 20 40
Ladang (pa) (pa) Spacing 2.40 (pa) (pa) (pa) (pa) (pa) (pa) (pa) (pa)	Loading (pr) parts (pr) parts (pr) (pr) (pr) (pr) (pr) (pr) (pr) (pr)			(					,		DEEL		(1)	1/-141	,				
LUMBER         Max Grav         31=217 (LC 23), 32=224 (LC 44), 33=43 (LC 43), 43=211 (LC 23), 33=43 (LC 44), 44=214 (LC 23), 33=43 (LC 44), 44=214 (LC 23), 33=414 (LC 44), 44=214 (LC 23), 34=43 (LC 23), 35=414 (LC 44), 44=214 (LC 23), 35=414 (LC 44), 45=414 (LC 23), 35=414 (LC 44), 55=414 (LC 23), 35=414 (LC 44), 56=414 (LC 22), 36=414 (LC 23), 36=31-102 (LT 14), 35=414 (LC 44), 56=41 (LC 22), 36=414 (LC 44), 56=41 (LC 24), 36=414 (LC 44), 56=41 (LC 24), 36=414 (LC 24), 56=41 (LC 24), 36=414 (LC 24), 56=41 (LC 24), 36=414 (LC 24), 56=41 (LC 24), 36=414 (LC 44), 56=41 (LC 44), 36=414 (LC 44), 56=41	LUMBER TOP CHORD DC TOHORD DC	Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip D Lumber DOL Rep Stress I Code	2 OL 1 _ 1 ncr Y IF	-0-0 .15 .15 /ES RC2018/TPI2014	CSI TC BC WB Matrix-	MSH	0.51 0.15 0.51	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.02	(loc) - - 89	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 6	GF 24 08 lb FT	<b>RIP</b> 4/190 = 20%	
63=-17 (LC 14), 02=-39 (LC 14), 63=-17 (LC 11), 64=-58 (LC 14),	Continued on page 2	LUMBER TOP CHOR BOT CHOR WEBS OTHERS BRACING TOP CHOR BOT CHOR WEBS JOINTS	<ul> <li>D 2x6 SP N 53-43:2x/ 2x4 SP N No.2, 67- 2x4 SP N</li> <li>D Structura 6-0-0 oc 2-0-0 oc</li> <li>D Rigid ceil bracing.</li> <li>1 Row at 1 Brace a 55, 44, 4/ 70, 71, 7; 75, 76, 88 84, 86, 8</li> <li>S (size)</li> </ul>	lo.2 *Excep lo.2 *Excep lo.3 *Excep 19,67-11:2) lo.3 l wood shea purlins, exc purlins (3-2 ling directly midpt at Jt(s): 53, 6, 68, 69, 2, 73, 74, 0, 82, 83, 7 31=53-5-0 37=53-5-0 52=53-5-0 65=53-500 65=53-500 65=53-500 65=73-3000 75=73-730000000000000000000000000000000000	t* 12-18:2x4 S t* 57-53:2x4 S t* 11-58,19-41 t4 SP No.2 athing directly cept end vertic -15 max.): 12- applied or 10- 11-57, 19-43, 0, 32=53-5-0, 5 0, 38=53-5-0, 5 0, 58=53-5-0, 5 0, 58=53-5-0, 6 0, 66=53-5-0, 6 LC 12) C 15), 38=-47 LC 15), 42=-11 (11), 59=-194	SP No.2 SP No.3, :2x6 SP applied o aals, and 18. -0-0 oc 10-82 33=53-5-0 39=53-5-0 51=53-5-0 51=53-5-0 51=53-5-0 54=53-5-0 39=53-5-0 (LC 15), LC 15), (LC 15), 9 (LC 15), (LC 15), 9 (LC 15), (LC 39), (LC 39),	r FORCES TOP CHORD	Max Grav (lb) - Ma: Tension 1-2=0/27 4-5=-426 8-9=-736 10-11=-5 12-13=-5 20-21=-6 20-21=-6 22-24=-6 22-24=-6 22-24=-3 29-30=-2	31=217 33=143 35=205 37=155 39=659 42=105 47=118 51=109 54=230 58=637 61=191 63=442 65=118 89=217 ximum Co 7, 2-3=-41 1/163, 5-6 1/261, 9-1 1/58/306, 7 716/349, 895/689, 658/304, 57/172, 3 80/300, 2 992/259, 3 192/259, 3	(LC 23), (LC 44), (LC 44), (LC 44), (LC 44), (LC 44), (LC 44), (LC 7), (LC 7), (LC 7), (LC 7), (LC 7), (LC 22), (LC 23), (LC 42), (LC 23), (LC 42), (LC 23), (LC 42), (LC 23), (LC 42), (LC 23), (LC 42), (LC 42), (LC 23), (LC 42), (LC 42), (	32=224 (LC 4 34=211 (LC 2 36=164 (LC 2 38=128 (LC 3 41=673 (LC 4 45=246 (LC 7 49=112 (LC 7) 59=86 (LC 4 62=240 (LC 4 66=431 (LC 2 66=431 (LC 2 66=43	44), 1 23), 39), 44), 7), , , , , , , , , , , , , , , , , ,	BOT CH	ORD	65-66= 63-64= 61-62= 58-59= 54-56= 51-52= 45-49= 41-42= 38-39= 36-37= 34-35= 32-33= 35-57= 48-50= 44-46=	-117/188, -117/188, -72/393,5 -72/393,5 -28/472,5 -34/304,4 -34/415,4 -31/533,3 -19/251,3 -19/251,3 -49/251,3 -49/251,3 -41/32,50 -31/300,4 -16/237,4	64-65=-11 62-63=-72 9-61=-72/ 2-54=-26/ 9-51=-34/ 2-45=-23/ 9-41=-45/ 7-38=-19/ 3-34=-19/ 3-34=-19/ 1-32=-19/ 5-53=-17/2 6-48=-17/ 3-44=-16/ CAR SSI SSI SEAL	7/188, //393, 393, 508, 422, 304, 440, 406, 251, 251, 251, 251, 251, 251, 251, 24, 218, 187	and an and the second



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A1GE	Attic Supported Gable	1	1	Job Reference (optional)	160372559
Carter Components (Sanford), Sa	anford, NC - 27332.	Run: 8.63 S Jul 28 20	023 Print: 8.6	30 S Jul 28 2	2023 MiTek Industries, Inc. Thu Aug 24 10:26:27	Page: 2

WEBS

- 6-63=-475/82 57-58=-851/38 11-57=-903/127, 41-43=-560/31, 19-43=-726/165. 23-39=-519/141. 11-71=-23/183 68-71=-310/1944 68-72=-322/1987, 69-72=-330/2014, 69-70=-320/1975, 19-70=-119/269. 2-88=-68/351, 87-88=-73/361 86-87=-70/350, 85-86=-72/360, 63-85=-72/361, 42-43=-208/52, 56-57=-156/12.55-56=-89/0.44-45=-124/0. 54-55=-132/0, 45-46=-104/0, 53-54=-100/0, 46-47=-88/0, 52-53=-88/0, 47-48=-16/94 50-52=-16/96, 50-51=-82/0, 48-49=-80/0, 14-68=-245/63, 16-69=-225/60, 18-70=-257/1220, 12-71=-213/1237, 14-71=-828/280, 16-70=-922/328, 27-35=-193/20, 39-79=-41/301, 79-80=-37/274, 80-81=-37/275, 27-81=-39/288, 6-84=-50/369, 83-84=-50/366, 82-83=-50/364, 58-82=-51/370, 42-44=-84/0, 43-73=-66/103, 73-75=-65/105, 75-77=-66/105, 39-77=-78/104, 43-74=-21/198, 74-76=-21/208, 76-78=-21/218, 23-78=-26/244, 15-72=-206/67, 14-72=-57/409, 16-72=-69/382, 17-70=-272/92. 20-74=-28/17. 73-74=-20/30. 21-76=-66/32, 75-76=-32/17, 22-78=-55/13, 77-78=-33/25, 24-79=-131/29, 38-79=-183/14, 25-80=-105/73, 37-80=-105/73, 26-81=-154/32, 36-81=-137/36, 28-34=-171/18, 29-33=-114/102, 30-32=-151/154, 13-71=-256/74, 10-82=-55/240, 59-82=-53/231, 9-83=-150/75, 61-83=-148/75, 8-84=-207/74, 62-84=-207/75, 5-85=-22/18, 4-86=-203/131, 64-86=-246/145, 3-87=-109/124, 65-87=-75/113, 66-88=-23/30
- NOTES
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-6-8, Exterior(2N) 4-6-8 to 12-4-3, Corner(3R) 12-4-3 to 22-11-13, Exterior (2N) 22-11-13 to 26-1-3, Corner(3R) 26-1-3 to 36-6-8, Exterior(2N) 36-6-8 to 48-1-3, Corner(3E) 48-1-3 to 53-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this 5) desian.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding. 7)
- All plates are 2x4 MT20 unless otherwise indicated. 8)
- 9) Gable requires continuous bottom chord bearing.
- 10) Gable studs spaced at 2-0-0 oc.
- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf 12) on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

13) Ceiling dead load (5.0 psf) on member(s), 11-71, 68-71. 68-72, 69-72, 69-70, 19-70; Wall dead load (5.0psf) on member(s).11-57, 19-43, 38-79, 28-34 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 66, 17 lb uplift at joint 63, 9 lb uplift at joint 58, 134 lb

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- uplift at joint 39, 19 lb uplift at joint 42, 13 lb uplift at joint 35, 47 lb uplift at joint 38, 32 lb uplift at joint 37, 2 lb uplift at joint 36, 37 lb uplift at joint 33, 77 lb uplift at joint 32, 194 lb uplift at joint 59, 49 lb uplift at joint 61, 39 lb uplift at joint 62, 58 lb uplift at joint 64 and 51 lb uplift at ioint 65.
- 15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 17) Attic room checked for L/360 deflection.
- LOAD CASE(S) Standard

Page: 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design and the second design much reacting of design and the second design much reacting and and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A1GR	Attic Girder	2	2	Job Reference (optional)	160372560

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:32 ID:mYsmblxyYcArRi?LeVX2KyzRQmV-RfC?PsB70Ha3NSaPanL8w3uITXbGKWrCDoi7.14z.IC?f Page: 1

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-(	0-10-8 6-4-0	+ <u>12-2-12</u> + <u>1</u> 5-10-12 4	6-3-0 17-8-0 21-1-8 4-0-4 1-5-0 3-5-8	$\frac{3}{3}$ 24-6-8 27-5-8 3-5-0 2-11-0	3-11-8 1-4-7	<u>39-4-4</u> 6-6-13	<u>46-2-15</u> 6-10-12	<u></u>	
(	5-10-8 0 1 0	0 10 12	5x6=	000 2110	6x8×	0010	0 10 12		
			4x8 ≠	4x8= 5	5x8= 5x6=				
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<b></b>	3	54 B	3x6= 4			A	58		
1-8	A								
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10-1								15	
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		43 42 41 3	9 36 59 34	30 29 27 25	23 20 2119	18	17	16 2×4 ··· 4×6=	C
	4	-xo= 4x0= 8x10 u	3x6 u 3	$3 = 2x4 \parallel 3x5 = 3$	x5= 0x0= 12x16=	4x0=	(10=	2,74 II	
		14	1-10-8	2x4 II 8x10=					
		13-7-	-8 17-4-8	22x-βn12	32-8-4				
	6-4-0	11-1-0 12-2-12	16-1-8 18-7-8 21	-3-4 23-8-8 26-2-8 2	28-8-8 31-2-8	37-6-0 39-4-	4 46-2-15	53-5-0	
	6-4-0	4-9-0 1-1-12	1-3-00-0-41-3-0 1-4	4-12 1-4-12 1-3-0	1-3-0 1-3-0	4-9-12 1-10-4	4 6-10-12	7-2-1	
Scale = 1:95.4	(X X), [2:0.2.44.0.2.6		1-3-0 $1-3-00$ $1-2-121-2-12$		-0 1-3-0 1-3-0 0-2-12	01 [40:0 0 0 0 0	0] [45:Edge 0.0.0		
Plate Offsets (	(X, Y): [2:0-2-11,0-2-8	3], [7:0-3-0,0-2-0], [11:0 T	-3-0,0-2-0], [13:0-5-0	J,0-4-8], [19:0-7-12,E0	agej, [27:0-5-0,0-4-1	2], [43:0-3-8,0-2	-0j, [45:Edge,0-6-0	J], [46:0-3-0,0-2-4]	
Loading	(psf)	Spacing	3-0-0	CSI	DEFL	in (loc)	l/defl L/d Pl	LATES GRIP	
ICLL (root) Snow (Pf)	20.0 20.0	Plate Grip DOL	1.15 1 15	IC BC	0.65 Vert(LL) 1.00 Vert(CT)	-0.34 29-30	>999 240 M >702 180	120 244/190	
TCDL	10.0	Rep Stress Incr	NO	WB	1.00 Horz(CT)	0.10 15	n/a n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH	Attic	-0.22 21-37	>872 360		
BCDL	10.0						VV	eight: $1008 \text{ ib} + 1 = 20\%$	
	2v6 SP No 2 *Even	11 7 11 2 1 4 SP No 2	BOT CHORD	38-40=-163/430, 37	7-38=-642/330, 3-352672/0	1) 2-p	ly truss to be conn 131"v3") nails as fo	ected together with 10d	
BOT CHORD	2x6 SP 10.2 Excep 2x6 SP 2400F 2.0E	*Except* 40-32:2x4 SF	<b>b</b>	31-33=-5055/0, 28-	31=-5055/0,	(0. Toj	chords connected	d as follows: 2x6 - 2 rows	
	No.1, 15-18:2x6 SP	No.2, 32-21:2x4 SP No	0.2	26-28=-4955/0, 24-	26=-3300/464,	sta	ggered at 0-9-0 oc	, 2x4 - 1 row at 0-9-0 oc.	.+
WEB5	44-2,45-12,0-0,43-2	,21-17,21-13,45-6:2x4		43-44=-161/310, 41	1-43=-11/5073,	0-9	-0 oc, 2x6 - 2 rows	staggered at 0-9-0 oc.	at.
	SP No.2, 12-19,37-6	6:2x6 SP No.2		39-41=0/5788, 36-3	39=0/5104, 34-36=0/	6319, We	b connected as fo	lows: 2x4 - 1 row at 0-9-0 oc	, 2x6 -
TOP CHORD	2-0-0 oc purlins (5-4	4-14 max) except end	I	25-29=0/10119, 23	-25=0/6952,	2) All	loads are consider	ed equally applied to all plies	8,
	verticals			20-23=0/2762, 19-2	20=-2852/43, 16-17-0/6343	exc	cept if noted as from	to ply connections have been	LOAD
	(Switched from shee Rigid ceiling directly	eted: Spacing > 2-8-0).		15-16=0/6343	10-17=0/0343,	pro	vided to distribute	only loads noted as (F) or (B	i),
	bracing, Except:		WEBS	3-43=-1586/14, 40-	41=-582/64,	unl 2) Un	ess otherwise indic	cated.	for
	6-0-0 oc bracing: 19	)-20,17-19. S-33		19-21=-1288/376, 1	=0/1193, 12-21=-33/2069,	this	design.	Dads have been considered	101
	6-0-0 oc bracing: 38	3-40, 37-38, 35-37, 33-3	35,	13-17=-406/143, 14	4-16=0/379,	4) Wii	nd: ASCE 7-16; Vu	It=130mph (3-second gust)	· 44.
	24-26 10-0-0 oc bracing: 2	22-24 21-22		38-39=-229/688, 22	2-23=0/2583,	Ca	t. II; Exp B; Enclos	ed; MWFRS (envelope) exte	rior
JOINTS	1 Brace at Jt(s): 7,			36-38=0/1176, 23-2	24=-2484/0,	zor	ne; cantilever left a	nd right exposed ; end vertication	al left
	11, 2, 38, 22, 24, 35, 26, 33, 45, 46			34-35=0/2171, 25-2	26=-1473/0,	DC	DL=1.60	Inder DOL=1.60 plate grip	
	47, 48, 49, 50			33-34=-2031/0, 26-	27=0/535, 30-33=-3	/766,		MITTUR	
REACTIONS	(size) 15= Mech	nanical, 19=0-3-8,		27-28=-276/0, 30-3 6-49=-4186/5, 48-4	9=-36/23, 28-29=-33 9=-3495/784,	34/25,	111	TH CARO	
	44=0-5-8 Max Horiz 44=-282 (	(LC 10)		47-48=-3567/848, 4	46-47=-3567/848,		<u> </u>	LESSON N'	
	Max Uplift 19=-113	(LC 13)		12-46=-4535/7, 9-4	)-47=0/126, 8-48=0/	125,	(in	RT THE	
	Max Grav 15=3/68 36), 44=4	(LC 44), 19=2414 (LC 1937 (LC 34)		7-49=-132/815, 8-4	5=-215/662,			1 - 1 - 7 -	Ξ
FORCES	(lb) - Maximum Com	npression/Maximum		37-50=0/2118, 6-50	)-40=-2707/464, )=0/2239, 8-49=-247	2/476,	E E	SEAL	Ξ
	Tension	9/0 3-56605/0		14-17=-872/301, 2-	43=0/5334, 5-50=-5	38/15,		036322	Ξ
I OI OI OKD	5-6=-6047/0, 6-7=-2	2315/185, 7-8=-2236/12	26,	∠0-∠∠=-3709/0, 17- 13-21=-882/486	21=0/7060,			a de la compañía de l	1
	8-9=-4942/753, 9-10	)=-4942/753, 1-122104/221	NOTES				E.A.	. SNOWFER. A	3
	12-14=-6403/51, 14	-15=-7224/0,					11.8	GINER	
	2-44=-4774/37						111	A. GILD	
								August 25,2023	

MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not
 a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall
 building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing
 is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the
 fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org)
 and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A1GR	Attic Girder	2	2	Job Reference (optional)	160372560

- 5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 8) Provide adequate drainage to prevent water ponding.
- 9) All plates are 4x5 MT20 unless otherwise indicated.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 12) Ceiling dead load (5.0 psf) on member(s). 6-49, 48-49, 45-48, 45-47, 46-47, 12-46, 5-50; Wall dead load (5.0 psf) on member(s).12-21, 37-50, 6-50
- (3) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 35-37, 33-35, 31-33, 28-31, 26-28, 24-26, 22-24, 21-22
- 14) Refer to girder(s) for truss to truss connections.
- 15) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 19. This connection is for uplift only and does not consider lateral forces.
- 16) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 18) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

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WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A2	Attic	3	1	Job Reference (optional)	160372561

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:34 ID:DGN6a6f8caCKWpHw1clz1BzRCZx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



August 25,2023



Continued on page 2 Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE WARNING Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall bilding design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A2	Attic	3	1	Job Reference (optional)	160372561

- Provide adequate drainage to prevent water ponding. 7)
- All plates are MT20 plates unless otherwise indicated. 8)
- 9) This truss has been designed for a 10.0 psf bottom
- chord live load nonconcurrent with any other live loads. 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom
- chord and any other members, with BCDL = 10.0psf. 11) Ceiling dead load (5.0 psf) on member(s). 5-39, 39-42, 41-42, 41-43, 40-43, 11-40; Wall dead load (5.0psf) on
- member(s).5-34, 11-20 12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 32-34, 30-32, 27-30, 25-27, 23-25, 21-23, 20-21
- 13) Refer to girder(s) for truss to truss connections.
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 278 lb uplift at joint 14. 15) This truss is designed in accordance with the 2018
- International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 17) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

Run: 8,63 S Jul 28 2023 Print: 8,630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:34 ID:DGN6a6f8caCKWpHw1clz1BzRCZx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCB Building Component Science Michael Component Advancement description (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A2GR	Attic Girder	1	4	Job Reference (optional)	160372562

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:36 ID:VIY0g5gMUgwQZRyxiBXYItzRA\_f-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

