

Trenco 818 Soundside Rd Edenton, NC 27932

Re: 25030163-01 892 Serenity-Roof-B326 B CP TMB GLH

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carter Components (Sanford, NC)).

Pages or sheets covered by this seal: I72212602 thru I72212641

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844



March 25,2025

Gilbert, Eric

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	VLD7	Valley	1	1	Job Reference (optional)	172212602

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:57 ID:CgVkHRtdMZAuzhaXm9_U1OzRQqT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



3x5 =





2x4 🍫 2x4 💊

2-6-10

Scale = 1:25.1

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

Load TCLI Snov TCD BCL BCD	ling _ (roof) v (Pf) L L		(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	GRIP 244/190 FT = 20%	
LUMM TOP BOT BRAA TOP BOT REA TOP BOT 1) (1) (1) (2) (1) (1) (2) (1) (1) (1) (1) (1) (1) (1) (1	- BER CHORD CHORD CHORD CHORD CHORD CHORD CTIONS CES CHORD CHORD CHORD ES Jnbalance his design Vind: ASC Vasd=103; I; Exp B; E and C-C E exposed ; i nembers a umber DC Furss design CFUSS design CFUSS design CCL: ASC Plate DOL: 20L=1.15; CS=1.00; C	2x4 SP No.: 2x4 SP No.: Structural w 2-6-10 oc p Rigid ceiling bracing. (size) 1 Max Horiz 1 Max Uplift 1 Max Grav 1 (lb) - Maxim Tension 1-2=-146/63 1-3=-34/10- droof live loa brack for the l	22 22 22 23 3 directly =2-6-10, =-21 (LC =-9 (LC 1 =115 (LC 9 (LC 1 =115 (LC 9 (LC 1 =115 (LC 9 (LC 1 =130mph 3, 2-3=-12 	athing directly applied applied or 10-0-0 oc 3=2-6-10 12) 4), 3=-9 (LC 15) : 20), 3=115 (LC 21) pression/Maximum 46/63 been considered for (3-second gust) CDL=6.0psf; h=25ft; (velope) exterior zone ever left and right ht exposed;C-C for for reactions shown; =1.60 the plane of the trus: (normal to the face), I Details as applicabl iner as per ANSI/TPI oof LL: Lum DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for thi n chord bearing.	7) 8) 9) d or 11) LO Cat. 5 e, 1. 15 s	Gable studs s This truss ha chord live loa * This truss h on the bottom 3-06-00 tall b chord and an Provide mech bearing plate and 9 lb uplift This truss is o International R802.10.2 ar AD CASE(S)	spaced at 4-0-0 oc s been designed fo d nonconcurrent w as been designed n chord in all areas y 2-00-00 wide will y other members. nanical connection capable of withsta at joint 3. Jesigned in accord Residential Code s d referenced stand Standard	, or a 10.0 for a liv for a liv where I fit betw (by oth anding 9 lance w sections dard AN	D psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t I b uplift at joi ith the 2018 : R502.11.1 a ISI/TPI 1.	ds. Jpsf on int 1 nd				SEA 0363	ROUTE 22 E.F.R. Humining	
														iviarch	25,2025	



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 Science United for the Structure Buckling Component Advance 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	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	VLB8	Valley	1	1	Job Reference (optional)	172212603

2-0-5

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:56 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrCDoi7J4zJC?f

4-5-11

2-0-12

4-9-13

L/d

999

999

n/a

PLATES

Weight: 17 lb

MT20

GRIP

244/190

FT = 20%



Λ 2x4 🎣 2x4 u 2x4 💊 4-9-13 (psf) Spacing 2-0-0 CSI DEFL l/defl in (loc) 20.0 Plate Grip DOL 1.15 тс 0.08 Vert(LL) n/a n/a BC 20.0 Lumber DOL 1 15 0.11 Vert(TL) n/a n/a 10.0 Rep Stress Incr YES WB 0.04 Horiz(TL) 0.00 3 n/a 0.0 Code IRC2018/TPI2014 Matrix-MP 10.0 5) Unbalanced snow loads have been considered for this design. 2x4 SP No.2 2x4 SP No.2 Gable requires continuous bottom chord bearing. 6) 2x4 SP No.3 Gable studs spaced at 4-0-0 oc. 7) This truss has been designed for a 10.0 psf bottom 8) chord live load nonconcurrent with any other live loads. applied or * This truss has been designed for a live load of 20.0psf 9) on the bottom chord in all areas where a rectangle 0-0 oc 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members. 4-9-13 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 3 C 14) and 30 lb uplift at joint 4. C 21), 4=285 11) 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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Scale = 1:26 Loading TCLL (roof) Snow (Pf)

TCDL

BCLL

BCDL

LUMBER

OTHERS

BRACING

TOP CHORD

BOT CHORD

TOP CHORD	Structural	l wood sheathing directly appli
	4-9-13 oc	purlins.
BOT CHORD	Rigid ceili	ing directly applied or 6-0-0 oc
	bracing.	
REACTIONS	(size)	1=4-9-13, 3=4-9-13, 4=4-9-1
	Max Horiz	1=-43 (LC 10)
	Max Uplift	3=-7 (LC 15), 4=-30 (LC 14)
	Max Grav	1=58 (LC 20), 3=86 (LC 21),
		(LC 20)
FORCES	(lb) - Max	imum Compression/Maximum
	Tension	
TOP CHORD	1-2=-61/9	8, 2-3=-79/99
BOT CHORD	1-4=-80/8	5, 3-4=-80/85
WEBS	2-4=-203/	/92

NOTES

 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) 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.
- 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

A MiTek Affili 818 Soundside Road

Edenton, NC 27932



2-4-14

2-4-14

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	VLD6	Valley	1	1	Job Reference (optional)	172212604

2-5-11

2-5-11

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

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:57 ID:CgVkHRtdMZAuzhaXm9_U1OzRQqT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

4-11-6 4-7-4 2 - 1 - 9





4-11-6

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	3/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	GRIP 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 4-11-6 oc purlins. Rigid ceiling directly bracing. (size) 1=4-11-6 Max Horiz 1=-44 (LC Max Uplift 3=-7 (LC Max Grav 1=89 (LC (LC 21)	eathing directly applie v applied or 6-0-0 oc , 3=4-11-6, 4=4-11-6 C 10) 15), 4=-35 (LC 14) 20), 3=89 (LC 21), v	5) 6) 7) 8) ed or 9) 5 10 4=303	Unbalanced design. Gable requir Gable studs This truss ha chord live loa * This truss h on the bottor 3-06-00 tall l chord and ar) Provide mec bearing plate and 35 lb up) This truss is	snow loads have es continuous bo spaced at 4-0-0 is been designed ad nonconcurren as been designen n chord in all are by 2-00-00 wide i by 2-00-00 wide i by 2-00-00 wide i hanical connecti e capable of with lift at joint 4. designed in acco	e been con oc. d for a 10.0 tt with any ed for a liv. eas where will fit betw rs. ion (by oth standing 7 ordance wi	sidered for th d bearing.) psf bottom other live loa e load of 20.0 a rectangle een the botto ers) of truss t lb uplift at jo th the 2018 B502.11.1.0	his ds. Dpsf om int 3					
 FORCES (Ib) - Maximum Compression/Maximum Tension TOP CHORD 1-2=-82/108, 2-3=-82/108 BOT CHORD 1-4=-87/91, 3-4=-87/91 WEBS 2-4=-218/101 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) zone; cantilever left and right 				R802.10.2 a	nd referenced st	andard AN	SI/TPI 1.				T	NITH CA	ROUTIN

- 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. 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

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Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	VLB7	Valley	1	1	Job Reference (optional)	172212605

3-7-5

3-7-5

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

2

2-8-

3-0-5

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:56 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

10

4x5 = 2

4

7-2-10

2x4 🛛

6-10-8

3-3-3



3x5 s



3x5 🍫

12 10 Г

19 1

Scale	=	1:29.1
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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	8/TPI2014	CSI TC BC WB Matrix-MP	0.25 0.26 0.09	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: 27 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD WEBS NOTES	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 7-2-10 oc purlins. Rigid ceiling directly bracing. (size) 1=7-2-10 Max Horiz 1=-66 (LI Max Uplift 1=-26 (LI Max Uplift 1=-26 (LI Max Grav 1=71 (LC 4=-70 (LI Max Grav 1=71 (LC 4=523 (L (Ib) - Maximum Cor Tension 1-2=-83/223, 2-3=-8 1-4=-176/150, 3-4= 2-4=-415/192	eathing directly applie y applied or 6-0-0 oc 0, 3=7-2-10, 4=7-2-10 C 10) C 21), 3=-14 (LC 20), C 14) S 20), 3=103 (LC 21), C 20) npression/Maximum 37/223 -176/150	4) 5) d or 6) 7) 8) 9) 10 11	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. Gable requir Gable studs This truss ha chord live loa * This truss ha chord live loa * This truss ha chord and ar bearing plate 1, 14 lb uplift) This truss is International R802.10.2 an DAD CASE(S)	7-16; Pr=20.0 psf .15); Pf=20.0 psf (1s=1.0; Rough Cat =1.10 snow loads have to spaced at 4-0-0 oc is been designed fad nonconcurrent has been designed in chord in all areas by 2-00-00 wide wi by other members. hanical connectior is capable of withsta at joint 3 and 701 designed in accord Residential Code nd referenced star Standard	f (roof LL (Lum DC B; Fully been cor om chor c. or a 10.0 with any I for a liv s where Il for a liv s where Il for a liv s where a liv t for a liv s handing 2 b handing A liv t for a liv s handing A liv t for a liv	L: Lum DOL=1 VL=1.15 Plate Exp.; Ce=0.9 asidered for th d bearing. 0 psf bottom other live load e load of 20.0 e load of 20.0 ers) of truss tr 6 lb uplift at jo t joint 4. ith the 2018 R502.11.1 a ISI/TPI 1.	I.15); ds.)psf om o point nd						
1) Unbalance	ed roof live loads have	e been considered for											1772	

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) 0-4-13 to 3-7-10, Exterior(2R) 3-7-10 to 4-2-14, Exterior(2E) 4-2-14 to 7-2-14 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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Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	VLD5	Valley	1	1	Job Reference (optional)	172212606

3-1-0

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:56



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7-4-3

Scale = 1:29.3	Scale	=	1:29.3
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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 IRC20 ⁻	18/TPI2014	CSI TC BC WB Matrix-MP	0.27 0.27 0.09	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: 27 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD WEBS NOTES	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 7-4-3 oc purlins. Rigid ceiling directly a bracing. (size) 1=7-4-3, 3 Max Horiz 1=68 (LC Max Uplift 1=-19 (LC 4=-76 (LC Max Grav 1=105 (LC 4=545 (LC (lb) - Maximum Comp Tension 1-2=-92/236, 2-3=-92 1-4=-184/155, 3-4=-1 2-4=-432/204	athing directly applie applied or 6-0-0 oc =7-4-3, 4=7-4-3 11) 21), 3=-19 (LC 20), 14) 20), 3=105 (LC 21) 20), 3=105 (LC 21) poression/Maximum 2/236 184/155	4 5 6 7 8 9 9 9 1, 1 1 L	 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 ha chord and ar Provide mec bearing plate 1, 19 lb uplift This truss is International R802.10.2 a OAD CASE(S) 	5 7-16; Pr=20.0 g 1.5); Pf=20.0 g 1.5); Pf=20.0 ps Is=1.0; Rough C =1.10 snow loads have es continuous be spaced at 4-0-0 is been designer as been designer as been design n chord in all are by 2-00-00 wide hanical connecti e capable of with t at joint 3 and 70 designed in acc Residential Coc nd referenced st Standard	ess (roof LL of (Lum DC at B; Fully e been cor bottom chor oc. d for a 10.0 tt with any ed for a liv ass where will fit betw 's. on (by oth standing 1 6 Ib uplift a ordance w le sections andard AN	L: Lum DOL= JL=1.15 Plate Exp.; Ce=0.9 asidered for the d bearing. D psf bottom other live load e load of 20.1 a rectangle ween the botthe ers) of truss 1 9 Ib uplift at j t joint 4. ith the 2018 is R502.11.1 <i>e</i> ISI/TPI 1.	1.15 e) e); his opsf om to joint					

- 1) Unbalanced roof live loads have been considered for 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) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 4-4-8, Exterior(2E) 4-4-8 to 7-4-8 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	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	PBA2	Piggyback	2	4	Job Reference (optional)	172212607

2)

3)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Mar 21 12:30:55 ID:m2dQdjvppkexqPVgwg5aZPzRCX1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

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Edenton, NC 27932



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Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	PBA	Piggyback	2	1	Job Reference (optional)	172212608

3-5-8

Scale = 1:31.5 Loading

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

BRACING

TOP CHORD

BOT CHORD

TOP CHORD

BOT CHORD

FORCES

TOP CHORD

BOT CHORD

this design

WFBS

NOTES

1)

TCDL

BCLL

BCDL

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Mar 21 12:30:55 ID:RPY8AW_GFKIcY3mFoYebvHzRQqK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

818 Soundside Road

Edenton, NC 27932

12-9-15 11-10-14 -0-11-1 5-11-7 0-11-1 0-11-1 5-11-7 5-11-7 4x5 = 5 12 6 Г 6 4 Þ 22 23 , ч 3 7 0 8 -4-3 14 13 12 11 10 3x5 = 3x5 = 11-10-14 Spacing 2-0-0 CSI DEFL l/defl L/d PLATES GRIP (psf) in (loc) Plate Grip DOL 20.0 1.15 TC 0.08 Vert(LL) n/a n/a 999 MT20 244/190 BC 20.0 Lumber DOL 1 15 0.04 Vert(CT) n/a n/a 999 10.0 Rep Stress Incr YES WB 0.04 Horz(CT) 0.00 8 n/a n/a 0.0 Code IRC2018/TPI2014 Matrix-MSH 10.0 Weight: 52 lb FT = 20%Wind: ASCE 7-16; Vult=130mph (3-second gust) 14) See Standard Industry Piggyback Truss Connection 2) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. Detail for Connection to base truss as applicable, or 2x4 SP No.2 II; Exp B; Enclosed; MWFRS (envelope) exterior zone 2x4 SP No.2 consult qualified building designer. 2x4 SP No.3 and C-C Corner(3E) 0-4-3 to 3-4-3, Exterior(2N) 3-4-3 to LOAD CASE(S) Standard 3-11-0, Corner(3R) 3-11-0 to 9-11-0, Exterior(2N) 9-11-0 to 10-5-13, Corner(3E) 10-5-13 to 13-5-13 zone; Structural wood sheathing directly applied or cantilever left and right exposed ; end vertical left and 6-0-0 oc purlins. right exposed:C-C for members and forces & MWFRS Rigid ceiling directly applied or 10-0-0 oc for reactions shown; Lumber DOL=1.60 plate grip bracing. DOL=1.60 REACTIONS (size) 2=11-10-14, 8=11-10-14, 3) Truss designed for wind loads in the plane of the truss 10=11-10-14, 11=11-10-14, only. For studs exposed to wind (normal to the face), 12=11-10-14, 13=11-10-14, see Standard Industry Gable End Details as applicable, 14=11-10-14 or consult qualified building designer as per ANSI/TPI 1. Max Horiz 2=52 (LC 18) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 4) Max Uplift 2=-9 (LC 15), 8=-12 (LC 15), Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate 10=-45 (LC 15), 11=-47 (LC 15), DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 13=-47 (LC 14), 14=-46 (LC 14) Cs=1.00; Ct=1.10 Max Grav 2=125 (LC 21), 8=125 (LC 22), 5) Unbalanced snow loads have been considered for this 10=240 (LC 22), 11=243 (LC 22), design. 12=143 (LC 22), 13=243 (LC 21), 6) This truss has been designed for greater of min roof live 14=240 (LC 21) load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on (Ib) - Maximum Compression/Maximum overhangs non-concurrent with other live loads. Tension All plates are 2x4 MT20 unless otherwise indicated. 1-2=0/17, 2-3=-46/33, 3-4=-56/50, Gable requires continuous bottom chord bearing. 8) \cap 4-5=-64/116, 5-6=-64/116, 6-7=-56/50, Gable studs spaced at 2-0-0 oc. 9) 7-8=-30/26, 8-9=0/17 This truss has been designed for a 10.0 psf bottom 10)2-14=-9/67, 13-14=-9/67, 12-13=-9/67, chord live load nonconcurrent with any other live loads. Contraction of the 11-12=-9/67, 10-11=-9/67, 8-10=-9/67 MANDER IN INTERNET 11) * This truss has been designed for a live load of 20.0psf 5-12=-102/0. 4-13=-207/124. 3-14=-183/114. on the bottom chord in all areas where a rectangle 6-11=-207/124, 7-10=-183/114 SEAL 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members. 036322 Unbalanced roof live loads have been considered for 12) N/A 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and G R802.10.2 and referenced standard ANSI/TPI 1. mmm March 25,2025 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)

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	PBA1	Piggyback	18	1	Job Reference (optional)	172212609

1)

2)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Mar 21 12:30:55 ID:Cx19sF4HMnJTVINoGDnTDzzRQqC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f 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 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)



818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	H01	Monopitch Supported Gable	2	1	Job Reference (optional)	172212610

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:54 ID:kX6Xm09JsM8Rk_RkgNonK3zRRGV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:45.8

