

Carter Sanford Component Plant 298 Harvey Faulk Rd Sanford, NC 27332

Phone #:919-775-1450

# Builder: DAVID WEEKLEY Model: 128 SERENITY B330 B



# THE PLACEMENT PLAN NOTES:

1. The Placement Plan is a diagram for truss installation. It is not an engineered drawing and has not been reviewed by an engineer. The Owner/Building Designer is responsible for obtaining an engineer's review if one is required by the local jurisdiction.

2. The responsibilities of the Owner, Contractor, Building Designer, Component Designer and Component Manufacturer shall be as set forth in ANSI/TPI 1. Capitalized terms shall be as defined in ANSI/TP 1 unless otherwise indicated.

3. Each Component is designed as an individual component utilizing information provided by others. The Owner/Building Designer is responsible for reviewing all Component Submittal Packages and individual Component Design Drawings for compliance with the Construction Documents and compatibility with the overall Building design.

4. Contractor will not proceed with component installation until the Owner/Building Designer has reviewed the Component Submittal Package. Questions on the suitability of any Component will be resolved by the Building Designer.

5. The Building Designer and Contractor are responsible for all temporary and permanent bracing.

6. The Placement Plan assumes the building is dimensionally correct, structurally sound, and in a suitable condition to support each Component during installation and thereafter, including but not limited to installation of all bearing points. Proper design and construction of all structural components, including foundations, headers, beams, walls and columns are the responsibility of the Owner, Building Designer and Contractor.

7. Do not cut, drill, or modify any Component without first consulting the Component Manufacturer or Building Designer. Damaged Components shall not be installed unless directed by the Building Designer or approved by the Component Manufacturer.

8. Components must be handled and installed following all applicable safety standards and best practices, including but not limited to BCSI, OSHA, TPI and local codes. Failure to properly handle, brace or otherwise install Component can result in serious injury or death.

Apprved by: \_\_\_\_\_

Date: \_\_\_\_\_





FRAMER

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ALLED PRIOR TO SETTING ANY COMPONENTS.		Re	evisions
		00/00/0	0 Name
	RUSS TO TRUSS CONNECTIONS ARE TOE-NAILED, UNLESS NOTED OTHERWISE.	<b>THIS IS A TRUSS PLACEMENT DIAGRAM ONLY.</b> These trusses are designed as individual components to be incorporated into the building design at the specification of the building designer. See Individual design sheets for each truss design identified on the placement drawing. The building designer	is responsible for temporary and permanent bracing of the roof and floor systems and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding the bracing, consult "Bracing of Wood Truss" available from the Truss Plate Institute, 583 D'Onifrio Drive: Madison, WI 53179
- 00-00	AENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH. ** TR		A Division of the Genterny
	ed together prior to adding any loads. ** Din	David Weekley Homes	128 Serenity COMPONENT PLACEMENT PLAN
	JLLY CONNECTE	Scale: Date: 1/2	NTS 25/2024
	ST BE FL	Pr	Designer: ND oject Number:
	SUM SS	<b>24</b>	010048 heet Number:
	RDEF		
	* *		



**Trenco** 818 Soundside Rd Edenton, NC 27932

Re: 24010048 128 Serenity

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: I63264136 thru I63264168

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844



January 26,2024

# 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	128 Serenity	
24010048	A	Common	4	1	Job Reference (optional)	163264136

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:03 ID:CttcSzQgwNcSj9X9hY?FsHzF uO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?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 in the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent ouckling of individual truss systems, see fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPII 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.sbaccomponents.com) TRENGINEERING BY RENCO A MiTek Affiliate

818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	AGE	Common Supported Gable	1	1	Job Reference (optional)	163264137

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:07 ID:94aeZ53wRfHxaJ4LIBSgWSzF\_tZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



BCLL BCDL		0.0* 10.0	Code IR	C2018/TPI2014	Matrix-	MSH				Weight: 285 lb FT	Γ = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS SLIDER BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No.2 2x4 SP No.3 Left 2x4 SP N 1-6-0 Structural wc 6-0-0 oc purl Rigid ceiling bracing. 1 Row at mic (size) 2= 28 30 32 34 40 42 44 46 51 Max Horiz 2= Max Uplift 2= Max Uplift 2= 33 34 40 42 44 46	**Except No.3 1 ood shea lins. directly dpt =39-11-0 3=39-11- 2=39-11- 2=39-11- 2=39-11- 2=39-11- 3=39-11- 3=39-11- 1=39-11- 1=39-11- 1=39-11- 1=39-11- 1=-31 (LC 3=-34 (LC 3=-39 (LC 3=-44 (LC 3=-96 (LC	* 37-14:2x4 SP No.2 -6-0, Right 2x4 SP No.3 athing directly applied or applied or 10-0-0 oc 14-37, 13-38, 12-39, 15-36, 16-35 , 26=39-11-0, 0, 29=39-11-0, 0, 33=39-11-0, 0, 33=39-11-0, 0, 37=39-11-0, 0, 37=39-11-0, 0, 37=39-11-0, 0, 47=39-11-0, 0, 47=40, 1, 41=40, 1,	FORCES TOP CHORD BOT CHORD	(lb) - Max Tension 1-2=0/23 5-6=-129 8-9=-61/1 12-13=-1 14-15=-1 14-15=-1 14-15=-1 2-46=-44 44-45=-4 40-41=-4 37-38=-4 34-36=-4 32-33=-4 30-31=-4 28-29=-4	$\begin{array}{l} 2=161 \ ({\rm LC}\ 26), \\ 28=158 \ ({\rm LC}\ 35), \\ 30=160 \ ({\rm LC}\ 35), \\ 32=161 \ ({\rm LC}\ 22), \\ 34=180 \ ({\rm LC}\ 22), \\ 36=245 \ ({\rm LC}\ 22), \\ 38=245 \ ({\rm LC}\ 22), \\ 40=180 \ ({\rm LC}\ 22), \\ 40=180 \ ({\rm LC}\ 22), \\ 42=161 \ ({\rm LC}\ 21), \\ 42=161 \ ({\rm LC}\ 21), \\ 42=161 \ ({\rm LC}\ 24), \\ 42=161 \ ({\rm LC}\ 24), \\ 45=158 \ ({\rm LC}\ 34), \\ 51=161 \ ({\rm LC}\ 26), \\ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 10000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000 \ 1000\$	26=138 (LC 22), 29=160 (LC 22), 31=160 (LC 1), 33=160 (LC 35), 35=232 (LC 21), 41=160 (LC 34), 43=160 (LC 1), 45=160 (LC 1), 45=160 (LC 1), 47=138 (LC 22), bn/Maximum =-168/81, 7-8=-74/130, (1-112=-84/221, 20/309, 103/269, 176, 186, 21-22=-44/40, 135, 67, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167, 1167,	WEBS <b>NOTES</b> 1) Unba this c 2) Wind Vasd Cat. zone 3-1-6 Exter 40-9 vertic force DOL:	14-37 12-39 9-41= 6-44= 15-36 17-34 20-32 22-30 24-28 alanced roof li lesign. : ASCE 7-16; =103mph; TC II; Exp B; Enc and C-C Cor is to 15-11-8, ( rior(2N) 23-11 & Zone; canti cal left and rig s & MWFRS =1.60 plate g	=-204/45, 13-38=-20: =-192/83, 11-40=-14: -120/77, 8-42=-121/7 -120/77, 5-45=-121/8 =-205/66, 16-35=-19: =-140/76, 19-33=-12: =-121/77, 21-31=-12: =-120/77, 23-29=-12 =-114/135 ive loads have been of ; Vult=130mph (3-sec CDL=6.0psf; BCDL=6 closed; MWFRS (env) mer(3E) -0-10-8 to 3- Corner(3R) 15-11-8 tt 1-8 to 36-9-10, Corne lever left and right ex- ph exposed; C-C for m for reactions shown; rip DQL=1180 H CAR SEAL 0363222 SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL SCAL S	5/66, )/76, 7, 7-43=-120/77, 1, 4-46=-114/135, 2/83, )/77, )/77, )/77, 1/81, considered for cond gust) .0psf; h=25ft; alope) exterior 1-6, Exterior(2N) > 23-11-8, r(3E) 36-9-10 to posed; end nembers and Lumber	