-(	0-10-8 	<u>8-4-0</u> 8-4-0		<u>6-3-9</u> -11-9	17-8-0 <u>21-4-8</u> 1-4-7 3-8-8	<u>24-6-8</u> 27 3-2-0 2-1	- <u>5-8 3</u> 1-0 3	<u>1-5-0</u> 32-9-7 -11-8 1-4-7	<u>39-4</u> 6-6-	- <u>4</u> 13	45-2- 5-10-	- <u>4</u> -0	53-5-0 8-2-12	
	5x8 = 1 38 4x5=	8-4-0	$6^{12}$ $4x6 =$ $4x5 =$ $4x5 =$ $4x6 =$ $4x5 =$ $4x6 =$ $4x6$	-11-9 5 8= MT2 16-1-12 <sup>1</sup>	1-4-7 3-8-8 5x6= 4x8 ≠ 6 43 5x6 ⊪ 43 5x6 ⊪ 34 35 33 31 0HS 10x12 ⊪ 4x5= 4x5 3x5= 17-7-8 21- 16-4-8 20-1.8	3-2-0 2-1 4x8= 7 49 850 0-60 2x4 II 40 39 2x4 II 40 39 2x4 II 5x6= 22825 29 2726 4x5= 2x4 II 5x6= 22825 24-9,12 4-8 24-0-4 <sup>3</sup> x5= 22-7-8 26-2	1-0 3 4x8= 9 41 2x4 = 123 5 24 2 41 2x4 = 123 5 24 2 4 3x5= 27-5-828-8	-11-8 1-4-7 6x8 5x6= 10 42 5x6= 10 42 5x6= 10 1 1 42 5x6= 10 1 1 42 5x6= 10 1 1 42 5x6= 10 1 5x6= 10 1 5x6= 10 1 5x6= 10 1 1 1 5x6= 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6-6- 3× 1 5= 4 37-6-0	8x1 8x1 17 17 17 4x6= 6x 39-4-4	5-10- 10 = 1251 52 6 8= 45-2-	4x5 13 15 2x4 II	8-2-12 53-5-0	 140-⊟ 4x6=
Scale = 1:92.7	,	8-4-0	3-1-8	4-8-4 (	)-2-12 1-3-0 1-3-0 1-3 2-01 [1039-03-0 0	1-3-0 0-9-8 3-0 1-4-12 -2-01 [12:0- <b>4-</b> 646	1-3-0 1 1-3-0 1-3-0	-3-0 1-3-0 ) 1-3-0	4-9-12 2[16:0-2-8	1-10-4	5-10- 8-0-8-0 0-	0 2-81 [24·0-5-0	8-2-12	<b>⊣</b>
Plate Offsets	(X, Y): [30:0	0-3-0,0-3-0	], [35:0-2-4,0-2-8] ]	, [0:0-3-0,0- , [37:0-5-4,0	)-3-0], [39:Edge,	0-6-0], [12:0-3-0,0 0-6-0], [42:0-3-0	,0-2-4]		÷[10.0-2-0	5,0-2-0], [1		2-0j, [24.0-5-0	,0-4-0],	
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC20	18/TPI2014	<b>CSI</b> TC BC WB Matrix-MSH	0.92 0.81 0.98	DEFL Vert(LL) Vert(CT) Horz(CT) Attic	in -0.44 3 -0.67 3 0.10 -0.22 2	(loc) l/d 85-37 >8 85-37 >5 14 20-34 >8	defl L/d 387 240 582 180 n/a n/a 395 360	PLATES MT20 MT20HS Weight: 197	<b>GRIP</b> 244/190 187/143 '9 lb FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD JOINTS	2x6 SP N 2x6 SP 2 No.2, 30- 2x4 SP N No.2, 39- Structura 6-0-0 oc   2-0-0 oc   Rigid ceil bracing, 6-0-0 oc   10-0-0 oc 1 Brace a 32, 21, 2: 41, 43	o.2 *Excep 400F 2.0E · 20:2x4 SP o.3 *Excep 11,37-2,39· I wood shea burlins, exc burlins (6-0) ing directly Except: bracing: 18 bracing: 2 bracing: 2 tt Jt(s): 30, 3, 39, 40,	t* 6-10:2x4 SP No *Except* 34-30:2x No.1 t* 5-35,11-18:2x6 -5,20-16:2x4 SP N athing directly app cept end verticals -0 max.): 6-10. applied or 10-0-0 -19. -34, 30-32 3-30, 21-23, 20-2	E 5.2 K4 SP No.2 Dilied or , and oc V	30T CHORD 3 2 3 3 3 3 3 3 3 3 2 2 1 1 1 1 1 5 5 4 1 1 1 1 5 4 1 1 1 5 5 1 1 1 5 5 1 1 1 1	2-34=-2492/363 5-28=-987/3106 2-28=-979/9222 3-35=-1521/17, 9-31=-394/1709 26-27=0/13714, 2 9-22=-105/5346 6-18=-507/2072 4-15=-882/1514 4-37=-3357/282, 5-43=-14189/29 9-20=-0/3247, 33 22-33=-465/052	, 28-32=, , 23-25=, , 20-21=- 35-37=-1 87, 31-33 1, 27-29 22-26=0/1 , 18-19=- , 15-16=- 5 34-35=-6 18-20=-6 , 12-16=- , 40-43=- 1, 41-42= 8, 2-37=- 8-34=0/18 21-22=0/	1112/784, 988/4611, 758/14853, 559/19044, 1=-932/18577, 0/13714, 3714, 1115/33, 882/15145, 24/8640, 52/5890, 1805/154, 13255/665, 13019/763, 881/14628, 136, 2692, 2325/0	1) 2) 3)	<ul> <li>4-ply tri (0.131" Top cho stagger Bottom 0-5-0 o Web cc 3 rows</li> <li>2 rows</li> <li>2 rows</li> <li>2 rows</li> <li>All load except CASE(: provide unless</li> <li>Unbala this dest</li> </ul>	uss to be c x3") nails a ords conne- red at 0-9-1 chords co c, 2x6 - 2 1 onnected a staggered s staggered s staggered BC w/ 1/2" of the men Is are cons if noted as S) section. d to distrib otherwise nced roof I sign.	onnected toga as follows: acted as follow 0 oc, 2x4 - 1 rr nnected as follow 0 ows staggere s follows: 2x4 at 0-5-0 oc, E d at 0-5-0 oc, E d at 0-5-0 oc, E diam. bolts ( <i>A</i> ber w/washer idered equally front (F) or ba Ply to ply com ute only loads indicated. ive loads have	ether with 10d vs: 2x6 - 2 rows ow at 0-9-0 oc. llows: 2x4 - 1 row at 0-9-0 c xcept member 11 ASTM A-307) in th s at 4-0-0 oc. v applied to all plivack (B) face in the inections have be a noted as (F) or ( be been considere	e at bc, 2x6 - I-18 2x6 ne es, ∋ LOAD ien B), d for
REACTIONS FORCES TOP CHORD	(size) Max Horiz Max Uplift Max Grav (lb) - Max Tension 1-2=0/27, 3-5=-184 6-7=-300 8-9=-443 10-11=-3 13-14=-1	14=0-4-2, 38=-188 ( 14=-477 ( 45), 38=-7 14=8267 ( 38=11599 imum Com 2-3=-1589 79/1233, 5- 6/308, 7-8= 9/685, 9-10 595/367, 11 7074/1063,	18=0-5-8, 38=0-5 LC 10) LC 12), 18=-4189 798 (LC 12) (LC 46), 18=718 ( 0 (LC 46) pression/Maximu 96/1081, -6=-2848/319, -4439/685, =-3155/325, 1-13=-18196/1263, 2-38=-11556/835	5-8 (LC LC 12), m 3, <b>N</b>	3 2 2 2 9 7 7 7 7 1 1 1 1 3 3 NOTES	11-32=-1116/356 10-31=-282/643, 19-30=-1186/206 18-29=-281/2730 15-26=-25/612, 8 1-41=0/308, 10-4 1-9/308, 10-4 1-9/308, 10-4 1-39=-727/74, 6- -743=-1985/358, 3-15=-172/161, 9-21=-3975/0, 1 2-20=-149/1716 1-34=-166/2771	, 22-23=- 23-24=-1 , 24-25=- , 27-28=- -39=-37/2 2=-166/2 43=-83/6 9-42=-21 13-16=-3 6-20=-42 , 34-37=-	3235/0, 0/2231, 1785/1, 1314/99, 285, 7-40=0/27 185, 9-39=-91 35, 6/1/371, 15/315, 6/13384, 4654/585,	74, 6/82,		Contraction of the second	SE 036 SE 036 SE	ARO SIDE SIDE SIDE SIDE SIDE SIDE SIDE SIDE	and an an an an

August 25,2023



Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and RCSI Building Component Safety (Information available from the Structural Building Component Association (www shearcomponent Safety (Information available from the Structural Building Component Association (www shearcomponent Safety (Information available from the Structural Building Component Association (www shearcomponent Association) (www shearcomponent Association) (wow shearco and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A2GR	Attic Girder	1	4	Job Reference (optional)	160372562

Run: 8,63 S Jul 28 2023 Print: 8,630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:36

ID:VIY0g5gMUgwQZRyxiBXYItzRA\_f-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

Carter Components (Sanford), Sanford, NC - 27332,

- 4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 8) Provide adequate drainage to prevent water ponding.
- 9) All plates are MT20 plates unless otherwise indicated.
- 10) All plates are 4x5 MT20 unless otherwise indicated.11) This truss has been designed for a 10.0 psf bottom
- chord live load nonconcurrent with any other live loads.
  12) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Ceiling dead load (5.0 psf) on member(s). 5-43, 40-43, 39-40, 39-41, 41-42, 11-42; Wall dead load (5.0psf) on member(s).5-34, 11-20
- 14) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 32-34, 30-32, 28-30, 25-28, 23-25, 21-23, 20-21
- 15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4189 lb uplift at joint 18.
- 16) LGT4-SDS3 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 38. This connection is for uplift only and does not consider lateral forces.
- 17) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14. This connection is for uplift only and does not consider lateral forces.
- 18) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 20) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 21) LGT4 Hurricane ties must have four studs in line below the truss.
- 22) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 608 lb down and 52 lb up at 28-7-12, and 10004 lb down and 851 lb up at 16-0-3 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.
- 23) Attic room checked for L/360 deflection.
- LOAD CASE(S) Standard
- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (lb/ft) Vert: 1-2=-60, 2-6=-60, 6-10=-60, 10-14=-60, 20-34=-30, 38-44=-20, 5-43=-10, 40-43=-10, 39-40=-10, 39-41=-10, 41-42=-10, 11-42=-10 Drag: 5-34=-10, 11-20=-10 Concentrated Loads (lb)

Vert: 35=-5366 (F), 53=-326 (F)



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Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A3	Attic	4	1	Job Reference (ontional)	160372563

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:38 ID:h5TFO2tlZyfWTvVspKto8\_zRQij-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

	<u>8-4-0</u> 8-4-0	<u>16-1-12</u> 7-9-12	17-8-0 <u>21-4-8</u> 1-6-4 3-8-8 5x6=	<u>24-6-8</u> 27-4-8 31-5 3-2-0 2-10-0 4-0	5-0 32-9-3 36-9-737 -8 1-4-3 4-0-4 0-8 6x8≈	-6-4 45-3-2 	53-5-0 8-1-14	<u> </u>
III	бх8 # 1 1 1 20HS 8x12 ш	$6^{12}$ 4x6 = $23^{55}$ $42^{61}$ $42^{61}$ $41^{6}$ 6x8 = 4x6 =	4x8 = 5 4 45 5x6 II 37 40 38 62 36 3x5= 10x12=	5x8= 2x4 II 5x8= 6 56 757 8 4 19-97 48 47 49 2x4 II 5x8= 7 1 5x8= 7 1 1 19-97 1 19	5x6= 9 10 3x 46 5x6 = 46 5x6 = 44 5x6 = 45 5x6 = 45 5x6 = 45 5x6 = 45 5x6 = 45 5x6 = 45 5x6 = 45 5x6 = 45 5x6 = 5x6 = 5x7 = 5x7 = 5x7 = 5x	2x4 II t5= 142 4x6 × 58 13 59 10 10 17 12x16= =	14 60 16 2x4 II	
Scale = 1:95.5	<u>8-4-0</u> 8-4-0	<u>13-11-0</u> 16- 5-7-0 2-2	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	224 <b>u</b> 429 <b>u</b> 22-7-8 25-3-4 28-7-8 3 4-823-10-8 27-2-12 29-9 <b>u</b> 3-0 1-3-0 1-11-8 1-1- 1-3-0 1-4-12 1-4-12 1 1-3-0 1-4-12 1-4-12 1	<sup>3x5=</sup> 3; 10-8 8; 31-3-4 33-7-8 37-4 -0 32-8-4 36-1-8 -1 -1 -5-0 1-30 -4-12 0-11-4 1-3-00 -0 -1-2 0-2-01 29-03	7-6-4 7-6-0 4-8 4-5-3-2 -0 7-8-14 -1-18 -0 -0 -1-18 -0 -0 -1-18 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	53-5-0 8-1-14	
Plate Offsets (	[3:0-3-0,0-2-0], [X, Y): [45:0-3-0,0-2-4]	[9.0-3-0,0-2-0], [13.Edge ], [46:0-3-0,0-2-0]	,0-0-7], [17.0-0-0,		.0-1-12,0-2-0], [23.0-3	-0,0-3-0], [33.0-3-4	,0-3-0], [42.0-3-8,0-3-6	J,
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing2-CPlate Grip DOL1.1Lumber DOL1.1Rep Stress IncrYECodeIR	0-0 15 15 15 15 15 15 15 15 15 15 15 15 15	CSI           TC         0.80           BC         1.00           WB         0.87           Matrix-MSH	DEFL         in           Vert(LL)         -0.39           Vert(CT)         -0.66           Horz(CT)         0.13           Attic         -0.25	(loc) l/defl 35-37 >999 2 35-37 >592 7 15 n/a 22-39 >816 3	L/d <b>PLATES</b> 240 MT20 180 MT20HS n/a 360 Weight: 498 lb	<b>GRIP</b> 244/190 187/143 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS	2x6 SP No.2 *Excep 2x6 SP No.2 *Excep 41-27:2x6 SP 2400F 2400F 2.0E 2x4 SP No.3 *Excep 4-40,23-22,22-10,22	t* 5-9:2x4 SP No.2 t* 39-33:2x4 SP No.2, 2.0E, 33-19:2x4 SP t* -44:2x6 SP No.2, 0-2	TOP CHORD	1-2=-3662/0, 2-4=-3704/0 5-6=-1510/78, 6-7=-3324 7-8=-3324/487, 8-9=-133 9-10=-1514/147, 10-11=- 11-12=-3597/1, 12-14=-3 14-15=-4074/0, 1-43=-26 42-43=-102/218, 40-42=- 38-40=-0/3189, 36-38=0/4	), 4-5=-1619/112, /487, 6/125, 3715/0, 525/0, 96/48 7/3208, .663, 34-36=0/5552.	<ol> <li>Unbalanced n this design.</li> <li>Wind: ASCE 7 Vasd=103mpl Cat. II; Exp B; zone and C-C 5-5-14 to 10-1 Interior (1) 38</li> </ol>	oof live loads have be 7-16; Vult=130mph (3- h; TCDL=6.0psf; BCD ; Enclosed; MWFRS ( Exterior(2E) 0-1-12 tr 1-6, Exterior(2R) 10-1- -11-10 to 48-0-14. Ext	en considered for second gust) L=6.0psf; h=25ft; envelope) exterior 5 5-5-14, Interior (1) 6 to 38-11-10, erior(2E) 48-0-14 to
BRACING TOP CHORD BOT CHORD	Structural wood shea 3-1-7 oc purlins, exc 2-0-0 oc purlins (2-1 Rigid ceiling directly bracing. Except:	athing directly applied or cept end verticals, and 1-7 max.): 5-9. applied or 2-2-0 oc		32-34-0/5253, 30-32-0/4 25-28=-1202/1630, 23-25 21-23=-3286/434, 18-21= 16-18=0/3567, 15-16=0/3 35-37=-2362/0, 31-35=-2 29-31=-1824/1013, 26-29	495, 28-30=0/4495, i=-2103/851, 861/465, 1567, 37-39=-762/0, 971/1013, 1=-627/2039, 1567, 157, 156, 156, 156, 156, 156, 156, 156, 156	<ul> <li>53-5-0 zone; (vertical left an forces &amp; MWF DOL=1.60 pla</li> <li>3) TCLL: ASCE Plate DOL=1.</li> </ul>	cantilever left and righ ad right exposed;C-C f FRS for reactions show the grip DOL=1.60 7-16; Pr=20.0 psf (roo 15); Pf=20.0 psf (Lum	f LL: Lum DOL=1.15 DOL=1.15 Plate
WEBS	3-0-0 oc bracing: 33- 3-7-0 oc bracing: 35- 6-0-0 oc bracing: 37- 10-0-0 oc bracing: 20 19-20 1 Row at midpt	-35 -37 -39 6-33, 22-26, 20-22, 2-40, 12-17, 14-17, 4-48,	WEBS	24-26=-91/4531, 22-24=( 20-22=0/5189, 19-20=0/1 2-42=-591/70, 2-40=-183 4-39=0/1045, 17-19=0/65 14-17=-806/320, 14-16=( 4-45=-2169/11, 45-48=-1	%6053, 936 /303, 39-40=0/393, /6, 12-19=-419/21, //299, 611/791,	<ul> <li>DOL=1.15); Is Cs=1.00; Ct='</li> <li>Unbalanced s design.</li> <li>Provide adequ</li> <li>All plates are</li> </ul>	s=1.0; Rough Cat B; F 1.10 now loads have been uate drainage to preve MT20 plates unless of	ully Exp.; Ce=0.9; considered for this ent water ponding. therwise indicated.
JOINTS	1 Brace at Jt(s): 20,	10-49		47-48=-1611/791, 47-49= 46-49=-1627/850, 10-46= 1-42=0/3260, 18-19=-219	1645/844, 2243/40, 92/0, 38-39=0/963,	7) All plates are	4x5 MT20 unless othe	ROULING ROULING
REACTIONS	47, 48, 49 (size) 15= Mech 43=0-5-8 Max Horiz 43=-191 (I Max Uplift 23=-118 (I Max Grav 15=2177 ( 37), 43=21	anical, 23=0-5-8, LC 12) LC 15), 43=-6 (LC 14) LC 45), 23=2239 (LC 828 (LC 35)		18-20=-62/1872, 37-38=- 20-21=-1979/14, 36-37=- 35-36=-625/65, 34-35=-2 25-26=-2227/0, 33-34=-4 26-28=0/1829, 32-33=-10 28-29=-2149/0, 31-32=0/ 22-23=-1009/399, 22-44= 10-44=-88/1258, 21-22=-	1209/0, 64/685, 07/103, 8/670, 233, 29-30=0/601, 195/1230, 9/1161	Winner	SEA 0363	
FORCES	(lb) - Maximum Com Tension	pression/Maximum	NOTES	11-44=-260/276, 5-45=-6 9-46=-60/698, 7-47=-171. 8-49=0/74, 6-45=-1684/3. 8-47=-86/340, 8-46=-189 23-24=-1995/0	6/629, (65, 6-48=0/73, 25, 6-47=-120/377, 8/322, 24-25=0/826,	and the second sec	A. G August	E.P

Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design in the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A3	Attic	4	1	Job Reference (optional)	160372563

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) Ceiling dead load (5.0 psf) on member(s). 4-45, 45-48, 47-48, 47-49, 46-49, 10-46, 11-44; Wall dead load (5.0 psf) on member(s).4-39, 22-44, 10-44
- (1) Bottom chord live load (30.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 37-39, 35-37, 33-35, 31-33, 29-31, 26-29, 24-26, 22-24
- 12) Refer to girder(s) for truss to truss connections.
- 13) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 43 and 23. This connection is for uplift only and does not consider lateral forces.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 16) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:38 ID:h5TFO2tlZyfWTvVspKto8\_zRQij-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2



Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A3GE	Attic Supported Gable	1	1	Job Reference (optional)	160372564

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:40 ID:8kdnaNVfrXy7X5iJovJ26tzRBB2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