Plate Offsets (X, Y): [2:Edge,0-0-14], [2:0-2-5,Edge], [10:0-0-8,0-1-8]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	() 2 1 1	(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 IRC20 ²	18/TPI2014	CSI TC BC WB Matrix-MSH	0.99 0.35 0.20	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a -0.07	(loc) - - 17	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 68 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS WEDGE BRACING TOP CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Left: 2x4 SP N Structural wor 6-0-0 oc purlin Except:	*Except No.3 od shea ns, exc	* 8-12:2x4 SP No.2 athing directly applie ept end verticals.	V N 1 d or	/EBS 3 5 0 TES) Wind: ASCE Vasd=103mp II; Exp B; End and C-C Exte to 16-0-0 zor vertical left at	-16=-144/25, 4-15 -14=-163/102, 7-1 7-18=-791/447, 10 -18=-19/25 7-16; Vult=130mpl h; TCDL=6.0psf; E closed; MWFRS (e erior(2E) -0-10-8 to e; cantilever left au od right exposed (=-134/1 3=-29/6)-18=-8)-18=-8)-18=-8)-18=-8 0 CDL=6 nvelope 2-0-0, nd right	38, i0, i0/459, cond gust) i.0psf; h=25ft exterior zo Interior (1) 2- exposed; er	;; Cat. ne -0-0 nd	 Pro bea 12. N/A N/A Nor 13) Nor 14) This Inte R80 	vide me ring plat Standa s truss is rnationa 02.10.2 a	chanic e capa rd bea desig l Resid	al connection (b able of withstanc aring condition. Ined in accordar dential Code sec ferenced standa	/ others) of truss tr ing 69 lb uplift at jo Review required. ce with the 2018 stions R502.11.1 at d ANSI/TPI 1.	o oint and
BOT CHORD JOINTS REACTIONS	9-5-0 0c bilaing c bracing. 1 Brace at Jt(: (size) 2=1 14= 17= Max Horiz 2=1 Max Uplift 2=- 14= 17= Max Grav 2=1 13= 15= 17=	(s): 18 10-1-0, =10-1-0 =10-1-0 180 (LC -3 (LC 1 =-18 (LC =-278 (L =-278 (L =131 (L) =203 (L) =877 (L)	17 applied or 6-0-0 oc 12=10-1-0, 13=10-1 , 15=10-1-0, 16=10- 10) 4), 12=-69 (LC 21), C 10), 15=-155 (LC - C 14) 1), 12=34 (LC 10), C 1), 14=172 (LC 1) C 21), 16=234 (LC 2 C 21)	2 -0, .1-0, 3 14), 4 , 27), 5	 b) Truss design only. For stu see Standarc or consult qu b) TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct=1 Unbalanced: design. c) This truss ha load of 12.0 p 	FRS for reactions : FRS for reactions : ate grip DOL=1.60 ed for wind loads in ds exposed to wini I Industry Gable Er alified building des 7-16; Pr=20.0 psf (15); Pf=20.0 psf(15); Pf=20.0 psf (15); Pf=20.0 psf	n the pla d (norm nd Deta igner as (roof LL Lum DC B; Fully een cor or great at roof k	ane of the tru al to the face ils as applica s per ANSI/T :: Lum DOL= DL=1.15 Plate Exp.; Ce=0.1 asidered for t er of min rool aad of 20.0 p	iss a), ble, PI 1. 1.15 e 9; his f live sf on	LOAD	ASE(S	Sta		ROUN	
FORCES TOP CHORD BOT CHORD	(lb) - Maximur Tension 1-2=0/17, 2-3; 4-5=-413/421, 8-9=-439/628 12-17=0/0, 8- 2-16=-380/25; 14-15=-380/2; 12-13=-380/2;	m Comp 3=-475/4 , 5-7=-3 8, 9-10=- 17=-364 14, 15-16 54, 13- 54	bression/Maximum 117, 3-4=-464/425, 173/403, 7-8=-374/4 -438/695, 10-11=-45 8/199 5=-380/254, 14=-380/254,	6 7 74, 8 5/0, 9 1	 overnangs nr All plates are Gable studs s This truss ha chord live loa * This truss h on the bottom 3-06-00 tall b chord and an Bearing at join using ANSI/T designer sho 	on-concurrent with 2x4 MT20 unless spaced at 2-0-0 oc s been designed for d nonconcurrent w as been designed n chord in all areas y 2-00-00 wide will y other members. nt(s) 17 considers PI 1 angle to grain uld verify capacity	other in otherwi or a 10.0 /ith any for a liv where I fit betw parallel formula of bear	ve loads. se indicated. D psf bottom other live loa e load of 20.1 a rectangle veen the bott to grain valu a. Building ng surface.	ads. Opsf om Je				SEA 0363	EER.	A MULTINE

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 **ANSUTP11 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)

818 Soundside Road Edenton, NC 27932

March 25,2025

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	H02	Monopitch	6	1	Job Reference (optional)	172212611

Run: 8.73 E Dec 5 2024 Print: 8.730 E Dec 5 2024 MiTek Industries, Inc. Tue Mar 25 13:31:03 ID:nLPVeuW3K4TytrtY3ILLguzRRHK-B0jd99R9rPRM46lstl4LpCAvdLkEZwnkPEnTFrzXYBO

Page: 1



0-	-4-8	5-2-13	10-2-4	10-5-8
0-	-4-8	4-10-5	4-11-7	0-3-4

Plate Offsets (X, Y): [2:Edge,0-0-14], [2:0-2-5,Edge], [6:0-0-8,0-1-8]

Scale = 1:48.2

Loading TCLL (roof) Snow (Pf) TCDL BCLL	(psf) 20.0 20.0 10.0 0.0*	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	0.78 0.36 0.50	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.03 -0.05 0.01	(loc) 9-10 9-10 9	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 244/190	
BCDL	10.0											Weight: 66 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS WEDGE BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Left: 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, exi Except: 5-3-0 oc bracing: 9- Rigid ceiling directly bracing. (lb/size) 2=377/0-3	t* 5-9:2x4 SP No.1 athing directly applie cept end verticals. 11 applied or 10-0-0 oc 3-0, 9=845/0-5-8	3) 4) 5) d or 6)	Unbalanced design. 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 One RT5 Mi truss to bear	snow loads have b s been designed fo osf or 1.00 times fla on-concurrent with s been designed fo d nonconcurrent w has been designed n chord in all areas by 2-00-00 wide will y other members. Tek connectors rec ing walls due to UF	een cor or great at roof k other liv or a 10.0 ith any for a liv where l fit betv ommen PLIFT at	nsidered for t er of min rool bad of 20.0 p ve loads. 0 psf bottom other live loa e load of 20. a rectangle veen the bott ded to conne jt(s) 9. This	his f live sf on dds. Opsf om ect						
REACTIONS	(ID/SIZE) 2=377/0-3 Max Horiz 2=207 (LC Max Uplift 2=-100 (L Max Grav 2=377 (LC	-0, 9=845/0-5-8 C 10) C 10), 9=-371 (LC 1(C 1), 9=1084 (LC 21)	D) 8)	connection is forces. One RT4 Mi ⁻ truss to bear	for uplift only and Fek connectors rec ing walls due to UF	does no ommen PLIFT at	ot consider la ded to conne jt(s) 2. This	iteral ect						
FORCES	(Ib) - Maximum Com Tension 1-2=0/17, 2-17=-368 3-4=-393/374, 4-18= 5-18=-376/465, 5-6= 9-11=-847/467, 5-11	pression/Maximum /82, 3-17=-356/13, :-377/445, :-456/707, 6-7=-45/0 =-321/163	9) ,	connection is forces. This truss is International R802.10.2 ar	; for uplift only and designed in accord Residential Code s nd referenced stand Standard	does no lance w sections dard AN	ot consider la ith the 2018 i R502.11.1 a ISI/TPI 1.	and					11111	
	2-10=-230/338, 9-10	=-230/338, 8-9=0/0	//68	///2 0//0L(0)	olandara						S	ATHUA	ROC'	
NOTES	5 10-12 4 /211, 3* 3 =		00-100								No.	OFESS	Of The second	
 Wind: ASC Vasd=103 II; Exp B; and C-C E to 16-0-0. left and rig MWFRS f grip DOL= 2) TCLL: AS Plate DOL DOL=1.15 Cs=1.00; 	CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; Bt Enclosed; MWFRS (err Exterior(2E) -0-10-8 to : zone; cantilever left an ght exposed;C-C for ma 'or reactions shown; Lu =1.60 CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat B Ct=1.10	(3-second gust) CDL=6.0psf; h=25ft; velope) exterior zon 2-1-8, Interior (1) 2-1 d right exposed ; por embers and forces & mber DOL=1.60 plat roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9;	Cat. e -8 ch e .15							Contraction of the second seco		SEA 0363	L 22	Annung.

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818 Soundside Road Edenton, NC 27932

March 25,2025

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	VLB6	Valley	1	1	Job Reference (optional)	172212612

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:56 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



= 20%



Scale	. – .	1.33.2	•

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	0.44	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.42	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: 37 lb	FT = 20 ^o
LUMBER			4	TCLL: ASCE	57-16; Pr=20.0 ps	sf (roof Ll	.: Lum DOL=	1.15					
TOP CHORD	2x4 SP No.2			Plate DOL=1	I.15); Pf=20.0 psf	(Lum DC	DL=1.15 Plate	9					
BOT CHORD	2x4 SP No.2			DOL=1.15);	Is=1.0; Rough Ca	t B; Fully	Exp.; Ce=0.9	9;					
OTHERS	2x4 SP No.3			Cs=1.00; Ct=	=1.10								
BRACING			5)	Unbalanced	snow loads have	been cor	nsidered for t	his					
TOP CHORD	Structural wood she	athing directly applie	ed or	design.									
	9-7-6 oc purlins.		6	Gable requir	es continuous bo	ttom choi	d bearing.						
BOT CHORD	Rigid ceiling directly	applied or 6-0-0 oc	1	Gable studs	spaced at 4-0-0 c	ic.	0 not bottom						
	bracing.		0	chord live lo	as been designed	with any	other live los	de					
REACTIONS	(size) 1=9-7-6, 3	3=9-7-6, 4=9-7-6	9	* This truss h	has been designe	d for a liv	e load of 20	nus. Dosf					
	Max Horiz 1=-89 (LC	C 10)	0,	on the bottor	m chord in all area	as where	a rectangle	0001					
	Max Uplift 1=-58 (LC	21), 3=-47 (LC 20),		3-06-00 tall b	oy 2-00-00 wide w	/ill fit betv	veen the bott	om					
	4=-106 (L	.C 14)		chord and ar	y other members	5.							
	Max Grav 1=75 (LC	20), 3=94 (LC 21), 4	l=767 10) Provide mec	hanical connectio	n (by oth	ers) of truss	to					
	(LC 20)			bearing plate	e capable of withs	tanding 5	58 lb uplift at j	oint					
FORCES	(lb) - Maximum Com	pression/Maximum		1, 47 lb uplif	t at joint 3 and 10	6 lb uplift	at joint 4.						
		440/000	1	 This truss is 	designed in acco	rdance w	ith the 2018						
TOP CHORD	1-2=-110/369, 2-3=-	112/300		International	Residential Code	e sections	s R502.11.1 a	ind					
BUICHURD	1-4=-241/170, 3-4=-	241/170		R802.10.2 a	nd referenced sta	ndard AN	NSI/TPI 1.						
WEBS	2-4=-032/200		L	OAD CASE(S)	Standard								
NOTES													
1) Unbalanc	ed root live loads have	been considered for	•									minin	11111
uns desig	1.											N'IL CA	10-11

- 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) 0-4-13 to 3-4-13, Exterior(2R) 3-4-13 to 6-7-11, Exterior(2E) 6-7-11 to 9-7-11 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 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	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	VLD4	Valley	1	1	Job Reference (optional)	172212613

4-10-8

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:56 ID:kUxM45s?bF21LX?KCRTFVAzRQqU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

9-4-14

9-9-0

Page: 1

GRIP

244/190

FT = 20%

C Van and Marine 11111111111 SEAL 036322 G minin March 25,2025 818 Soundside Road Edenton, NC 27932

n/a 999

n/a 999 n/a n/a MT20

Weight: 37 lb

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)



TCLL (roof) Snow (Pf) TCDL BCLL BCDL	20.0 20.0 10.0 0.0* 10.0	Plate Grip DOL Lumber DOL Rep Stress Incr Code	1.15 1.15 YES IRC201	8/TPI2014	TC BC WB Matrix-MSH	0.46 0.44 0.19	Vert(LL) Vert(TL) Horiz(TL)	n/a n/a 0.01	- - 4
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 shea 9-9-0 oc purlins. Rigid ceiling directly bracing. (size) 1=9-9-0, 3 Max Horiz 1=-91 (LC Max Uplift 1=-52 (LC 4=-111 (LI Max Grav 1=94 (LC (LC 20)	athing directly applied applied or 6-0-0 oc =9-9-0, 4=9-9-0 10) 21), 3=-52 (LC 20), C 14) 20), 3=94 (LC 21), 4:	4) 5) d or 6) 7) 8) 9) =788 10	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. Gable requirt Gable studs This truss ha chord live loa * This truss ha on the botton 3-06-00 tall b chord and ar)) Provide mecl bearing olate	7-16; Pr=20.0 p .15); Pf=20.0 psi ls=1.0; Rough Ca .1.10 snow loads have es continuous bo spaced at 4-0-0 is been designed as been designed n chord in all are by 2-00-00 wide v y other members hanical connection	sf (roof LL f (Lum DC at B; Fully been con btom chor oc. I for a 10. t with any as where will fit betw s. on (by oth standing f	L: Lum DOL= DL=1.15 Plate Exp.; Ce=0.1 nsidered for t rd bearing. 0 psf bottom other live loa re load of 20.1 a rectangle ween the bott uers) of truss 1 22 lb uplift at 1	1.15 ¹ ² ; his ids. Opsf om to ioint	
FORCES TOP CHORD BOT CHORD WEBS	(lb) - Maximum Com Tension 1-2=-117/382, 2-3=- 1-4=-249/175, 3-4=- 2-4=-650/275	pression/Maximum 117/382 249/175	11 L(1, 52 lb uplift 1) This truss is International R802.10.2 ar DAD CASE(S)	at joint 3 and 11 designed in acco Residential Cod nd referenced sta Standard	1 lb uplift ordance w e sections andard AN	at joint 4. vith the 2018 s R502.11.1 a NSI/TPI 1.	and	

NOTES

Scale = 1:33.4

- 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) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 6-9-5, Exterior(2E) 6-9-5 to 9-9-5 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.

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	J01	Common	5	1	Job Reference (optional)	172212614

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:55

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818 Soundside Road

Edenton, NC 27932



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Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	E01	Common	1	1	Job Reference (optional)	172212615

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:54 ID:5YjLyPhGJKHB5AEdSp6x7Qy7LK3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:41.9

Loading	(psf) 20.0	Spacing Plate Grip DOI	1-11-4 1 15	CSI TC	0 40	DEFL Vert(LL)	in -0.01	(loc) 8	I/defl >999	L/d 240	PLATES MT20	GRIP 244/190
Spow (Pf)	20.0		1 15	BC	0.20	Vort(CT)	-0.02	8	~000	180		21.0.00
	10.0	Ren Stress Incr	VES	WB	0.23	Horz(CT)	0.02	7	>000 n/a	n/a		
BCU	10.0	Codo		Motrix MD	0.03	11012(01)	0.00	1	n/a	11/a		
BOLL	0.0	Code	IRC2018/1912014	Matrix-WR								FT 000/
BCDL	10.0		-								weight: 37 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood sh 6-0-0 oc purlins, e Rigid ceiling direct bracing.	eathing directly applied xcept end verticals. y applied or 10-0-0 oc 9-0-3-8	 5) This truss h load of 12.0 overhangs i 6) This truss h chord live lo 7) * This truss on the botto 3-06-00 tall chord and a 8) H10A Simp 	as been designed for psf or 1.00 times fit non-concurrent with as been designed for ad nonconcurrent w has been designed m chord in all areas by 2-00-00 wide will ny other members. son Strong-Tie conr	or great at roof k other liv or a 10.0 vith any for a liv s where I fit betw	er of min rooi bad of 20.0 p ve loads.) psf bottom other live loa e load of 20. a rectangle veen the bott recommende	flive sfon ads. Opsf com ed to					
REACTIONS	Max Horiz 9=-114 Max Uplift 7=-38 (L Max Grav 7=460 (l	9=0-3-8 LC 12) C 15), 9=-38 (LC 14) .C 22), 9=460 (LC 21)	connect true and 7. This consider lat 9) This truss is	es to bearing walls of connection is for up eral forces. designed in accord	lue to U lift only lance w	PLIFT at jt(s) and does no ith the 2018) 9 t					
FORCES	(lb) - Maximum Co Tension	mpression/Maximum	Internationa R802.10.2	I Residential Code s	sections	R502.11.1 a	and					
TOP CHORD	1-2=0/49, 2-3=-269 4-5=0/49, 2-10=-37	/94, 3-4=-269/92, 5/177, 4-6=-375/175	LOAD CASE(S	Standard								
BOT CHORD	9-10=-11/120, 8-9= 6-7=-11/122	-11/122, 7-8=-11/122,										
WEBS	3-8=-26/84											
NOTES												
1) Unbalanc	ed roof live loads hav	e been considered for										CCC .
this desig 2) Wind: AS Vasd=100 II; Exp B; and C-C I to 5-4-8, I and right C for mer shown; Lu	n. CE 7-16; Vult=130mp 3mph; TCDL=6.0psf; Enclosed; MWFRS (Exterior(2E) -0-10-8 tt Exterior(2E) 5-4-8 to 8 exposed ; end vertica nbers and forces & M umber DOL=1.60 plat	h (3-second gust) BCDL=6.0psf; h=25ft; (nvelope) exterior zone 2-1-8, Exterior(2R) 2- -4-8 zone; cantilever la left and right exposed WFRS for reactions a grip DOL=1.60	Cat. > 1-8 eft ;C-						1 Contraction of the second se	A. I.	SEA 0363	L 22
 TCLL: AS Plate DOI DOL=1.11 Cs=1.00; Unbalance 	CE 7-16; Pr=20.0 psf _=1.15); Pf=20.0 psf (5); Is=1.0; Rough Cat Ct=1.10 ed snow loads have b	(roof LL: Lum DOL=1. Lum DOL=1.15 Plate B; Fully Exp.; Ce=0.9; een considered for this	15 s								A. G	EER. KINN
aesign.											in the second se	11111

March 25,2025

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Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	VLB5	Valley	1	1	Job Reference (optional)	172212616

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:56 ID:vFTOYoza1WjXT9L6tv8uVZzRQre-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:39.1