January 26,2024

Page: 1

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 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 oulcapes 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 DSE2** 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	128 Serenity	
24010048	AGE	Common Supported Gable	1	1	Job Reference (optional)	163264137

- 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 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.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- 9) Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 2, 39 lb uplift at joint 38, 47 lb uplift at joint 39, 43 lb uplift at joint 40, 44 lb uplift at joint 41, 44 lb uplift at joint 42, 43 lb uplift at joint 43, 46 lb uplift at joint 44, 34 lb uplift at joint 45, 96 lb uplift at joint 46, 36 lb uplift at joint 36, 48 lb uplift at joint 35, 43 lb uplift at joint 34, 44 lb uplift at joint 33, 44 lb uplift at joint 32, 43 lb uplift at joint 31, 46 lb uplift at joint 30, 37 lb uplift at joint 29, 80 lb uplift at joint 28 and 21 lb uplift at joint 2.
- 13) 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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:07 ID:94aeZ53wRfHxaJ4LIBSgWSzF tZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2

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Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	В	Common	6	1	Job Reference (optional)	163264138

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:08 ID:6tPM5/r?FJUMxDStPvqO5SzF Wb-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



WEBS 11-13=-39/1777, 10-11=-127/1755 4-13=-487/128, 4-15=-29/499, 4-13=-687/229, 5-13=-97/1198, 6-13=-539/217, 6-11=-4/262, 7-11=0/248, 3-16=-2024/151, 7-10=-2098/144

#### NOTES

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

3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16 and 10. This connection is for uplift

on the bottom chord in all areas where a rectangle

\* This truss has been designed for a live load of 20.0psf

only and does not consider lateral forces.
9) 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

7)



Page: 1

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Job	Truss	Truss Type	Qty	Ply	128 Serenity		
24010048	B1	Common	6	1	Job Reference (optional)	163264139	

1)

Run: 8.63 S. Nov. 1.2023 Print: 8.630 S. Nov. 1.2023 MiTek Industries. Inc. Thu Jan 25 17:22:08 ID:jCQDRPFmxy5us2K9CGvbovzF Un-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

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Job	Truss	Truss Type	Qty Ply 128 Serenity		128 Serenity	
24010048	B1GE	Common Supported Gable	1	1	Job Reference (optional)	163264140

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:09 ID:va6oJ bKLZdwDLTYr9P9wpzF UL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



(Ib) - Maximum Compression/Maximum

2-43=-168/102, 1-2=0/27, 2-3=-203/116,

3-4=-140/104, 4-5=-112/125, 5-6=-94/148,

6-7=-81/174, 7-8=-69/220, 8-10=-92/305,

19-20=-42/72, 20-21=-67/39, 21-22=-51/15

42-43=-35/75, 41-42=-35/75, 40-41=-35/75,

39-40=-35/75, 38-39=-35/75, 37-38=-35/75,

35-37=-35/75, 34-35=-35/77, 33-34=-35/77,

32-33=-35/77, 31-32=-35/77, 30-31=-35/77,

28-30=-35/77, 27-28=-34/75, 26-27=-34/75,

25-26=-34/75, 24-25=-34/75, 23-24=-34/75,

10-34=-198/90, 9-35=-134/75, 8-37=-111/72,

7-38=-122/78, 6-39=-120/78, 5-40=-119/74,

10-11=-112/355, 11-12=-129/394,

12-13=-129/394, 13-14=-112/355,

14-16=-92/305, 16-17=-59/220,

17-18=-40/174, 18-19=-33/129

12-32=-275/51, 11-33=-202/61,

4-41=-125/103, 3-42=-90/142, 13-31=-202/61, 14-30=-198/89,

Tension

22-23=-34/75

 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,

Page: 1

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 design.