	<u>8-4-0</u> 8-4-0	<u> </u>	17-8-0 21-4-8 1-4-7 3-8-8 5x6=	<u>3 24-6-8 27-5</u> 3-2-0 2-11	<u>-8 31-5-0 32-9-7</u> -0 3-11-8 1-4-7 6x8,	<u>39-4-4</u> 6-6-13	45-2-4 5-10-0	<b> </b>	53-5-0 8-2-12
11-8-0 1 1 2-10-0 1	91 6x8 II 2 6x8 II 2 86 86 86 85 85 84 3x6 II 3x6 II	$6^{12}$ 4x6 = 4x5 = 8 $9^{2}6^{3}$ $3^{6}$ 8 $3^{6}$ 8	4x8 = 11 12 9 7 8x10= 8x1	4x8= 13 94 1495 68 66 67 68 66 67 68 66 67 68 52 51 6948 46 55 4x5= 3x5= 5x6= 3x5×8= 2 2 7 824 0 1385	4x8 = 5x6 = 15 16 17 69 70 69 70 69 8x10 = 8x10 =	3 19 20 8 20 8 20 8 20 8 20 8 20 8 20 9 20 8 20 9 20 8 9 20 8 9 20 20 9 20 9 20 9 20 9 20 9 20 9 20 9 20 9 20 9 20 9 20 10 10 10 10 10 10 10 10 10 1	10 ≈ <b>22</b> 9723 98 24 <b>1</b> 9 <b>3</b> 86 <b>3</b> x6 ॥ x8=	4x5 2526 3x6 3x6 3x6 3x6 3x6 3x6 3x6 3x	998 29 30.50 32 31 4x5=
Scale = 1:90.8	⊢ <u>8-4-0</u> 8-4-0	<u> </u>	16-1-12 18-10-8 21 16-1-12 18-10-8 21 1-10-4 1-3-0 1- 0-2-12 1-3-0 1-3-0	-4-8 24-0-426-2-8 + + + + + -3-0 1-4-121-4-12 1-3-0 0-9-8 1	3 28-8-8 31-2-8 + + + + H 2 1-3-0 1-3-00-2-12 -3-0 1-3-0 1-3-0	37-6-0 39-4-4 2 4-9-12 1-10-4	4 45-2-4 4 5-10-0	 	53-5-0 8-2-12
Plate Offsets (	(X, Y): [11:0-3-0,0-2-0	)], [17:0-3-0,0-2-0], [2:	2:0-5-0,0-4-8], [42:0-2	-8,0-2-8], [46:0-5-0	,0-4-8], [52:0-3-0,0-3-0	], [59:0-2-0,0-2-0],	[70:0-3-0,0-3	8-4], [71:0-3-0	,0-3-0]
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	<b>CSI</b> TC BC WB Matrix-MSH	0.50 <b>DEFL</b> Vert(LL) 0.13 Vert(TL) 0.50 Horiz(TL)	in (loc) n/a - n/a - 0.01 88	l/defl L/d n/a 999 n/a 999 n/a n/a	PLATES MT20 Weight: 606	<b>GRIP</b> 244/190 Ib FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD WEBS JOINTS	2x6 SP No.2 *Excep 2x6 SP No.2 *Excep 39-46,46-59:2x6 SP SP No.1 2x4 SP No.3 *Excep No.2, 66-18,66-10:2 2x4 SP No.3 Structural wood she 6-0-0 cc purlins, ex 2-0-0 cc purlins (3-2 Rigid ceiling directly bracing. 1 Row at midpt 1 Brace at Jt(s): 52, 54, 43, 45, 67, 68, 69, 70, 71, 72, 73, 74, 75, 79, 81, 82, 83, 85, 86	oft* 11-17:2x4 SP No.2 1* 56-52:2x4 SP No.2 2400F 2.0E, 52-42:2 oft* 10-57,18-40:2x6 S ix4 SP No.2 acthing directly applied iccept end verticals, ar 2-4 max.): 11-17. / applied or 10-0 oc 10-56, 18-42, 9-81	2 2, 2x4 SP do or nd s <b>FORCES</b> TOP CHORD	Max Grav 30=22 32=14 34=21 36=15 38=64 41=10 46=12 50=10 53=22 57=62 60=19 62=44 64=13 88=22 (lb) - Maximum C Tension 1-2=-426/82, 2-3 4-5=-410/124, 5- 8-9=-716/210, 9- 10-11=-995/173, 12-13=-1685/295	2 (LC 22), 31=223 (LC 3 (LC 43), 33=212 (LC 2 (LC 38), 35=167 (LC 7 (LC 1), 37=140 (LC 3 0 (LC 43), 40=669 (LC 1 (LC 43), 44=244 (LC 1 (LC 7), 48=110 (LC 7 7 (LC 7), 51=128 (LC 7 6 (LC 7), 55=161 (LC 7 9 (LC 38), 58=87 (LC 4 1 (LC 41), 61=239 (LC 7 (LC 21), 63=309 (LC 1 (LC 47), 65=367 (LC 2 (LC 22) compression/Maximum =-417/94, 3-4=-443/11: 7=-736/174, 7-8=-757/ 10=-580/215, 11-12=-1685/295, 1, 13-14=-2904/563.	43), BOT CHC 22), 22), 43), 7), 7), 7), 7), 21), 21), 21, 21, 21, 21, 21,	DRD 64-65: 62-63: 57-58: 50-51: 44-48: 40-41: 37-38: 35-36: 33-34: 31-32: 54-56: 47-49: 43-45:	108/196, 6: 108/196, 6: 71/389, 58- 71/389, 55- 30/57, 48- 38/357, 48- 38/460, 41- 34/578, 38- 20/257, 36- 20/257, 32- 20/257, 32- 20/257, 32- 20/257, 32- 20/257, 32- 21/25, 45- 21/208, 42-	8-64=-108/196, -62=-71/389, 60=-71/389, 57=-72/629, 53=-28/469, 50=-38/357, 44=-25/486, 40=-49/453, 37=-20/257, 35=-20/257, 31=-20/257, 31=-20/257, 4=-15/195, 47=-15/197, 43=-14/158
REACTIONS	(size) 30=53-5- 33=53-5- 36=53-5- 40=53-5- 46=53-5- 57=53-5- 61=53-5- Max Horiz 65=-191 ( Max Uplift 31=-75 (L 34=-14 (L 36=-33 (L 38=-119 ( 62=-23 (L 64=-52 (L	0, $31=53-5-0$ , $32=53-$ 0, $34=53-5-0$ , $38=53-$ 0, $41=53-5-0$ , $48=53-$ 0, $41=53-5-0$ , $44=53-$ 0, $48=53-5-0$ , $50=53-$ 0, $63=53-5-0$ , $60=53-$ 0, $62=53-5-0$ , $63=53-$ 0, $62=53-5-0$ , $88=53-$ (LC 12) LC 15), $32=-37$ (LC 16 LC 11), $35=-6$ (LC 15) LC 15), $37=-41$ (LC 11 (LC 15), $41=-25$ (LC 1 LC 14), $68=-63$ (LC 12 LC 14), $63=-63$ (LC 14) LC 14), $65=-50$ (LC 10)	5-0, 5-0, 5-0, 5-0, 5-0, 5-0, 5-0, 5-0, 5-0, 5-0, 5-0, 5), ), 1), 15), 38), 4), 4), 0)	14-15=-2904/563 16-17=-1655/303 18-19=-666/208, 20-21=-725/185, 23-24=-561/134, 25-26=-511/104, 27-28=-299/62, 2 29-30=-302/40, 1	, 15-16-1655/303, , 15-16-1655/303, , 17-18=-954/172, 19-20=-701/207, 21-23=-710/171, 24-25=-565/122, 26-27=-317/75, 8-29=-303/50, -65=-339/52		and a second sec	SE 036 A. Aug	AROKANI EAL 5322 NEER. HUMANI GILBERTUM
Continued on WARM Design	I page 2 NING - Verify design paramete valid for use only with MiTek system. Before use, the build	ers and READ NOTES ON T ® connectors. This design i ding designer must verify th	THIS AND INCLUDED MITER is based only upon parametr e applicability of design para	KREFERENCE PAGE MI ers shown, and is for an ameters and properly inc	I-7473 rev. 1/2/2023 BEFORE individual building componer orporate this design into the	: USE. it, not overall			

a duss system. Betole use, the building designer must vering the applicationity of design parameters and property incorporate runs design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSR-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A3GE	Attic Supported Gable	1	1	Job Reference (optional)	160372564

Run: 8.63 S. Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:40

Page: 2

Carter Components (Sanford), Sanford, NC - 27332,

WEBS

5-62=-479/55. 56-57=-847/21. 10-56=-891/125, 40-42=-551/33, 18-42=-719/150, 22-38=-510/112, 10-71=-27/190, 68-71=-311/1927, 67-68=-307/1907, 67-69=-330/1997, 69-70=-319/1960, 18-70=-129/203, 1-87=-76/367.86-87=-80/376. 85-86=-77/365, 84-85=-79/375, 62-84=-80/376, 41-42=-208/56, 55-56=-139/11. 54-55=-94/0. 43-44=-122/0. 53-54=-127/0, 44-45=-101/0, 52-53=-96/0, 45-46=-91/0, 51-52=-91/0, 46-47=-14/78, 49-51=-14/81, 49-50=-75/0, 47-48=-72/0, 14-67=-226/65, 13-68=-230/60, 15-69=-220/59, 17-70=-220/1218, 15-67=-98/390, 13-67=-94/471, 11-71=-201/1197, 13-71=-866/213, 15-70=-929/243, 26-34=-200/21, 38-78=-41/314, 78-79=-38/286, 79-80=-38/286, 26-80=-40/299, 5-83=-51/375, 82-83=-51/371, 81-82=-51/370, 57-81=-51/376, 41-43=-86/0, 42-72=-84/79, 72-74=-82/78, 74-76=-83/78, 38-76=-96/83, 42-73=-20/198, 73-75=-20/208, 75-77=-20/218, 22-77=-25/243, 16-70=-274/78, 19-73=-26/18, 72-73=-15/33, 20-75=-66/29, 74-75=-32/16, 21-77=-62/11, 76-77=-38/19, 23-78=-131/17, 37-78=-185/14, 24-79=-105/65, 36-79=-104/65, 25-80=-158/18, 35-80=-140/22, 27-33=-173/7, 28-32=-114/66, 29-31=-151/85, 12-71=-214/58 9-81=-55/238, 58-81=-53/229, 8-82=-151/65, 60-82=-148/65, 7-83=-207/61, 61-83=-207/62, 4-84=-21/16, 3-85=-200/92. 63-85=-244/100, 2-86=-125/78, 64-86=-93/78, 65-87=-13/16

#### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 5-5-14, Interior (1) 5-5-14 to 10-1-6, Exterior(2R) 10-1-6 to 38-11-10, Interior (1) 38-11-10 to 48-0-14, Exterior(2E) 48-0-14 to 53-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- 9) Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Ceiling dead load (5.0 psf) on member(s). 10-71, 68-71, 67-68, 67-69, 69-70, 18-70; Wall dead load (5.0psf) on member(s).10-56, 18-42, 37-78, 27-33

- ID:8kdnaNVfrXy7X5iJovJ26tzRBB2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 65, 23 lb uplift at joint 62, 42 lb uplift at joint 57, 119 lb uplift at joint 38, 25 lb uplift at joint 41, 14 lb uplift at joint 34, 41 lb uplift at joint 37, 33 lb uplift at joint 36, 6 lb uplift at joint 35, 37 lb uplift at joint 32, 75 lb uplift at joint 31, 191 lb uplift at joint 58, 40 lb uplift at joint 60, 43 lb uplift at joint 61, 63 lb uplift at joint 63 and 52 lb uplift at joint 64.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 16) Attic room checked for L/360 deflection.
- LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSUTPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A3GR	Attic Girder	1	2	Job Reference (ontional)	160372565

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:44 ID:h5TFO2tlZyfWTvVspKto8\_zRQij-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

	<u>8-4-0</u> 8-4-0	<u>  16-1-12</u> 7-9-12	17-8-0 21-4-8 1-6-4 3-8-8 5x6= 4x8 =	<u>24-6-8</u> 27-4-8 3-2-0 2-10-0 4x8= 2x4 II 5x8 6 54 755 8	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	<u>-9-7 37-6-4</u> 1 1 0-4 0-8-13	<u>45-3-2</u> 7-8-14	53-5-( 8-1-14	)  ↓
11-8-0	5x6 = 2 3	$6^{2}$ $4x6 = x^{2}$ $3x = 10^{2}$ 42 = 58 $5x6 = 10^{2}$	4 49 5x6 II 39 41 40 38 59 36 4x6 = 3x5 = 10x12 =	47 46 48 2x4 II 5x8= 35 33 32 29 34 31 30 3x5= 5x10= 2x4 II 2x4 II	45 5x6 1 388 1 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	2x4 II 3x5= 112 20 18 20 18 17 3x5= 12x16= 5x6=	x6 = 13 56	14 6 6 64 II	0-0
Scale = 1:95.5 Plate Offsets (	<u>8-4-0</u> 8-4-0 X, Y): [5:0-3-0.0-2-0],	13-11-0 5-7-0 [9:0-3-0.0-2-0], [15:E	17-7-8 16-4-8 20-1-8 16-1-12 18-10-821- 	22-7-8 25-3-4 28- 4-823-10-8 27-2-12 3-0 1-3-0 1-11-8 1-3-0 1-4-12 1-4 0.0-5-01, [22:0-5-0.0-2-	* 3x5= 34-11 29-10-8 328/100 7-8 31-3-4 33-7-8 29-9-0 32-8-4 1 + 1 1-1-8 1-5-0 1-3 -12 1-4-12 0.8-8 0 - 18 0 2 12 81, 133:0-3-4.0-3-01,	$\begin{array}{cccc} 0-8 & 37-6-4 \\ & 37-6-0 \\ 37-4-8 \\ \hline & & \\ -8 \\ \hline & & \\ -0 & 1-3-0 \\ \hline & 1-3-0 \\ 1-3-0 \\ 0-4 \\ \hline & \\ -45:0-3-0,0-2-4 \\ \end{array}$	45-3-2 7-8-14	<u>53-5-0</u> 8-1-14	)1  1
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	3-0-0 1.15 1.15 NO IRC2018/TPI2014	CSI TC BC WB Matrix-MSH	0.51 Vert(LL) 0.79 Vert(CT) 0.65 Horz(CT) Attic	in (loc) -0.29 35-37 -0.50 35-37 0.10 15 -0.18 22-39	I/defl         L/d         I           >999         240         I           >788         180         I           n/a         n/a         s           >999         360         I	PLATES MT20 Weight: 995 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD JOINTS	2x6 SP No.2 *Excep 2x6 SP No.2 *Excep 41-27:2x6 SP 2400F 2400F 2.0E 2x4 SP No.3 *Excep No.2, 22-10,22-44,4 2-0-0 oc purlins (5-4 verticals (Switched from shee Rigid ceiling directly bracing, Except: 6-0-0 oc bracing: 25 1 Brace at Jt(5): 5.	t* 5-9:2x4 SP No.2 t* 39-33:2x4 SP No.2 2.0E, 33-19:2x4 SP t* 4-10,42-1:2x4 SP -40,23-22:2x6 SP No -14 max.), except er eted: Spacing > 2-8-0 applied or 10-0-0 oc -28,23-25,21-23,18-2	BOT CHORD 2, .2 .4	37-39=-1147/0, 35-3 32-35=-4455/1523, 2 26-29=-940/3065, 24 22-24=0/9091, 20-22 42-43=-153/327, 40- 38-40=0/4783, 36-38 31-34=0/7875, 30-31 25-28=-1810/2436, 2 21-23=-4941/650, 18 16-18=0/5345, 15-16 4-49=-3250/17, 47-4 46-47=-2414/1189, 4 45-48=-2439/1276, 1 22-44=-293/1844, 10 11-44=-389/416, 2-4	7=-3545/0, 29-32=-2733/1523, 1-26=-135/6806, 2=0/7793, 19-20=0/2 42=-10/4811, 3=0/6996, 34-36=0/8 1=0/6736, 28-30=0/6 23-25=-3163/1275, 3-21=-1301/690, 3=0/5345 9=-2414/1189, 16-48=-2465/1268, 10-45=-3363/60, 3-44=-133/1887, 2=-885/106,	1) 2-pl (0.1 Top 2909, stag 8326, 0-9- 6736, Wel 0-9- 2) All I exc CAS prov unle 3) Unb this	y truss to be con 31"x3") nails as chords connect Igered at 0-9-0 c om chords conn 0 oc, 2x6 - 2 row o connected as f 0 oc, 2x4 - 1 row oads are conside ept if noted as fr SE(S) section. Pl vided to distributt sos otherwise inco alanced roof live design.	nnected togethe follows: ed as follows: 2 bc, 2x4 - 1 row a lected as follow vs staggered at follows: 2x6 - 2 v at 0-9-0 oc. ered equally ap ont (F) or back ly to ply connec e only loads no dicated. e loads have be	r with 10d tx6 - 2 rows at 0-9-0 oc. s: 2x4 - 1 row at 0-9-0 oc. rows staggered at plied to all plies, (B) face in the LOAD tions have been ted as (F) or (B), een considered for
REACTIONS FORCES TOP CHORD	Tblace at J(s): 3,           9, 1, 44, 37, 20, 35,           26, 33, 45, 46, 47,           48, 49           (size)         15= Mech           43=0-5-8           Max Horiz         43=-287 (           Max Grav         15=3264 (           35), 43=4:           (lb) - Maximum Com           Tension           1-2=-5491/0, 2-4=-5:	anical, 23=0-5-8, LC 10) LC 13), 43=-9 (LC 12 (LC 43), 23=3361 (LC 241 (LC 33) pression/Maximum 554/0, 4-5=-2430/163	2) 2 9,	39-40=0/588, 4-39=( 12-19=-631/20, 14-1 18-19=-3294/0, 38-3 37-38=-1812/0, 20-2 36-37=-98/1026, 35- 34-35=-311/154, 25- 31-33=-1600/0, 28-2 29-30=0/903, 22-23- 21-22=-13/1743, 9-4 7-46=-256/98, 6-47= 5-49=-95/943, 6-46= 8-46=-129/511, 8-45	0/1567, 17-19=0/98 6=0/448, 1-42=0/48 9=0/1446, 1-42=0/48 9=0/1446, 1=-2972/20, 3 36=-936/98, 26=-3342/0, 28=0/2745, 9=-3227/0, 31-32=0 =-3227/0, 31-32=0 =-1515/598, 5=-52/1047, 0/110, 8-48=0/111, -180/565, ==-2847/484.	5, 4) Win 188, Vas Cat zon and DOI 1/351,	d: AŠCE 7-16; V d=103mph; TCE II; Exp B; Enclo e; cantilever left right exposed; L _=1.60	/ult=130mph (3 DL=6.0psf; BCD issed; MWFRS ( and right expos _umber DOL=1.	-second gust) L=6.0psf; h=25ft; envelope) exterior sed ; end vertical left 60 plate grip
	5-6=-2266/117, 6-7= 7-8=-4986/730, 8-9= 9-10=-2269/221, 10- 11-12=-5392/2, 12-1 14-15=-6107/0, 1-43	4986/730, 2002/187, 11=-5572/0, 4=-5284/0, =4042/72	NOTES	6-49=-2525/488, 14- 2-40=-275/453, 18-2 24-25=0/1240, 23-24	17=-1208/480, 0=-92/2810, 4=-2994/0		CHANNAN THE ST	SEA 0363 NGIN	L 22 ILBERTITI

Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



August 25,2023

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	A3GR	Attic Girder	1	2	Job Reference (optional)	160372565