Loading	(ps	sf) Spacing	2-0-	-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20	0.0 Plate Gri	ip DOL 1.1	5		TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20).0 Lumber [DOL 1.1	5		BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10	0.0 Rep Stre	ess Incr YES	S		WB	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0	0.0* Code	IRC	2018	/TPI2014	Matrix-MSH								
BCDL	10	0.0											Weight: 50 lb	FT = 20 ^o
LUMBER				3)	Truss design	ed for wind loads	in the pl	ane of the tru	SS					
TOP CHORD	2x4 SP No.2				only. For stu	ids exposed to wi	nd (norm	al to the face),					
BOT CHORD	2x4 SP No.2				see Standard	d Industry Gable I	End Deta	ils as applica	ble,					
OTHERS	2x4 SP No.3				or consult qu	alified building de	esigner a	s per ANSI/T	PI 1.					
BRACING				4)	TCLL: ASCE	: 7-16; Pr=20.0 ps	st (root Ll	L: Lum DOL=	1.15					
TOP CHORD	Structural wood	d sheathing dire	ctly applied or		DOL=1.15);	Is=1.0; Rough Ca	t B; Fully	Exp.; Ce=0.	; 9;					
BOT CHORD	Rigid ceiling dir	s. rectly applied or	10-0-0 oc		Cs=1.00; Ct=	=1.10		•						
201 0110112	bracing.	applied of		5)	Unbalanced	snow loads have	been cor	nsidered for t	his					
REACTIONS	(size) 1=12	2-0-3, 5=12-0-3,	6=12-0-3,		design.			al la a ada a						
	7=12	2-0-3, 8=12-0-3		6) 7)	Gable requir	es continuous por	ttom choi	d bearing.						
	Max Horiz 1=-1	13 (LC 10)		8)	This trues ha	spaceu al 4-0-0 C	for a 10 i	0 nsf bottom						
	Max Uplift 1=-3	8 (LC 10), 5=-6	(LC 11),	0)	chord live loa	ad nonconcurrent	with any	other live los	ds					
	6=-1	36 (LC 15), 8=-1	138 (LC 14)	9)	* This truss h	has been designe	d for a liv	e load of 20.	Opsf					
	Max Grav 1=77	(LC 30), 5=71	(LC 24), 6=434		on the bottor	n chord in all area	as where	a rectangle	•					
	(LC 2	21), 7=259 (LC 2	21), 8=432 (LC		3-06-00 tall b	y 2-00-00 wide w	/ill fit betv	veen the bott	om					
FORCES	(lb) Maximum	Compression/	Antination		chord and ar	ny other members	5.							
FURCES	(ID) - Maximum	Compression/w	Maximum	10	Provide mec	hanical connectio	n (by oth	ers) of truss	to					
TOP CHORD	1-2=-114/100 2	2-3=-219/116_3	3-4=-218/115		bearing plate	e capable of withs	tanding 3	B8 lb uplift at j	oint					
	4-5=-89/63	2 0 2.0, 1.0, 0	210/110,		1, 6 ID UPIIIT a	at joint 5, 138 id u 6	iplin at joi	int 8 and 136	D					
BOT CHORD	1-8=-32/73, 7-8	3=-30/73, 6-7=-3	30/73,	11	This trues is	u. designed in acco	rdance w	ith the 2018						
	5-6=-30/73			,	International	Residential Code	sections	R502.11.1 a	and				munn	11111
WEBS	3-7=-171/0, 2-8	3=-400/215, 4-6=	=-401/220		R802.10.2 a	nd referenced sta	ndard AN	NSI/TPI 1.					W'TH CA	Ro
NOTES				LO	AD CASE(S)	Standard						5	R	n l

- 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) 0-4-13 to 3-4-13, Exterior(2R) 3-4-13 to 9-0-8, Exterior(2E) 9-0-8 to 12-0-8 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
 - 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)



818 Soundside Road Edenton, NC 27932

SEAL

036322

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	VLD3	Valley	1	1	Job Reference (optional)	172212617

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:56 ID:kUxM45s?bF21LX?KCRTFVAzRQqU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:39.3

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	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL		10.0	Rep Stress Incr	YES		WB	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCLL BCDL		0.0* 10.0	Code	IRC201	8/TPI2014	Matrix-MSH							Weight: 50 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD	2x4 SP N 2x4 SP N 2x4 SP N Structura 6-00 oc Rigid ceil bracing	o.2 o.2 o.3 I wood shea ourlins. ing directly	athing directly applied or 10-0-0 or	3) 4) ed or c 5)	Truss desigr only. For stu see Standar or consult qu TCLL: ASCE Plate DOL=' DOL=1.15); Cs=1.00; Ct: Unbalanced	hed for wind load uds exposed to v d Industry Gable aalified building of 5 7-16; Pr=20.0 p 1.15); Pf=20.0 ps Is=1.0; Rough C =1.10 snow loads have	ls in the pl vind (norm End Deta designer a bsf (roof Ll sf (Lum DC at B; Fully e been cor	ane of the tru al to the face ils as applica s per ANSI/T L: Lum DOL= DL=1.15 Plate r Exp.; Ce=0.9	ss), ble, PI 1. 1.15 9 9; his					
REACTIONS	(size) Max Horiz Max Uplift Max Grav	1=12-1-13 7=12-1-13 1=-115 (L 1=-33 (LC 6=-136 (L 1=94 (LC (LC 21), 7 20)	8, 5=12-1-13, 6=12- 8, 8=12-1-13 C 12) 10), 5=-5 (LC 11), C 15), 8=-140 (LC 1 25), 5=73 (LC 24), 6 '=261 (LC 21), 8=43	4) 4) 5=434 4 (LC	design. Gable requir Gable studs This truss ha chord live loa * This truss l on the bottor 3-06-00 tall h	es continuous be spaced at 4-0-0 as been designer ad nonconcurren has been design m chord in all are by 2-00-00 wide	ottom chor oc. d for a 10. It with any ed for a liv eas where will fit betw	rd bearing. 0 psf bottom other live loa re load of 20. a rectangle ween the bott	ids. Opsf om					
FORCES	(lb) - Max Tension	imum Com	pression/Maximum	10) Provide mec	hanical connecti	on (by oth	ers) of truss	iO aint					
TOP CHORD	1-2=-117/ 4-5=-91/6	/101, 2-3=-: 3	216/116, 3-4=-216/1	16,	1, 5 lb uplift	e capable of with at joint 5, 140 lb 6.	uplift at joi	int 8 and 136	lb					
BOT CHORD	1-8=-32/7 5-6=-32/7	′9, 7-8=-32⊭ ′4	/74, 6-7=-32/74,	11) This truss is International	designed in acc Residential Coc	ordance w le sections	rith the 2018 s R502.11.1 a	and				mmm	un.
WEBS	3-7=-174	/0, 2-8=-39	7/217, 4-6=-397/217	7	R802.10.2 a	nd referenced st	andard AN	NSI/TPI 1.	-				"TH CA	Ro
NOTES				L	DAD CASE(S)	Standard						A	R	1.710

- 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) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 9-2-2, Exterior(2E) 9-2-2 to 12-2-2 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



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Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	VLB4	Valley	1	1	Job Reference (optional)	172212618

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:55 ID:CKtcSNrINSSyGdaBHoyY5SzRQro-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

GRIP

244/190

FT = 20%



- Tension TOP CHORD 1-2=-141/139, 2-3=-178/119, 3-4=-177/112, 4-5=-122/104 BOT CHORD 1-8=-59/119, 7-8=-59/99, 6-7=-59/99, 5-6=-59/99
- WEBS 3-7=-223/0, 2-8=-374/196, 4-6=-375/195 NOTES

Scale = 1:43.4

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

BRACING

TOP CHORD

BOT CHORD

TOP CHORD

BOT CHORD

FORCES

REACTIONS (size)

TCDL

BCLL

BCDL

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: AŠCE 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) 0-4-13 to 3-2-13, Interior (1) 3-2-13 to 4-2-13, Exterior(2R) 4-2-13 to 10-2-13, Interior (1) 10-2-13 to 11-2-13, Exterior(2E) 11-2-13 to 14-5-5 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
- bearing plate capable of withstanding 29 lb uplift at joint 1, 156 lb uplift at joint 8 and 154 lb uplift at joint 6.
- 11) 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.



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LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	VLD2	Valley	1	1	Job Reference (optional)	172212619

Scale = 1:43.7 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

arip DOL=1.60

REACTIONS (size)

bracing.

Max Horiz

Max Grav

Tension

4-5=-121/110

5-6=-61/101

1=-138 (LC 10)

8=-159 (LC 14)

8=456 (LC 20)

(Ib) - Maximum Compression/Maximum

1-8=-61/127, 7-8=-61/101, 6-7=-61/101,

3-7=-227/0. 2-8=-375/197. 4-6=-375/196

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) 0-0-5 to 3-3-10, Interior (1) 3-3-10

to 4-3-10, Exterior(2R) 4-3-10 to 10-3-10, Interior (1) 10-3-10 to 11-3-10, Exterior(2E) 11-3-10 to 14-6-14 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)

1-2=-153/145, 2-3=-173/121, 3-4=-173/111,

Max Uplift 1=-24 (LC 10), 6=-156 (LC 15),

1=124 (LC 30), 5=99 (LC 24),

6=456 (LC 21), 7=407 (LC 24),

TCDL

BCLL

BCDL

Run: 8 73 S. Feb 19 2025 Print: 8 730 S Feb 19 2025 MiTek Industries. Inc. Fri Mar 21 12:30:56

Page: 1

GRIP

244/190

FT = 20%



7) 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.
- * 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, with BCDL = 10.0psf. 10) Provide mechanical connection (by others) of truss to
- bearing plate capable of withstanding 24 lb uplift at joint 1, 159 lb uplift at joint 8 and 156 lb uplift at joint 6.
- 11) 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.



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LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	VLB3	Valley	1	1	Job Reference (optional)	172212620

Scale = 1:50.5 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

DOL=1.60

TCDL

BCLL

BCDL

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Mar 21 12:30:55 ID:4pahjxh9RSqoCd5h0aDV3jzRQs?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	VLD1	Valley	1	1	Job Reference (optional)	172212621

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Mar 21 12:30:56 ID:?VRASUfm0qfd3oFPBHC5FHzRQud-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

GRIP

244/190

FT = 20%



LUMBER		
TOP CHORD	2x4 SP N	0.2
BOT CHORD	2x4 SP N	0.2
OTHERS	2x4 SP N	0.3
BRACING		
TOP CHORD	Structura	I wood sheathing directly applied or
BOT CHORD	Rigid ceil bracing.	ing directly applied or 6-0-0 oc
REACTIONS	(size)	1=16-11-6, 5=16-11-6, 6=16-11-6, 8=16-11-6, 9=16-11-6
	Max Horiz	1=161 (LC 11)
	Max Uplift	1=-58 (LC 10), 6=-184 (LC 15), 9=-190 (LC 14)
	Max Grav	1=83 (LC 35), 5=1 (LC 25), 6=513 (LC 25), 8=657 (LC 24), 9=516 (LC 24)
FORCES	(lb) - Max	imum Compression/Maximum
TOP CHORD	1-2=-105/	/376, 2-3=-23/323, 3-4=-1/302,
BOT CHORD	1-9=-201/ 5-6=-201/	/77, 8-9=-201/75, 6-8=-201/75, /75

WEBS NOTES

Scale = 1:50.8 Loading

TCLL (roof)

Snow (Pf)

TCDL

BCLL

BCDL

- 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) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 5-6-0, Exterior(2R) 5-6-0 to 11-6-0, Interior (1) 11-6-0 to 13-7-3, Exterior(2E) 13-7-3 to 16-7-3 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

3-8=-476/0. 2-9=-394/222. 4-6=-394/220

- 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. 7)
 - Gable studs spaced at 4-0-0 oc.
- 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, with BCDL = 10.0psf. 10) Provide mechanical connection (by others) of truss to
- bearing plate capable of withstanding 58 lb uplift at joint 1, 190 lb uplift at joint 9 and 184 lb uplift at joint 6.
- 11) 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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818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	VLB2	Valley	1	1	Job Reference (optional)	172212622

9-7-5

9-7-5

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

1)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Mar 21 12:30:55 ID:yJIn_UX?VSBe9dbBmLUS1zzRQsC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

18-10-8

9-3-3

Page: 1

19-2-10

0-4-2



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)

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UTITITITI I

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	D02	Common Girder	1	3	Job Reference (optional)	172212623

Run: 8,73 E Dec 5 2024 Print: 8,730 E Dec 5 2024 MiTek Industries, Inc. Tue Mar 25 13:34:11 ID:ahvaep5BsMWascBuTkn6buzRAib-daCS17kL5nNOtJHN?fUuWG2V7xXC4I1h5ooWwrzXY8Q

Page: 1



Scale = 1:56.1 Plate Offsets (X, Y): [1:0-9-0,0-5-0], [5:0-9-0,0-5-0], [6:0-9-12,0-6-0], [8:0-9-12,0-6-0]

Load	ding	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLI	L (roof)	20.0	Plate Grip DOL	1.15		TC	0.37	Vert(LL)	-0.09	8-11	>999	240	MT20	244/190	
Snov	w (Pf)	20.0	Lumber DOL	1.15		BC	0.52	Vert(CT)	-0.15	8-11	>999	180			
тср	L	10.0	Rep Stress Incr	NO		WB	0.87	Horz(CT)	0.02	5	n/a	n/a			
BCL	L	0.0*	Code	IRC2018	3/TPI2014	Matrix-MSH									
BCD	DL	10.0											Weight: 546 lb	FT = 20%	
шм	IBER			3)	All loads are	considered equally	applie	d to all plies.		1) De	ead + Sn	ow (ba	alanced): Lumber	Increase=1.15. Plate	,
TOP	CHORD	2x6 SP No.2		- /	except if note	ed as front (F) or ba	ack (B)	face in the LC	DAD	Ín	crease="	1.15	,	, ,	
BOT	CHORD	2x12 SP 2400F 2.0E			CASE(S) sec	tion. Ply to ply con	nection	s have been		Ur	niform Lo	bads (I	b/ft)		
WEE	3S	2x4 SP No.2 *Excep	t* 8-2.6-4:2x4 SP No	0.3	provided to d	istribute only loads	noted	as (F) or (B),			Vert: 1-3	3=-60,	3-5=-60, 9-12=-2	20	
WED	DGE	Left: 2x4 SP No.3	,		unless otherv	vise indicated.				Co	oncentra	ted Lo	ads (lb)		
		Right: 2x4 SP No.3		4)	Unbalanced	roof live loads have	been	considered fo	r		Vert: 8=	-1893	(B), 6=-1893 (B),	, 15=-5509 (B),	
BRA		•			this design.						16=-189	97 (B),	18=-1893 (B), 19)=-1893 (B), 20=-1893	3
TOP	CHORD	Structural wood she	athing directly applie	dor 5)	Wind: ASCE	7-16; Vult=130mpl	n (3-seo	cond gust)			(B), 21=	-1893	(B)		
		6-0-0 oc purlins.	0 7 11		Vasd=103mp	h; TCDL=6.0psf; E	SCDL=6	.0psf; h=25ft;	Cat.						
BOT	CHORD	Rigid ceiling directly	applied or 10-0-0 oc		II; Exp B; En	closed; MWFRS (e	nvelope	e) exterior zor	ne;						
		bracing.			cantilever lef	and right exposed	; end v	ertical left an	d						
REA	CTIONS	(lb/size) 1=11318/0	0-5-8, 5=8927/0-5-8		ngni exposed		o plate	grip DOL=1.	60						
		Max Horiz 1=181 (LC	C 11)	6)		7-16. Pr-20.0 pef	(roof LI		1 15						
		Max Grav 1=14963 ((LC 21), 5=10831 (LC	C6) ⁰⁾	Plate DOI -1	15). Pf-20.0 psi		. Luin DOL-	1.15						
FOR	CES	(lb) - Maximum Com	pression/Maximum		DOI = 1.15)	s=1.0. Rough Cat	B' Fully	Exp Ce=0.9							
		Tension			Cs=1.00: Ct=	:1.10	2, . u	_,p., 00 0.0	,						
TOP	CHORD	1-2=-14218/0, 2-3=-	14152/0, 3-4=-12497	7/0, 7)	Unbalanced	snow loads have b	een cor	nsidered for th	nis						
		4-5=-12624/0		,	design.										
BOT	CHORD	1-15=0/10921, 15-16	6=0/10921,	8)	This truss ha	s been designed fo	or a 10.) psf bottom							
		8-16=0/10921, 8-17=	=0/7222, 17-18=0/72	22,	chord live loa	id nonconcurrent w	ith any	other live loa	ds.						
		7-18=0/7222, 7-19=0)/7222, 6-19=0/7222	, 9)	* This truss h	as been designed	for a liv	e load of 20.0	Opsf				mmm	1111.	
		6-20=0/9610, 20-21=	=0/9610, 5-21=0/961	0	on the botton	n chord in all areas	where	a rectangle					W'LL CA	Rall	
VVEE	35	3-8=0/10693, 2-8=-2	43/269, 3-6=0/6972,		3-06-00 tall b	y 2-00-00 wide will	fit betv	veen the botto	om			1	alli		
		4-0=-137/230		10	chord and an	y other members,	WITH BC	DL = 10.0pst	•			1	O' EESS	ON'L	
NOT	ES			10) This truss is	Designed in accord	ance w	101 me 2018	nd		1	$\leq \leq$		14 11	_
1) N/	/A					d referenced stan		191/TDI 1	nu			y e	51 4	a.c.	· .
\sim	2 plu truco	to be connected toget	hor with 10d	11) Hanger(s) or	other connection c	lavice(s) shall he			-		0.54	. : =	
2) 3	3-piy truss (0 121"v2"	') pails as follows:	iner with TOO		nrovided suff	icient to support co	ncentra	ted load(s) 8	869			:	SEA	L : =	
-	Ton chord	connected as follows.	2 2 x 6 - 2 rows		Ib down and	536 lb up at 2-7-0	22631	down at 4-4	4-12		=		0363	22 =	
	stangered	at 0-9-0 oc	5. 270 - 2 1003		2258 lb dowr	at 6-4-12, 2247	down	at 8-4-12.22	249				. 0505	44 i E	
Ē	Bottom ch	ords connected as follo	ows: 2x12 - 6 rows		lb down at 1	0-4-12, 2258 lb dov	wn at 1	2-4-12, and 2	2258				1	1 5	
-	staggered	at 0-4-0 oc.			lb down at 1	4-4-12, and 2258 II	o down	at 16-4-12 o	n				·	air i	
Ň	Web conn	ected as follows: 2x4 -	1 row at 0-9-0 oc.		bottom chord	. The design/seled	tion of	such connect	tion			25	GIN	EFRAN	
					device(s) is t	he responsibility of	others.					11	10	BEN	
													11, A. G	ILLIN	
				LC	DAD CASE(S)	Standard							(IIIIIII)	mm,	