- 1 0	
	this design.
	<ol> <li>Unbalanced roof live loads have been considered for</li> </ol>
	NOTES
	19-24=-123/105, 20-23=-107/139
	17-26=-122/79, 18-25=-119/75,
	15-28=-134/78, 16-27=-111/70,

ontinued on page 2 WARNING - Verify

WEBS

REACTIONS (size)

1 Row at midpt

Max Horiz 43=160 (LC 13)

12-32, 11-33, 13-31

22=36-3-0, 23=36-3-0, 24=36-3-0,

25=36-3-0, 26=36-3-0, 27=36-3-0,

28=36-3-0, 30=36-3-0, 31=36-3-0,

32=36-3-0, 33=36-3-0, 34=36-3-0,

35=36-3-0, 37=36-3-0, 38=36-3-0

39=36-3-0, 40=36-3-0, 41=36-3-0

24=-35 (LC 15), 25=-46 (LC 15),

26=-45 (LC 15), 27=-37 (LC 15),

28=-45 (LC 15), 30=-52 (LC 15),

31=-33 (LC 15), 33=-37 (LC 14),

34=-51 (LC 14), 35=-44 (LC 14),

37=-37 (LC 14), 38=-45 (LC 14),

39=-43 (LC 14), 40=-46 (LC 14),

41=-37 (LC 14), 42=-225 (LC 14),

42=36-3-0, 43=36-3-0

Max Uplift 22=-8 (LC 14), 23=-105 (LC 15),

43=-149 (LC 10)

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FORCES

TOP CHORD

BOT CHORD

WEBS

Job	Truss	Truss Type	Qty	Ply	128 Serenity	163264140
24010048	B1GE	Common Supported Gable	1	1	Job Reference (optional)	163264140

Run: 8.63 S. Nov. 1.2023 Print: 8.630 S. Nov. 1.2023 MiTek Industries. Inc. Thu Jan 25 17:22:09

ID:va6oJ bKLZdwDLTYr9P9wpzF UL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

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

- 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.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
   Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 22, 149 lb uplift at joint 43, 37 lb uplift at joint 33, 51 lb uplift at joint 34, 44 lb uplift at joint 35, 37 lb uplift at joint 37, 45 lb uplift at joint 38, 43 lb uplift at joint 39, 46 lb uplift at joint 40, 37 lb uplift at joint 41, 225 lb uplift at joint 42, 33 lb uplift at joint 31, 52 lb uplift at joint 30, 45 lb uplift at joint 28, 37 lb uplift at joint 27, 45 lb uplift at joint 26, 46 lb uplift at joint 25, 35 lb uplift at joint 24 and 105 lb uplift at joint 23.
- 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.

LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	BSE	Common Structural Gable	1	1	Job Reference (optional)	163264141

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:10 ID:jfMMInrRxWpjnpkdD7ldQkzF VJ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



January 26,2024

Page: 1



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 vertice. Defore use the building definement with the particular definition of design valid of an endown and the particular building design.

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	128 Serenity	100001111	
24010048	BSE	Common Structural Gable	1	1	Job Reference (optional)	163264141	
Carter Components (Sanford, NC	Run: 8.63 S Nov 1 2	023 Print: 8.	630 S Nov 1	2023 MiTek Industries, Inc. Thu Jan 25 17:22:10	Page: 2		

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:10 ID:jfMMInrRxWpjnpkdD7IdQkzF\_VJ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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.

LOAD CASE(S) Standard

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



Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	С	Common	3	1	Job Reference (optional)	163264142

1)

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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

Page: 1

Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	C1	Common	6	1	Job Reference (optional)	163264143

Run: 8.63 S. Nov. 1.2023 Print: 8.630 S. Nov. 1.2023 MiTek Industries. Inc. Thu Jan 25 17:22:12



Page: 1 ID:MV7Qc?M0dtQGkhooWQpRIZzEzeQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f 8-11-8 17-7-8 26-3-8 35-3-0 8-11-8 8-8-0 8-8-0 8-11-8 5x6= 5 25 26 12 6 24 27 8x10 🞜 8x10 👟 4 6 9-9-12 4x5 🕫 28 23 4x5. 3 7 8 to 0---13 1 29 30 11 31 10 32 9 33 34 5x10 II 8x10= 2x4= 2x4 II 5x10 II 2x4= 8x10= 11-11-0 17-7-8 23-4-0 35-3-0 11-11-0 5-8-8 5-8-8 11-11-0 Scale = 1:66.6 Plate Offsets (X, Y): [2:0-5-2,0-0-5], [4:0-5-0,0-4-8], [6:0-5-0,0-4-8], [8:0-5-2,0-0-5], [8:0-0-0,0-0-0], [9:0-5-0,0-4-8], [11:0-5-0,0-4-8] Loading Spacing 2-0-0 CSI DEFL in l/defl L/d PLATES GRIP (psf) (loc) Plate Grip DOL TCLL (roof) 20.0 1.15 тс 0.79 Vert(LL) -0.13 10 >999 240 MT20 244/190 Snow (Pf) 20.0 Lumber DOL 1.15 BC 0.82 Vert(CT) -0.42 10 >999 180 TCDL 10.0 Rep Stress Incr WB 0.34 Horz(CT) YES 0.08 8 n/a n/a BCLL 0.0 Code IRC2018/TPI2014 Matrix-MSH Weight: 246 lb FT = 20% BCDL 10.0 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) LOAD CASE(S) Standard LUMBER Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 2x6 SP No 2 TOP CHORD Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior 2x6 SP No.2 BOT CHORD zone and C-C Exterior(2E) -0-10-8 to 2-7-13, Interior (1) WEBS 2x4 SP No.2 \*Except\* 4-11,6-9,14-10:2x4 SP 2-7-13 to 14-1-3, Exterior(2R) 14-1-3 to 21-1-13, Interior No.3 (1) 21-1-13 to 31-8-11, Exterior(2E) 31-8-11 to 35-3-0 SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

BRACING

DIVACING	
TOP CHORD	Structural wood sheathing directly applied or
	2-11-10 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc
	bracing.
WEBS	1 Row at midpt 12-13
REACTIONS	(size) 2=0-5-8, 8= Mechanical
	Max Horiz 2=153 (LC 14)
	Max Uplift 2=-51 (LC 14), 8=-34 (LC 15)
	Max Grav 2=1680 (LC 3), 8=1635 (LC 3)
FORCES	(lb) - Maximum Compression/Maximum
	Tension
TOP CHORD	1-2=0/23, 2-5=-2648/101, 5-8=-2650/104
BOT CHORD	2-10=-165/2283, 8-10=-53/2286
WEBS	11-12=-32/960, 5-12=-14/1029,
	5-13=-15/1032, 9-13=-32/963,
	4-11=-507/302, 6-9=-509/303, 12-14=-114/0
	13-14=-114/0, 10-14=0/40

#### NOTES

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

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) 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 4) desian.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads
- 6) 200.0lb AC unit load placed on the bottom chord, 17-7-8 from left end, supported at two points, 5-0-0 apart.
- This truss has been designed for a 10.0 psf bottom 7) chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf 8) 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. 9)
- Refer to girder(s) for truss to truss connections. 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint
- 11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 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.