- 5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 6) Unbalanced snow loads have been considered for this design.
- 7) Provide adequate drainage to prevent water ponding.
- 8) All plates are 4x5 MT20 unless otherwise indicated.
- 9) This truss has been designed for a 10.0 psf bottom
- chord live load nonconcurrent with any other live loads.
  10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Ceiling dead load (5.0 psf) on member(s). 4-49, 47-49, 46-47, 46-48, 45-48, 10-45, 11-44; Wall dead load (5.0psf) on member(s).22-44, 10-44, 4-39
- 12) Bottom chord live load (30.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 37-39, 35-37, 33-35, 32-33, 29-32, 26-29, 24-26, 22-24
- 13) Refer to girder(s) for truss to truss connections.
- 14) LGT2 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 43. This connection is for uplift only and does not consider lateral forces.
- 15) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 23. This connection is for uplift only and does not consider lateral forces.
- 16) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 17) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- LGT2 Hurricane ties must have two studs in line below the truss.
- 19) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:44 ID:h5TFO2tlZyfWTvVspKto8\_zRQij-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss		Truss Type		Qty	Ply	107 Serenity-Roof-B326 A LH CP
23070144-01	A4		Attic Girder		1	2	I60372566 Job Reference (optional)
Carter Components (Sa	anford), Sanford, NC	C - 27332,		Run: 8.63 S Jul 28 2 ID:1d5INYb SnpinifH	023 Print: 8.6 0e1reGzRBH	30 S Jul 28 2	2023 MiTek Industries, Inc. Thu Aug 24 10:26:46 Page: 1 70Hg3NSgPgnL8w3uITXbGKWrCDoi7J4zJC?f
-0-10-8	8-4-0	16-1-1	o 17-8-0 21-4-8	3 24-6-8 27-4-8	31-5-0 32-	-9-3 36-9-	737-6-4 45-3-2 53-5-0
0-10-8	8-4-0	7-9-12	1-6-4 3-8-8	3-2-0 2-10-0	4-0-8 1-4	4-3 4-0-4	0-8-13 7-8-14 8-1-14
			4x8 ≠	4x8= 2x4 II 5x8=	<b>5</b> x6	0xo≈	
Т		40	5	7 55 856 9		11	2x4 II
		6 <sup>12</sup>	50	48 47 49	46		3x5=
		4x6 =	5x6 II	2x4 II 5x8=	5x6 ı	"45	4x6= 14 14
-8-0	5	54		1-14		6348 11	12 21 A
5x6				6		Ē	
	$\leq$					Ð	
5x6	i II	43 59	42 41 39 60 37 4x6= 3x5=	3x5 = 5x10 = 2x4	29 28 26	220322 °	9 18 17 Ó
		5.0=	10x12=	2x4 II	3x6=	4x6= 3x5	5x6=
			17-7-8	2x6=	a 3x5 29-10-8 3	<sup>i=</sup> 34-10-8 28≸10€	37-6-4 37-6-0
E	8-4-0	13-11-0	16-4-8 20-1-8 16-1-12 18-10-821	3 22-7-8 25-3-4 28-7 -4-823-10-8 27-2-12 2	7-8 31-3-4 29-9-0 32-	33-7-8 ·8-4 36-	37-4-8 1-8 45-3-2 53-5-0
Scale = 1:95.5	8-4-0	5-7-0	2-2-12 1-3-0 1- 0-2-12 1-3-0	·3-0 1-3-0 1-11-8 1-3-0 1-4-12 1-4-	1-1-8 1-5 12 1-4-12	5-0 1-3-0 0-8-8 1-3	1-3-0 7-8-14 8-1-14 3-00-1-8
Plate Offsets (X, Y):	[2:0-2-11,0-2-8]	], [6:0-3-0,0-2-0], [10:0	<del>1 3 0</del> )-3-0,0-2-0], [16:Edge	,0-0-11], [20:0-8-0,0-5-0	0- <u>1-8</u> 0], [23:0-5-0	) <u>-2-12</u> ),0-2-8], [34	:0-3-4,0-3-0], [46:0-3-0,0-2-4]
Loading	(psf)	Spacing	3-0-0		DEFL	-	in (loc) I/defl L/d PLATES GRIP
Snow (Pf)	20.0	Lumber DOL	1.15	BC 0	.79 Vert(0	CT) -0.	29 36-38 >999 240 M120 244/190 50 36-38 >788 180
BCLL	10.0 0.0*	Rep Stress Incr Code	NO IRC2018/TPI2014	Matrix-MSH	.65 Horz( Attic	CT) 0. -0.	10 16 n/a n/a 18 23-40 >999 360
BCDL	10.0						Weight: 1000 lb FT = 20%
LUMBER TOP CHORD 2x6	SP No.2 *Except	t* 6-10:2x4 SP No.2	BOT CHORD	38-40=-1147/0, 36-38= 33-36=-4455/1522, 30	=-3545/0, -33=-2733/	1522,	<ol> <li>2-ply truss to be connected together with 10d (0.131"x3") nails as follows:</li> </ol>
BOT CHORD 2x6 42-2	SP No.2 *Except 28:2x6 SP 2400F	t* 40-34:2x4 SP No.2 2.0E, 34-20:2x4 SP		27-30=-941/3064, 25-2 23-25=0/9090, 21-23=	27=-135/680 0/7792, 20-	05, -21=0/2908	, staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
2400 WEBS 2x4	0F 2.0E SP No.3 *Except	t* 5-11,43-2:2x4 SP		43-44=-169/332, 41-43 39-41=0/4781, 37-39=	3=-15/4803, 0/6993, 35-	, -37=0/8326	Bottom chords connected as follows: 2x4 - 1 row at , 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
No.2 BRACING	2, 23-11,23-45,5-	41,24-23:2x6 SP No.	2	32-35=0/7874, 31-32= 26-29=-1848/2435, 24	0/6734, 29- -26=-3205/	·31=0/6734 1274,	, Web connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
TOP CHORD 2-0- vert	0 oc purlins (5-4- icals	-14 max.), except en	t	22-24=-4970/649, 19-2 17-19=0/5343, 16-17=	22=-1316/68 0/5343	88,	<ol> <li>All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD</li> </ol>
(Sw BOT CHORD Rigi	itched from shee	eted: Spacing > 2-8-0) applied or 10-0-0 oc	WEBS	5-50=-3255/23, 48-50= 47-48=-2417/1186, 47	=-2417/118 -49=-2465/	6, 1267,	CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B),
brac 6-0-	cing, Except:	-29 24-26 22-24 19-2	>	46-49=-2439/1276, 11 23-45=-302/1843, 11-4	-46=-3362/0 45=-141/18	63, 86,	unless otherwise indicated. 3) Unbalanced roof live loads have been considered for
JOINTS 1 Br	race at Jt(s): 6,			12-45=-396/416, 3-43= 5-40=0/1565, 18-20=0	=-880/99, 40 /985, 13-20	0-41=0/586 )=-631/20,	<ul> <li>this design.</li> <li>Wind: ASCE 7-16; Vult=130mph (3-second gust)</li> </ul>
36, 3 48	27, 34, 46, 47, 49, 50			15-17=0/448, 2-43=0/4 39-40=0/1446, 38-39=	4865, 19-20 -1812/0,	)=-3293/0,	Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior
REACTIONS (size)	16= Mech	anical, 24=0-5-8,		21-22=-2972/21, 37-38 36-37=-936/98, 35-36=	8=-98/1026, =-311/154,	,	zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip
Max I	44=0-5-8 Horiz 44=-282 (I	LC 10)	2)	26-27=-3342/0, 34-35= 27-29=0/2745, 32-34=	=-62/1007, -1599/0,		DOL=1.60
Max (	Grav 16=3263 (	(LC 13), 44=-39 (LC 1) (LC 44), 24=3376 (LC	<u>~)</u>	29-30=-3226/0, 32-33= 23-24=-1532/596, 22-2	=0/351, 30-3 23=-13/1743	31=0/903, 3,	TH CARO
FORCES (lb)	36), 44=43 Maximum Com -	pression/Maximum		10-46=-52/1047, 8-47= 9-49=0/111, 6-50=-95/	=-256/98, 7- /943, 7-47=-	-48=0/110, -180/566,	OF FESCION N.
Top CHORD 1-2=	sion =0/41, 2-3=-5487	/5, 3-5=-5550/0,		9-47=-128/510, 9-46=- 7-50=-2526/488, 15-18	-2846/484, 3=-1218/48	0,	all see
5-6= 7-8=	=-2426/168, 6-7= =-4983/730, 8-9=	-2261/116, -4983/730,		3-41=-266/458, 19-21= 25-26=0/1239, 24-25=	=-92/2810, -2994/0		SEAL
9-10 11-1	)=-2001/188, 10- 12=-5570/0, 12-1	11=-2269/221, 3=-5390/7,	NOTES				036322
13-1 2-44	15=-5281/0, 15-1 1=-4119/102	6=-6105/0,					E A A
							MGINEEL A
							A. GILB
							CONCELENTING 2010

Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and RCSI Building Component Safety Information, available from the Structural Building Component Association (www.shearonponent Scom) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road Edenton, NC 27932

August 25,2023

Job	Truss	Truss Type		Ply	107 Serenity-Roof-B326 A LH CP		
23070144-01	A4	Attic Girder	1	2	Job Reference (optional)	160372566	

- 5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 8) Provide adequate drainage to prevent water ponding.
- 9) All plates are 4x5 MT20 unless otherwise indicated.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Ceiling dead load (5.0 psf) on member(s). 5-50, 48-50, 47-48, 47-49, 46-49, 11-46, 12-45; Wall dead load (5.0psf) on member(s).23-45, 11-45, 5-40
- Bottom chord live load (30.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 38-40, 36-38, 34-36, 33-34, 30-33, 27-30, 25-27, 23-25
- 14) Refer to girder(s) for truss to truss connections.
- 15) LGT2 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 44. This connection is for uplift only and does not consider lateral forces.
- 16) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 24. This connection is for uplift only and does not consider lateral forces.
- 17) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 19) LGT2 Hurricane ties must have two studs in line below the truss.
- 20) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:46 ID:1d5INYb\_SnpjqifH0e1reGzRBHO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



Job		Truss		Truss Type		Qty	PI	ly	107 Se	erenity-Roof	-B326 /	A LH CP	
23070144-01		A4GR		Attic Girder		1	4	1	Job Re	eference (or	otional)		160372567
Carter Components	s (Sanford), Sa	anford, NC	C - 27332,		Run: 8.63 S Jul 28 2	023 Pr Y xH4	int: 8.630 s	S Jul 28 20	023 MiT )Ha3NS	ek Industries, aPanL8w3uIT	Inc. Thu XbGKW	Aug 24 10:26:4	8 Page: 1
-0-10 	)-8 8. -8 8 <sup>.</sup>	-4-0 -4-0	<u> </u>	2 17-8-0 21-2- 2 1-6-4 3-6-4 6x8=	4 <u>24-6-8</u> 27-10-12 3-4-4 3-4-4	2 <u>31</u> 3	1-5-0 32- -6-4 1-3	-8-4 	<u>39-4-4</u> 6-8-0	1 	<u>46-2</u> 6-10	<u>-15</u> -12	53-5-0 7-2-1
Scale = 1:91.8	6x8 = = = = = = = = = = = = = = = = = = =	-4-0	$6^{12}$ $4x6 =$ $3^{4}$ $40$ $55$ $6x8 =$ $13-11-0$ $5-7-0$ $1000-9-00-1-01$ $1700$	$4x8 \neq 6$ 5 45 3x6 = 3x6 = 3x5 = 10x12 = 10x1	2x4 II 7 52 853 46 422 6x10= 12x16 II 33 32 30 197 2 4 31 2928 2 3x5= 3x5= 4x6= 0 3x6= 3x5= 22-6-8 25-8-8 26 13 24-9-1027-4- -2-4 23-73 26-01 -2-4 23-73 26-01 -2-7 10-14 -2-7 10-1	2x4    9 9 0 0 0 0 0 0 0 0 0 0 0 0 0	10x1 10x1 10 43 43 43 43 43 43 43 43 43 43	12 \$ 11 11 11 11 10 10 10 10 10 10	-6-0 9-12	4x6 121 121 121 121 121 121 121 12	6× 3 54 46-2 6-10	14 16 2x4 II -12	1500 water 4x8= 53-5-0 7-2-1
Plate Offsets (X,	Y): [6:0-6-0	),0-2-8],	[10:0-9-0,0-1-0], [17:0	J-2-8,0-2-8], [19:0-8-0,	0-2-8], [37:0-4-12,0-5-0	J, [40	DEEL	3-12], [42	2:Edge	,0-5-14]	1/4		CPIP
TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psi) 20.0 20.0 10.0 0.0* 10.0	Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC2018/TPI2014	TC 0 BC 0 WB 0 Matrix-MSH	).77 ).98 ).92	Vert(LL) Vert(CT) Horz(CT Attic	-0.4 ) -0.6 ī) 0.1 0.2	11 (1 10 38- 51 38- 0 20 21-	-40 >967 -40 >642 15 n/a -37 >987	240 180 n/a 360	Weight: 1987	244/190 7 lb FT = 20%
LUMBER TOP CHORD 2 BOT CHORD 2 BOT CHORD 2 BRACING TOP CHORD 5 BOT CHORD 6 JOINTS 6 REACTIONS (si FORCES ( TOP CHORD 7 TOP CHORD 7	2x6 SP No.2 2x6 SP 2400 No.2, 39-41: 2x4 SP No.3 41-2,5-38,11 40-2:2x4 SP Structural we 6-0-0 oc puri Rigid ceiling bracing, Ex 6-0-0 oc bra- 1 Brace at Ji Rigid ceiling bracing, Ex 6-0-0 oc bra- 1 Brace at Ji 22, 35, 33, 3 46, 47 ize) 15 ax Horiz 41 ax Uplift 15 45 ax Grav 15 41 (lb) - Maximu Fension 1-2=0/25, 2-	*Except F 2.0E * 2x6 SP I *Except -19,42-1 No.1, 2' ood sheat lins, 6-0- directly cept: cing: 19- t(s): 44, 0, 27, 5= Mecha =-190 (I 5=-522 (I 5), 41=-8 5=-8746 ( =12189 um Comp 3=-1665	* 6-10:2x4 SP No.2 Except* 37-32:2x4 SI No.2, 32-21:2x4 SP No.2, 1,42-5:2x6 SP No.2, 1-17:2x4 SP No.2 athing directly applied cept end verticals, and 0 max.): 6-10. applied or 10-0-0 oc -20. 20. anical, 19=0-5-8, _C 12), 19=-4548 (LC 28 (LC 12) LC 46), 19=831 (LC - (LC 46) pression/Maximum 2/1131,	BOT CHORD	40-41=-136/412, 38-44 36-38=-1200/18264, 3 31-34=-198/17558, 29 26-29=0/11996, 23-26 20-23=-87/5681, 19-24 17-19=-689/3267, 16- 15-16=-961/15893, 35 33-35=-1708/0, 30-33 27-30=-1202/3084, 25 24-25=-1128/8019, 22 21-22=-699/14745 3-40=-3880/338, 37-35 5-37=-480/8326, 19-2 11-21=-590/7755, 12- 14-16=-135/118, 5-45- 45-46=-12751/868, 44 4-47=-12467/672, 43 11-43=-133/68/997, 2- 10-43=-213/3037, 8-4 4-47=-12467/672, 43 11-43=-133/3037, 8-4 4-47=-12467/672, 43 11-43=-133/3037, 8-4 4-47=-12467/672, 43 11-43=-133/3037, 8-4 4-47=-12467/672, 43 11-43=-133/3037, 8-4 4-47=-12467/672, 43 31-43=-133/307, 8-4 4-47=-222/299, 3-38 6-45=-117/1557, 23-2 20-21=0/2483, 20-22= 22-23=0/4054, 36-37= 33-34=-258/706, 31-33 30-31=-149/1121, 29-3 27-29=-13/2541, 26-27	0=-10 14-36= 1-31=0 1-31=0 1-31=0 1-31=0 1-31=0 1-31=0 1-31=0 1-31=0 1-4=-1 1-73: 1-4=-73: 1-74: 1-7	14/14914 696/189 )/15576, 84, 7/835, 61/15889 2134/36, 5/1211, 1128/801 1128/801 3/7505, 4/6286, 532/140, 23/907, 13271/94 17/15165 /779, (3401, 9/0, 25-21 )/0, 15, 4/338, 58/201, 744/94, 60/0, 138/1518	4, 903, 19, 19, 19, 72, 47, 5, 26=0/298,	1) 2) 3)	4-ply truss (0.131"x3") Top chords staggered a Bottom choc 3 rows stag - 2 rows sta Attach BC - CASE(S) s provided to Unbalance this design	to be cc nails as connect at 0-9-0 crds con at 0-9-0 crds con ad 0-9-0 crds con aggered a aggered w/ 1/2" ( e meml e consistent e consistent ad stribu distribu erwise in distribu	nnected toge s follows: cted as follows oc, 2x4 - 1 ro nected as follows oc, 2x4 - 1 ro follows: 2x4 - at 0-5-0 oc, Ex at 0-9-0 oc. diam. bolts (A ber w/washers dered equally front (F) or ba Ply to ply conr te only loads dicated. we loads have	ther with 10d s: 2x6 - 2 rows w at 0-9-0 oc. ows: 2x6 - 2 rows w at 0-9-0 oc. 1 row at 0-9-0 oc, 2x6 - to except member 11-19 2x6 STM A-307) in the s at 4-0-0 oc. applied to all plies, ck (B) face in the LOAD noted as (F) or (B), been considered for
3 6 1 1 2	3-5=-19442/ 6-7=-4415/5/ 8-9=-4173/5/ 10-11=-4884 12-14=-1786 2-41=-12053	1334, 5-  87, 7-8= 86, 9-10 //456, 11 //1247, //873	6=-4814/433, -4415/587, 4173/586, -12=-18855/1350, 14-15=-17912/1142,	NOTES	7-46=-201/142, 6-46= 8-46=-1954/233, 9-47 10-47=-981/766, 8-47	-1312 =-220 =-215	/526, /108, 6/252				A MARINE AND	SE 036	AL 322 NEERATION

August 25,2023

Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and RCSI Building Component Safety Information, available from the Structural Building Component Association (www.shearonponent Scom) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP		
23070144-01	A4GR	Attic Girder	1	4	Job Reference (optional)	160372567	

Run: 8,63 S Jul 28 2023 Print: 8,630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:48

ID:pGeZvt1?lwruiNEY\_xH4fkzRAp7-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

Carter Components (Sanford), Sanford, NC - 27332,

- 4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 8) Provide adequate drainage to prevent water ponding.
- 9) All plates are 4x5 MT20 unless otherwise indicated.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Ceiling dead load (5.0 psf) on member(s). 5-45, 45-46, 44-46, 44-47, 43-47, 11-43; Wall dead load (5.0psf) on member(s).5-37, 11-21
- 13) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 35-37, 33-35, 30-33, 27-30, 25-27, 24-25, 22-24, 21-22
- 14) Refer to girder(s) for truss to truss connections.
- 15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 522 lb uplift at joint 15 and 4548 lb uplift at joint 19.
- 16) LGT4-SDS3 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 41. This connection is for uplift only and does not consider lateral forces.
- 17) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 19) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 20) LGT4 Hurricane ties must have four studs in line below the truss.
- 21) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 10250 lb down and 872 lb up at 16-1-12 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.
- 22) Attic room checked for L/360 deflection.

#### LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (lb/ft)

- Vert: 1-2=-60, 2-6=-60, 6-10=-60, 10-15=-60,
- 41-48=-20, 21-37=-30, 5-45=-10, 45-46=-10, 42-46=-10, 42-44=-10, 44-47=-10, 43-47=-10,
- 11-43=-10

Drag: 5-37=-10, 11-21=-10 Concentrated Loads (lb)

Vert: 38=-5498 (F)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSUTPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	B1GE	Common Structural Gable	1	1	Job Reference (optional)	160372568

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:50 ID:bYvcELrthF7aR0JRUaUJmAzRQt4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



	5-10-4	7-9-0	15-2-8	22-11-8	
Scale = 1:73.5	5-10-4	1-10-12	7-5-8	7-9-0	
Plate Offsets (X_Y): [2:0-2-0 0-1-12] [6:0-3-0 0-3-0]	[11:0-2-4 0-3-0] [16:0-3	3-0 0-3-01 [18:0-5	-0 0-2-12]		

	7, 1). [2.0 2 0,0 1 12	], [0:0 0 0,0 0 0], [11	.0 2 4,0 0	0], [10.0 0 0,0	0 0], [10.0 0 0,0 1									
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.43 0.58 0.60	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.12 -0.21 0.01	(loc) 14-15 14-15 14	l/defl >999 >969 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 207 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD JOINTS REACTIONS FORCES TOP CHORD BOT CHORD WEBS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins, exx Rigid ceiling directly bracing. 1 Brace at Jt(s): 20, 23, 25 (size) 14=0-5-8, Max Horiz 19=265 (L Max Uplift 14=-81 (L 19=-36 (L Max Grav 14=895 (L 9=404 (L (b) - Maximum Com Tension 1-2=0/39, 2-3=-313/ 4-5=-215/99, 5-7=-4 8-9=-332/227, 9-10= 10-12=-829/226, 12- 12-14=-499/216 18-19=-240/386, 17- 15-17=0/407, 14-15= 9-25=-184/574, 15-2 22-23=-179/219, 18- 17-21=0/380, 9-16=( 7-21=-217/92, 5-22= 3-24=-8/10, 10-25=-1	t* 15-9,17-9:2x4 SP I athing directly applied cept end verticals. applied or 10-0-0 oc 18=6-0-0, 19=6-0-0 C 13) C 15), 18=-121 (LC 1 C 15) C 15), 18=-121 (LC 1 C 15) C 15), 18=982 (LC 24 C 25) pression/Maximum 71, 3-4=-258/82, 15/154, 7-8=-421/196 -676/240, 13=0/39, 2-19=-323/ 18=-97/204, =0/627 :5=-160/577, :20=-306/0, 9-20=-31 :4=-176/214, :22=-217/213, -668/102, 6-21=0/45 0/164, 8-20=-52/33, -75/8, 4-23=-64/65, 62/31	1) 2) No.2 d or 3) (4), 4) 5) 5, 6) 83, 7) 83, 7) 8) 6/7, 10 6, 11	Unbalanced this design. Wind: ASCE Vasd=103mp Cat. II; Exp E zone and C-0 2-1-8 to 8-3-1 14-3-6 to 20- cantilever lef right exposed for reactions DOL=1.60 Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct Unbalanced design. This truss ha load of 12.0 1 overhangs ni All plates are Truss to be f braced again Gable studs ) This truss ha chord live loa ) * This truss for on the bottor 3-06-00 tall b chord and ar	roof live loads hav 7-16; Vult=130mp b; TCDL=6.0psf; 8; Enclosed; MWF C Exterior(2E) -0-1 6, Exterior(2R) 8-3 10-0, Exterior(2R) 8-3 10-0	e been of h (3-sec BCDL=6 RS (env 0-8 to 2 -6 to 14 20-10-0 d; end v s and fo OL=1.60 in the p d (norm nd Deta signer a: (roof LL Lum DC B; Fully been cor or great at roof li other li	considered for considered for cond gust) .0psf; h=25ft elope) exterior -1-8, Interior -3-6, Interior 0 to 23-10-0 z vertical left an cress & MWFF 0 plate grip lane of the tru al to the face ils as applica s per ANSI/TI :: Lum DOL= DL=1.15 Plate Exp.; Ce=0.5 asidered for the er of min roof pad of 20.0 pp ve loads. se indicated. te or securely iagonal web) D psf bottom other live load e load of 20.1 pue loads. se indicated. te or securely iagonal web) D psf bottom other live load e load of 20.0 pt to bottom to bottom t	r ; ; ; ; ; ; ; ; ; ; ; ; ;	12) <sup>N/</sup>	A s truss is prnationa 22.10.2 a CASE(S)	e desig I Resic and ref ) Star	ned in accordance Jential Code sect erenced standard ndard H CA SEA 0363	e with the 20 ons R502.11 ANSI/TPI 1.	18 .1 and
												20000	111.	