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March 25,2025

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Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	D01	Common Supported Gable	1	1	Job Reference (optional)	172212624

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:54 ID:8F2D?hHuvW?rb9K6OMb_Y2zRQrE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



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 IRC2018	3/TPI2014	CSI TC BC WB Matrix-MR	0.21 0.12 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: 127 lb	GRIP 244/190 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 shee 6-0-0 oc purlins, exi Rigid ceiling directly bracing. (size) 14=18-6-(21=18-6-(21=18-6-(21=18-6-(24=18-6-(24=18-6-(21=-114 (23=-114 (23=-114 (23=-226 (l 23=226 (l)	athing directly applied cept end verticals. applied or 6-0-0 oc), 15=18-6-0, 16=18-6), 18=18-6-0, 20=18-6), 22=18-6-0, 23=18-6) LC 12) C 11), 15=-163 (LC 1 LC 14), 22=-47 (LC 1 LC 14), 22=-47 (LC 1 LC 14), 24=-71 (LC 1 LC 30), 15=223 (LC 2: LC 22), 17=255 (LC 2: LC 22), 20=227 (LC 2 .C 21), 22=172 (LC 2 .C 25), 24=206 (LC 2)	Wf 1) 1 or 2) 5-0, 5-0, 5), 5), 5), 3, 2), 1), 6)	EBS 6 4 9 10 0 10 10 10 10 10 10 10 10 10 10 10 1	-20=-187/8, 8-18= -22=-142/94, 3-23 -17=-214/164, 10- 1-15=-170/170 roof live loads have 7-16; Vult=130mp h; TCDL=6.0psf; E closed; MWFRS (e ter(3E) -0-10-8 to -12, Corner(3R) 6- to 16-2-4, Corner(3 and right exposed ;C-C for members shown; Lumber DO ted for wind loads i ds exposed to win I Industry Gable Er alified building des 7-16; Pr=20.0 psf. (5)=1.0; Rough Cat	-183/11 =-172/1 16=-14: a been of 3CDL=6 3CDL=6 0.22-12, 2-12 to E) 16-2 1; end v occurrent a and for DL=1.60 n the pla d (norm nd Deta igner as (roof LL Lum DC B; Fully	, 5-21=-212/1 58, 3/90, considered fo .0psf; h=25ft;) exterior zor Exterior(2N) 12-2-4, Exter 4 to 19-4-8 z ertical left an ces & MWFR) plate grip ane of the tru: al to the face, ils as applicat s per ANSI/TF .: Lum DOL= L=1.15 Plate Exp.; Ce=0.9	r ; Cat. ne ior cone; d \$\$ \$\$), ble, PI 1. 1.15 \$;	12) * Th on ti 3-06 chor 13) Prov beau 24, 4 uplif joint 15. 14) This Inter R80 LOAD C	is truss ne botto -00 tall d and a d and a ride mee tring plat 48 lb up t at join 17, 46 truss is nationa 2.10.2 a ASE(S)	has be m cho by 2-0 ny oth chanic e capp lift at ji t 22, 11 lb uplif l Resi and ref) Sta	een designed for rd in all areas wh 10-00 wide will fit ter members. al connection (by able of withstandi oint 14, 114 lb up 68 lb uplift at join ft at joint 16 and inted in accordance dential Code sec ferenced standar ndard	a live load of 2 ere a rectangl between the b others) of trus ng 71 lb uplift lift at joint 21, t 23, 117 lb up I63 lb uplift at with the 201 ions R502.11. d ANSI/TPI 1.	20.0psf e ottom ss to at joint 47 lb lift at joint 18 1 and
FORCES TOP CHORD BOT CHORD	(b) - Maximum Com Tension 2-24=-168/64, 1-2=0 3-4=-106/91, 4-5=-9 6-7=-96/175, 7-8=-9, 9-10=-76/119, 10-11 12-13=0/39, 12-14=- 23-24=-105/187, 22- 21-22=-105/187, 12- 18-20=-105/187, 15- 14-15=-105/187)/39, 2-3=-165/141, 3/116, 5-6=-115/233, 2/166, 8-9=-117/238, =-89/71, 11-12=-151/ -155/46 -23=-105/187, -21=-105/187, -18=-105/187, -16=-105/187,	5) 5) (116, 7) 8) 9) 10 11	Cs=1.00; Ct= Unbalanced s design. This truss ha load of 12.0 p overhangs no All plates are Gable require Truss to be ft braced again) Gable studs s) This truss ha chord live loa	1.10 snow loads have b s been designed for osf or 1.00 times fla on-concurrent with 2x4 MT20 unless as continuous botto illy sheathed from st lateral movement spaced at 2-0-0 oc s been designed for d nonconcurrent w	een cor or greate at roof lo other liv otherwi om chor one fac on fac t (i.e. d or a 10.0	esidered for the er of min roof pad of 20.0 ps re loads. se indicated. d bearing. e or securely iagonal web). 0 psf bottom other live load	his live sf on		Continue		SEA 0363	L 22 EEER.K	and annunning

March 25,2025

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Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	VLB1	Valley	1	1	Job Reference (optional)	172212625

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Mar 21 12:30:55 ID:uRu6rMLa1rImrJyJNhjxxpzRQsR-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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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)



818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	G01	Monopitch	5	1	Job Reference (optional)	172212626

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:54 ID:PdAAD85_ICJN?UaWrZNnF5zRQu2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:64.6

Plate Offsets (X, Y):	[2:0-2-0,0-1-8],	[3:0-4-0,0-3-4]
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	() L = -,= -	1, 5 1												
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		тс	0.95	Vert(LL)	-0.12	7-8	>999	240	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.67	Vert(CT)	-0.20	7-8	>923	180			
TCDL	10.0	Rep Stress Incr	YES		WB	0.39	Horz(CT)	-0.01	7	n/a	n/a			
BCLL	0.0*	Code	IRC20	18/TPI2014	Matrix-MSH									
BCDL	10.0											Weight: 106 lb	FT = 20%	
BCLL BCDL LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD WEBS REACTIONS FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Wind: AS(Vasd=103 II; Exp B; and C-C E to 12-11-8 cantilever exposed;(C 2) TCLL: AS Plate DOL DOL=1.6C 2) TCLL: AS Plate DOL DOL=1.0; (3) Unbalance	0.0* 10.0 2x4 SP No.1 *Exc 2x4 SP No.2 2x4 SP No.3 *Exc Structural wood sh 2-2-0 oc purlins, e Rigid ceiling direct bracing. 1 Row at midpt (size) 7 = Mecl Max Uplift 7=-221 Max Grav 7=831 ((lb) - Maximum Co Tension 1-2=0/27, 2-4=-67 4-7=-328/122, 2-9 8-9=-334/218, 7-8 3-8=0/313, 3-7=-7 CE 7-16; Vult=130m; mph; TCDL=6.0psf; Enclosed; MWFRS (Exterior(2E) -0-10-8 t 3, Exterior(2E) -0-10-8 t 1, Enclosed; MWFRS (2, C for members and shown; Lumber DOL 0) CE 7-16; Pr=20.0 psf -1, 15); Pf=20.0 psf -1, 10 ed snow loads have l	Code ppt* 1-3:2x4 SP No.2 ppt* 4-7:2x4 SP No.2 eathing directly applia xcept end verticals. ly applied or 10-0-0 or 4-7, 3-7 nanical, 9=0-5-8 _C 14) _C 5), 9=754 (LC 5) mpression/Maximum 7/119, 4-5=-12/0, =-655/84 =-195/603, 6-7=0/0 58/250, 2-8=0/486 wh (3-second gust) BCDL=6.0psf; h=25ft; envelope) exterior zor 0 2-1-8, Interior (1) 2-8 to 15-11-8 zone; d ; end vertical left forces & MWFRS for =1.60 plate grip ⁵ (roof LL: Lum DOL= ² Lum DOL=1.15 Plate B; Fully Exp.; Ce=0.5 peen considered for th	IRC20 4 5 eed or 6 c 7 8 9 L 5 ; Cat. ne 1-8	 18/TPI2014 This truss ha load of 12.0 overhangs n This truss ha chord live load * This truss is on the botton 3-06-00 tall I chord and an Refer to gird Provide mectorial bearing plate 7. This truss is International R802.10.2 a 	Matrix-MSH as been designed psf or 1.00 times f on-concurrent with seen designed ad nonconcurrent nas been designed n chord in all area by 2-00-00 wide w by other members er(s) for truss to tr hanical connectio e capable of withsi designed in accor Residential Code nd referenced star Standard	for great flat roof le h other li for a 10.1 with any d for a liù as where rill fit betv , with BC russ conr n (by oth tanding 2 rdance w e sections ndard AN	er of min rool oad of 20.0 p ve loads. 0 psf bottom other live loa e load of 20. a rectangle veen the bott CDL = 10.0ps nections. ers) of truss i 221 lb uplift al s R502.11.1 a VSI/TPI 1.	f live sf on dds. Opsf om f. to t joint				Weight: 106 lb	FT = 20%	
												March	25,2025	

- 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	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	C01	Half Hip	4	1	Job Reference (optional)	172212627

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:53 ID:Je5w06f8goBW?T4xbCQ60Kyfk?K-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



-0-10-8 20-11-8 7-0-5 13-9-3 20-2-8 0-10-8 7-0-5 6-8-13 6-5-5 0-9-0 3x5 ≠ 7 -8-0 11 19 3x5 ≠ 18 12 6 6 3x5 🞜 11-0-3 5 10-0-14 10-0-14 10-0-14 3x5 🞜 4 3x5 ≉ 17 3 0-8-0 . X 11 10 9 20 21 2x4 II 3x5= 3x5 II 3x8= 3x5= 20-11-8 7-0-5 13-9-3 20-7-0 7-0-5 6-8-13 6-9-13 0-4-8

Scale = 1:71.5

	(, .). [=	[]											
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	8/TPI2014	CSI TC BC WB Matrix-MSH	0.83 0.62 0.79	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	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD WEBS FORCES TOP CHORD BOT CHORD BOT CHORD BOT CHORD WEBS NOTES	 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep 2x6 SP No.2 Left 2x4 SP No.31 Structural wood sheat 4-8-11 oc purlins, ex Rigid ceiling directly bracing. 1 Row at midpt (size) 2=0-5-8, 8 Max Horiz 2=387 (LC Max Uplift 2=-49 (LC Max Grav 2=954 (LC (lb) - Maximum Com Tension 1-2=0/23, 2-4=-1437 6-7=-166/102, 7-8=-2 2-11=-399/1321, 9-1 8-9=-159/721 4-11=0/263, 4-9=-69 6-8=-1026/227 	t* 7-8:2x4 SP No.2 I-6-0 athing directly applie xcept end verticals. applied or 10-0-0 oc 7-8, 6-8 3=0-5-8 2 14) 14), 8=-342 (LC 14) 2 5), 8=1731 (LC 21) pression/Maximum //30, 4-6=-824/0, 270/93 1=-320/1321, 11/185, 6-9=0/637,	3) 4) 5) 6) 6) 7) 8) 9) 10 LC 1)	Unbalanced design. This truss ha load of 12.0 overhangs n All plates are This truss ha chord live loa * This truss ha chord live loa * This truss ha chord and are One H2.5A S recommende UPLIFT at jt and does no This truss is International R802.10.2 a) Hanger(s) or provided suf Ib down and design/selec responsibility DAD CASE(S) Dead + Sm	snow loads have I as been designed f psf or 1.00 times fi on-concurrent with e 3x5 MT20 unless as been designed fad nonconcurrent to has been designed m chord in all area by 2-00-00 wide wi ny other members, Simpson Strong-Ti ed to connect truss (s) 8 and 2. This co t consider lateral fi designed in accorn Residential Code nd referenced star r other connection ficient to support c 128 lb up at 20-7- tion of such conner y of others. Standard bw (balanced): Lur	or great at roof I o ther li o ther with or a 10. with any for a liv s where I fit bett with BC e conne to bear onnection orces. dance w sections dard AN device(s oncentra 0 on bo ction de	nsidered for t er of min roo oad of 20.0 p ve loads. se indicated. D psf bottom other live loa e load of 20. a rectangle close a rectangle DL = 10.0ps ctors ing walls due n is for uplift ith the 2018 s R502.11.1 a JSI/TPI 1. i) shall be ated load(s) 7 ttom chord. vice(s) is the rease=1.15.	this f live sof on ads. Opsf tom of. e to only and 752 The e Plate				WITH CA	ROLINI
 Wind: AS Vasd=103 II; Exp B; and C-C I to 17-4-4, vertical le MWFRS grip DOLa TCLL: AS Plate DO 	CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; BC Enclosed; MWFRS (en Exterior(2E) -0-10-8 to 2 , Exterior(2E) 17-4-4 to ft exposed;C-C for men for reactions shown; Lu =1.60 SCE 7-16; Pr=20.0 psf (l) =1.45); Pf=20.0 psf (l)	(3-second gust) CDL=6.0psf; h=25ft; velope) exterior zone 2-1-8, Interior (1) 2-1 20-4-4 zone; end nbers and forces & mber DOL=1.60 plat roof LL: Lum DOL=1 um DOL=1.16 Plate	Cat. e -8 e .15	Increase=1 Uniform Lo Vert: 1-7 Concentrat Vert: 8=-	.15 ads (lb/ft) =-60, 8-13=-20 ed Loads (lb) 747					Contraction of the		SEA 0363	

- to 17-4-4, Exterior(2E) 17-4-4 to 20-4-4 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 2) 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

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818 Soundside Road Edenton, NC 27932

G minin

March 25,2025

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH			
25030163-01	C02	Half Hip	1	1	Job Reference (optional)	172212628		

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:54 ID:EGq646Pbf2EXC6nWIJzpaiyfjwU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



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

Scale = 1:71.3

			_										
	(psf)	Spacing	2-0-0		CSI	0.82	DEFL	in -0.08	(loc)	l/defl	L/d	PLATES	GRIP 244/190
Spow (Pf)	20.0	Lumber DOL	1.15			0.62	Vert(LL)	-0.06	7-0	>999	100	IVI I 20	244/190
	20.0	Ren Stress Incr	VES		WB	0.03	Horz(CT)	-0.14	7-0	>999 n/a	n/a		
RCU	0.0*	Codo	IPC2010	7TDI2014	Motrix MSH	0.75	11012(01)	0.05	'	n/a	n/a		
BCDL	10.0	Code	INCZUIC	0/1712014	Matrix-MiSri							Weight: 146 lb	FT = 20%
LUMBER TOP 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 shea 4-7-1 oc purlins, exx Rigid ceiling directly bracing. 1 Row at midpt (size) 1=0-3-8, 7 Max Horiz 1=370 (LC Max Uplift 1=-30 (LC	* 6-7:2x4 SP No.2 -6-0 athing directly applie sept end verticals. applied or 10-0-0 oc 6-7, 5-7 *=0-5-8 2 14) : 14), 7=-342 (LC 14)	3) 4) 5) d or 6) 7)	Unbalanced design. This truss ha chord live loa * This truss f on the bottor 3-06-00 tall b chord and ar One H2.5A S recommende UPLIFT at jt(and does not This truss is International R802.10.2 at Hanger(s) or	snow loads have b s been designed for ad nonconcurrent w has been designed n chord in all areas y 2-00-00 wide will by other members, bimpson Strong-Tie ed to connect truss s) 7 and 1. This co t consider lateral for designed in accord Residential Code s no referenced stand other connection c	een cor or a 10.0 /ith any for a liv for a liv where I fit betw with BC conne- to bear nnectio rces. lance w sections dard AN levice(s	hisidered for t opsf bottom other live loa e load of 20. a rectangle veen the bott DL = 10.0ps ctors ing walls due n is for uplift ith the 2018 R502.11.1 a ISI/TPI 1.) shall be	this ads. Opsf tom f. e to only and					
FORCES	Max Grav 1=900 (LC (Ib) - Maximum Com	C 5), 7=1714 (LC 20) pression/Maximum		provided suff lb down and	icient to support co 129 lb up at 20-7-0	oncentra 0 on bo	ated load(s) tom chord.	752 The					
	l ension	012/0 E C 162/100		design/selec	tion of such connect	ction de	vice(s) is the)					
TOP CHORD	6 7- 265/05	512/0, 5-0=-102/100	, 	responsibility	or others.								
BOT CHORD	1-10=-405/1286, 8-1 7-8=-159/716	0=-319/1286,	1)	Dead + Sno	Standard w (balanced): Lum	ber Inc	rease=1.15,	Plate					in the second se
WEBS	3-10=0/254, 3-8=-65 5-7=-1018/227	8/185, 5-8=0/624,		Uniform Loa	ads (lb/ft) =-60_7-12=-20						AN'	RTHCA	9Line
NOTES				Concentrate	ed Loads (lb)					/	52	FESS	W. Sin
 Wind: ASt Vasd=103 II; Exp B; and C-C B; 17-4-4, E; members Lumber D TCLL: AS Plate DOL DOL=1.15 Cs=1.00: 	CE 7-16; Vult=130mph Bmph; TCDL=6.0psf; BG Enclosed; MWFRS (en Exterior(2E) 0-2-0 to 3-2- dterior(2E) 17-4-4 to 20 and forces & MWFRS i OL=1.60 plate grip DO CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat B CI=1 10	(3-second gust) CDL=6.0psf; h=25ft; velope) exterior zone 2-0, Interior (1) 3-2-0 -4-4 zone;C-C for for reactions shown; L=1.60 roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9;	Cat. e to .15	Vert: 7=-	747					Structure.			L 22 LBERTIN

TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 2) 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

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818 Soundside Road Edenton, NC 27932

minin March 25,2025

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	B02	Common Girder	1	2	Job Reference (optional)	172212629

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:53 ID:iFFKd9_s5HOVK9vBFwqTAGzRAMn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:75.4		-	4-1-14		3-8-9	·	3-8-9		
Plate Offsets (X, Y):	[1:Edge.0-2-5], [3:0-0-12.0-1-12],	[11:0-	4-0.0-7-81.	[12:0	-8-4.0-1-	12]. [13:0-8-0.0)-3-01	

Loading	(psf)	Spacing	2-0-0		CSI	0.00	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (root)	20.0	Plate Grip DOL	1.15			0.28	Vert(LL)	-0.09	12-13	>999	240	IVI I 20	244/190	
Show (Pt)	20.0		1.15		BC	0.34	Vert(CT)	-0.16	12-13	>999	180			
TCDL	10.0	Rep Stress Incr	NO	TDIAAAA	WB	0.96	Horz(CT)	0.02	9	n/a	n/a			
BCLL	0.0	Code	IRC2018	3/TPI2014	Matrix-MSH								FT 000/	
BCDL	10.0											Weight: 480 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS WEDGE BRACING TOP CHORD BOT CHORD WEBS	2x6 SP No.2 2x10 SP 2400F 2.0E 2x4 SP No.2 Left: 2x4 SP No.3 Structural wood she 4-9-8 oc purlins. Rigid ceiling directly bracing. 1 Row at midpt	athing directly applie applied or 6-0-0 oc	1) d or 2)	2-ply truss to (0.131"x3") n Top chords of staggered at Bottom chord staggered at Web connect Except memil member 3-12 All loads are except if note	be connected tog ails as follows: onnected as follow 0-9-0 oc. Is connected as fo 0-5-0 oc. red as follows: 2x4 per 2-13 2x4 - 2 ro 2 2x4 - 1 row at 0-7 considered equally ed as front (F) or b	ether wi vs: 2x6 - llows: 2 - 1 row ws stag 7-0 oc. y applied ack (B)	th 10d 2 rows x10 - 2 rows at 0-9-0 oc, gered at 0-7- d to all plies, face in the L0	-0 oc, OAD	10) LGT con This late 11) This Inte R80 12) Use 14- spa end	T2 Simps nect trus s connect ral force s truss is rnationa 02.10.2 a Simpso 10dx1 1/ ced at 2 to 15-10	son Str s to be ction is s. desig I Resid and ref on Stro 2 Trus -0-0 oc 0-0 to	rong-Tie connect earing walls due for uplift only an ned in accordand dential Code sect erenced standard ng-Tie HTU26 (2 is, Single Ply Girt max. starting at connect truss(es)	ors recommended to UPLIFT at jt(s) d does not consid we with the 2018 ions R502.11.1 a d ANSI/TPI 1. 0-10d Girder, der) or equivalent 2-0-0 from the lei to back face of	d to 9. der and ft
REACTIONS	(size) 1=0-5-8, 7 Max Horiz 1=-227 (L Max Uplift 1=-167 (L Max Grav 1=8377 (L 9=11739	5-9 7=0-7-12, 9=0-5-8 C 8) C 12), 7=-206 (LC 12 C 13) .C 5), 7=686 (LC 19) (LC 6)	2), 3) [,] 4)	CASE(S) see provided to d unless other Unbalanced this design. Wind: ASCE Vasd=102mc	tion. Ply to ply cor istribute only loads vise indicated. roof live loads hav 7-16; Vult=130mp	hnection s noted e been o h (3-sec	s have been as (F) or (B), considered fo cond gust)	or tr Cat	 D end to 15-10-0 to connect truss(es) to back face of bottom chord. 13) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss) or equivalent at 17-10-0 from the left end to connect truss(es) to back face of bottom chord. 14) Use Simpson Strong-Tie HTU26 (10-16d Girder, 14-10dx1 1/2 Truss) or equivalent spaced at 2-0-0 oc 					
FORCES	(lb) - Maximum Com Tension	pression/Maximum		II; Exp B; Enc	closed; MWFRS (e t and right exposed	envelope	e) exterior zo ertical left ar	ne; nd	con 15) Fill	nect trus all nail h	ss(es) oles w	to back face of b here hanger is in	ottom chord.	ber.
TOP CHORD	1-2=-9953/211, 2-3= 3-4=-4664/199, 4-5= 6-7=-158/485	:-7412/201, :-4612/215, 5-6=-64/	182,	right exposed	; Lumber DOL=1.	60 plate	grip DOL=1	.60	16) LG the	T2 Hurrio truss.	cane ti	es must have two	studs in line belo	ow
BOT CHORD	1-13=-236/7542, 12- 11-12=-136/5679, 9- 8-9=-159/77, 7-8=-3	13=-236/7542, 11=-23/1725, 03/61	5)	Plate DOL=1 DOL=1.15); I Cs=1.00; Ct=	.15); Pf=20.0 psf (s=1.0; Rough Cat :1.10	Lum DC B; Fully	Euri Doe L=1.15 Plate Exp.; Ce=0.	e 9;			A	ORTHCA	ROIN	.
WEBS	2-13=-42/3426, 2-12 3-12=-138/5477, 3-1 4-11=-181/5529, 5-1 5-9=-6674/227, 6-9=	2=-2668/180, 1=-4467/260, 1=-98/3925, 291/311, 6-8=-521/2	6) 7) 23	Unbalanced design. This truss ha chord live loa	snow loads have b s been designed f id nonconcurrent v	oeen cor or a 10.0 vith anv	sidered for t) psf bottom other live loa	his ads.			er	SEA	L	
NOTES			8) 9)	* This truss h on the bottom 3-06-00 tall b chord and an One H2.5A S recommende UPLIFT at jt(and does not	as been designed n chord in all areas y 2-00-00 wide wil y other members, simpson Strong-Tie d to connect truss s) 1 and 7. This cc consider lateral for	for a liv s where Il fit betw with BC connection onnection orces.	e load of 20. a rectangle veen the bott DL = 10.0ps ctors ing walls due n is for uplift	Opsf om f. e to only		11112.2	A A A A A A A A A A A A A A A A A A A		EER.K	Inder.

Continued on page 2

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818 Soundside Road Edenton, NC 27932

March 25,2025

Job	Truss	Truss Type Qty Ply 892 Serenity-Roof-B				892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	B02	Common Girder	1	1	2	Job Reference (optional)	172212629
arter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri					9 2025 MiTek Industries, Inc. Fri Mar 21 12:30:53	Page: 2	

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:53 ID:iFFKd9_s5HOVK9vBFwqTAGzRAMn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate 1) Increase=1.15
 - Uniform Loads (lb/ft)
 - Vert: 1-4=-60, 4-7=-60, 14-17=-20
 - Concentrated Loads (lb)
 - Vert: 10=-1865 (B), 13=-1883 (B), 12=-1883 (B), 8=-872 (B), 22=-1883 (B), 23=-1883 (B), 24=-1883
 - (B), 25=-1865 (B), 26=-1865 (B), 27=-872 (B),

28=-860 (B)

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Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	B03	Common Supported Gable	1	1	Job Reference (optional)	172212630

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:53 ID:onyrICEMWITAUsFxYbXALJy7LR6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:67.9

Plate Offsets (X, Y): [10:0-2-8,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	1-11-4 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MR	0.26 0.22 0.16	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.04 -0.04 -0.02	(loc) 22-23 22-23 10	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 188 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP N 2x4 SP N 2x4 SP N 2x4 SP N Structura 6-0-0 oc Rigid ceil bracing. 1 Row at (size) Max Horiz Max Uplift	lo.2 lo.3 lo.3 l wood she purlins, exi ing directly midpt 10=17-6-0 25=17-6-0 32=17-6-0 35=-262 (10=-172 (athing directly applie cept end verticals. applied or 10-0-0 oc 9-29, 11-27, 8-30, 12), 21=0-3-8, 24=17-6), 26=17-6-0, 31=17-), 33=17-6-0, 34=17-) LC 12) LC 12) LC 13), 21=-85 (LC	d or Br 2-26 -0, 6-0, 6-0, W 6-0, W	OP CHORD	2-35=-304/195, 1-2 3-4=-259/221, 4-5= 6-8=-253/357, 8-9= 10-11=-285/439, 11 12-14=-247/354, 14 15-16=-137/186, 16 15-16=-137/186, 16 34-35=-27/100, 31- 30-31=-27/100, 29- 27-29=-27/100, 26- 25-26=-27/100, 24- 23-24=-27/100, 20- 9-29=-84/38, 11-27 6-31=-170/101, 5-3 3-34=-135/130, 12- 14-25=-132/77, 15- 16-22=-132/77, 15- 16-22=	=0/38, 2 -253/26 -270/40 -12=-2 -15=-2: -17=-1: 19=0/3 34=-27, 33=-27, 27=-27, 23=-27, 23=-27, 23=-27, 23=-27, 24=-26, 24=-27, 25=-27,	2-3=-332/271, 5, 5-6=-235/3 7, 9-10=-285/ 72/409, 47/290, 59/128, 3, 18-20=-206 (100,	, 108, /438, 5/122 72, 4/99,	 4) TC Pla DC Cs 5) Un de: 6) Th loa ova 7) All 8) Tru bra 9) Ga 10) Th cha 11) * T on 3-C 	LL: ASCI te DOL= DL=1.15); =1.00; Ct balanced sign. s truss h d of 12.0 rrhangs r plates ar iss to be cced agai ble studs s truss h ord live lo his truss the botto 6-00 tall	E 7-16 1.15); Is=1.0 I snow as bee psf or hon-co e 2x4 I fully sh nst late space as bee had nor has be m cho by 2-0	; Pr=20.0 psf (roc Pf=20.0 psf (Lur p; Rough Cat B; loads have bee en designed for g 1.00 times flat r ncurrent with ott MT20 unless oft MT20 unless oft meathed from on eral movement (ad at 2-0-0 oc. en designed for a nconcurrent with sen designed for rd in all areas with 0-00 wide will fit	of LL: Lum DOL=1.15 n DOL=1.15 Plate Fully Exp.; Ce=0.9; n considered for this greater of min roof live oof load of 20.0 psf on ter live loads. nerwise indicated. e face or securely i.e. diagonal web). a 10.0 psf bottom any other live loads. a live load of 20.0 psf here a rectangle between the bottom	
	Max Grav	24=-204 (26=-82 (L 29=-17 (L 33=-61 (L 33=-61 (L 33=-61 (L 23=-61 (L 24=486 (L 24=486 (L 29=155 (L 31=211 (L 33=194 (L 35=389 (L	LC 15), 25=-12 (LC 15), 27=-7 (LC 15), 27=-7 (LC 15), 27=-7 (LC 15), 21=-77 (LC 14), 32=-77 (LC 14), 34=-179 (LC 14), 34=-179 (LC 14), 20, 215), 21=340 (LC 22), 27=140 (LC 22), 21, 32=196 (LC 22), 21, 32=196 (LC 22), 34=227 (LC 32), 34=227 (LC 32), 34=227 (LC 32), 22=100 (LC 22), 22=1	14), Ni 14), 1) 4), 1) 4), 2) 26), 22), 3), 25), 30),	otes Unbalanced this design. Wind: ASCE Vasd=103mj II; Exp B; En and C-C Cor to 8-7-0, Cor to 21-0-8, Co left and right exposed;C-C reactions shi DOL=1.60	roof live loads have 7-16; Vult=130mpl bh; TCDL=6.0psf; E closed; MWFRS (e ner(3E) -0-10-8 to ner(3R) 8-7-0 to 14 prner(3R) 8-7-0 to 14 prner(3R) 21-0-8 to exposed ; end vert c for members and pwn; Lumber DOL=	2=-81/7 been of CDL=6 nvelope 2-1-8, E -7-0, E 24-0-8 ical left forces a 1.60 pl	considered for cond gust) .0psf; h=25ft;) exterior 20n ixterior(2N) 14 zone; cantilev and right & MWFRS for ate grip	r Cat. ne -1-8 -7-0 /er	chá 12) Be usi de:	aring at jung ANSI/ ng ANSI/ signer sh	ny otn pint(s) TPI 1 : ould ve	ar members, with 10 considers particular angle to grain for erify capacity off H CA OTH CA SEA 0363	n BCDL = 10.0psr. rallel to grain value rmula. Building bearing surface.	
FORCES	(lb) - Max Tension	kimum Com	pression/Maximum	3)	Truss design	ned for wind loads in uds exposed to wind	n the pla d (norm	ane of the trus	SS				·	RIAS	

see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

GILB Ma March 25,2025

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 MTek connectors. This design is based only upon parameters and property incorporate this design is based only upon parameters and property incorporate this design into the overall building designer must verify the applicability of design parameters and property 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)

Continued on page 2

818 Soundside Road Edenton, NC 27932

C

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	B03	Common Supported Gable	1	1	Job Reference (optional)	172212630
Carter Components (Sanford, NC	C), Sanford, NC - 27332,	Run: 8.73 S Feb 19 2	Page: 2			

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:53 ID:onyrICEMWITAUsFxYbXALJy7LR6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 172 lb uplift at joint

10. 14) N/A

- 15) H10A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 21. 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.

LOAD CASE(S) Standard

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Job	Truss	Truss Type Qty		Ply	892 Serenity-Roof-B326 B CP TMB GLH			
25030163-01	B01	Common	1	1	Job Reference (optional)	172212631		

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:53 ID:Nseaq6A9EjNfxKX1O6yXnly7LSU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:70.3

Plate Offsets ((X, '	Y):	[14:0-4-0,0-3-4]	
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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	0.65 0.86 0.51	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.47 -0.76 0.07	(loc) 14-17 14-17 2	l/defl >439 >271 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 133 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.1 2x4 SP No.3 Left 2x6 SP No.2 7 Structural wood she 5-6-9 oc purlins, ex Rigid ceiling directly bracing. (size) 2=0-5-8, 1 Max Horiz 2=264 (LC Max Uplift 2=-75 (LC 13=-25 (L Max Grav 2=895 (LC 13=894 (L	1-6-0 athing directly applied cept end verticals. applied or 10-0-0 oc 12=0-3-8, 13=0-5-8 C 13) C 14), 12=-101 (LC 15 C 14) C 5), 12=496 (LC 26), LC 22)	3) 4) d or 5) 6) 7) 5), 8)	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. This truss ha load of 12.0 g overhangs nd chord live loa * This truss h on the bottom 3-06-00 tall b chord and an One H2.5A S recommende	7-16; Pr=20.0 psf (15); Pf=20.0 psf (L s=1.0; Rough Cat E 1.10 snow loads have be s been designed for osf or 1.00 times fla on-concurrent with s been designed for d nonconcurrent on chord in all areas y 2-00-00 wide will y other members, y impson Strong-Tie d to connect truss	(roof LL um DC B; Fully een cor or great at roof k other liv or a 10. ith any for a liv where fit betw with BC connec to bear	:: Lum DOL= DL=1.15 Plate Exp.; Ce=0.9 nsidered for the er of min roof bad of 20.0 p ve loads. 0 psf bottom other live loa e load of 20.1 a rectangle veen the bott DL = 10.0psi ctors ing walls due	1.15 e); his live sf on ds. Dpsf om f. to					
FORCES TOP CHORD BOT CHORD WEBS	(lb) - Maximum Com Tension 1-2=0/34, 2-4=-1149 6-8=-721/180, 8-9=- 9-11=-394/143 2-13=-251/724, 12-1 6-14=-104/474, 8-14 4-14=-398/238	pression/Maximum 9/151, 4-6=-727/185, 357/114, 9-10=0/42, 13=0/198, 11-12=0/19 I=-48/407, 8-13=-824	9) 98 /78, 10	UPLIFT at jt(and does not H10A Simpso connect truss This connect lateral forces) This truss is o International	s) 2 and 13. This consider lateral for consider lateral for on Strong-Tie conn to bearing walls do on is for uplift only designed in accord. Residential Code s	onnecti rces. ectors ue to U and do ance w sections	on is for uplif recommende PLIFT at jt(s) es not consid ith the 2018 5 R502.11.1 a	t only d to 12. der and			a sur	NITH CA	ROLIN
NOTES 1) Unbalance this design 2) Wind: AS(Vasd=103 II; Exp B; and C-C E to 8-7-0, E to 21-1-8, left and rig exposed;(reactions DOL=1.6(ed roof live loads have n. CE 7-16; Vult=130mph mph; TCDL=6.0psf; Br Enclosed; MWFRS (er Exterior(2E) -0-10-8 to 3 Exterior(2R) 8-7-0 to 14 Exterior(2R) 8-7-0 to 14 Exterior(2E) 21-1-8 to ght exposed ; end vertion C-C for members and for shown; Lumber DOL=1	been considered for (3-second gust) CDL=6.0psf; h=25ft; ivelope) exterior zone 2-1-8, Interior (1) 2-1- 1-7-0, Interior (1) 14-7 24-1-8 zone; cantilev cal left and right orces & MWFRS for 1.60 plate grip	LC Cat. e -8 -0 rer	R802.10.2 ar	d referenced stand Standard	dard AN	ISI/TPI 1.			And the second s		SEAL O3632	ER. HILL

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818 Soundside Road Edenton, NC 27932

March 25,2025

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	A05	Attic Girder	1	4	Job Reference (optional)	172212632