CAR WITH COMPANY 111111111 SEAL 036322 GI minin January 26,2024

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



Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	CGE	Common Supported Gable	1	1	Job Reference (optional)	163264144

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:12 ID:HSVLvMXIBUOh6UIn9Dc1gjzEzgn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:62.1

# Plate Offsets (X, Y): [30:0-2-8,0-1-8], [36:0-2-8,0-1-8]

Loading		(psf)	Spacing	2-0-0		CSI	0.16	DEFL	in m/n	(loc)	l/defl	L/d	PLATES	GRIP	
		20.0	Plate Grip DOL	1.15			0.16	Vert(LL)	n/a	-	n/a	999	M120	244/190	
		20.0		1.15			0.07		n/a	-	n/a	999			
		10.0	Rep Stress Incr	TEO			0.21		0.00	23	n/a	n/a			
BCLL		0.0	Code	IRC20	18/19/2014	Matrix-MR									
BCDL		10.0											vveight: 242	D FI = 20%	
LUMBER TOP CHORD BOT CHORD WEBS DTHERS	2x4 SP No 2x4 SP No 2x4 SP No 2x4 SP No 2x4 SP No	5.2 5.2 5.3 5.3			FORCES	(lb) - Maximum Co Tension 2-43=-126/64, 1-2= 3-4=-97/81, 4-5=-7 6-8=-55/165, 8-9=-	mpressi =0/27, 2- 2/105, 5 -73/211,	on/Maximum 3=-147/77, i-6=-58/128, 9-10=-91/256;	,	3) Tru only see or c 4) TCI	iss desig /. For st Standa onsult q .L: ASC	gned fo tuds ex rd Indu ualifie E 7-16	or wind loads in xposed to wind ustry Gable En d building desi 5; Pr=20.0 psf (	the plane of ti (normal to the) d Details as ap gner as per AN roof LL: Lum D	ne truss face), plicable, ISI/TPI 1. IOL=1.15
BRACING						10-11=-111/304, 1	1-12=-1	28/343,		Pla	e DOL=	:1.15);	Pf=20.0 psf (L	um DOL=1.15	Plate
TOP CHORD	Structural	wood shea	athing directly applie	d or		12-13=-128/343, 1	3-14=-1	11/304,		DO	L=1.15)	; ls=1.0	0; Rough Cat E	; Fully Exp.; C	e=0.9;
	6-0-0 oc p	ourlins, exc	cept end verticals.			14-15=-91/256, 15	-16=-73	211,		Cs=	1.00; C	t=1.10			
BOT CHORD	Rigid ceili bracing.	ng directly	applied or 6-0-0 oc			16-18=-55/165, 18 19-20=-48/76, 20-2	-19=-37/ 21=-68/5	120, 62, 21-22=-111	1/44,	5) Unt des	ign.	snow	loads have be	en considered	for this
NEBS	1 Row at	midpt	12-33, 11-34, 13-32			22-23=-05/18	10- 10/0	E 40 41- 40/	05	6) This	s truss h	as bee	en designed fo	greater of min	root live
REACTIONS	(size) Max Horiz Max Uplift	23=35-3-0 26=35-3-0 29=35-3-0 33=35-3-0 40=35-3-0 43=35-3-0 43=35-3-0 43=35-3-0 43=35-3-0 43=35-3-0 43=35-3-0 (L) 23=-13 (L) 27=-43 (L) 29=-43 (L) 32=-47 (L) 35=-47 (L) 38=-44 (L)	C 11) C 12, 24=35-3-0, 25=35- , 27=35-3-0, 28=35- , 31=35-3-0, 32=35- , 34=35-3-0, 35=35- , 34=35-3-0, 39=35- , 41=35-3-0, 42=35- C 11) C 14), 24=-109 (LC 12 C 15), 26=-47 (LC 12 C 15), 28=-44 (LC 12 C 15), 31=-48 (LC 12 C 15), 31=-48 (LC 12 C 15), 31=-48 (LC 14 C 14), 37=-43 (LC 14 C 14), 37=-43 (LC 14)	-3-0, -3-0, -3-0, -3-0, -3-0, -3-0, -3-0, -3-0, 5), 5), 5), 5), 4), 4),	NOTES	42-43=-42/95, 41- 39-40=-42/95, 38- 35-37=-42/95, 34- 32-33=-42/95, 31- 28-29=-42/95, 27-2 25-26=-42/95, 27-2 12-33=-233/51, 11 10-35=-188/84, 9-3 6-39=-121/77, 5-40 3-42=-94/113, 13-5 14-31=-188/84, 15 16-28=-120/75, 20 21-24=-113/144	42=-42/9 39=-42/9 35=-42/9 32=-42/9 28=-42/9 28=-42/9 25=-42/9 -34=-20 37=-135, 0=-119/7 32=-204, -29=-13 -27=-12 -25=-12	5, 40-41=-42// 5, 37-38=-42// 5, 33-34=-42// 5, 29-31=-42// 5, 29-31=-42// 5, 26-27=-42// 5, 23-24=-42// 4(65, 76, 8-38=-120 6, 4-41=-126// 65, 5/76, 1/78, 2/96,	95, 95, 95, 95, 95, 95 0/77, 83,	load ove 7) All   8) Gat 9) Tru bra 10) Gat 11) This cho	d of 12.0 rhangs i blates ar ble requi ss to be ced aga ble studs s truss h rd live lo	psf oi non-cc re 2x4 ires co fully s inst lat s space as bee bad no	r 1.00 times fla oncurrent with o MT20 unless o ntinuous botto heathed from o teral movemen ed at 2-0-0 oc. en designed fo nconcurrent with OR THO OR FES	roof load of 20 ther live loads: therwise indication in chord bearin in a face or sec t (i.e. diagonal • a 10.0 psf bot th any other liv	).0 psf on , ated. g. urely web). tom re loads.
	Max Grav	40=-47 (Lt 42=-128 (l 23=95 (LC 25=163 (L 29=175 (L 32=244 (L 32=244 (L 37=175 (L 39=161 (L 41=167 (L 43=162 (L	C 14), 41=-29 (LC 1 LC 14), 43=-56 (LC 1 27), 24=151 (LC 1) C 22), 26=159 (LC 1 C 22), 28=160 (LC 2 C 22), 31=228 (LC 2 C 22), 33=198 (LC 2 C 21), 35=228 (LC 2 C 21), 38=160 (LC 2 C 21), 40=158 (LC 2 C 1), 42=143 (LC 24 C 26)	4), 10) ), 11), 35), 22), 27), 21), 34), 34), 4),	<ol> <li>Onbatance this design.</li> <li>Wind: ASCI Vasd=103n Cat. II; Exp zone and C (2N) 2-7-13 Exterior(2N 35-1-4 zone vertical left forces &amp; MN DOL=1.60 p</li> </ol>	E 7-16; Vult=130mp hph; TCDL=6.0psf; I B; Enclosed; MWFI -C Corner(3E) -0-10 to 14-1-3, Corner(3 ) 21-1-13 to 31-6-14 e; cantilever left and and right exposed; C WFRS for reactions olate grip DOL=1.60	h (3-sec BCDL=6 RS (env D-8 to 2- 3R) 14-1 5, Corne I right ex C-C for n shown;	considered for cond gust) .0psf; h=25ft; elope) exterior 7-13, Exterior -3 to 21-1-13, to (3E) 31-6-15 posed ; end nembers and Lumber	r to			A A A A A A A A A A A A A A A A A A A		AL 322 NEER GILBER	and