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RENCO AMITEK ATTILIATE

818 Soundside Road Edenton, NC 27932

August 25,2023

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	B1GR	Common Girder	1	2	Job Reference (optional)	160372569

Scale = 1:72.6

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:51 ID:iFFKd9\_s5HOVK9vBFwqTAGzRAMn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



# Plate Offsets (X, Y): [1:Edge,0-1-9], [7:Edge,0-1-9], [8:0-9-4,0-3-0], [10:0-9-12,0-5-0], [11:0-9-4,0-3-0]

Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.23	Vert(LL)	-0.08	8-10	>999	240	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.26	Vert(CT)	-0.14	8-10	>999	180			
TCDL	10.0	Rep Stress Incr	NO		WB	0.65	Horz(CT)	0.01	7	n/a	n/a			
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MSH									
BCDL	10.0											Weight: 490 lb	FT = 20%	
			2)	All loads are	considered equally	/ applie	d to all plies,		13) Har	nger(s) o	r othe	r connection devi	ce(s) shall be	) (a) 2882
	2X6 SP N0.2	=		CASE(S) set	ction Ply to ply con	ack (D)	s have heen	JAD	bio Ib d	own at	111Cleft 7_1_8	and 3892 lb dow	n at 11-1-8 c	(S) 3002
	2X12 SP 2400F 2.00	=		provided to c	distribute only loads	s noted	as (F) or (B)		bott	om chor	d Th	e design/selection	n of such cor	nection
	2X4 SP NU.2			unless other	wise indicated.	notou	uo (i ) oi (D),		dev	ice(s) is	the re	sponsibility of oth	iers.	moodom
		منامعه بالتوجيل وممالد	ad ar 3)	Unbalanced	roof live loads have	e been o	considered fo	r		CASE(S)	Sta	ndard		
TOP CHORD	5-4-12 oc purlins	atning directly applie	ed or	this design.					1) De	ead + Sn	ow (ba	alanced): Lumber	Increase=1.	15. Plate
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 or	c 4)	Wind: ASCE	7-16; Vult=130mpl	h (3-seo	ond gust)		Ín	crease="	1.15	, , , , , , , , , , , , , , , , , , , ,		-,
	bracing, Except:			Vasd=103mp	oh; TCDL=6.0psf; E	BCDL=6	.0psf; h=25ft;		Ur	niform Lo	bads (I	b/ft)		
	6-0-0 oc bracing: 1-	11.		Cat. II; Exp E	B; Enclosed; MWFF	RS (env	elope) exterio	or		Vert: 1-4	4=-60,	4-7=-60, 12-15=	-20	
WEBS	1 Row at midpt	3-11		zone; cantile	ver left and right ex	kposed	; end vertical	left	Co	oncentra	ted Lo	ads (lb)		
REACTIONS	(size) 1=0-3-0,	7=0-5-8, 11=0-5-8		and right exp	osed; Lumber DOI	L=1.60	plate grip			Vert: 8=	-1356	(F), 20=-875 (F),	21=-875 (F),	22=-875
	Max Horiz 1=225 (L	C 9)	5)		7-16 Pr-20 0 psf	(roof LI		1 15		(F), 23=	-3052	(F), 25=-3052 (F	), 26=-1356 (	F),
	Max Uplift 1=-492 (L	_C 8)	5)	Plate DOI =1	15) Pf=20.0 psf (I		) =1 15 Plate	1.10		28=-135	56 (F),	29=-1356 (F), 30	≔-1356 (F)	
	Max Grav 1=707 (L	C 18), 7=7444 (LC 6	i),	DOL=1.15);	Is=1.0; Rough Cat	B; Fully	Exp.; Ce=0.9	);						
	11=1223	5 (LC 21)		Cs=1.00; Ct=	=1.10		. /							
FORCES	(lb) - Maximum Con Tension	npression/Maximum	6)	Unbalanced design.	snow loads have b	een cor	nsidered for th	nis						
TOP CHORD	1-2=-152/131, 2-3=-	-119/101, 3-4=-4445	/0, 7)	This truss ha	as been designed fo	or a 10.0	) psf bottom							
	1-11=-197/203 10-1	11=0/1916 8-10=0/4	1721 o)	* This truce k	ad nonconcurrent w	for a liv	other live load	as. Doct						
	7-8=0/6221	11-0/1010, 0 10-0/1		on the bottor	n chord in all areas	where	e loau of 20.0	psi					in the	
WEBS	4-10=0/5337, 2-11=	-347/148, 3-11=-626	65/0,	3-06-00 tall b	ov 2-00-00 wide wil	l fit betv	veen the botto	om				WITH CA	ROU	
	3-10=0/3539, 5-10=	-2832/0, 5-8=0/4836	6,	chord and ar	ny other members,	with BC	DL = 10.0psf				1	A	in In	11.
	6-8=-148/172		9)	One H2.5A S	Simpson Strong-Tie	e conne	ctors				12	U. FESS	ST. V	in
NOTES				recommende	ed to connect truss	to bear	ing walls due	to		6	1)			4
1) 2-ply trus	s to be connected toge	ther with 10d		UPLIFT at jt(	s) 1. This connection	on is foi	uplift only an	nd		2		Re /	1 N N	-
(0.131"x3	") nails as follows:			does not con	sider lateral forces					=		SEA	1. 3	
Top chore	ds connected as follow	s: 2x6 - 2 rows	10	)) This truss is	designed in accord	lance w	ith the 2018			=		0000		Ξ
staggered	d at 0-9-0 oc.			International	Residential Code s	sections	R502.11.1 a	na		1		0363	22 :	-
Bottom cr	hords connected as foll	IOWS: 2X12 - 2 FOWS	11		nu reierenceu stari	uaru Ar 8 (26-1)	d Girder							
Staggered Web con	a al 0-3-0 00.	- 1 row at 0-9-0 oc		14-10dx1 1/2	7 Truss Single Plv	Girder)	or equivalent				-	·	a.	3
	100100 43 10110103. 284	1 10W at 0-3-0 0C.		spaced at 8-	0-0 oc max. starting	g at 1-2	-4 from the let	ft			1.5	A NGIN	EE	S
				end to 21-2-4	4 to connect truss(e	es) to fro	ont face of bo	ttom			11	710	att	5
				chord.	,							A. G	ILDIN	
			12	Pill all nail ho	oles where hanger i	is in cor	tact with lum	ber.				111111	inni,	

August 25,2023

818 Soundside Road Edenton, NC 27932

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Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	C1	Monopitch	4	1	Job Reference (optional)	160372570

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:51 ID:Qb5lZxzyP1s84s5fJHsVqazRR57-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Plate Offsets	(X, Y):	[2:0-3-1,0-0-1],	[8:0-1-12,0-1-8]

Scale = 1:71.3

	(7, 1). [2.0 0 1,0 0 1],	, [0:0 1 12,0 1 0]												
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL LUMBER	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018 2)	3/TPI2014 TCLL: ASCE Plate DOI =1	<b>CSI</b> TC BC WB Matrix-MSH 7-16; Pr=20.0 ps 15): Pf=20.0 ps	0.84 0.62 0.67 f (roof Ll	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.08 -0.14 0.03	(loc) 8-9 8-9 8	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 148 lb	<b>GRIP</b> 244/190 FT = 20%	
NOP CHORD BOT CHORD WEBS OTHERS SLIDER BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep 2x6 SP No.2 Left 2x4 SP No.3 1 Structural wood she 4-8-14 oc purlins, e Rigid ceiling directly bracing. 1 Row at midpt (size) 2=0-5-8, § Max Horiz 2=397 (LC Max Grav 2=950 (LC	ot* 7-8:2x4 SP No.2 1-6-0 eathing directly applie except end verticals. r applied or 10-0-0 oc 7-8, 6-8 8=0-5-8 C 13) C 14), 8=-179 (LC 14) C 5), 8=-1030 (LC 5)	3) 4) d or 5) 6) 7)	DOL=1.15); Cs=1.00; Ct= Unbalanced design. This truss ha load of 12.0 j overhangs n All plates are This truss ha chord live loa * This truss ha chord live loa * This truss ha chord live loa * This truss ha chord and ar Bearings are	IS), FI=20.0 psr Is=1.0; Rough Cat =1.10 snow loads have l psf or 1.00 times f on-concurrent with a 3x5 MT20 unless is been designed ad nonconcurrent has been designed n chord in all area by 2-00-00 wide w by other members operations of the state of th	B; Fully been col for great lat roof I o other li o other li o other li o other with a otherwi for a 10. with any f for a liv s where ill fit betv with BC	Exp.; Ce=0. Insidered for t er of min roo bad of 20.0 p ve loads. se indicated. 0 psf bottom other live load e load of 20. a rectangle veen the bott DL = 10.0ps EN 20 crus	e 9; his f live sf on ads. 0psf com f. bing						
FORCES TOP CHORD BOT CHORD WEBS	(lb) - Maximum Com Tension 1-2=0/23, 2-4=-1365 6-7=-224/169, 7-8=- 2-11=-300/1166, 9-1 8-9=-112/672 4-11=0/263, 4-9=-58 6-8=-955/227	npression/Maximum 5/188, 4-6=-839/176, 273/82 11=-215/1166, 38/176, 6-9=-1/585,	9) 10	capacity of 5 One H2.5A S recommende UPLIFT at jt( and does no ) This truss is International R802.10.2 at	65 psi. Simpson Strong-Ti ed to connect truss s) 8 and 2. This ci t consider lateral f designed in accor Residential Code nd referenced star	e conne s to bear onnectio orces. dance w sections	ctors ing walls due n is for uplift ith the 2018 s R502.11.1 a NSI/TPI 1.	e to only and				WITH CA	ROUT	
NOTES 1) Wind: AS Vasd=100 Cat. II; Ex zone and 2-1-8 to 1 cantilever right expor- for reaction DOL=1.60	CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; B( p B; Enclosed; MWFR: C-C Exterior(2E) -0-10 7-4-4, Exterior(2E) 17 left and right exposed sed;C-C for members ons shown; Lumber DC 0	a (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior 0-8 to 2-1-8, Interior ( 4-4 to 20-4-4 zone; ; end vertical left anc and forces & MWFR: DL=1.60 plate grip	11 1) LC 1) 1) S	Hanger(s) or provided suff design/selec responsibility DAD CASE(5) Dead + Snot Increase=1 Uniform Lo: Vert: 1-7	other connection ficient to support of tion of such connec of others. Standard bw (balanced): Lui .15 ads (lb/ft) =-60, 8-13=-20	nber Inc	) shall be ated load(s) . vice(s) is the rease=1.15,	The		Mannan		SEA 0363	L 22 ILBERT	Mannun

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and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



A. GILBE August 25,2023

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	C2	Monopitch	1	1	Job Reference (optional)	160372571

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:52 ID:IE6FRV\_evE0OIUkDZDHacuzRR\_f-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



## Plate Offsets (X, Y): [1:0-3-1,0-0-5], [7:0-1-12,0-1-8]

Scale = 1:71.3

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	/TPI2014	CSI TC BC WB Matrix-MSH	0.82 0.62 0.68	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.08 -0.14 0.03	(loc) 7-8 7-8 7	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 147 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS DTHERS SLIDER BRACING TOP CHORD BOT CHORD WEBS REACTIONS FORCES TOP CHORD BOT CHORD SCAL II; Ex zone and 3-0-0 to 1 cantilever right expo for reactic DOL=1.6(	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep 2x6 SP No.2 Left 2x4 SP No.3 - 1 Structural wood shea 4-8-15 oc purlins, e: Rigid ceiling directly bracing. 1 Row at midpt (size) 1=0-5-8, 7 Max Horiz 1=390 (LC Max Grav 1=903 (LC (lb) - Maximum Com Tension 1-3=-1366/193, 3-5= 6-7=-269/82 1-10=-305/1169, 8-1 7-8=-112/669 3-10=0/264, 3-8=-59 5-7=-951/227 CE 7-16; Vult=130mph Bmph; TCDL=6.0psf; BG p B; Enclosed; MWFR: C-C Exterior(2E) 0-0-0 Sector (2E) 0-0-0 Sector (2E) -0-0-0 Sector (2E) -0-0-0 Sector (2E) -0-0-0 Sector (2E) -0-0-0 Sector (2E) -0-0-0 Sector (2E) -0-0-0	t* 6-7:2x4 SP No.2 1-6-0 athing directly applie xcept end verticals. applied or 10-0-0 oc 6-7, 5-7 7=0-5-8 C 13) (14), 7=-180 (LC 14) C 5), 7=1024 (LC 5) pression/Maximum -840/177, 5-6=-224/ 0=-216/1169, 02/177, 5-8=-2/587, (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior to 3-0-0, Interior (1) 4-4 to 20-4-4 zone; ; end vertical left anc, and forces & MWFRS L=1.60 plate grip	2) 3) 4) 5) 6) 7) 8) 169, 9) 10) LO 1) 15	TCLL: ASCE Plate DOL=1 DOL=1.15); I CS=1.00; Ct Unbalanced design. All plates are this truss ha chord live loa * This truss fa chord and ar Bearings are capacity of 5 One H2.5A 3 recommende UPLIFT at jt( and does not This truss is International Hanger(s) or provided suff design/selec responsibility <b>AD CASE(S)</b> Dead + Snc Increase=1 Uniform Loa Vert: 1-6:	7-16; Pr=20.0 psi .15); Pf=20.0 psi .15); Pf=20.0 psi (1s=1.0; Rough Cat =1.10 snow loads have b a 3x5 MT20 unless is been designed f a nonconcurrent b has been designed n chord in all area by 2-00-00 wide win y other members, assumed to be: , .65 psi. Bimpson Strong-Ti do connect truss s) 7 and 1. This of t consider lateral for designed in accorr Residential Code nd referenced star other connection icient to support c tion of such conner of others. Standard bw (balanced): Lur .15 ads (lb/ft) =-60, 7-12=-20	f (roof LL (Lum DC B; Fully been cor cotherwi or a 10.0 with any l for a liv s where Il fit betw with BC Joint 7 S e conne to bear oncetio borces. dance w sections dard AN device(s oncentra- coton de	.: Lum DOL= L=1.15 Plate Exp.; Ce=0. asidered for t se indicated. 0 psf bottom other live loa e load of 20. a rectangle veen the bott DL = 10.0ps PN0.2 crus ctors ng walls due n is for uplift ith the 2018 R502.11.1 a ISI/TPI 1. ) shall be tted load(s) . vice(s) is the rease=1.15,	1.15 9; his dds. 0psf om f. hing to only and The Plate				SEAL OBC		and an

- zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 17-4-4, Exterior(2E) 17-4-4 to 20-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Uniform Loads (lb/ft)
  - Vert: 1-6=-60, 7-12=-20



GI minin August 25,2023

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Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	D1GE	Common Supported Gable	1	1	Job Reference (optional)	160372572

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:52 ID:8F2D?hHuvW?rb9K6OMb\_Y2zRQrE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:56.8

# Plate Offsets (X, Y): [7:0-2-8, Edge]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	18/TPI2014	<b>CSI</b> TC BC WB Matrix-MR	0.20 0.11 0.20	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 14	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 126 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No 2x4 SP No 2x4 SP No 2x4 SP No Structural 6-0-0 oc p Rigid ceilli bracing. (size) Max Horiz Max Uplift Max Grav	0.2 0.2 0.3 wood sheat ourlins, exc ng directly 14=18-5-0 21=18-5-0 24=18-5-0 24=224 (L 14=-51 (Ld 21=-113 (l 23=-165 (l 14=173 (L 16=-20 (L 18=220 (L 21=255 (L	athing directly applie cept end verticals. applied or 6-0-0 oc 1, 15=18-5-0, 16=18- 1, 18=18-5-0, 20=18- 1, 22=18-5-0, 23=18- 0 C 13) C 11), 15=-161 (LC LC 14), 22=-47 (LC LC 14), 22=-47 (LC LC 14), 24=-70 (LC C 28), 15=221 (LC C 22), 20=220 (LC C 22), 20=220 (LC C 22), 20=220 (LC C 22), 20=273 (LC	-5-0, -5-0, -5-0, -5-0, 15), 15), 14), 22), 21), 21),	VEBS 6 VOTES ) Unbalanced this design. 2) Wind: ASCE Vasd=103mp Cat. II; Exp E zone and C-6 2-3-4 to 6-2-1 12-1-12 to 16 cantilever lef right exposed for reactions DOL=1.60 3) Truss design only. For stu see Standard or consult qu 4) TCLL: ASCE Plate DOL=1 2014	S-20=-182/14, 8-18 I-22=-134/92, 3-23 I-17=-215/162, 10 I-15=-157/164 roof live loads hav 7-16; Vult=130mp b; TCDL=6.0psf; I 8; Enclosed; MWFI C Corner(3E) 6-2- S-1-12, Corner(3E) t and right exposed d; C-C for members shown; Lumber D hed for wind loads ds exposed to wind loads I ndustry Gable E alified building dee 7-16; Pr=20.0 psf (15); Pf=20.0 psf (15); Pf=20.0 psf (15); Pf=20.0 psf	8=-182/1 3=-161/1 16=-13 e been of h (3-sec 3CDL=6 RS (env) -8 to 12- 16-1-12 d ; end v s and for OL=1.60 in the p d (norm nd Deta signer a: (roof LL Lum DC D. 5-10 -10 -11 -12 -12 -12 -12 -12 -12 -12	4, 5-21=-215, 64, 4/92, considered for xond gust) .0psf; h=25ft; elope) exterior 3-4, Exterior(2 1-12, Exterior 2 to 19-3-8 zo vertical left an rcces & MWFR 0 plate grip lane of the tru al to the face) is as applicat s per ANSI/TF .: Lum DOL=1 DL=1.15 Plate	/162, r 2N) (2N) ne; d 3S iss iss ), ble, PI 1. 1.15	12) * Th on ti 3-06 chor 13) Prov. beau 24, { uplif joint 15. 14) This Inter R80 LOAD C	is truss he botto -00 tall of and a vide me ting plat 51 lb up t at join 17, 48 truss is mationa 2.10.2 a cASE(S	has b born chc by 2-( ny ott chanic le capa t 22, 1 lb upli s desig l Resi and re ) Sta	een designed for ord in all areas wi 00-00 wide will fit her members. sal connection (by able of withstand joint 14, 113 lb up 65 lb uplift at joint ft at joint 16 and gned in accordand dential Code sect ferenced standar undard	a live load of 2 here a rectangle between the bo r others) of trus ing 70 lb uplift a lift at joint 21, 4 t 23, 115 lb upl 161 lb uplift at j ce with the 201 tions R502.11. d ANSI/TPI 1.	0.0psf 3 ottom s to at joint 47 lb ift at oint 8 1 and
FORCES TOP CHORD BOT CHORD	(lb) - Maxi Tension 2-24=-167 3-4=-104// 6-7=-99/1 9-10=-76/ 12-13=0/3 23-24=-10 21-22=-10 18-20=-10 16-17=-10 14-15=-10	23=228 (L mum Com 92, 4-5=-9 77, 7-8=-9 131, 10-11 9, 12-14=- 15/169, 20- 15/169, 17- 15/169, 15- 15/169	C 24), 24=204 (LC 2 pression/Maximum /39, 2-3=-160/139, 1/131, 5-6=-132/248 9/177, 8-9=-132/248 =-89/73, 11-12=-146 154/48 23=-105/169, 21=-105/169, 16=-105/169,	25) }, 6/116,	<ul> <li>b) Cs=1.00; Ct=</li> <li>cs=1.00; Ct=</li> <li>design.</li> <li>b) This truss ha load of 12.0 µ</li> <li>overhangs nerver hangs h</li></ul>	s been designed f snow loads have b ssow loads have b sof or 1.00 times fl on-concurrent with 2x4 MT20 unless es continuous bott ully sheathed from st lateral moveme spaced at 2-0-0 oc s been designed f id nonconcurrent w	b, r dily been cor or great at roof k other li otherwi om chor one fac nt (i.e. d c. or a 10.0 vith any	asidered for the er of min roof poad of 20.0 ps ve loads. se indicated. d bearing. se or securely liagonal web).	,, live sf on ds.		M. HILLINN		SEA 0363	L 22 EEFRENT	Mannunger