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:49

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



		18-7-4 18-5-8 16-5-0 21-4-1224-2-42	30-4-8 32-9-4 6-11-8 29-9-0 32-6-8 ⁸⁼	00 7 40	
	5-7-13 6-6-0 11-0-3	15-9-11 20-0-0 22-9-825-6-	1228-4-4 31-1-12 37-1-8	39-7-10 46-5	-3 53-0-8
	5-7-13 0-10-3 4-6-3	4-9-9 0-7-5 0-1-12 1-4-12 1-4-	8 1-4-12 0-7-8 0-2-124-4-4	2-6-2 6-9-	9 6-7-5
Scale = 1:102.4		2-0-8 1-4-12 1-4-12 1	-4-12 1-4-12 1-4-12		

	[7:0-8-0,0-3-4], [12:0-10-8,0-2-12], [14:0-5-0,0-4-8], [19:0-3-8/0-2-0], [22:0-3-8,0-2-8], [25/0-5-4/4,Edge], [28:0-3-0,0-3-0], [38:0-4-12,Edge], [41:0-8-0,0-4-12],
Plate Offsets (X, Y):	[44:0-3-0.0-3-4]

	,, ,, ,, [11.0 0 0,0 0 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	2-0-0 1.15 1.15 NO IRC2018/TPI2014	CSI TC BC WB Matrix-MSH	0.95 0.97 0.97	DEFL Vert(LL) Vert(CT) Horz(CT) Attic	in -0.42 -0.63 0.17 -0.21	(loc) 38-41 38-41 17 22-40	l/defl >926 >617 n/a >931	L/d 240 180 n/a 360	PLATES MT20 MT20HS Weight: 2005	GRIP 244/19 187/14 Ib FT = 2	0 3 0%
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD JOINTS	2x6 SP No.2 *Excep 2x4 SP 2400F 2.0E * SP No.2, 28-22,20-1 2x4 SP No.3 *Excep 2.0E, 6-46,45-2,41-4 No.2, 44-2:2x4 SP N Right 2x4 SP No.3 Structural wood shee 4-3-4 oc purlins, exc 2-0-0 oc purlins (6-0 Rigid ceiling directly bracing. 1 Brace at Jt(s): 49, 50, 51, 52, 40, 26,	t* 5-7:2x4 SP No.1 *Except* 43-38,43-4 7:2x4 SP No.2 t* 13-21:2x6 SP 240 7,41-6,46-13:2x6 SF lo.2 1-6-0 athing directly applie cept end verticals, ar -0 max.): 7-12. applied or 6-0-0 oc	BOT CHORD 5:2x6 90F ed or WEBS	44-45=-126/446, 42 41-42=-877/16595, 33-35=0/18682, 30 27-30=0/18806, 24 21-24=-805/13168, 18-19=-179/3511, 39-40=-515/594, 37 36-37=-2880/0, 34- 32-34=-3769/0, 34- 29-31=-3769/0, 26- 23-26=-322/1917, 2 3-44=-5422/380, 3 4-42=-776/166, 5-4 21-22=-715/6617, 6-48=-11763/751, 49-50=-11312/680, 51-52=-16183/978, 13-53=-13084/87	2-44=-7 35-41= -33=0/1 -27=-28 19-21= 17-18=- 7-39=-5 36=-28 32=-37 29=-28 22-23=- 42=-24 1=-150 13-22=- 18-49=- 50-51= 52-53= 2-44=-	61/12424, -660/17142, 9483, 11/16626, -553/10974, 179/3511, 18/546, 80/0, 30/0, 322/1917 3/5049, (1931, 547/7714, 11346/727, -11353/682, -12452/790, 701/13155		 4-rp (0. To sta Bo sta We 2 r - 3 r ot cei - 4 r ot cei - 4 r ot cei - 4 r ot cei - 3 r ot cei - 4 r ot cei	bly truss t 131"x3") p chords ggered a ttom cho ggered a b conne ows stag rows stag ro	to be con nails a conne- at 0-9-0 rds cor at 0-9-0 cted as gered a gggered avy 1/2" e mem e consi ted as ection. distribu rwise in t root i	onnected togeti s follows: cted as follows: oc, 2x4 - 1 rov nnected as follc oc, 2x4 - 1 rov follows: 2x4 - at 0-9-0 oc, Exx d at 0-4-0 oc, m 0-4-0 oc, diam. bolts (AS ber w/washers dered equally a front (F) or bac Ply to ply conn ute only loads r ndicated.	ner with 10 : 2x6 - 2 ro v at 0-9-0 c v at 0-9-0 c v at 0-7-0 c 1 row at 0- cept memb ember 6-4 STM A-307 at 4-0-0 oc applied to a kk (B) face i ections hav noted as (F	d ws vc. 2 rows vc. 9-0 oc, 2x6 - er 41-47 2x6 1 2x6 - 2) in the 2. all plies, in the LOAD ve been c) or (B), dered for
REACTIONS FORCES TOP CHORD	37, 29, 34 (size) 17=20-6-C 21=20-6-C Max Horiz 45=-188 (Max Uplift 17=-141 (19=-265 (46), 45=-7 Max Grav 17=2267 (23), 19=5: 12), 45=12 (lb) - Maximum Com Tension 1-2=0/24, 2-3=-1389 4-6=-19196/1164, 6- -7-8=-3024/527, 8-9= 9-10=-3792/720, 10- 11-12=-1853/1232, 7 13-15=-18603/1151, 2-45=-11891/728	0, 18=20-6-0, 19=20- 0, 45=0-5-8 LC 10) LC 13), 18=-383 (LC LC 12), 21=-11735 (708 (LC 12) (LC 46), 18=7963 (L 2082 (LC 46) pression/Maximum 14/811, 3-4=-17855/1 -7=-5749/483, -3021/526, 11=-1853/1232, 12-13=-5041/447, 15-17=-4060/262,	-6-0, C 12), LC C 14 (LC 1068, NOTES	40-41=-699/7786, (7-48=-156/2528, 8- 9-50=-137/2538, 11 11-52=-238/66, 12- 22-24=0/2405, 38- 38-39=-594/0, 24-2 37-38=-1092/0, 26- 27-28=-765/12, 35- 27-29=-229/226, 34 29-30=0/879, 33-34 32-33=-391/12, 7-4 9-49=-4763/367, 9- 10-52=-2393/279, ' 14-19=-9336/551, ' 14-21=-441/8353, § 15-18=-7758/466	-40=-5 49=-54 0-51=-2 53=-20 40=0/27 6=-213 27=0/2 36=-94 4-35=-2 4=-17/9 9=-448 51=-49 12-52=- 15-19=- 5-42=-2	47/8776, 6/66, 41/36, 7/3427, 34, 23-24=-5, 7/0, 655, 35-37=0/ 2/22, 02/159, 45, 30-31=-43 9/251, 92/308, 5783/334, 442/8385, 558/146,	41/0, /1905, 31/0,	thi	design.		SE 036	ARO SIGNAL 322 MEER GILBE	A MARINE AND

March 25,2025



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Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	A05	Attic Girder	1	4	Job Reference (optional)	172212632

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Mar 21 12:30:49

ID:VIY0g5gMUgwQZRyxiBXYItzRA_f-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

Carter Components (Sanford, NC), 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 2x4 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, with BCDL = 10.0psf.
 13) Ceiling dead load (5.0 psf) on member(s). 6-48, 48-49, 49-50, 50-51, 51-52, 52-53, 13-53; Wall dead load (5.0psf) on member(s).13-22, 6-40
- 14) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 39-40, 37-39, 36-37, 34-36, 32-34, 31-32, 29-31, 28-29, 26-28, 23-26, 22-23
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11735 lb uplift at joint 21.
- 16) LGT4-SDS3 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 45. This connection is for uplift only and does not consider lateral forces.
- 17) N/A
- 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.
- 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 28-8-4, and 9100 lb down and 774 lb up at 16-1-4 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, 2-7=-60, 7-12=-60, 12-17=-60, 45-54=-20, 22-40=-30, 6-48=-10, 48-49=-10, 46-49=-10, 46-50=-10, 50-51=-10, 51-52=-10, 52-53=-10, 13-53=-10 Drag: 13-22=-10, 40-47=-10, 6-47=-10 Concentrated Loads (lb) Vert: 41=-4881 (F), 67=-326 (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 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	892 Serenity-Roof-B326 B CP TMB GLH
25030163-01	A07		Attic		1	1	I72212633 Job Reference (optional)
Carter Components (Sa	nford, NC), Sanfor	rd, NC - 27332,		Run: 8.73 S Feb 19 2 ID:1d5INYb_SnpigifH	2025 Print: 8. 0e1reGzRBH	730 S Feb 19 O-RfC?PsB7	9 2025 MiTek Industries, Inc. Fri Mar 21 12:30:51 Page: 1 70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f
-0-10- 0-10-8	8 <u>8-4-0</u> 38-4-0	<u> </u>	20-7-5 4 17-8-0 4 1-5-12	28-6-11 25-10-14 23-3-2 2-7-13 2-7-13 2-7-13	32-′ <u>31-6-0</u> 2-11-5 ₁₋₄	10-7 <u>39-</u> 1-7 6-	-4-14 46-3-13 53-5-8 -6-7 6-10-14 7-1-11
0-8-11 55 12 0-01-2 42 MT18H	8 = 52 S 3x10 =	6^{12} 4x6 = 4x5 = 354^{55} 53 41 62 5x8 = 13.11.0	4x8 ≠ 6 7 4x8 ≠ 6 7 4x8 ≠ 6 7 4x3 4 5x8 4x3 4 5x8 4x3 4 5x8 4x3 4 5x8 4x3 4 5x8 5x8 17-9-12 16-5-0 20-7- 16-5-4 19-2-8 2	4x8 = 4x5 = 7 = 8 = 56579 = 1 $5 = 46 = 477 = 40$ $x8 = 5 = 7 = 7$ $3x5 = 3x5 = 3x8 = 3x5 = 3x8 = 3x5 = 3x8 = 5x6 = 3x8 = 5x6 = 5$	6x8: 0 11 18 44 18 44 18 44 18 44 18 44 18 44 18 44 18 44 10 10 10 10 10 10 10 10 10	6x8 12 12 12 12 12 12 12 12 12 12	8 39-4-14 46.3.13 53-5.8
	8-4-0	<u> </u>	2-3-4 1-4-1	2 1-4-12 1-4-12 1	-4-12 1-4-	12 4-9-4	4 1-10-6 6-10-14 7-1-11
Plate Offsets (X, Y):	[2:0-2-12,0-2-0 [38:Edge,0-2-4	0], [6:0-5-8,0-3-0], [11:0 4], [41:0-3-8,0-2-8]	0-5-8,0-3-0], [1-3-0-5-0,	-4-12 2-2-0 1-4-1 0-4-8], [15:Edge,0-0-9],	[17:0-2-42	,0-3-4], [19	:0-6-8,0-3-0], [26:0-3-0,0-3-0], [28:0-3-8,0-1-8],
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 0 BC 0 WB 0 Matrix-MSH	.97 Vert(I .95 Vert(0 .94 Horz(Attic	L) -0. CT) -0. CT) 0. -0.	in (loc) l/defl L/d PLATES GRIP 47 31-33 >832 240 MT20 244/190 77 31-33 >509 180 MT18HS 244/190 15 15 n/a n/a 32 21-38 >604 360 Weight: 454 lb FT = 20%
LUMBER TOP CHORD 2x6 5 BOT CHORD 2x4 3 No.2 WEBS 2x4 5 No.2 WEBS 2x4 5 No.2 WEDGE Right BRACING TOP CHORD Struc 2-9-5 2-0-6 BOT CHORD Rigio BOT CHORD Rigio WEBS 1 RO JOINTS 1 Bra 46, 4 27, 3 REACTIONS (size) Max H Max C FORCES (lb) - Tens TOP CHORD 1-2= 5-6= 7-8= 9-10	SP No.2 SP No.1 *Excep 18-15,40-23:2 SP No.3 *Excep 41-2,20-21,36- 5-27,33-32,28-2 ,21-17:2x4 SP : 2x4 SP No.3 tural wood she 0 oc purlins (3-9 1 ceiling directly ng. w at midpt ace at Jt(s): 45, 7, 48, 24, 35, 2 15= Mech 42=0-5-8 oriz 42=-190 (plift 19=-53 (L rav 15=2298 40), 42=3 Maximum Corr ion)/22, 2-3=-3960 (2145/100, 6-7= -2982/360, 8-9= =-2740/396, 10	ot* 38-26,23-18:2x4 SF x4 SP 2400F 2.0E t* 5-39,12-19:2x6 SP 38,20-24,36-35,25-24 27,31-32,46-12:2x4 SF No.1 eathing directly applied cept end verticals, and -8 max.): 6-11. applied or 2-2-0 oc 3-39, 13-21, 12-48 manical, 19=0-5-8, (LC 12) .C 15), 42=-29 (LC 14 (LC 48), 19=1791 (LC 0001 (LC 38) apression/Maximum 0/13, 3-5=-4083/4, =-2982/360, =-3607/504, -11=-2740/396,	BOT CHORD BOT CHORD WEBS or d NOTES 1) Unbalanced this design	1-42=-107/219, 39-41 36-39=0/3348, 33-36= 28-31=0/6096, 25-28= 19-20=-2308/0, 17-19= 16-17=0/4042, 15-16= 37-38=-1137/0, 35-37= 34-35=-3123/0, 32-34= 30-32=-3174/0, 29-30= 27-29=-3174/0, 29-30= 27-29=-3174/0, 29-30= 27-29=-3174/0, 29-30= 27-29=-3174/0, 29-30= 27-29=-3174/0, 29-30= 27-29=-3174/0, 29-30= 27-29=-3174/0, 29-30= 27-29=-3174/0, 29-30= 13-32=-575/314, 13-17 35-39=-27/336, 5-38=0 19-21=-1401/162, 12-27 13-21=-575/314, 13-17 14-17=-554/207, 14-16 5-43=-2080/21, 43-45= 45-47=-1596/1329, 47- 44-48=-2469/1329, 47- 44-48=-2469/1329, 47- 44-48=-2469/1329, 47- 44-48=-2469/1329, 47- 44-48=-342/1277, 74- 8-45=-874/122, 8-46=0 9-47=-6/131, 9-48=-92 21-48=-314/1439, 20-22 20-24=-2166/0, 35-36= 24-25=0/2106, 33-35= 33-34=-185/0, 25-27= 33-34=-185/0, 25-27= 31-32=-365/27, 28-29= 17-21=0/5333 4 roof live loads have be		33=0/6301 25=0/1815 25=0/1815 0, 1222, 0/450, -287/59, 8=-170/78 37=-230/0, 26=-320/0, 31=-6/96, wred for	 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) 10-1-6 to 390-010, Interior (1) 39-0-10 to 48-1-6, Exterior(2E) 48-1-6 to 53-5-8 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 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. Provide adequate drainage to prevent water ponding. All plates are MT20 plates unless otherwise indicated.
14-1	5=-4661/40, 2-4	42=-2998/72					A. GILBER

March 25,2025

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

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	A07	Attic	1	1	Job Reference (optional)	172212633

- 8) All plates are 2x4 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. 11) Ceiling dead load (5.0 psf) on member(s). 5-43, 43-45, 45-46, 46-47, 47-48, 44-48, 12-44; Wall dead load (5.0psf) on member(s).5-38, 12-21
- 12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 37-38, 35-37, 34-35, 32-34, 30-32, 29-30, 27-29, 26-27, 24-26, 22-24, 21-22
- 13) Refer to girder(s) for truss to truss connections.
- 14) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 42 and 19. This connection is for uplift only and does not consider lateral forces.
- 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: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:51 ID:1d5INYb_SnpjqifH0e1reGzRBHO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2



Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	A06	Attic Girder	1	4	Job Reference (optional)	172212634
Carter Components (Sanford NC) Sanford NC - 27332	Rup: 8 73 S Eeb 10 3	025 Print: 8	730 S Eeb 10	2025 MiTek Industries Inc. Fri Mar 21 12:30:50	Page: 1