#### 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 **AMSI/TP1 Quility 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	128 Serenity	
24010048	CGE	Common Supported Gable	1	1	Job Reference (optional)	163264144

- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 43, 13 lb uplift at joint 23, 38 lb uplift at joint 34, 47 lb uplift at joint 35, 43 lb uplift at joint 37, 44 lb uplift at joint 38, 43 lb uplift at joint 39, 47 lb uplift at joint 40, 29 lb uplift at joint 41, 128 lb uplift at joint 42, 37 lb uplift at joint 32, 48 lb uplift at joint 31, 43 lb uplift at joint 29, 44 lb uplift at joint 28, 43 lb uplift at joint 27, 47 lb uplift at joint 26, 32 lb uplift at joint 25 and 109 lb uplift at joint 24.
- 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.

LOAD CASE(S) Standard

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:12 ID:HSVLvMXIBUOh6UIn9Dc1gjzEzgn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2

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



Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	D	Common	4	1	Job Reference (optional)	163264145

BCDL

1)

2)

Run: 8.63 S. Nov. 1.2023 Print: 8.630 S. Nov. 1.2023 MiTek Industries. Inc. Thu Jan 25 17:22:13 ID:nqLL14Jf5JAmMe82YAnlwAzF pM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Page: 1



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818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	DGE	Common Supported Gable	1	1	Job Reference (optional)	163264146

2-9-13

2-11-0

#### Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:13 ID:UUQhZhEGk9Im0a6ieC968izF\_pT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f







Scale = 1:33.5

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

	X, 1). [2.Edge,0-0-14	j, [z.o-z-o,cage], [o.c	uge,0-0-1-	+], [0.0-2-0,Lu	igo]									
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	/TPI2014	CSI TC BC WB Matrix-MSH	0.29 0.19 0.08	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a -0.01	(loc) - - 8	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 59 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS WEDGE BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Left: 2x4 SP No.3 Structural wood shea 10-0-0 oc purlins. Rigid ceiling directly bracing. (size) 2=13-3-0, 14=13-3-0 Max Horiz 2=41 (LC Max Uplift 2=-1 (LC 2 10=-44 (L 12=-47 (L 21=-71 (L Max Grav 2=0 (LC 1 10=302 (L 12=420 (L 12=427 (L 21=-128 (L)	athing directly applied applied or 6-0-0 oc 0, 12=13-3-0, 10=13-3-0 0, 12=13-3-0, 13=13-3 14), 18=41 (LC 14) 21), 8=-71 (LC 34), C 15), 11=-35 (LC 11 C 10), 13=-23 (LC 14 C 10), 18=-1 (LC 21), C 34) 0), 8=128 (LC 22), C 22), 11=205 (LC 22), C 21), 13=123 (LC 2), C 21), 13=0 (LC 10), C 22)	1) 2) l or 3-0, 3) 3-0, 4) ), 4) 5) 2), 6) 1), 7)	Unbalanced i this design. Wind: ASCE Vasd=103mp Cat. II; Exp B zone and C-C 2-1-8 to 3-11. (2N) 9-11-8 ti cantilever left right exposec for reactions DOL=1.60 Truss design only. For stu see Standard or consult qu DOL=1.60. TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced s design. This truss ha load of 12.0 p overhangs no	7-16; Vult=130mpl bh; TCDL=6.0psf; E 3; Enclosed; MWFF C Corner(3E) -0-10 -8, Corner(3E) -0-10 -8, Corner(3R) 3-1 o 11-9-8, Corner(3 t and right exposed t;C-C for members shown; Lumber DC hed for wind loads tds exposed to wind d 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 .15); Pf=20.0 psf .15); Pf=20.0 psf .15); Pf=20.0 psf .10 snow loads have b s been designed for psf or 1.00 times fil on-concurrent with .24 MT20 uploco	e been of h (3-sec 3CDL=6 3C (envi- -8 to 2- 1-8 to 2- 1	considered fo considered fo logsf; h=25ft; logpe) exterici 1-8, Exterior -11-8, Exterior -11-8, Exterior -8 to 14-9-8 z vertical left an ces & MWFF 0 plate grip ane of the tru al to the face lls as applical is per ANSI/TF L=1.15 Plate Exp.; Ce=0.5 usidered for the er of min roof bad of 20.0 ps re loads. as indicated	r ; sor zone; id SS Jiss ), ble, PI 1. 1.15 ; ); ilive sf on	12) Nor 13) This Inte R8C LOAD (	n Standa s truss is rnationa )2.10.2 a CASE(S)	rd bea desig I Resi and ref ) Sta	aring condition. R ined in accordance dential Code sect ferenced standard ndard	eview required e with the 201 ions R502.11. I ANSI/TPI 1.	d. 8 1 and
FORCES	(lb) - Maximum Com Tension 1-2=0/17, 2-3=-220/4 4-5=-123/411, 5-6=-	pression/Maximum 432, 3-4=-165/401, 122/395, 6-7=-170/39	8) 9) 2, 10)	Gable studs s This truss has chord live loa * This truss h	spaced at 2-0-0 oc s been designed fo ad nonconcurrent w has been designed	or a 10.0 /ith any for a liv	) psf bottom other live loa e load of 20.0	ds. )psf				SEA		
BOT CHORD	7-8=-217/405, 8-9=0 2-14=-365/260, 13-1 12-13=-365/260, 11- 10-11=-365/260, 8-1	//17 4=-365/260, 12=-365/260, 0=-365/260	11)	on the bottom 3-06-00 tall b chord and an N/A	n chord in all areas by 2-00-00 wide wil by other members.	where I fit betv	a rectangle veen the botto	om		III.		0363	22	unu,
WEBS	5-12=-360/181, 4-13 3-14=-275/153, 6-11 7-10=-212/127	=-146/110, =-183/128,	11)								and and a	A. G	ILBERT	