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ENGINEERING BY A MITAK Affiliate

818 Soundside Road Edenton, NC 27932

August 25,2023

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	D1GR	Common Girder	1	3	Job Reference (optional)	160372573

Run: 8,63 S Jul 28 2023 Print: 8,630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:52 ID:ahvaep5BsMWascBuTkn6buzRAib-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:58.6

## Plate Offsets (X, Y): [1:Edge,0-1-8], [2:0-0-8,0-1-12], [4:0-0-8,0-1-12], [5:Edge,0-1-8], [6:0-9-4,0-3-0], [8:0-9-12,0-6-0], [9:0-9-4,0-3-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCLL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.33 0.41 0.96	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.08 -0.14 0.02	(loc) 6-8 6-8 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 545 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD 30T CHORD WEBS BRACING TOP CHORD 30T CHORD REACTIONS	2x6 SP No.2 2x12 SP 2400F 2.0E 2x4 SP No.3 *Excep Structural wood shea 6-0-0 oc purlins. Rigid ceiling directly bracing. (size) 1=0-5-8, 5 Max Horiz 1=180 (LC	t* 8-3:2x4 SP No.1 athing directly applie applied or 10-0-0 oc 5=0-5-8 C 11)	5) <sup>d or</sup> 6) 7)	Wind: ASCE Vasd=103mp Cat. II; Exp B zone; cantiler and right exp DOL=1.60 TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced	7-16; Vult=130mpł bh; TCDL=6.0psf; E s; Enclosed; MWFR ver left and right ex osed; Lumber DOL 7-16; Pr=20.0 psf .15); Pf=20.0 psf (I s=1.0; Rough Cat I :1.10 snow loads have b	n (3-sec CDL=6 S (env. posed _=1.60 p (roof LL _um DC B; Fully een cor	ond gust) .0psf; h=25ft; elope) exterio end vertical olate grip :: Lum DOL=' L=1.15 Plate Exp.; Ce=0.9 sidered for th	or left 1.15 9; nis	Cc	oncentrat Vert: 18 21=-179 (F)	ted Loa =-1793 3 (F), 3	ads (lb) 3 (F), 19=-1793 (F 22=-2688 (F), 23:	<sup>:</sup> ), 20=-1793 (F), =-2686 (F), 24=-5454
FORCES TOP CHORD BOT CHORD WEBS	Max Grav 1=10303 ( (lb) - Maximum Com Tension 1-2=-12693/0, 2-3=-1 4-5=-16302/0 1-9=0/9651, 8-9=0/9 5-6=0/12446 3-8=0/12219, 4-6=0/ 2-8=-2437/0, 4-8=-50	(LC 5), 5=14842 (LC pression/Maximum 9968/0, 3-4=-9966/0, 651, 6-8=0/12446, 6800, 2-9=0/2975, 625/216	22) 8) 9) 10	aesign. This truss ha chord live loa * This truss h on the botton 3-06-00 tall b chord and an ) This truss is ( International R802.10.2 ar	s been designed for d nonconcurrent w as been designed n chord in all areas y 2-00-00 wide will y other members. designed in accord Residential Code s d referenced stand o Strong. Tie HTLI2	or a 10.0 rith any for a liv where fit betv ance w sections dard AN	) psf bottom other live load e load of 20.0 a rectangle veen the botto th the 2018 R502.11.1 a ISI/TPI 1.	ds. )psf om nd					
<ol> <li>N/A</li> <li>3-ply trus: Top chore follows: 2 Bottom ch screws as Web chor follows: 2 All loads : except if n CASE(S) provided 1 unless oth     </li> </ol>	s to be connected toget Is connected with 10d ( x6 - 2 rows staggered a nords connected with 3 follows: 2x12 - 3 rows ds connected with 10d x4 - 1 row at 0-9-0 oc. are considered equally noted as front (F) or bac section. Ply to ply conn to distribute only loads nerwise indicated.	ther as follows: (0.131"x3") nails as at 0-9 oc. impson SDS 1/4 x 4- staggered at 0-4-0 c (0.131"x3") nails as applied to all plies, ck (B) face in the LO, sections have been noted as (F) or (B),	12 1/2 13 icc. AD LC 1)	<ul> <li>14-10dx1 1/2 spaced at 2-( end to 8-0-12 chord.</li> <li>Fill all nail hoi)</li> <li>Hanger(s) or provided suff lb down at 10 8726 lb down chord. The c (s) is the resp PAD CASE(S)</li> <li>Dead + Snc Increase=1.</li> </ul>	Truss, Single Ply 0 0-0 oc max. starting to connect truss(e les where hanger i other connection d icient to support co 0-0-0, and 3386 lb and 630 lb up at lesign/selection of soonsibility of others Standard w (balanced): Lum 15	Girder) g at 2-0 es) to from s in cor levice(s oncentra down a 15-10-8 such cc ber Inc	or equivalent 12 from the li- ont face of bo tact with luml ) shall be ted load(s) 3 t 14-0-0, and on bottom nnection devi rease=1.15, F	eft ttom ber. 386 I ice Plate		Carrieller		SEA 0363	ROUTE L

- follows: 2x4 1 row at 0-9-0 oc. 3) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 4) Unbalanced roof live loads have been considered for this design.
- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (lb/ft) Vert: 1-3=-60, 3-5=-60, 10-13=-20





Edenton, NC 27932

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August 25,2023

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Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	E1GE	Common Supported Gable	1	1	Job Reference (optional)	160372574

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:53 ID:XfVx5DgSDeEi7jgY6wjof?zRQtJ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



17-5-0

Scale = 1:52.9 Plate Offsets (X, Y): [7:0-2-8,Edge]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MR	0.18 0.09 0.17	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 14	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 121 II	<b>GRIP</b> 244/190 p FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood sh 6-0-0 oc purlins, e Rigid ceiling directl bracing. (size) 14=17-5 18=17-5 24=17-5 Max Horiz 24=-214 Max Uplift 14=-60 ( 17=-57 ( 23=-149) Max Grav 14=174 17=184 19=197 21=263 23=217	eathing directly applie xcept end verticals. y applied or 6-0-0 oc -0, 15=17-5-0, 17=17- -0, 19=17-5-0, 20=17- -0, 22=17-5-0, 23=17- -0 (LC 12) LC 11), 15=-143 (LC -10), 18=-103 (LC -10), 142=-56 (LC -10), 24=-83 (LC -10), 24=-83 (LC -10), 24=-83 (LC -10), 24=-83 (LC -10), 22=184 (LC -10), 24=192 (LC -10), 24=102 (LC -10), 24=1	W Ni 1) d or 2) 5-0, 5-0, 5-0, 15), 15), 15), 15), 15), 29), 22), 21), 29)	EBS 6 4 9 1 OTES Unbalanced r this design. Wind: ASCE Vasd=103mp Cat. II; Exp B zone and C-C 2-0-4 to 5-8-8 11-8-8 to 15- cantilever left right exposec for reactions : DOL=1.60 Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); II	-20=-164/22, 8-19: -22=-144/105, 3-2; -18=-222/151, 10- 1-15=-147/148 roof live loads have 7-16; Vult=130mph h; TCDL=6.0psf; B ; Enclosed; MWFR C Corner(3E) -0-10: 8, Corner(3E) -0-10: 8, Corner(3E) -0-10: 9, Corner(3E) -0-10: 10, Corner(3E) -0-10:	=-164/2 3=-151, 17=-14 been of CDL=6 CDL=6 S (env. 8 to 2- - - 3-8 to 1, - - 3-8 to 1, - - 3-8 to 1, - - 3-8 to 1, - - - 3-8 to 1, - - - - - - - - - - - - - - - - - - -	2, 5-21=-222/ (148, 4/105, considered for cond gust) .0psf; h=25ft; elope) exterior 0-4, Exterior(2 18-3-8 zone; vertical left and cces & MWFR 0 plate grip lane of the tru al to the face) is as applicat s per ANSI/TP L=1.15 Plate Exp.; Ce=0.9	r 22N) 22N) 22N) d S ss , , 211. .15 ;	<ul> <li>12) * Th on tl 3-06 chor</li> <li>13) Prov beau 24, ( uplif joint 15.</li> <li>14) This Intel R80</li> <li>LOAD C</li> </ul>	is truss he botto -00 tall d and a vide mer ing plat tat joint 18, 57 truss is rnationa 2.10.2 a <b>ASE(S</b> )	has be m cho by 2-0 ny oth chanic e capp lift at ji t 22, 1-1 lb uplif l Resi and ref ) Sta	een designed fo rd in all areas v 00-00 wide will fi ier members. al connection (the able of withstam oint 14, 102 lb u 49 lb uplift at joint 17 and ned in accordau dential Code se ferenced standa ndard	r a live load of 20.0psf there a rectangle t between the bottom by others) of truss to ding 83 lb uplift at joint uplift at joint 21, 56 lb nt 23, 103 lb uplift at 143 lb uplift at joint the with the 2018 ctions R502.11.1 and urd ANSI/TPI 1.
FORCES TOP CHORD BOT CHORD	(lb) - Maximum Cor Tension 2-24=-156/73, 1-2= 3-4=-98/98, 4-5=-8 6-7=-98/193, 7-8=- 9-10=-82/166, 10-1 12-13=0/39, 12-14; 23-24=-101/140, 22 21-22=-101/140, 14 17-18=-101/140, 14 17-18=-101/140, 14	npression/Maximum 0/39, 2-3=-146/137, 2/166, 5-6=-137/277, 1=-77/84, 11-12=-122 141/58 2-23=-101/140, 0-21=-101/140, 3-19=-101/140, 5-17=-101/140,	5) 6) 2/111, 7) 8) 9) 10 11	Cs=1.00; Ct= Unbalanced s design. This truss have load of 12.0 p overhangs no All plates are Gable require Truss to be ft braced again 0) Gable studs s 1) This truss have chord live loa	1.10 snow loads have be so been designed for osf or 1.00 times fla on-concurrent with 2x4 MT20 unless of so continuous botto ully sheathed from of st lateral movement spaced at 2-0-0 oc. so been designed for d nonconcurrent w	een cor r great t roof k other liv otherwi m chor one fac t (i.e. d r a 10.0 ith any	nsidered for the er of min roof bad of 20.0 ps re loads. se indicated. d bearing. e or securely iagonal web). D psf bottom other live load	is live f on ds.		Withhar		SEA 0363	AL 322 VEEERATION

August 25,2023



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Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	F1	Common	5	1	Job Reference (optional)	160372575

8-7-8

Carter Components (Sanford), Sanford, NC - 27332,

1)

2)

3)

4-5-9

Run: 8,63 S Jul 28 2023 Print: 8,630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:53 ID:yPXMLbyKekkHSiWSIZLGINzRR58-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

17-0-0

12-9-7

Page: 1



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	G1	Monopitch	5	1	Job Reference (optional)	160372576

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:54 ID:PdAAD85\_ICJN?UaWrZNnF5zRQu2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:64.5

Plate Offsets (X, Y):	[2:0-2-0,0-1-8]	[3:0-4-0,0-3-4]
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	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	[0:0 1 0;0 0 1]												
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.94 0.67 0.36	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.12 -0.20 -0.01	(loc) 7-8 7-8 7	l/defl >999 >931 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 106 lb	<b>GRIP</b> 244/190 FT = 20%	-
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD WEBS REACTIONS FORCES TOP CHORD	2x4 SP No.1 *Excep 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood shea 2-2-0 oc purlins, exc Rigid ceiling directly bracing. 1 Row at midpt (size) 7= Mecha Max Horiz 9=272 (LC Max Uplift 7=-221 (LI Max Grav 7=829 (LC (Ib) - Maximum Com Tension 1-2=0/27, 2-4=-671/ 4-7=-328/122, 2-9=-6	t* 1-3:2x4 SP No.2 t* 4-7:2x4 SP No.2 athing directly applie cept end verticals. applied or 10-0-0 oc 4-7, 3-7 nical, 9=0-5-8 C 14) C 14) C 14) C 5), 9=752 (LC 5) pression/Maximum 119, 4-5=-12/0, 643/84	4) 5) d or 6) : 7) 8) 9) LC	This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss f on the botton 3-06-00 tall l chord and ar Refer to gird Provide mec bearing plate joint 7. This truss is International R802.10.2 a DAD CASE(S)	as been designed for psf or 1.00 times fla on-concurrent with has been designed for ad nonconcurrent w has been designed n chord in all areas by 2-00-00 wide wil hy other members, er(s) for truss to tru- hanical connection e capable of withsta designed in accoror Residential Code s and referenced stan Standard	or great at roof k other li or a 10. vith any for a liv s where a lith betw with BC uss conr (by oth anding 2 lance w sections dard AN	er of min rool brad of 20.0 p ve loads. 0 psf bottom other live loa e load of 20.1 a rectangle veen the bott DL = 10.0ps nections. ers) of truss i (21 lb uplift a) (21 lb uplift a)	f live sf on ads. Opsf om f. to t						
BOT CHORD	8-9=-333/217, 7-8=-	196/535, 6-7=0/0												
NOTES	3-8=0/312, 3-7=-675	/200, 2-8=0/486											CT	
<ol> <li>Wind: ASC Vasd=103 Cat. II; Exp zone and I 2-1-8 to 12 cantilever exposed;C reactions s DOL=1.60</li> <li>TCLL: ASC Plate DOL DOL=1.15</li> </ol>	CE 7-16; Vult=130mph imph; TCDL=6.0psf; B( p B; Enclosed; MWFRS C-C Exterior(2E) -0-10 2-11-0, Exterior(2E) 12 left and right exposed 2-C for members and fc shown; Lumber DOL=1 ) CE 7-16; Pr=20.0 psf (Li =1.15); Pf=20.0 psf (Li i); Is=1.0; Rough Cat B	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior -8 to 2-1-8, Interior ( -11-0 to 15-11-0 zon; end vertical left prces & MWFRS for I.60 plate grip roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9;	.15							(Weining)		SEA 0363	ROLING L	

Cs=1.00; Ct=1.10 Unbalanced snow loads have been considered for this

3) design.

ER A. GILBERT

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCEL Building Component Schut Information, purplication component component durate propagate component component to the prevent collapse with possible for the Studyer Building Component Advance and Adva and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	H1	Monopitch	6	1	Job Reference (optional)	160372577

## Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:54 ID:nLPVeuW3K4TytrtY3ILLguzRRHK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Ceele		4.40.0
Scale	=	1:43.0

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.88 0.39 0.35	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.05 -0.05 -0.01	(loc) 10-14 9-10 9	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 62 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood she 6-0-0 oc purlins, ex Except: 4-8-0 oc bracing: 9-	t* 5-9:2x4 SP No.1 athing directly applic cept end verticals.	4) 5) ed or 6)	This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss f on the bottor 3-06-00 tall b chord and ar	s been designed f psf or 1.00 times f on-concurrent with s been designed f ad nonconcurrent t has been designed n chord in all area y 2-00-00 wide wi by other members.	for greate lat roof lo other liv for a 10.0 with any d for a liv s where ill fit betw	er of min roof pad of 20.0 ps ve loads. 0 psf bottom other live loa e load of 20.0 a rectangle veen the botto	f live sf on Ids. Opsf om					
BOT CHORD	Rigid ceiling directly bracing. (size) 2=0-3-0, § Max Horiz 2=201 (LC Max Uplift 2=-102 (L Max Grav 2=365 (LC	applied or 7-5-12 or 9=0-5-8 C 10) C 10), 9=-356 (LC 1 C 10), 9=1064 (LC 21	c 7) 0) <sup>8)</sup>	One H2.5A S recommende UPLIFT at jt( and does no This truss is International	Simpson Strong-Ti ed to connect truss s) 2 and 9. This co t consider lateral for designed in accor Residential Code	e connection to bear onnection orces. dance w sections	ctors ing walls due n is for uplift o ith the 2018 R502.11.1 a	to only and					
FORCES	(lb) - Maximum Com Tension 1-2=0/17, 2-3=-432/: 5-6=-569/822, 6-7=-	pression/Maximum 362, 3-5=-379/437, 66/0, 9-11=-814/465	, 5,	DAD CASE(S)	Standard		IOI/TETT.						
BOT CHORD WEBS NOTES 1) Wind: AS Vasd=10; Cat. II; Ez zone and 2-1-8 to 1 end vertic C for mer shown; Li 2) TCLL: AS Plate DO	2-10=-567/379, 9-10 3-10=-538/227, 3-9= CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; B4 xp B; Enclosed; MWFR; C-C Exterior(2E) -0-10 C-C Exterior(2E)	=-567/379, 8-9=0/0 -659/827, 6-11=-97 (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior -8 to 2-1-8, Interior ( eft and right expose eft and right expose (FRS for reactions grip DOL=1.60 roof LL: Lum DOL=1 um DOL=1.15 Plate	0/598 or (1) od ; d;C- 1.15							Granner		SEA 0363	AROUNING

DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

3) Unbalanced snow loads have been considered for this design.



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Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	H1GE	Monopitch Supported Gable	2	1	Job Reference (optional)	160372578

## Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:54 ID:kX6Xm09JsM8Rk\_RkgNonK3zRRGV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



10 0 12	
10-0-12	

#### Scale = 1:42.2

## Plate Offsets (X, Y): [6:0-1-11,0-1-8]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(p 20 20 10 10 10	osf) 0.0 0.0 0.0 0.0* 0.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	<b>CSI</b> TC BC WB Matrix-MSH	0.85 0.34 0.44	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a -0.01	(loc) - - 11	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 65 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.1 *E 2x4 SP No.3 Structural woo 6-0-0 oc purlin: Except: 4-11-0 oc brac	Except od shea is, exc cing: 11	* 16-9:2x4 SP No.3 thing directly appliec ept end verticals. -16	1) d or 2)	Wind: ASCE Vasd=103mp Cat. II; Exp B zone and C-0 2-4-0 to 15-7 end vertical II MWFRS for r grip DOL=1.6 Truss design only. For stu	7-16; Vult=130mp h; TCDL=6.0psf; f ; Enclosed; MWFf C Corner(3E) -0-10 -8 zone; cantilever eft exposed;C-C for eactions shown; L 30 hed for wind loads ds exposed to wind loads	h (3-sed BCDL=6 RS (env )-8 to 2- r left and or memb umber l umber l in the p d (norm	cond gust) i.0psf; h=25ft elope) exterior 4-0, Exterior( d right expose bers and force DOL=1.60 pla lane of the true al to the face	; 2N) ed; es& ate uss ),	13) This Inte R80 LOAD C	truss is rnationa 2.10.2 a <b>ASE(S</b> )	desig I Resi and rei ) Sta	ned in accordanc dential Code sect ferenced standard ndard	e with the 2018 ions R502.11.1 and I ANSI/TPI 1.
BOT CHORD	Rigid ceiling di	irectly	applied or 6-0-0 oc		or consult qu	alified building des	nd Deta signer a	ils as applica s per ANSI/TI	ble, PI 1.					
REACTIONS	ONS         (size)         2=10-4-0, 11=10-4-0, 12=10-4-0, 13=10-4-0, 13=10-4-0, 13=10-4-0, 17=10-4-0,				<ul> <li>3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pi=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10</li> <li>4) Unbalanced snow loads have been considered for this design.</li> <li>5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.</li> <li>6) All plates are 2x4 MT20 unless otherwise indicated.</li> <li>7) Gable requires continuous bottom chord bearing.</li> </ul>							ROMA		
FORCES	(lb) - Maximum Tension	n Comp	pression/Maximum	8) 9)	This truss ha	spaced at 2-0-0 oc s been designed f	;. or a 10.	0 psf bottom				A	OREESS	6.24
TOP CHORD	1-2=0/17, 2-3= 4-5=-541/368, 8-9=-615/712, 8-16=-467/352	=-647/3 5-7=-4 9-10=- 2	72, 3-4=-582/360, 76/345, 7-8=-501/44 25/0, 11-16=-918/71	10 14, 16,	chord live loa ) * This truss h on the botton 3-06-00 tall b	as been designed n chord in all areas y 2-00-00 wide wil	for a liv for a liv where Il fit betv	e load of 20.0 a rectangle veen the bott	om		2	a	SEA	
BOT CHORD	2-15=-327/261 13-14=-327/26 11-12=-327/26	-  , 14-1: 61, 12-1 61	5=-327/261, 13=-327/261,	1	l) Provide mecl bearing plate	nanical connection capable of withsta	(by oth anding 5	ers) of truss f b uplift at jo	to int		1111		0363	22
WEBS	7-12=-105/168 4-14=-103/108	3, 5-13= 3, 3-15=	=-178/181, =-158/182,		uplift at joint	14, 79 lb uplift at jo	pint 15 a	ind 5 lb uplift	at		S		S. ENGIN	EERIA
NOTES	9-16=-772/623	5		1:	2) Beveled plate surface with t	e or shim required truss chord at joint	to provi (s) 2, 17	de full bearin 7.	g				CA. G	ILBENIN

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818 Soundside Road Edenton, NC 27932

August 25,2023

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	PB1	Piggyback	12	1	Job Reference (optional)	160372579

5-10-15

5-10-15

Carter Components (Sanford), Sanford, NC - 27332,

3-3-10

-4-3

(psf)

20.0

20.0

10.0

0.0

3-5-4

-0-11-1

0-11-1

Run: 8,63 S Jul 28 2023 Print: 8,630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:54 ID:Cx19sF4HMnJTVINoGDnTDzzRQqC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4x5 =

11-9-14

5-10-15



12-8-15

0-11-1

6

3x5 =

GRIP

244/190

FT = 20%

PLATES

Weight: 47 lb

MT20

4 12 6 Г 2x4 II 2x4 ı 18 19 20 17 3 5 ø ю 10 9 8 3x5 = 2x4 II 2x4 II 2x4 II 11-9-14 Spacing 2-0-0 CSI DEFL l/defl L/d in (loc) Plate Grip DOL 1.15 TC 0.29 Vert(LL) n/a n/a 999 BC Lumber DOL 1 15 0.12 Vert(TL) n/a n/a 999 Rep Stress Incr YES WB 0.08 Horiz(TL) 0.00 7 n/a n/a Code IRC2018/TPI2014 Matrix-MSH 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1. 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10 Unbalanced snow loads have been considered for this 5) desian.