25030163	-01	A06		Attic Girder		1	4	Jo	b Refere	ence (op	tional)			
Carter Compo	onents (Sanford, N	C), Sanfor	d, NC - 27332,		Run: 8.73 S Feb 19	9 2025 Pri	int: 8.730 S	Feb 19 20	25 MiTek	Industrie	s, Inc. F	ri Mar 21 12:30:	:50	Page: 1
					ID:pGeZvt1?IwruiN	EY_xH4fk	zRAp7-RfC	PsB70Hq	3NSgPqr	L8w3ulT	XbGKW	/rCDoi7J4zJC?f		-
				17-8-0	28-6- 25-10-14	11	32-9-4							
-	0-10-8 5-7-13	3	11-0-3 13-6-	7 16-2-4 20-7-5	23-3-2	31-6	<u>6-0 </u>	39-7-	-10		46-5-3	3	53-5-8	
	0-10-8 5-7-13	3 '	5-4-5 2-6-4	2-7-13 2-11-5	2-7-13 2-7-13 2-7-1	13' 2-11	1-51-3-4	6-10)-6	I	6-9-9) '	7-0-5	I
				1-5-12 12x16=			4x8≈		EAST					
				6x8 ≠	12x16= 4x5=		12x16=		THE	JPLIFT R	EACTI	ON SHOWN		
				7 _	8 9 6110	11 _	12		WHIL		TTING	NO UPWARD		
Т			e e	3x10 = 6		n sa			NOVE			BEARING.		
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			6^{12} 4	43	32 4x6 II	6x8=	50	\sim	8	x10👟				
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111	47			42 40 5	<u> 37`\$5 38`\$₹</u> ~30`	28 126						8		₽ YI®L
	3x6=	464	5 44 64	65 4366 41 38	36 34 31	29 27	²⁵ 23	6	7 21	20		19		6×8-
		6x8=	4x8=	4x5 II 3x5=	3X5= 3X5= 3X5:	= 5x6	=	IVI	120HS 3>	.8 =				0.0=
		4)	(6=	12x16=	3x5= 3x8=	3x8=	3x8=			3x5=				
				8x10= 20-1-11	25-6-12	5x6 WI	B = 5x8= 0 32-0-4							
				18-5-8	22-11-4 28-	4-4 31-	1-12	=						
	0-5-8 5-7-1	3 6-6-	⁰ 11-0-3 15	<u>-9-11 16-5-0 18-7-421</u>	-6-8 24-0-4 26-11-8	29-5-0	32-6-8	37-7-0	39-7-	10	46-5-3	3	53-5-8	
	0-5-8 5-2-5	⁵ 0-10	-3 4-6-3 4	-9-9 0-7-5 0-1-121-	4-12 1-1-0 1-4-12	1-0-12	1-4-12	4-9-12	2-0-1	0	6-9-9		7-0-5	
Scale = 1:93	.9			2-0-81-6-8	1-4-12 1-6-8 1-4	-12 1-4	1-12 1 - 0-2-12							
Plate Offset	s (X, Y): [7:0-8-	0,0-3-4],	[9:0-8-0,0-2-4], [12:	0-10-8,0-2-12], [18:Edg	e,0-2-0], [23:0-3-8,0-2	-8], [28:1	0-3-0,0-3-0)], [43:0-8	3-0,0-4-1	2], [46:0	0-3-8,0	-3-0]		
Loading		(nsf)	Spacing	2-0-0	CSI		DEEL	in	(loc)	l/defl	l /d		GRIP	
TCLL (roof)		(psi) 20.0	Plate Grip DOI	1 15		0.99	Vert(LL)	-0 49	41-43	>800	240	MT20	244/190)
Snow (Pf)		20.0	Lumber DOI	1.15	BC	0.03	vert(CT)	-0.74	41-43	>530	180	MT20HS	187/143	3
TCDL		10.0	Rep Stress Incr	NO	WB	0.87	Horz(CT)	0.21	18	n/a	n/a		1017110	
BCLL		0.0*	Code	IRC2018/TPI2014	Matrix-MSH		Attic	-0.24	23-42	>809	360	I		
BCDL		10.0										Weight: 202	20 lb FT = 20	1%
					40.47.404/440.44	40 704	40075		4) 4 -					
LUMBER			* = 7.0.4 00 04000	BOT CHORD	46-47=-124/440, 44-	46=-731	/12075,		1) 4-p	21"v2")	De C	onnected toge	ether with 100	1
TOP CHOR	2 2X6 5P NO.2 2 0F	z Excep	1 5-7:2x4 SP 2400F	•	36-38=0/17735 34-3	6=0/180)49		Tor	chords	conne	cted as follow	/s [.] 2x6 - 2 rov	vs
BOT CHOR	D 2x4 SP 240	0F 2.0E	*Except* 47-45:2x6	SP	31-34=0/18049, 29-3	1=0/167	737,		stag	gered a	at 0-9-0) oc, 2x4 - 1 r	ow at 0-9-0 of	C.
	No.2, 42-28	,28-23:2	4 SP No.2, 45-41:2	x6	25-29=-154/14351, 2	2-25=-7	75/12144,		Bot	tom cho	rds coi	nnected as fo	llows: 2x6 - 2	rows
	SP 2400F 2	.0E			20-22=-780/16080, 1	9-20=-7	37/15458,		stag	ggered a	at 0-9-0) oc, 2x4 - 1 r	ow at 0-9-0 o	с.
WEBS	2x4 SP No.3	3 *Excep	t*		18-19=-737/15458, 4	0-42=-7	90/31,		We	b conne	cted as	s follows: 2x4	- 1 row at 0-9	9-0 oc, 2x6 -
	6-43,6-52,47	7-2,43-48	3,52-13:2x6 SP No.2	2,	39-40=-2303/0, 37-3	9=-2303	9/0, /0		2 rc	ws stag	gered	at 0-4-0 oc, E	xcept member	er 43-48 2x6
	13-22:2x6 S	5P 2400F	2.0E, 46-2:2x4 SP	No.2	30-37=-3084/0, 33-3	0=-3084 22067	4/0, 7/0		- 3 row	COWS SIZ	iggered ared at	0.9-0.00	member 13-2	2 2 2 0 - 2
	ZX4 SP INU.	J D No 2	160		26-30=-1186/728 24	-26=-36	/0, 6/3070		Atta	ach BC v	v/ 1/2"	diam bolts (A	ASTM A-307)	in the
BRACING	Night 2x4 Of	1 10.5	1-0-0		23-24=-366/3070		,		cen	ter of th	e mem	ber w/washer	rs at 4-0-0 oc.	
TOP CHOR	D Structural w	ood she	athing directly applie	d or WEBS	3-46=-5311/373, 3-4	4=-238/4	4930,		2) All	oads ar	e cons	idered equally	applied to al	ll plies,
	4-4-5 oc nu	rlins, exe	cept end verticals a	nd	4-44=-697/163, 5-43	=-124/14	464,		exc	ept if no	ted as	front (F) or ba	ack (B) face ir	n the LOAD
	2-0-0 oc pu	rlins (6-0	-0 max.): 7-12.		42-43=-614/7199, 6-	42=-531	/8734,		CA	SE(S) se	ection.	Ply to ply con	nections have	e been
BOT CHOR	D Rigid ceiling	directly	applied or 6-0-0 oc		22-23=-712/6597, 13	-23=-51	3/1232,		pro	vided to	distrib	ute only loads	s noted as (F)	or (B),
	bracing.				51-53=-11084/660 5	3-541	5528/022		3) Link	alance	roof li	ive loads have	e heen consid	lered for
JOINTS	1 Brace at J	Jt(s): 42,			50-54=-12362/771.1	3-50=-1	2999/808		this	design				
	51, 52, 53, 5 30, 37	04, 26,			2-46=-673/12779, 7-	49=-147	/2360,							



Continued on page 2 WARNING - Verify

REACTIONS (size)

FORCES

TOP CHORD

18= Mechanical, 22=0-5-8,

Max Uplift 18=-421 (LC 12), 22=-5383 (LC 45), 47=-683 (LC 12) Max Grav 18=8904 (LC 46), 22=793 (LC 12),

47=11748 (LC 46)

(lb) - Maximum Compression/Maximum

4-6=-18572/1120, 6-7=-6007/480, 7-8=-3098/528, 8-9=-3095/527,

9-10=-3730/713, 10-11=-1716/1437,

11-12=-1716/1437, 12-13=-4562/424,

16-18=-17623/896, 2-47=-11551/702

13-15=-17758/1088, 15-16=-17909/1006,

1-2=0/24, 2-3=-13498/782, 3-4=-17368/1033,

47=0-5-8

Max Horiz 47=-190 (LC 10)

Tension

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NOTES



818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	A06	Attic Girder	1	4	Job Reference (optional)	172212634

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Mar 21 12:30:50

ID:pGeZvt1?lwruiNEY_xH4fkzRAp7-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

Carter Components (Sanford, NC), 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.
- All plates are MT20 plates unless otherwise indicated.
 All plates are 2x4 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, with BCDL = 10.0psf.
 13) Ceiling dead load (5.0 psf) on member(s). 6-49, 49-51, 51-52, 52-53, 53-54, 50-54, 13-50; Wall dead load (5.0psf) on member(s).6-42, 13-23
- 14) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 40-42, 39-40, 37-39, 35-37, 33-35, 32-33, 30-32, 28-30, 26-28, 24-26, 23-24
- 15) Refer to girder(s) for truss to truss connections.
- 16) Bearing at joint(s) 47 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 17) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5383 lb uplift at joint 22 and 421 lb uplift at joint 18.
- LGT4-SDS3 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 47. This connection is for uplift only and does not consider lateral forces.
- 19) 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.
- 20) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 21) 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.
- 22) LGT4 Hurricane ties must have four studs in line below the truss.
- 23) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 9100 lb down and 774 lb up at 16-1-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 24) 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, 2-7=-60, 7-12=-60, 12-18=-60, 47-55=-20, 23-42=-30, 6-49=-10, 49-51=-10,
 - 51-52=-10, 52-53=-10, 53-54=-10, 50-54=-10,
 - 13-50=-10
 - Drag: 42-48=-10, 6-48=-10, 13-23=-10
 - Concentrated Loads (lb) Vert: 43=-4881 (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 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	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	A09	Attic Supported Gable	1	1	Job Reference (optional)	172212635



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/TPI Quality Criteria and DSE-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbaccomponents.com)



818 Soundside Road

Edenton, NC 27932

A. GILP.... March 25,2025

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	A09	Attic Supported Gable	1	1	Job Reference (optional)	172212635
Carter Components (Sanford,	NC), Sanford, NC - 27332,	Run: 8.73 E Dec 5	2024 Print: 8.	730 E Dec 5	2024 MiTek Industries, Inc. Tue Mar 25 14:05:01	Page: 2
BOT CHORD 67-68=-9	4/211, 66-67=-94/211,	12) Bottom chord live load (40.0 psf)	and addition	al bottom	XUACBAIZYGMEFP_AGSTMX3ZXI2JSINJZXXNY	
BOTCHORD 67-689 65-669 63-649 61-62-9 53-565 48-515 43-454 39-428 37-388 33-348 33-348 33-348 33-348 33-348 33-348 33-348 33-348 33-348 33-348 33-348 33-348 33-348 35-571 50-523 47-493 44-462 WEBS 5-6419 10-581 17-401 10-695 71-72-4 19-37-4-4 19-37-4-4 19-37-41 24-322-1 27-29-1 8-62-18 3-66-19 56-58-9 42-44-1 53-55-1 45-47-1 51-52-1 11-169-3 13-72-1 11-71-2 13-74-6	4/211, 60-67=-94/211, 4/211, 64-65=-94/211, 4/211, 64-65=-94/211, 4/211, 60-61=-94/211, 4/211, 60-61=-94/211, 4/211, 60-61=-94/211, 4/211, 60-61=-94/211, 5/211, 56-59=-102/212, 5/211, 36-37=-86/211, 5/211, 36-37=-86/211, 5/211, 36-37=-86/211, 5/211, 30-31=-86/211, 5/211, 30-51=-31/108, 3/108, 46-47=-30/112, 3/108, 46-47=-30/112, 3/108, 46-47=-30/112, 3/108, 46-47=-30/112, 3/108, 46-47=-30/112, 3/108, 46-47=-30/12, 3/108, 46-47=-30/12, 3/108, 46-47=-30/12, 3/108, 46-47=-30/12, 3/107, 46-33=-12/57, 5/5/117, 9-60=-81/174, 2/74, 6-63=-201/69, 4-65=-142/4, 1/20, 55-56=-118/22, 44-45=-1, 1/20, 55-56=-118/22, 44-45=-1, 1/20, 52-56=-118/22, 44-45=-1, 1/20, 52-56=-118/22, 44-45=-1, 1/20, 52-56=-118/22, 44-45=-1, 1/20, 52-56=-118/22, 44-45=-1, 1/20, 62-57=-236/65, 14-74=-23/4, 3/3/476, 13-71=-643/138, 1/155, 14-73=-713/146, 39/1551	 12) Bottom choice load (40.0 psi) applied 55-57, 54-55, 52-54, 50-52, 49-5i 41-44, 40-41 13) Bearings are assumed to be: , Joc crushing capacity of 425 psi. 14) N/A 15) This truss is designed in accorda International Residential Code se R802.10.2 and referenced stand or the orientation of the purlin alo bottom chord. 17) Attic room checked for L/360 defl LOAD CASE(S) Standard 37, /10, /0, 25/0, /0, /0, /0, /52, 25/0. 	int 28 User I nce with the ctions R502 and ANSI/TP bes not depi ng the top a ection.	2018 .11.1 and 2018 .11.1 and 1 1. ct the size nd/or		
 16-73=-2 NOTES 1) Unbalanced roof live this design. 2) Wind: ASCE 7-16; Vu Vasd=103mph; TCDL II; Exp B; Enclosed; N and C-C Exterior(2E) to 10-1-6, Exterior(2E) to 10-1-6, Exterior(2E) as 0-10 to 48-1-6, Ex C for members and fc shown; Lumber DOL=3) Truss designed for w only. For studs expose see Standard Industry or consult qualified b the DOL=1.15); Is=1.0; R Cs=1.00; Ct=1.10 5) Unbalanced snow load design. 6) Provide adequate dra 7) All plates are 2x4 MT. 8) Gable studs spaced as 9 This truss has been on the bottom chord i 3-06-00 tall by 2-00-0 	39/1551 oads have been considered for It=130mph (3-second gust) =6.0psf; BCDL=6.0psf; h=25ft; IWFRS (envelope) exterior zone 0-1-12 to 5-5-14, Interior (1) 5-5) 10-1-6 to 39-0-10, Interior (1) errior(2E) 48-1-6 to 53-5-8 zone rces & MWFRS for reactions 1.60 plate grip DOL=1.60 ind loads in the plane of the trus ed to wind (normal to the face), Gable End Details as applicab ilding designer as per ANSI/TP =20.0 psf (roof LL: Lum DOL=1. 20.0 psf (Lum DOL=1.15 Plate bough Cat B; Fully Exp.; Ce=0.9; ds have been considered for thi inage to prevent water ponding. 20 unless otherwise indicated. t 2-0-0 oc. esigned for a 10.0 psf bottom neurrent with any other live load designed for a live load of 20.0p a lal areas where a rectangle 0 wide will fit between the bottom	Cat. 9 -14 ;C- ss le, 1. 15 ss				
chord and any other r 11) Ceiling dead load (5.0 71-72, 72-74, 73-74, (5.0psf) on member(s WARNING - Verify de Design valid for use on a truss system Refore	nembers. psf) on member(s). 10-69, 69-7 70-73, 17-70; Wall dead load).10-58, 17-40 sign parameters and READ NOTES ON 1 y with MiTek® connectors. This design in use, the building designer must verify the	71, HIS AND INCLUDED MITEK REFERENCE PAGE MII-747 s based only upon parameters shown, and is for an indiv a policiability of design parameters and property income	3 rev. 1/2/2023 Idual building cr ate this design	BEFORE USE imponent, noi into the overa		
building design. Bracin is always required for s	g indicated is to prevent buckling of indi- tability and to prevent collapse with poss	vidual truss web and/or chord members only. Additional	emporary and puidance regard	permanent bra		A MiTek Affiliate

is always required for stability and to prevent coulapse 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 DSE-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	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	A08	Attic	6	1	Job Reference (optional)	172212636

TCDI

BCLL

BCDL

WEBS

11-13=-4089/46, 13-14=-4643/46,

1-41 = -2957/19

ontinued on page 2

WARNING



Unbalanced roof live loads have been considered for 1) this design.

March 25,2025

G mmm

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)

818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	A08	Attic	6	1	Job Reference (optional)	172212636

- 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). 4-42, 42-44, 44-45, 45-46, 46-47, 43-47, 11-43; Wall dead load (5.0psf) on member(s).4-37, 11-20
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 36-37, 34-36, 33-34, 31-33, 29-31, 28-29, 26-28, 25-26, 23-25, 21-23, 20-21
- 11) Refer to girder(s) for truss to truss connections.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) Graphical purlin representation does not depict the size
- or the orientation of the purlin along the top and/or bottom chord.
- 14) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:52 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 **ANSUTP11 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.sbcaccomponents.com)



Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	A01	Piggyback Base Supported Gable	1	1	Job Reference (optional)	172212637

-0-10-8

0-10-8

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:46 ID:HvYYHe4LpHmiz2DId9nw5TzRQov-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

17-8-0 31-6-0 53-2-8 17-8-0 13-10-0 21-8-8 4x6= 4x6= <u>15 16 67 1768 18 19 20 21</u> 13 14 12 4x6 ≠ 22 ∕fī 11 23 9¹⁰ 24 4x6👟 T



Scale = 1:91.4

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(ps 20 20 10 0 10	sf)).0).0).0).0 *).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	0.11 0.05 0.21	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.01	(loc) - - 33	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 546 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD WEBS	2x6 SP No.2 2x6 SP No.2 2x4 SP No.3 2x4 SP No.3 *E 49-17,48-18,47 52-14,53-12:2x Structural wood 6-0-0 oc purlins 2-0-0 oc purlins Rigid ceiling dir bracing. 1 Row at midpt	s, except -19,46 4 SP 1 d sheat s, exc s (6-0- rectly	* 5-20,44-22,50-16,51- No.2 athing directly applied ept end verticals, and 0 max.): 13-21. applied or 10-0-0 oc 17-49, 18-48, 19-47, 20-46, 22-44, 23-43, 24-62, 16-50, 15-51,	or FORCES	Max Grav 33=13 35=14 37=15 39=22 42=22 44=20 47=22 49=21 51=22 53=21 56=23 58=23 60=15 62=16 (Ib) - Maximum C Tension 2-62=-125/161 1	6 (LC 28) 3 (LC 1), 9 (LC 1), 1 (LC 45) 9 (LC 45) 9 (LC 45) 9 (LC 45) 0 (LC 40) 0 (LC 40) 2 (LC 43) 3 (LC 43) 3 (LC 43) 3 (LC 1) compressi -2-0/23	34=217 (LC 36=164 (LC 4 38=173 (LC 4 40=230 (LC 43=231 (LC 46=193 (LC 50=218 (LC 50=218 (LC 55=235 (LC 57=233 (LC 57=233 (LC 59=198 (LC 61=185 (LC 5 on/Maximum 2-370/81	59), 15), 45), 45), 40), 40), 40), 40), 43), 43), 43), 51),	BOT CH	IORD	61-62 59-60 57-58 55-56 52-53 50-51 48-49 40-42 38-39 36-37 34-35	======================================	84/181, 84/181, 84/181, 84/181, 84/181, 84/181, 84/181, 84/181, 84/181, 84/181, 84/181, 84/181, 84/181,	
REACTIONS	(size) 33=5 36=5 39=5 43=5 47=5 50=5 57=5 60=5 Max Horiz 62=- Max Uplift 35=- 37=- 42=- 47=- 51=- 56=- 58=- 60=- 58=- 62=- 62=-	53-2-8 52-2 52-2 52-2 52-2 52-2 52-2 52-2	14-52, 12-53, 11-55, , 34=53-2-8, 35=53-2, , 37=53-2-8, 38=53-2, , 40=53-2-8, 48=53-2, , 44=53-2-8, 46=53-2, , 48=53-2-8, 46=53-2, , 55=53-2-8, 56=53-2, , 55=53-2-8, 56=53-2, , 61=53-2-8, 62=53-2, C 12), C 11), 34=-98 (LC 15), C 15), 40=-43 (LC 15), C 15), 43=-51 (LC 15), C 10), 50=-28 (LC 11), C 10), 50=-28 (LC 11), C 10), 55=-52 (LC 14), C 14), 57=-43 (LC 14), C 14), 57=-43 (LC 14), C 15), C 15),		2-02-12/01, 1 3-4=-76/65, 4-5= 6-7=-98/193, 7-8 9-11=-145/330, 1 12-13=-160/376, 14-15=-151/373, 16-17=-151/373, 20-21=-151/373, 20-21=-151/373, 24-25=-130/283, 27-28=-98/195, 2 29-30=-105/149, 31-32=-139/104,	72-073, 726/97, 52 =-114/23{ 1-12=-16 13-14=-1 15-16=-1 17-18=-1 19-20=-1 21-22=-1 23-24=-1 23-24=-1 23-24=-1 23-23=-1 32-33=-1	2-3-70/01, 68-86/148, 8, 8-9=-130/28 3/378, 51/373, 51/373, 51/373, 51/373, 60/376, 45/330, 14/238, 14/248, 14	83,				SEA 0363	L 22 EEER L BEER 25,2025	