January 26,2024



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Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	E	Common	3	1	Job Reference (optional)	163264147

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:14 ID:wb1oEU3ot9zDodjclXhweSzF\_Yu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



L	6-5-8	12-11-0
ſ	6-5-8	6-5-8

### Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-3-8,Edge]

Scale = 1:46

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	8/TPI2014	CSI TC BC WB Matrix-MSH	0.75 0.35 0.11	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.03 -0.07 0.00	(loc) 6-7 6-7 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 77 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD FORCES TOP CHORD BOT CHORD WEBS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood sheat 5-10-6 oc purlins, et Rigid ceiling directly bracing. (size) 6=0-5-8, E Max Horiz 8=-170 (L Max Grav 6=653 (LC (lb) - Maximum Com Tension 1-2=0/34, 2-3=-546/ 4-5=0/34, 2-8=-595/ 7-8=-169/244, 6-7=- 3-7=0/202, 2-7=-32/2	t* 8-2,6-4:2x4 SP No athing directly applie xcept end verticals. applied or 10-0-0 oc 3=0-5-8 C 12) ( 15), 8=-58 (LC 14) ( 22), 8=653 (LC 21) pression/Maximum 123, 3-4=-546/123, 166, 4-6=-595/154 74/194 271, 4-7=-34/271	4) 5).2. ed or 6) 5; 7) 8) 9)	Unbalanced design. This truss ha load of 12.0 j overhangs n This truss ha chord live loa * This truss ha chord live loa * This truss ha chord and ar One H2.5A S recommende UPLIFT at jt( and does noi This truss is International R802.10.2 an	snow loads have b as been designed for participation of the second second source of the second second ad nonconcurrent with as been designed for ad nonconcurrent w has been designed in chord in all areas by 2-00-00 wide will by other members. Simpson Strong-Tie de to connect truss (s) 8 and 6. This cond the consider lateral for designed in accord Residential Code en ind referenced stan Standard	een cor or great at roof k other li or a 10. with any for a liv s where I fit betw e conne- to bear nnectio prces. lance w sections dard AN	nsidered for the er of min roof and of 20.0 p; ve loads. D psf bottom other live load e load of 20.0 a rectangle veen the botto ctors ing walls due n is for uplift ith the 2018 is R502.11.1 a ISI/TPI 1.	his Flive sf on ds. Dpsf om to only					
<ul> <li>NOTES</li> <li>1) Unbalance this design</li> <li>2) Wind: ASO</li> </ul>	ed roof live loads have n. CE 7-16; Vult=130mph	been considered for (3-second gust)										TH CA	RO

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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-5-8, Exterior(2E) 10-9-8 to 13-9-8 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 SEAL 036322 January 26,2024

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Job	Truss	Truss Type	Qty	Ply	128 Serenity				
24010048	EGE	Common Supported Gable	1	1	Job Reference (optional)	163264148			