- 6) Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc. 7)
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1 and 12 lb uplift at joint 7.

11) N/A

- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



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### 818 Soundside Road Edenton, NC 27932

Scale = 1:31.4

Loading

TCLL (roof)

Snow (Pf)

TCDL

BCLL BCDL 10.0 LUMBER TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 2x4 SP No.3 OTHERS BRACING TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. REACTIONS (size) 1=13-9-0, 2=13-9-0, 6=13-9-0, 7=13-9-0, 8=13-9-0, 9=13-9-0, 10=13-9-0, 11=13-9-0, 14=13-9-0 Max Horiz 1=52 (LC 14) Max Uplift 1=-25 (LC 15), 7=-12 (LC 15), 8=-92 (LC 15), 10=-91 (LC 14) Max Grav 1=47 (LC 21), 2=65 (LC 1), 6=52 (LC 1), 7=49 (LC 22), 8=439 (LC 22), 9=299 (LC 21), 10=440 (LC 21), 11=65 (LC 1), 14=52 (LC 1) FORCES (Ib) - Maximum Compression/Maximum Tension TOP CHORD 1-2=-56/65, 2-3=-54/49, 3-4=-124/93, 4-5=-124/93, 5-6=-35/49, 6-7=-20/16

BOT CHORD 2-10=-8/44, 9-10=-8/44, 8-9=-8/44, 6-8=-8/44 WEBS 4-9=-213/93, 3-10=-386/207, 5-8=-386/207 NOTES

- Unbalanced roof live loads have been considered for 1) this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-3 to 3-4-3, Interior (1) 3-4-3 to 3-10-8, Exterior(2R) 3-10-8 to 9-10-8, Interior (1) 9-10-8 to 10-4-13, Exterior(2E) 10-4-13 to 13-4-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	PB1GE	Piggyback	2	1	Job Reference (optional)	160372580

3-5-4

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:55 ID:RPY8AW\_GFKIcY3mFoYebvHzRQqK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale	_	1.31 /	
Scale	=	1.31.4	

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL LUMBER TOP CHORD	(ps 20, 20, 10, 0, 10, 2x4 SP No,2	sf) .0 .0 .0 .0* .0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2(	018/TPI2014 2) Wind: ASCE Vasd=103mp	CSI TC BC WB Matrix-MSH 7-16; Vult=130m sh; TCDL=6.0psf;	0.08 0.03 0.04 ph (3-sec	DEFL Vert(LL) Vert(TL) Horiz(TL) cond gust) c.0psf; h=25ft;	in n/a n/a 0.00	(loc) - - 9 14) See Deta	l/defl n/a n/a n/a Standa	L/d 999 999 n/a rd Indu	PLATES MT20 Weight: 52 lb Justry Piggyback T ion to base truss	GRIP 244/190 FT = 20% <sup>r</sup> russ Connection as applicable, or
BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.3 Structural wood 6-0-0 oc purlins Rigid ceiling dire bracing.	l sheat  ectly a	thing directly applied	l or	Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-3 to 3-4-3, Interior (1) 3-4-3 to 3-10-8, Exterior(2R) 3-10-8 to 9-10-8, Interior (1) 9-10-8 to 10-4-13, Exterior(2E) 10-4-13 to 13-4-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate									
REACTIONS	(size) 1=13 9=13 12=1 15=1 Max Horiz 1=52 Max Uplift 1=-25 (LC 1 15), 1 14), 1 Max Grav 1=24 8=14 (LC 2 (LC 2 (LC 2 (LC 2 (LC 2)	-9-0, 2 -9-0, 1 3-9-0, 3-9-0, (LC 1 5 (LC <sup>-</sup> 15), 9= 11=-47 14=-44 18=-7 (LC 1 7 (LC 22), 11 21), 13 21), 15 22)	$\begin{array}{l} 2=13-9-0, 8=13-9-0, \\ 10=13-9-0, 11=13-9-1, \\ 13=13-9-0, 14=13-5\\ 18=13-9-0\\ 4\\ 19), 2=-14 \ (LC \ 14), 8\\ -5 \ (LC \ 22), 10=-45 \ (I\\ 7 \ (LC \ 15), 13=-48 \ (L1\\ 4 \ (LC \ 14), 15=-14 \ (L2\\ (LC \ 15)\\ 4), 2=159 \ (LC \ 21), 10=\\ =245 \ (LC \ 21), 14=23\\ =159 \ (LC \ 21), 18=14\\ \end{array}$	0, )-0, 3=-7 /LC C C =231 42 33 47	<ul> <li>gip DOL=1.1</li> <li>Truss design only. For stu see Standard or consult qu</li> <li>TCLL: ASCE Plate DOL=1</li> <li>DOL=1.15); Cs=1.00; Ct=</li> <li>Unbalanced design.</li> <li>All plates are 7) Gable requir</li> <li>Gable studs</li> <li>This truss ha chord live log</li> </ul>	and for wind load dids exposed to wi d Industry Gable I lalified building de : 7-16; Pr=20.0 psf Is=1.0; Rough Ca =1.10 snow loads have 2 2x4 MT20 unles es continuous bo spaced at 2-0-0 d s been designed ad nonconcurrent	s in the p ind (norm End Deta esigner a: sf (roof Ll (Lum DC tt B; Fully been cor s otherwittom chor oc. for a 10. with a ny d for a li	lane of the trus al to the face), ils as applicab s per ANSI/TP :: Lum DOL=1 DL=1.15 Plate Exp.; Ce=0.9; nsidered for thi se indicated. d bearing. D psf bottom other live load called 200	ss le, l 1. .15 s				WH CA	ROV
FORCES	(lb) - Maximum Tension 1-2=-56/69, 2-3: 4-5=-64/104, 5-1	Comp =-46/3 6=-64/	oression/Maximum 32, 3-4=-56/49, /104, 6-7=-56/39,		on the bottor 3-06-00 tall b chord and ar 11) Provide med	n chord in all area by 2-00-00 wide w by other members hanical connectio	as where vill fit betw 3. on (by oth	a rectangle veen the botto ers) of truss to	m		Land			
BOT CHORD	7-8=-30/24, 8-9 2-14=-15/55, 13 11-12=-15/55, 1 5-12=-101/0, 4- 6-11=-208/121,	=0/25 3-14=-1 10-11= 13=-20 7-10=	15/55, 12-13=-15/55 15/55, 8-10=-15/55 08/122, 3-14=-179/8 178/90	, 9,	bearing plate 1 and 5 lb up 12) N/A	e capable of withs lift at joint 9.	tanding 2	25 lb uplift at jo	int		THURS.		0363	22
NOTES 1) Unbalance this design	ed roof live loads h n.	nave b	been considered for		13) This truss is International R802.10.2 ar	designed in acco Residential Code nd referenced sta	rdance w e sections Indard AN	ith the 2018 8 R502.11.1 ar ISI/TPI 1.	nd			1111	A. G	

International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 25,2023



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Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	PB1GR	Piggyback	2	4	Job Reference (optional)	160372581

3-5-4

Scale = 1:31.4

TCLL (roof)

Snow (Pf)

TCDL

BCLL

BCDL

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:55 ID:m2dQdjvppkexqPVgwg5aZPzRCX1-RfC?PsB70Hg3NSgPgnL8w3ulTXbGKWrCDoi7J4zJC?f



LOWRER		
TOP CHORD	2x4 SP N	0.2
BOT CHORD	2x4 SP N	0.2
OTHERS	2x4 SP N	0.3
BRACING		
TOP CHORD	Structural 6-0-0 oc p	l wood sheathing directly applied or purlins.
BOT CHORD	Rigid ceil bracing.	ing directly applied or 10-0-0 oc
REACTIONS	(size)	2=11-9-14, 6=11-9-14, 8=11-9-14, 9=11-9-14, 10=11-9-14, 11=11-9-14, 15=11-9-14
	Max Horiz Max Uplift	2=52 (LC 18), 11=52 (LC 18) 2=-11 (LC 15), 6=-4 (LC 11), 8=-87 (LC 15), 10=-87 (LC 14), 11=-11 (LC 15), 15=-4 (LC 11)
	Max Grav	2=84 (LC 1), 6=84 (LC 1), 8=422 (LC 22), 9=302 (LC 21), 10=422 (LC 21), 11=84 (LC 1), 15=84 (LC 1)

# FORCES (lb) - Maximum Compression/Maximum Tension TOP CHORD 1-2=0/17, 2-3=-53/46, 3-4=-123/96,

- 4-5=-123/96, 5-6=-32/46, 6-7=0/17

   BOT CHORD
   2-10=-8/48, 9-10=-2/45, 8-9=-2/45, 6-8=-8/48

   WEBS
   4-9=-215/92, 3-10=-376/200, 5-8=-376/200
- NOTES
- 4-ply truss to be connected together as follows: Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

- Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-3 to 3-4-3, Interior (1) 3-4-3 to 3-10-8, Exterior(2R) 3-10-8 to 9-10-8, Interior (1) 9-10-8 to 10-4-13, Exterior(2E) 10-4-13 to 13-4-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 6) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 9) Gable requires continuous bottom chord bearing.
- 10) Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) <sub>N/A</sub>

14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Page: 1

15) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



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Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	PB1GRA	Piggyback	4	2	Job Reference (optional)	160372582

Run: 8,63 S Jul 28 2023 Print: 8,630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:55 ID:Cx19sF4HMnJTVINoGDnTDzzRQqC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



REACTIONS	(size)	1=13-9-0, 2=13-9-0, 6=13-9-0,
		7=13-9-0, 8=13-9-0, 9=13-9-0,
		10=13-9-0, 11=13-9-0, 14=13-9-0
	Max Horiz	1=155 (LC 14)
	Max Uplift	1=-76 (LC 15), 7=-32 (LC 15),
		8=-275 (LC 15), 10=-272 (LC 14)
	Max Grav	1=134 (LC 21), 2=199 (LC 1),
		6=161 (LC 1), 7=139 (LC 22),
		8=1314 (LC 22), 9=900 (LC 21),
		10=1319 (LC 21), 11=199 (LC 1),
		14=161 (LC 1)
FORCES	(lb) - Max	imum Compression/Maximum

- Tension TOP CHORD 1-2=-168/194, 2-3=-162/146, 3-4=-370/256, 4-5=-370/256, 5-6=-118/146, 6-7=-56/41 BOT CHORD 2-10=-25/132, 9-10=-25/132, 8-9=-25/132, 6-8=-25/132
- WEBS 4-9=-641/235, 3-10=-1155/546, 5-8=-1153/547

## NOTES

Scale = 1:31.4 Loading

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

BRACING

TOP CHORD

BOT CHORD

TOP CHORD

BOT CHORD

TCDL

BCLL

BCDL

1) 2-ply truss to be connected together as follows: Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc. Bottom chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.

- Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-3 to 3-4-3, Interior (1) 3-4-3 to 3-10-8, Exterior(2R) 3-10-8 to 9-10-8, Interior (1) 9-10-8 to 10-4-13, Exterior(2E) 10-4-13 to 13-4-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 6) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 7) Unbalanced snow loads have been considered for this desian.
- 8) Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc. 9)
- This truss has been designed for a 10.0 psf bottom 10)chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf 11)on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 1 and 32 lb uplift at joint 7.

Detail for Connection to base truss as applicable, or

Page: 1

- consult qualified building designer. 16) Graphical purlin representation does not depict the size
- or the orientation of the purlin along the top and/or bottom chord.
- LOAD CASE(S) Standard



818 Soundside Road

Edenton, NC 27932

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Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	V1	Valley	1	1	Job Reference (optional)	160372583

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:56 ID:uRu6rMLa1rlmrJyJNhjxxpzRQsR-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	V2	Valley	1	1	Job Reference (optional)	160372584

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:56 ID:yJIn\_UX?VSBe9dbBmLUS1zzRQsC-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1



Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	V3	Valley	1	1	Job Reference (optional)	160372585

Loading

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

FORCES

WEBS

NOTES

1)

2)

BRACING

TCDL

BCLL

BCDL

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:57 ID:4pahjxh9RSqoCd5h0aDV3jzRQs?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





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Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	V4	Valley	1	1	Job Reference (optional)	160372586

Scale = 1:43.2 Loading

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

BRACING

TOP CHORD

BOT CHORD

TOP CHORD

BOT CHORD

FORCES

WEBS

NOTES

1)

2)

TOP CHORD

BOT CHORD

this design.

grip DOL=1.60

REACTIONS (size)

bracing.

Max Horiz

Max Uplift

Max Grav

Tension

4-5=-121/103

5-6=-58/97

7=14-3-11, 8=14-3-11

1=-24 (LC 10), 6=-152 (LC 15),

1=121 (LC 24), 5=97 (LC 27),

6=452 (LC 21), 7=401 (LC 23),

1=-136 (LC 10)

8=-155 (LC 14)

8=452 (LC 20)

(Ib) - Maximum Compression/Maximum

1-8=-58/124, 7-8=-58/97, 6-7=-58/97,

Unbalanced roof live loads have been considered for

Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;

Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-1-14, Interior (1)

3-1-14 to 4-1-14, Exterior(2R) 4-1-14 to 10-1-14, Interior (1) 10-1-14 to 11-1-14, Exterior(2E) 11-1-14 to 14-3-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate

Wind: ASCE 7-16; Vult=130mph (3-second gust)

3-7=-222/0, 2-8=-375/195, 4-6=-375/194

1-2=-152/138, 2-3=-178/118, 3-4=-178/113,

TCDL

BCLL

BCDL

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:57 ID:CKtcSNrINSSyGdaBHoyY5SzRQro-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

GRIP

244/190

FT = 20%



Rigid ceiling directly applied or 6-0-0 oc Unbalanced snow loads have been considered for this 5) desian. 1=14-3-11, 5=14-3-11, 6=14-3-11,

7)

- 6) Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom 8)
- chord live load nonconcurrent with any other live loads. 9)
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf. 10) Provide mechanical connection (by others) of truss to
- bearing plate capable of withstanding 24 lb uplift at joint 1, 155 lb uplift at joint 8 and 152 lb uplift at joint 6.
- 11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	V5	Valley	1 1 Interest (optional)		Job Reference (optional)	160372587

TCDL

BCLL

BCDL

WEBS

2)

NOTES

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:57 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	V6	Valley	1	1	Job Reference (optional)	160372588

#### Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:58 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale =	= 1:32.9	

Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.43	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.41	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES		WB	0.18	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MSH								
BCDL	10.0											Weight: 36 lb	FT = 20%
LUMBER			4)	TCLL: ASCE	E 7-16; Pr=20.0 p	osf (roof LL	L: Lum DOL=	1.15					
TOP CHORD	2x4 SP No.2			Plate DOL=	1.15); Pf=20.0 ps	f (Lum DC	DL=1.15 Plate	9					
BOT CHORD	2x4 SP No.2			DOL=1.15);	Is=1.0; Rough C	at B; Fully	Exp.; Ce=0.9	9;					
OTHERS	2x4 SP No.3			Cs=1.00; Ct	=1.10								
BRACING			5)	Unbalanced	snow loads have	e been cor	nsidered for t	his					
TOP CHORD	Structural wood she 9-5-8 oc purlins.	eathing directly appli	ed or 6)	design. Gable requir	res continuous b	ottom chor	rd bearing.						
BOT CHORD	Rigid ceiling directly bracing.	/ applied or 6-0-0 oc	7) 8)	Gable studs This truss ha	spaced at 4-0-0 as been designe	oc. d for a 10.0	0 psf bottom						
REACTIONS	(size) 1=9-6-2.	3=9-6-2. 4=9-6-2		chord live lo	ad nonconcurrer	it with any	other live loa	ids.					
	Max Horiz 1=-89 (LC	C 10)	9	* This truss	has been design	ed for a liv	e load of 20.	Opst					
	Max Uplift 1=-51 (LC	C 21), 3=-51 (LC 20)	,	3-06-00 tall	m chord in all are by 2-00-00 wide	eas where will fit betv	a rectangle ween the bott	om					
	Max Grav 1=90 (LC	20), 3=90 (LC 21),	4=766 1	chord and a	ny other member chanical connecti	rs. on (by oth	ers) of truss t	to					
	(LC 21)			bearing plate	e capable of with	standing 5	51 lb uplift at i	ioint					
FORCES	(lb) - Maximum Con Tension	npression/Maximum	4	1, 51 lb uplif	t at joint 3 and 1	07 lb uplift	at joint 4.	-					
TOP CHORD	1-2=-117/373. 2-3=	-117/373	1	<ol> <li>Beveled plat</li> <li>surface with</li> </ol>	truce chord at in	int(c) 1 2	de fuil bearin	g					
BOT CHORD	1-4=-216/173, 3-4=-	-216/173	1	2) This trues is	designed in acc	nrdance w	ith the 2018						
WEBS	2-4=-593/273			International	Residential Coc	le sections	R502 11 1 a	and					
NOTES				R802.10.2 a	ind referenced st	andard AN	NSI/TPI 1.						
1) Unbalanc	ed roof live loads have	e been considered fo	r L	OAD CASE(S)	Standard								1972
this desig	n.		. –										1111
2) Mind AS	CE 7 16: Vult 120mpk	(2 accord quat)										N'AH CA	Roll

Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 6-6-2, Exterior(2E) 6-6-2 to 9-6-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

Truss designed for wind loads in the plane of the truss 3) only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCB Building Component Science Michael Component Advancement description (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	V7	Valley	1	1	Job Reference (optional)	160372589

3-6-6

3-6-6

12 10 Г

2x4 🧳

Carter Components (Sanford), Sanford, NC - 27332,

2-7-14

4-0-0

2-11-9

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:58 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4x5 =

6-8-9

3-2-4



2 9 10 4 2x4 II 2

Scale = 1:28.8

Loading         (psf)         Spacin           TCLL (roof)         20.0         Plate 0           Snow (Pf)         20.0         Lumbe           TCDL         10.0         Rep S           BCLL         0.0*         Code           BCDL         10.0         Here S	ing         2-0-0           Grip DOL         1.15           her DOL         1.15           Stress Incr         YES           IRC2018/TPI2014	CSI           TC         0.24           BC         0.25           WB         0.09           Matrix-MP	DEFL in Vert(LL) n/a Vert(TL) n/a Horiz(TL) 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 26 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 OTHERS 2x4 SP No.2 OTHERS 2x4 SP No.3 BRACING TOP CHORD Structural wood sheathing di 7-0-11 oc purlins. BOT CHORD Rigid ceiling directly applied bracing. REACTIONS (size) 1=7-1-5, 3=7-1-5, Max Horiz 1=-65 (LC 10) Max Uplit 1=-17 (LC 21), 3= 4=-71 (LC 14) Max Grav 1=102 (LC 20), 3= 4=523 (LC 21) FORCES (lb) - Maximum Compression TOP CHORD 1-2=-88/227, 2-3=-88/227 BOT CHORD 1-2=-88/227, 2-3=-88/227	4) TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Cts Unbalanced design. 6) Gable requir 7) Gable studs 8) This truss ha chord live loi 9) * This truss ha chord live loi 9) * This truss ha chord live loi 9) * This truss ha chord live loi 3-06-00 tall h chord and ar 10) Provide mec bearing plate 1, 17 lb uplifi 11) Beveled plat surface with	E 7-16; Pr=20.0 psf (roof LL 1.15); Pf=20.0 psf (Lum DO Is=1.0; Rough Cat B; Fully =1.10 snow loads have been con es continuous bottom chor spaced at 4-0-0 oc. as been designed for a 10.0 ad nonconcurrent with any mas been designed for a 10.0 m chord in all areas where by 2-00-00 wide will fit betw ny other members. schanical connection (by oth e capable of withstanding 1 t at joint 3 and 71 lb uplift a go or shim required to provid truss chord at joint(5) 1, 3.	Lum DOL=1.15 L=1.15 Plate Exp.; Ce=0.9; sidered for this d bearing. psf bottom other live loads. e load of 20.0psf a rectangle even the bottom ers) of truss to 7 lb uplift at joint t joint 4. de full bearing					

 Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 4-1-5, Exterior(2E) 4-1-5 to 7-1-5 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

 Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1. LOAD CASE(S) Standard



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

TRENCO A MiTek Affiliate

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	V8	Valley	1	1	Job Reference (optional)	160372590

2-3-15

2-3-15

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:58 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4-3-12

1-11-13



-14

3



2x4 ≠ 2x4 = 2x4 4-7-14

Scale = 1:25.7

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	18/TPI2014	CSI TC BC WB Matrix-MP	0.08 0.10 0.04	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 17 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wo 4-7-14 oc pur Rigid ceiling of bracing. (size) 1=- Max Horiz 1=- Max Horiz 1=- Max Grav 1=- (LC (lb) - Maximu	ood shea rlins. directly 4-8-8, 3 -42 (LC -7 (LC -7 (LC 2 21) m Com	athing directly applie applied or 6-0-0 oc 3=4-8-8, 4=4-8-8 12) 15), 4=-31 (LC 14) 20), 3=86 (LC 21), 4 pression/Maximum	ed or g	<ul> <li>) Unbalanced design.</li> <li>) Gable requir.</li> <li>) Gable studs</li> <li>) This truss ha chord live loa</li> <li>) * This truss h on the bottor 3-06-00 tall b chord and ar</li> <li>0) Provide mec bearing plate and 31 lb upl</li> <li>1) Beveled platt surface with</li> <li>2) This truss is</li> </ul>	snow loads have I es continuous bott spaced at 4-0-0 or is been designed ad nonconcurrent as been designec n chord in all area by 2-00-00 wide wi by other members. hanical connectior e capable of withst lift at joint 4. e or shim required truss chord at join designed in accor	been con c. for a 10. with any f for a liv s where an (by oth anding 7 t to provit t(s) 1, 3. dance w	asidered for the d bearing. D psf bottom other live load e load of 20.0 a rectangle veen the botthers) of truss for the uplift at jour de full bearin with the 2018	his ads. Opsf om to pint 3 g						
TOP CHORD BOT CHORD WEBS NOTES	FORCES         (lb) - Maximum Compression/Maximum Tension           TOP CHORD         1-2=-79/100, 2-3=-79/100           30T CHORD         1-4=-77/84, 3-4=-77/84           WEBS         2-4=-174/91           NOTES         1				International R802.10.2 ar OAD CASE(S)	Residential Code nd referenced star Standard	sections idard AN	ISI/TPI 1.	and						
<ol> <li>Unbalancc this design</li> <li>Wind: ASG Vasd=103 Cat. II; Ex zone and exposed ; members Lumber D</li> <li>Truss des</li> </ol>	ed roof live load n. CE 7-16; Vult=1. mph; TCDL=6.0 p B; Enclosed; I C-C Exterior(2E end vertical left and forces & M OL=1.60 plate c signed for wind l	Is have 30mph 0psf; B0 MWFRS 2) zone; t and rig WFRS grip DO loads in	been considered for (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterio cantilever left and r ht exposed;C-C for for reactions shown L=1.60 the plane of the tru	r ir ight ;							Jan 11	N	ORTH CA		•

 Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

 TCLL: ASCE 7-16; Pf=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10 SEAL 036322 A. GILBER

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSUTPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	V11	Valley	1	1	Job Reference (optional)	160372591

Run: 8,63 S Jul 28 2023 Print: 8,630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:59

Page: 1

GRIP

244/190

FT = 20%



- BOT CHORD 5-6=-126/138 WEBS 3-8=-321/0 2-9=-396/220 4-6=-396/219
- NOTES

FORCES

TOP CHORD

Scale = 1:50.7 Loading

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

BRACING

TOP CHORD

BOT CHORD

TOP CHORD

BOT CHORD

REACTIONS (size)

TCDL

BCLL

BCDL

- 1) Unbalanced roof live loads have been considered for this design
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 5-5-13, Exterior(2R) 5-5-13 to 11-5-13, Interior (1) 11-5-13 to 13-11-10, Exterior(2E) 13-11-10 to 16-11-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1. LOAD CASE(S) Standard

 $\cap$ SEAL 036322 GI mmm August 25,2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall bilding design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	V12	Valley	1	1	Job Reference (optional)	160372592

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:59 ID:Th\_ZgqfOm8nUgyqbk?jKoVzRQuc-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

GRIP

244/190

FT = 20%



LUMBER TOP CHORD

Scale = 1:43.6 Loading

TCLL (roof)

Snow (Pf)

TCDL

BCLL

BCDL

2x4 SP No.2 BOT CHORD 2x4 SP No.2 2x4 SP No.3 OTHERS BRACING TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. REACTIONS (size) Max Horiz Max Uplift Max Grav 1=123 (LC 24), 5=98 (LC 23), 6=457 (LC 21), 7=410 (LC 23),

- 8=457 (LC 20) FORCES (Ib) - Maximum Compression/Maximum Tension TOP CHORD 1-2=-154/148, 2-3=-172/123, 3-4=-172/112,
- 4-5=-122/112 BOT CHORD 1-8=-62/127, 7-8=-62/101, 6-7=-62/101, 5-6=-62/101
- WEBS 3-7=-230/0, 2-8=-375/197, 4-6=-375/195 NOTES
- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) 2) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-3-6, Interior (1) 3-3-6 to 4-3-6, Exterior(2R) 4-3-6 to 10-3-6, Interior (1) 10-3-6 to 11-3-6, Exterior(2E) 11-3-6 to 14-6-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf. 10) Provide mechanical connection (by others) of truss to
- bearing plate capable of withstanding 24 lb uplift at joint 1, 158 lb uplift at joint 8 and 155 lb uplift at joint 6.
- 11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall bilding design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	V13	Valley	1	1	Job Reference (optional)	160372593

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:26:59 ID:kUxM45s?bF21LX?KCRTFVAzRQqU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:39.3

Loading TCLL (roof) Snow (Pf)	(psf) 20.0 20.0	<b>Spacing</b> Plate Grip DOL Lumber DOL	2-0-0 1.15 1.15		CSI TC BC	0.31 0.12	DEFL Vert(LL) Vert(TL)	in n/a n/a	(loc) - -	l/defl n/a n/a	L/d 999 999	PLATES MT20	<b>GRIP</b> 244/190
TCDL BCLL BCDL	10.0 0.0* 10.0	Rep Stress Incr Code	YES IRC201	8/TPI2014	WB Matrix-MSH	0.08	Horiz(TL)	0.00	5	n/a	n/a	Weight: 50 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 6-0-0 oc purlins. Rigid ceiling directly bracing. (size) 1=12-2-0	• eathing directly applie y applied or 10-0-0 or 9, 5=12-2-0, 6=12-2-0	3) 4) ed or 5) 1, 6)	Truss desig only. For stu see Standar or consult qu TCLL: ASCE Plate DOL=' DOL=1.15); Cs=1.00; Ct: Unbalanced design.	ned for wind load uds exposed to w d Industry Gable ualified building c 7-16; Pr=20.0 ps 1.15); Pf=20.0 ps I.15); Pf=20.0 ps I.10; Rough C =1.10 snow loads have	Is in the p rind (norm End Deta esigner as sf (roof LL f (Lum DC at B; Fully e been cor	lane of the tr lal to the face ills as applica s per ANSI/T .: Lum DOL= DL=1.15 Plate Exp.; Ce=0. nsidered for t	uss e), bble, PI 1. 1.15 e 9; his					
	7=12-2-0 Max Horiz 1=114 (L Max Uplift 1=-31 (LC 6=-134 (L Max Grav 1=93 (LC (LC 21), 20)	l, 8=12-2-0 C 11) C 10), 5=-9 (LC 11), _C 15), 8=-139 (LC 1 2 24), 5=59 (LC 26), € 7=260 (LC 20), 8=43	4) 5=432 5 (LC	Gable studs This truss ha chord live los * This truss I on the botton 3-06-00 tall I chord and an	spaced at 4-0-0 as been designed ad nonconcurren has been design m chord in all are by 2-00-00 wide by other member	oc. I for a 10.0 t with any ed for a liv eas where will fit betv	0 psf bottom other live loa re load of 20. a rectangle veen the bott	ads. Opsf om					
FORCES	(lb) - Maximum Con Tension	npression/Maximum	10	)) Provide mec	hanical connecti	s. on (by oth	ers) of truss	to					
TOP CHORD	1-2=-118/100, 2-3= 4-5=-88/63	-217/113, 3-4=-217/1	13,	1, 9 lb uplift	at joint 5, 139 lb	uplift at joi	int 8 and 134	lb					
BOT CHORD WEBS NOTES	1-8=-29/77, 7-8=-29 5-6=-29/69 3-7=-173/0, 2-8=-39	9/69, 6-7=-29/69, 98/218, 4-6=-397/213	1 <sup>-</sup> 3 12	<ol> <li>Beveled plat surface with</li> <li>This truss is International</li> </ol>	e or shim require truss chord at jo designed in acco Residential Cod	ed to provi int(s) 1, 5. ordance w e sections	de full bearin ith the 2018 s R502.11.1 a	g and			JA'	WITH CA	ROLA

- Unbalanced roof live loads have been considered for 1) this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 8-9-3, Exterior(2E) 8-9-3 to 11-9-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S) Standard





Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	V14	Valley	1	1	Job Reference (optional)	160372594

4-0-13

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:27:00 ID:kUxM45s?bF21LX?KCRTFVAzRQqU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1



Scale =	1:33.3
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Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.46 0.43 0.19	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 37 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 9-8-10 oc purlins. Rigid ceiling directly bracing. (size) 1=9-9-3, 3 Max Horiz 1=90 (LC Max Uplift 1=-56 (LC 4=-114 (L Max Grav 1=88 (LC (LC 21)	athing directly applied applied or 6-0-0 oc 3=9-9-3, 4=9-9-3 11) : 21), 3=-67 (LC 20), C 14) 20), 3=67 (LC 21), 4	4) 5) d or 6) 7) 8) 9) =795 10	TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct: Unbalanced design. Gable requir Gable studs This truss ha chord live loa * This truss ha chord live loa * This truss h on the bottor 3-06-00 tall h chord and ar ) Provide mec bearing plate	57-16; Pr=20.0 p 1.15); Pf=20.0 ps Is=1.0; Rough Ga =1.10 snow loads have es continuous bo spaced at 4-0-0 as been designed ad nonconcurren has been designed in chord in all are by 2-00-00 wide y other member hanical connectio e canable of with	sf (roof Ll f (Lum DC at B; Fully been cor ttom chor oc. for a 10. with any d for a liv as where vill fit betv s. on (by oth standing.	L: Lum DOL= DL=1.15 Plate Exp.; Ce=0.4 rd bearing. 0 psf bottom other live loa re load of 20.1 a rectangle ween the bott ters) of truss 1 56 lb unlift at 1	1.15 9; his dds. 0psf om to					
FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Unbalanc this desig 2) Wind: ASI Vasd=103 Cat. II; Ex zone and	(lb) - Maximum Com Tension 1-2=-125/387, 2-3=- 1-4=-220/168, 3-4=- 2-4=-618/282 ed roof live loads have n. CE 7-16; Vult=130mph mph; TCDL=6.0psf; Bt p B; Enclosed; MWFR3 C-C Exterior(2E) 0-0-0	pression/Maximum 123/390 220/168 been considered for (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior to 3-0-0 Exterior(78	11 12 LC	<ul> <li>1, 67 Ib uplifi</li> <li>Beveled plat surface with</li> <li>This truss is International R802.10.2 a</li> <li>DAD CASE(S)</li> </ul>	a taj joint 3 and 11 e or shim require truss chord at joi designed in accc Residential Cod nd referenced sta Standard	4 lb uplift d to provi nt(s) 1, 3. rrdance w e sections andard AN	at joint 4. de full bearin ith the 2018 s R502.11.1 a NSI/TPI 1.	g and			A	OH FESS	ROUT

Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 6-4-6, Exterior(2E) 6-4-6 to 9-4-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

 Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

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SEAL 036322

A. GILP.... August 25,2023

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Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	V15	Valley	1	1	Job Reference (optional)	160372595

#### Run: 8,63 S Jul 28 2023 Print: 8,630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:27:00 ID:CgVkHRtdMZAuzhaXm9\_U1OzRQqT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



3-7-14 6-11-11 3-7-14 3-3-12 4x5 =2 10 2-9-2 3-0-13 12 10 ∟ 112 9 ٦ 4 2x4 ı 3x5 🖌 3x5 💊 7-3-13 2-0-0 CSI DEFL l/defl L/d PLATES GRIP Spacing in (loc) Plate Grip DOL 1.15 TC 0.26 Vert(LL) n/a n/a 999 MT20 244/190 BC 1 15 0.26 Lumber DOL Vert(TL) n/a n/a 999 Rep Stress Incr YES WB 0.09 Horiz(TL) 0.00 4 n/a n/a IRC2018/TPI2014 Matrix-MP Weight: 27 lb FT = 20%TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 4) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10 5) Unbalanced snow loads have been considered for this desian. Gable requires continuous bottom chord bearing. 6) Gable studs spaced at 4-0-0 oc. 7) 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. \* This truss has been designed for a live load of 20.0psf 9) on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members. 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1, 32 lb uplift at joint 3 and 78 lb uplift at joint 4. 11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3. 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1. LOAD CASE(S) Standard SEAL 036322

Scale = 1:29.3

Loading

TCLL (roof)

Snow (Pf)

TCDL

BCDL		10.0	Code	IRC20
TOP CHORD	2x4 SP N	0.2		
BOT CHORD	2x4 SP N	0.2		
OTHERS	2x4 SP N	0.3		
BRACING				
TOP CHORD	Structural 7-3-13 oc	l wood shea purlins.	athing direct	ly applied or
BOT CHORD	Rigid ceili bracing.	ing directly	applied or 6	-0-0 oc
REACTIONS	(size)	1=7-4-6, 3	=7-4-6, 4=7	·-4-6
	Max Horiz	1=67 (LC	11)	
	Max Uplift	1=-20 (LC 4=-78 (LC	21), 3=-32 14)	(LC 20),
	Max Grav	1=90 (LC (LC 21)	20), 3=67 (L	.C 21), 4=545
FORCES	(lb) - Max Tension	imum Com	pression/Ma	aximum
TOP CHORD	1-2=-100/	237, 2-3=-9	96/238	
BOT CHORD	1-4=-163/	146, 3-4=-*	163/146	
WEBS	2-4=-393/	209		

(psf)

20.0

20.0

10.0

#### NOTES

- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) 2) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 3-8-3, Exterior(2E) 3-8-3 to 6-11-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss 3) only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.



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Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP	
23070144-01	V16	Valley	1	1	Job Reference (optional)	160372596

2-5-8

2-5-8

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:27:00 ID:CgVkHRtdMZAuzhaXm9\_U1OzRQqT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4-6-14

2-1-6

4x5 =

4-11-0

90 3

2x4 💊



1-9-2

2-0-13

10 L

Scale = 1:26.2

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-MP	0.09 0.11 0.04	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 18 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 4-11-0 oc purlins. Rigid ceiling directly bracing.	athing directly applied applied or 6-0-0 oc	<ul> <li>5) Unbalanced design.</li> <li>6) Gable requir</li> <li>7) Gable studs</li> <li>8) This truss ha chord live loa</li> <li>9) * This truss h on the bottor 3-06-00 tail b chord and and and and and and and and and an</li></ul>	snow loads have es continuous bo spaced at 4-0-0 o ls been designed ad nonconcurrent has been designe n chord in all are: y 2-00-00 wide worther members	been cor ttom chor oc. for a 10.0 with any ed for a liv as where vill fit betw	sidered for th d bearing. ) psf bottom other live load e load of 20.0 a rectangle veen the botto	nis ds. Opsf					
REACTIONS	(size) 1=4-11-10 Max Horiz 1=43 (LC Max Uplift 4=-36 (LC Max Grav 1=87 (LC (LC 21)	0, 3=4-11-10, 4=4-11- 11) 2 14) 20), 3=57 (LC 21), 4=	10 Provide mec bearing plate 4. 2299 11) Beveled plate	hanical connection capable of withs e or shim require	d to provie	ers) of truss to 6 lb uplift at jo de full bearing	o oint J					
FORCES TOP CHORD BOT CHORD WEBS	(lb) - Maximum Corr Tension 1-2=-80/107, 2-3=-6 1-4=-78/80, 3-4=-78 2-4=-188/106	pression/Maximum 1/107 /80	12) This truss is International R802.10.2 at LOAD CASE(S)	designed in acco Residential Code nd referenced sta Standard	andard AN	th the 2018 R502.11.1 a ISI/TPI 1.	nd					
NOTES 1) Unbalance this design 2) Wind: ASC Vasd=1030 Cat. II; Exp zone and C	OTES         Unbalanced roof live loads have been considered for         this design.         Wind: ASCE 7-16; Vult=130mph (3-second gust)         Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;         Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior         zone and C-C Exterior(2E) zone; cantilever left and right											

exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face),

 only. For study exposed to wind index in the pirate of the flass only. For study exposed to wind (normal to the flace), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15)

Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10 SEAL 036322 August 25,2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	107 Serenity-Roof-B326 A LH CP			
23070144-01	V17	Valley	1	1	Job Reference (optional)	160372597		

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Thu Aug 24 10:27:01 ID:CgVkHRtdMZAuzhaXm9\_U1OzRQqT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f









3x5 =

2x4 💊 2x4 🍫

2-6-3

Scale = 1:25.1

## Plate Offsets (X, Y): [2:0-2-8,Edge]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr * Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-MP	0.05 0.05 0.00	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 7 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 Structural wood s 2-6-3 oc purlins. Rigid ceiling direc bracing. (size) 1=2-6- Max Horiz 1=20 (I Max Uplift 1=-8 (L Max Gray 1=111	heathing directly appli tly applied or 10-0-0 o 13, 3=2-6-13 .C 11) C 14) (LC 20), 3=85 (LC 21)	<ul> <li>7) Gable stuct</li> <li>8) This truss chord live</li> <li>9) * This truss</li> <li>ed or</li> <li>on the both</li> <li>3-06-00 ta</li> <li>chord and</li> <li>10) Provide my</li> <li>bearing plating</li> <li>1.</li> <li>11) Beveled pl</li> <li>surface with</li> </ul>	is spaced at 4-0-0 of has been designed oad nonconcurrent is has been designed om chord in all area to by 2-00-00 wide w any other members achanical connection the capable of withs ate or shim required h truss chord at join	oc. for a 10.0 with any d for a liv as where vill fit betw s. on (by oth tanding 8 d to provid tt(s) 1, 3.	) psf bottom other live load e load of 20.0 a rectangle veen the botto ers) of truss t lb uplift at joi de full bearing	ds. )psf om nt					
FORCES	Item         Item <th< td=""><td colspan="8"><ul> <li>Inits truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.</li> <li>LOAD CASE(S) Standard</li> </ul></td><td></td></th<>			<ul> <li>Inits truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.</li> <li>LOAD CASE(S) Standard</li> </ul>								
NOTES 1) Unbalance this design 2) Wind: ASC Vasd=103r Cat. II; Exp zone and C exposed ; é members a Lumber DC 3) Truss desi only. For s see Standa or consult ( 4) TCLL: ASC Plate DOL= DOL=1.15) Cs=1.00; C 5) Unbalance design.	d roof live loads ha	ve been considered fo BCDL=6.0psf; h=25ft FRS (envelope) exterior ne; cantilever left and right exposed;C-C for S for reactions shown DOL=1.60 s in the plane of the tru nd (normal to the face End Details as applica signer as per ANSI/TI sf (roof LL: Lum DOL= (Lum DOL=1.15 Plate t B; Fully Exp.; Ce=0.5	r ; ; ; ; uss ), ble, PI 1. 1.15 ; ;						A STITUTION S		SEA 0363	L EER. H L BERT

6) Gable requires continuous bottom chord bearing.

A. GILBEN

August 25,2023

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