ENGINEERING BY A MITek Affiliate 818 Soundside Road Edenton, NC 27932

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 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	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	A01	Piggyback Base Supported Gable	1	1	Job Reference (optional)	172212637
Carter Components (Sanford, N	C), Sanford, NC - 27332,	Run: 8.73 S Feb 19 2	2025 Print: 8.	730 S Feb 1	9 2025 MiTek Industries, Inc. Fri Mar 21 12:30:46	Page: 2

ID:HvYYHe4LpHmiz2Dld9nw5TzRQov-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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

WEBS 17-49=-176/57, 18-48=-178/61, 19-47=-180/61, 20-46=-153/15, 22-44=-169/9. 23-43=-191/87. 24-42=-189/81, 25-40=-190/77. 27-39=-181/77, 28-38=-132/77, 29-37=-126/77, 30-36=-128/80, 31-35=-118/103, 32-34=-157/157, 16-50=-178/61, 15-51=-180/61, 14-52=-153/10, 12-53=-172/0, 11-55=-195/87, 9-56=-193/81, 8-57=-193/77, 7-58=-194/77, 6-59=-157/77, 5-60=-123/89, 4-61=-145/168, 3-62=-177/102

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) -0-8-6 to 4-7-0, Exterior(2N) 4-7-0 to 12-4-3, Corner(3R) 12-4-3 to 22-11-13, Exterior(2N) 22-11-13 to 26-2-3, Corner(3R) 26-2-3 to 36-7-0, Exterior(2N) 36-7-0 to 47-10-11, Corner(3E) 47-10-11 to 53-2-8 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.
- 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) design.
- 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)
- Gable requires continuous bottom chord bearing. 9)
- 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.
- 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) N/A

- 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.

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 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	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	A03	Piggyback Base	5	1	Job Reference (optional)	172212638

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:48 ID:OFJFx3IDTxFbWWzrBXohbzzRCTM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:91.4

Plate Offsets (X, Y):	[2:0-2-12,0-2-0],	[10:0-5-0,0-4-8],	[12:Edge,0-1-5]	, [14:0-5-0,0-4-8]
	L - /1/	L /		/ <u> </u>

L oading TCLL (roof) Snow (Pf)		(psf) 20.0 20.0	Spacing Plate Grip DOL Lumber DOL	2-0-0 1.15 1.15		CSI TC BC	0.88 0.92	DEFL Vert(LL) Vert(CT)	in -0.32 -0.50	(loc) 19-21 19-21	l/defl >999 >778	L/d 240 180	PLATES MT20	GRIP 244/190	0
BCLL BCDL		10.0 0.0* 10.0	Code	IRC201	8/TPI2014	Matrix-MSH	0.99	Horz(CT)	0.10	12	n/a	n/a	Weight: 470	lb FT = 20)%
LUMBER TOP CHORD BOT CHORD WEBS	2x6 SP N 2x6 SP 24 No.2 2x4 SP N 21-2,6-19 No 2	o.2 400F 2.0E [*] o.3 *Excep 9,8-17,17-9,	*Except* 14-12:2x6 t* 14-9,19-5,21-5:2x4	B SP W SP	OT CHORD 2 1 /EBS 2 2	21-22=-118/222, 19 18-19=-3/2629, 17- 15-17=0/2487, 13-1 12-13=-83/3646 2-21=-78/2773, 19- 23-26=-476/250, 6- 7-24=-870/220, 24)-21=-2 18=-3/2 15=-38/3 23=-494 26=-463 1-27=-8	1/2509, /629, 3144, 4/240, 3/253, 56/226.		8) All p 9) This cho 10) * Th on t 3-06 cho	plates ar truss h rd live lo is truss he botto S-00 tall rd and a	e 2x4 as bee ad noi has be m cho by 2-0 ny oth	MT20 unless of an designed fo nconcurrent wi een designed f ord in all areas 00-00 wide will er members, v	otherwise inc r a 10.0 psf l th any other or a live load where a rec fit between vith BCDL =	Jicated. bottom [•] live loads. d of 20.0psf tangle the bottom = 10.0psf.
OTHERS WEDGE BRACING	2x4 SP N Right: 2x4	o.3 4 SP No.3			8 1 1	8-27=-835/223, 9-1 10-14=-907/319, 9- 10-13=-222/774, 11	7=-89/9 14=-180 I-13=-32)37, 6/974, 24/238,		11) Refe 12) Prov bea	er to giro vide mee	der(s) f chanic e capa	for truss to trus al connection able of withstar	s connectio (by others) c nding 25 lb ι	ns. of truss to uplift at joint
TOP CHORD	Structura 3-2-9 oc 2-0-0 oc	l wood shea purlins, exc purlins (3-8	athing directly applie cept end verticals, a -5 max.): 5-9.	d or nd	5	5-19=0/906, 3-21=- 23-25=-70/38, 24-2 26-28=-14/48, 27-2	842/342 5=-70/3 8=-135/	2, 5-21=-282/ 8, 18-25=0/3 /26, 7-28=-25	/512, 4, 55/89,	12. 13) One reco	e H2.5A	Simps ed to d	on Strong-Tie connect truss t	connectors o bearing w	alls due to
BOT CHORD	Rigid ceil bracing, 2-2-0 oc l	ing directly Except: bracing: 12-	applied or 10-0-0 oc	; N 1)	6 OTES Unbalanced	5-28=-296/704, 8-2 roof live loads have	8=-284/ e been o	/817 considered fo	or	UPL only 14) This	IFT at jf and do truss is	i(s) 22 es not desig	and 15. This of consider later ned in accorda	onnection is al forces. ance with the	s for uplift e 2018
WEBS	1 Row at	midpt	19-26, 17-27, 9-17, 23-24	ر (5-21, 2	this design. Wind: ASCF	7-16 [.] Vult=130mpl	h (3-sec	cond qust)		Inte R80	rnationa 2.10.2 a	I Resident and ref	dential Code stand	ections R50 ard ANSI/TF	2.11.1 and PI 1.
JOINTS	1 Brace a 27, 28	at Jt(s): 26,	2021	_,	Vasd=103mp II; Exp B; End	oh; TCDL=6.0psf; E closed; MWFRS (e	3CDL=6 nvelope	.0psf; h=25ft; e) exterior zor	; Cat. ne	15) Gra or th	phical p ne orient	urlin re ation o	epresentation of the purlin alo	loes not dep ong the top a	oict the size and/or
REACTIONS	(size) Max Horiz Max Uplift Max Grav	12= Mech 22=0-5-8 22=-186 (l 12=-25 (L 22=-167 (l 12=2098 (22=2369 (anical, 15=0-3-8, LC 12) C 14), 15=-202 (LC LC 14) (LC 47), 15=842 (LC (LC 37)	15), : 39), 3)	and C-C Exte 10-1-12, Exte 39-1-13 to 47 zone; end ve forces & MW DOL=1.60 pl TCLL: ASCE	erior(2E) -0-8-6 to 4 erior(2R) 10-1-12 to 7-10-11, Exterior(2I rtical left exposed; FRS for reactions ate grip DOL=1.60 7-16; Pr=20.0 psf	4-7-7, Ir 5 39-1-1 E) 47-1(C-C for shown; (roof LL	iterior (1) 4-7- 3, Interior (1) 0-11 to 53-2-8 members and Lumber .: Lum DOL=	-7 to) 8 d 1.15	Dott		d. Sta	ndard, TH C	AROL	Non Alexandre
FORCES	(lb) - Max Tension	timum Com	pression/Maximum		Plate DOL=1 DOL=1.15); I	.15); Pf=20.0 psf (l s=1.0; Rough Cat	Lum DC B; Fully	L=1.15 Plate Exp.; Ce=0.9	e ∋;		111		SE	AL	
FOP CHORD	1-2=0/23, 5-6=-2722 7-8=-3230 9-11=-41 2-22=-24	, 2-3=-3256 5/221, 6-7= 6/426, 8-9= 72/299, 11- 17/212	/213, 3-5=-3382/413 -3236/426, -2704/219, 12=-4217/186,	^{3,} 4) 5) 6) 7)	Cs=1.00; Ct= Ubalanced design. This truss ha load of 12.0 µ overhangs no 200.0lb AC u from left end.	1.10 snow loads have b s been designed fo osf or 1.00 times fla on-concurrent with nit load placed on , supported at two p uate drainage to p	een cor or greate at roof le other liv the bott points, { revent	nsidered for the pad of 20.0 performed ve loads. om chord, 24 5-0-0 apart. water ponding	his [:] live sf on I-7-0 g.		11111	A A A A A A A A A A A A A A A A A A A		322 NEER.	All and a second second

- 200.0lb AC unit load placed on the bottom chord, 24-7-0 6) from left end, supported at two points, 5-0-0 apart.
- 7) Provide adequate drainage to prevent water ponding.



March 25,2025

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Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	A03T	Piggyback Base	3	1	Job Reference (optional)	172212639

11-8-0

TCDL

BCLL

BCDL

WEBS

WEDGE

WEBS

JOINTS

FORCES

TOP CHORD

REACTIONS (size)

1 Row at midpt

31, 32

Max Horiz

Max Uplift

Max Grav

Tension

1 Brace at Jt(s): 30,

26=0-5-8

26=-187 (LC 12)

26=-168 (LC 14)

26=2270 (LC 37)

4-6=-3365/356, 6-7=-2572/221,

7-8=-3089/425, 8-9=-3089/425,

9-10=-2556/219, 10-12=-4014/300,

12-13=-4056/188, 2-26=-2399/221

(lb) - Maximum Compression/Maximum

1-2=0/25, 2-3=-2320/201, 3-4=-3431/248,

20-30, 17-31, 6-20,

10-17, 27-28

13=-26 (LC 14), 16=-198 (LC 15),

13=2018 (LC 47), 16=918 (LC 39),

13= Mechanical, 16=0-3-8

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Mar 21 12:30:48 Page: 1 ID:OFJFx3IDTxFbWWzrBXohbzzRCTM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f 2-3-12 -0-10-8 7-10-0 19-5-4 31-6-0 13-4-4 17-8-0 24-7-0 29-8-12 38-7-9 45-9-2 53-2-8 5-6-4 0-10-8 5-6-4 4-3-12 5-1-12 5-1-12 7-1-9 7-5-6 1_9_4 1-9-4 7-1-9 2-3-12 6x8= 4x5= 6x8= 2x4 🛛 4x5= 40 841 6 7 9 10 6¹² 8x10 -32 4x5 8x10 5x8= 2 4-¹¹42 39 38 4 43 37 5x6 ≉ 2x4 u 36 5x8 -12 3 2-10-0 4-10-4 10 .4 22 26 23 21 4x5= 20 45 19 181747 48 46 15 49 50 6x8= 14 16 4x6 =6x8= 5x8= 6x8= 2x4 II 5x6= 8x10= 4x5 =3x5 II 3x5 II 2x4= 2x4 u 2x4= 4x53-9-8 29-0-8 29-8-12 37-3-8 37-7-3 2-5-8 7-10-0 13-2-8 19-5-4 24-7-0 45-9-2 53-2-8 6-2-12 5-1-12 2 - 5 - 85-4-8 5-4-8 4-5-8 0-8-4 4-6-0 0-3-11 8-1-15 7-5-6 3-0-12 Scale = 1:91.4 Plate Offsets (X, Y): [5:0-5-0,0-4-8], [11:0-5-0,0-4-8], [13:Edge,0-1-5], [15:0-5-0,0-4-8], [20:0-4-0,0-2-8], [22:0-2-12,0-3-8], [24:0-5-8,0-3-0] Loading Spacing 2-0-0 CSI DEFL l/defl L/d PLATES GRIP (psf) in (loc) TCLL (roof) 20.0 Plate Grip DOL 1.15 TC 0.59 Vert(LL) -0.24 20-21 >999 240 MT20 244/190 Snow (Pf) 20.0 Lumber DOL 1.15 BC 0.89 Vert(CT) -0.55 19-20 >711 180 Rep Stress Incr WB Horz(CT) 10.0 YES 1.00 0.16 13 n/a n/a 0.0 Code IRC2018/TPI2014 Matrix-MSH Weight: 501 lb FT = 20% 10.0 LUMBER BOT CHORD 25-26=-19/33, 24-25=-1/24, 3-24=-1089/126, 5) This truss has been designed for greater of min roof live 23-24=-263/2058, 22-23=-216/2974, load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on 2x6 SP No.2 TOP CHORD 21-22=-23/80, 5-22=-484/168, overhangs non-concurrent with other live loads. 2x6 SP No.2 *Except* 25-3,5-21:2x4 SP BOT CHORD 20-21=-56/217, 19-20=-6/2484 200.0lb AC unit load placed on the bottom chord, 24-7-0 No.3, 18-15:2x6 SP 2400F 2.0E 6) 17-19=-6/2484, 16-17=0/2349, from left end, supported at two points, 5-0-0 apart. 2x4 SP No.3 *Except* 14-16=-40/2984, 13-14=-85/3504 7) Provide adequate drainage to prevent water ponding. 22-6,7-20,9-17,20-6,17-10,15-10:2x4 SP WEBS 4-22=-190/131. 6-22=-266/1120. No.2, 26-2:2x6 SP 2400F 2.0E 8) All plates are 2x4 MT20 unless otherwise indicated. 20-27=-539/210, 27-30=-518/215, Right: 2x4 SP No.3 This truss has been designed for a 10.0 psf bottom 9) 7-30=-504/212. 17-28=-861/227. chord live load nonconcurrent with any other live loads. BRACING 28-31=-842/235, 9-31=-823/232, 10) * This truss has been designed for a live load of 20.0psf Structural wood sheathing directly applied or TOP CHORD 6-20=-105/520, 10-17=-91/903, on the bottom chord in all areas where a rectangle 3-3-12 oc purlins, except end verticals, and 10-15=-190/926, 11-15=-910/319, 3-06-00 tall by 2-00-00 wide will fit between the bottom 2-0-0 oc purlins (3-10-0 max.): 6-10. 11-14=-221/801, 12-14=-324/238, chord and any other members, with BCDL = 10.0psf. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc 4-23=-292/78, 3-23=-1/1009, 20-22=0/2236 11) Refer to girder(s) for truss to truss connections. bracing. Except: 24-26=-109/207, 27-29=-71/37, 1 Row at midpt 5-22

28-29=-71/37, 19-29=0/48, 30-32=-20/40,

31-32=-122/27, 8-32=-252/89,

Unbalanced roof live loads have been considered for

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

and C-C Exterior(2E) -0-8-6 to 4-7-7, Interior (1) 4-7-7 to

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;

Unbalanced snow loads have been considered for this

II; Exp B; Enclosed; MWFRS (envelope) exterior zone

10-1-12, Exterior(2R) 10-1-12 to 39-1-13, Interior (1)

39-1-13 to 47-10-11, Exterior(2E) 47-10-11 to 53-2-8

zone; end vertical left exposed;C-C for members and

forces & MWFRS for reactions shown: Lumber

DOL=1.60 plate grip DOL=1.60

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

2-24=-200/2325

7-32=-298/700, 9-32=-285/803,

- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 13
- 13) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at it(s) 26 and 16. This connection is for uplift only and does not consider lateral forces.



Continued on page 2

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Cs=1.00: Ct=1.10

design

NOTES

this design.

1)

2)

3)

4)

Job	Truss	Truss Type		Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	A03T	Piggyback Base		3	1	Job Reference (optional)	172212639
Carter Components (Sanford, NC), Sanford, NC - 27332,		Run: 8.73 S Feb 19 2	2025 Print: 8.	730 S Feb 19	9 2025 MiTek Industries, Inc. Fri Mar 21 12:30:48	Page: 2

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

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.

LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH		
25030163-01	A04T	Piggyback Base	2	1	Job Reference (optional)	172212640	

19-5-4

1-9-4

24-7-0

5-1-12

17-8-0

4-3-12

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

7-10-0

5-6-4

13-4-4

5-6-4

2-3-12 -0-10-8

0-10-8

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Mar 21 12:30:49

Page: 1 ID:DGN6a6f8caCKWpHw1clz1BzRCZx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f 31-6-0 29-8-12 38-7-9 45-9-2 53-2-8 5-1-12 7-1-9 7-5-6 1-9-4 7-1-9 6x8= 2x4 🛛 4x5=



March 25,2025



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Job	Truss	Truss Type		Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	
25030163-01	A04T	Piggyback Base		2	1	Job Reference (optional)	172212640
Carter Components (Sanford, NC), Sanford, NC - 27332,			Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:49			Page: 2	

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

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LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	892 Serenity-Roof-B326 B CP TMB GLH	172212641
25030163-01	A04	Piggyback Base	1	1	Job Reference (optional)	

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Mar 21 12:30:48 ID:DGN6a6f8caCKWpHw1clz1BzRCZx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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