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:14 ID:hs\_OLPz9\_OqUDEXuG81pmYzF\_Z1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-MR	0.14 0.07 0.14	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 12	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 84 lb	<b>GRIP</b> 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 she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 12=12-11 16=12-11 (size) 12=12-11 16=12-11 Max Horiz 18=-170 Max Uplift 12=-64 (I 17=-96 (I Max Grav 12=187 ( 14=258 ( 16=258 ( 18=192 (	eathing directly applied coept end verticals. / applied or 6-0-0 oc -0, 13=12-11-0, -0, 15=12-11-0, -0, 17=12-11-0, -0 (LC 12) .C 14), 13=-95 (LC 16 .C 14), 13=-95 (LC 16 .C 14), 18=-66 (LC 10 LC 24), 13=238 (LC 2 LC 22), 15=167 (LC 2 LC 21), 17=242 (LC 2 LC 25)	<ul> <li>2) Wind: At Vasd=11 Cat. II; E zone and 2-1-8 to 9-5-8 to cantileve right exp for react DOL=1.6</li> <li>3) Truss d only. For see Star or consumer or consumer of the temperature of the temperature of the temperature of temperatur</li></ul>	CE 7-16; Vult=130 3mph; TCDL=6.0ps p B; Enclosed; MW C-C Corner(3E) -0 -5-8, Corner(3R) -0 -5-8, Corner(3R) -0 -9-8, Corner(3E) left and right expo sed;C-C for memb ons shown; Lumber on signed for wind loa studs exposed to ward a valified building of CE 7-16; Pr=20.0 p =1.15; Pf=20.0 p =1.15; Pf=20.0 p ct=1.10 ed snow loads hav thas been designe to psf or 1.00 times	nph (3-sec f; BCDL= $\in$ /FRS (env -10-8 to 2- -5-8 to 9-5 10-9-8 to 1 sed ; end v ers and fo DOL=1.6( ds in the p vind (norm End Deta designer a: sof (roof LL of (Lum DC tat B; Fully e been coi d for great s flat roof I	cond gust) 0.0psf; h=25ft; elope) exterior 1-8, Exterior(2 -8, Exterior(2 -8, Exterior(2 -8, Exterior(2 -8, Exterior(2 -9, 20 -9, 20	or 2N) V) d SS iss ), ble, PI 1. 1.15 ); his live sf on	14) This Inte R80 LOAD (	s truss is rnationa 2.10.2 a <b>CASE(S</b>	e desig I Resi and ref ) Sta	ned in accordanc dential Code sect erenced standard ndard	e with the 2018 ions R502.11.1 and J ANSI/TPI 1.
FORCES	(lb) - Maximum Con Tension	npression/Maximum	7) All plates	are 2x4 MT20 unle	ss otherwi	se indicated.					UNUL CA	Della
TOP CHORD BOT CHORD WEBS NOTES 1) Unbalance	2-18=-208/165, 1-2; 3-4=-99/127, 4-5=-8 6-7=-113/273, 7-8= 9-10=-89/159, 10-1 17-18=-84/83, 16-1 14-15=-84/83, 13-1 6-15=-223/30, 5-16 3-18=-249/206, 7-1 8-13=-182/151, 9-1; ed roof live loads have	9) Truss to braced a 10) Gable st 253 11) This trus 83, chord liv 83 12) * This tru 2/114, on the b 3-06-00 chord ar 13) Provide bearing	<ul> <li>a) Gable requires continuous bottom chord bearing.</li> <li>a) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).</li> <li>b) Gable studs spaced at 2-0-0 oc.</li> <li>c) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.</li> <li>c) 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.</li> <li>c) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 66 lb uplift at joint</li> </ul>								L 22	
uns desig		joint 13.	18, 64 lb uplift at joint 12, 48 lb uplift at joint 16, 96 lb uplift at joint 17, 48 lb uplift at joint 14 and 95 lb uplift at joint 13.								ILBE	

- Unbalanced roof live loads have been considered for 1) this design.
  - 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 oclapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCEL Building Component Schut Information. Structure Building former the component compon and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



January 26,2024

A. GILBE

Job	Truss	Truss Type Qty		Ply	128 Serenity	
24010048	EGR	Common Girder	1	2	Job Reference (optional)	163264149

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:14 ID:ySTbSIhb7CBDnk89ITG2qHzF\_9Z-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



3-4-8	6-5-8	9-6-8	12-11-0
3-4-8	3-1-0	3-1-0	3-4-8

#### Scale = 1:47.6 Plate Offsets (X, Y): [6:Edge,0-3-8], [7:0-3-8,0-5-0], [8:0-5-0,0-5-4], [9:0-3-8,0-5-0]

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<b>Loading</b> TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC2018	3/TPI2014	<b>CSI</b> TC BC WB Matrix-MSH	0.56 0.19 0.82	<b>DEFL</b> Vert(LL) Vert(CT) Horz(CT)	in -0.03 -0.06 0.01	(loc) 7-8 7-8 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 212 lb	<b>GRIP</b> 244/190 FT = 20%	ó
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x8 SP 2400F 2.0E 2x4 SP No.3 Structural wood sher 5-10-15 oc purlins, or Rigid ceiling directly bracing. (size) 6=0-5-8, 1 Max Horiz 10=-149 ( Max Uplift 6=-505 (L Max Grav 6=5676 (L (lb) - Maximum Com	athing directly applie except end verticals. applied or 10-0-0 oc 0=0-5-8 LC 10) C 13), 10=-425 (LC 4 oression/Maximum	3) 4) 2d or 5 5) 5) 6) 7)	Unbalanced this design. Wind: ASCE Vasd=103mp Cat. II; Exp E zone; cantile and right exp DOL=1.60 TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. This truss ba	roof live loads have 7-16; Vult=130mpt h; TCDL=6.0psf; B i; Enclosed; MWFR ver left and right ex osed; Lumber DOL 7-16; Pr=20.0 psf (L ss=1.0; Rough Cat E 1.10 snow loads have be sheen designed for	been of CDL=6 S (enve posed = 1.60 p (roof LL um DC 3; Fully een cor	considered fo .0psf; h=25ft; elope) exterio end vertical late grip .: Lum DOL=' UL=1.15 Plate Exp.; Ce=0.9 usidered for th	r or left 1.15 o;	Co	oncentra Vert: 13 16=-141	ted Loa =-1417 7 (B),	ads (lb) 7 (B), 14=-1417 (l 17=-1417 (B), 18	3), 15=-141 =-1420 (B)	7 (B),
TOP CHORD BOT CHORD WEBS	CES         (lb) - Maximum Compression/Maximum Tension           CHORD         1-2=-4429/415, 2-3=-3807/408, 3-4=-3807/408, 4-5=-4495/421, 1-10=-4098/380, 5-6=-4151/385           CHORD         9-10=-146/248, 8-9=-340/3635, 7-8=-316/3689, 6-7=-341/76           S         1-9=-313/3815, 5-7=-316/3853, 2-9=-78/795, 2-8=-776/146, 3-8=-385/3950, 4-8=-860/153, 4-7=-88/897				<ul> <li>i (lb) - Maximum Compression/Maximum Tension</li> <li>ORD 1-2=-4429/415, 2-3=-3807/408, 3-4=-3807/408, 4-5=-4495/421, 1-10=-4098/380, 5-6=-4151/385</li> <li>ORD 9-10=-146/248, 8-9=-340/3635, 7-8=-316/3689, 6-7=-34/176 1-9=-313/3815, 5-7=-316/3853, 2-9=-78/795, 2-8=-776/146, 3-8=-385/3950, 4-8=-860/153, 4-7==88/897</li> <li>7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.</li> <li>8) * 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.</li> <li>9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at J(s) 10 and 6. This connection is for uplift</li> </ul>								<i>.</i> .	
<ul> <li>NOTES</li> <li>2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc. Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 oc. Web connected as follows: 2x4 - 1 row at 0-9-0 oc.</li> <li>All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.</li> </ul>			10 0 11 PAD 12 1)	<ul> <li>bins truss is a International R802.10.2 ar</li> <li>b) Use Simpsor 11-10dx1 1/2 spaced at 2-4 end to 12-0-1 bottom chord</li> <li>c) Fill all nail ho</li> <li>DAD CASE(S)</li> <li>Dead + Snot Increase=1. Uniform Loa Vert: 1-3:</li> </ul>	designed in accord. Residential Code s ad referenced stanc Strong-Tie HTU26 Truss, Single Ply 0 -0 oc max. starting 2 to connect truss( les where hanger is Standard w (balanced): Lum 15 ads (lb/ft) =-60, 3-5=-60, 6-10	ance w ections lard AN 6 (20-10 Girder) 1 at 2-0 es) to t s in cor ber Inc	th the 2018 R502.11.1 a ISI/TPI 1. Jd Girder, or equivalent -12 from the la pack face of ttact with lumi	nd eft ber. Plate		Willing.	and the second s	SEA 0363	L 22 EER.	A State of the sta

January 26,2024

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Job	Truss	Truss Type		Ply	128 Serenity				
24010048	F1	Monopitch	6	1	Job Reference (optional)	163264150			

5-1-14 5-1-14

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

#### Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:15 $ID: GvbiD6mwqAlkl5J6aNwunUzF_nU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?ff$

10-3-0

5-1-2

Page: 1



1	5-1-14	10-1-8	10-3-0
l	5-1-14	4-11-10	0-1-8

Soolo	_	1.11	12
Judie	_	1.41	

													_
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-MSH	0.41 0.28 0.45	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.06 0.04 0.01	(loc) 4-5 4-5 4	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 46 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD WEBS NOTES 1) Wind: ASC Vasd=1031 Cat. II; Exp zone and C 3-0-0 to 7- cantilever I right expos members a Lumber DC 2) TCLL: ASC Plate DOL 2) TCLL: ASC Plate DOL 20 Unbalance design. 4) This truss I	2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins, exx Rigid ceiling directly bracing. (size) 1=0-3-0.4 Max Horiz 1=139 (LC Max Uplift 1=-142 (LI Max Grav 1=465 (LC (Ib) - Maximum Com Tension 1-2=-883/856, 2-3=- 1-5=-821/799, 4-5=- 2-5=-337/220, 2-4=- 2-5=-337/220, 2-4=- 3 E 7-16; Vult=130mph mph; TCDL=6.0psf; BG 0-B; Enclosed; MWFRS 0-C Exterior(2E) 0-0-0 1-4, Exterior(2E) 7-1-4 left and right exposed sed; porch left and righ and forces & MWFRS DL=1.0; Pf=20.0 psf (Li =1.15); Pf=20.0 psf (Li =1.15); Pf=20.0 psf (Li =1.15); Pf=20.0 psf (Li =1.15); Pf=20.0 psf (Li =1.10; souw loads have be has been designed for	athing directly applied cept end verticals. applied or 6-2-8 oc 4=0-1-8 C 10), 4=-163 (LC 10 C 21), 4=532 (LC 21) pression/Maximum 104/64, 3-4=-187/10 821/799 830/923 (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior to 3-0-0, Interior (1) to 10-1-4 zone; ; end vertical left and it exposed;C-C for for reactions shown; L=1.60 roof LL: Lum DOL=1 um DOL=1.15 Plate t; Fully Exp.; Ce=0.9; een considered for thi to any other line lood	5) * This tr on the b 3-06-00 chord a 6) Bearing capacity 7) Bearing using A designe 8) Provide bearing 9) One H2 recomm UPLIFT and doe 10) This tru 1 Internat R802.11 LOAD CAS	uss has been designed ottom chord in all area tall by 2-00-00 wide w d any other members are assumed to be: , of 565 psi. at joint(s) 4 considers SUITPI 1 angle to grai r should verify capacity mechanical connection plate at joint(s) 4. 5A Simpson Strong-Ti ended to connect truss at jt(s) 1 and 4. This c s not consider lateral f is is designed in accor onal Residential Code 2.2 and referenced star <b>E(S)</b> Standard	d for a liv is where ill fit betw. Joint 4 S parallel n formul y of bear n (by oth ie conne s to bear onnectio orces. dance w sections ndard AN	le load of 20.0 a rectangle veen the botto SP No.3 crush to grain value a. Building ing surface. ers) of truss to ctors ing walls due n is for uplift of ith the 2018 s R502.11.1 a USI/TPI 1.	Dpsf om hing o to only nd				SEA 0363	ROUNT INTERNIT	
		an any other nee load								1	1. 6 1 -	BEN	

- 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
- 3) design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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818 Soundside Road Edenton, NC 27932

GI A. GILIN January 26,2024

Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	F1GE	Monopitch Supported Gable	1	1	Job Reference (optional)	163264151

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:15 ID:05Rb2nqdzWbg0FxJai2r9FzF\_oh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





#### Scale = 1:22.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	1	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 11 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 3-1-0 oc purlins, exx Rigid ceiling directly bracing. (size) 1=3-1-0, 3 Max Horiz 1=43 (LC Max Uplift 1=-8 (LC	athing directly applie cept end verticals. applied or 10-0-0 oc 3=3-1-0, 4=3-1-0, 5=3 13), 5=43 (LC 13) 10), 3=-183 (LC 20),	<ul> <li>6) Gable stu</li> <li>7) This truss chord live</li> <li>8) * This trus on the bo</li> <li>d or 3-06-00 tru- chord and</li> <li>9) Provide n</li> <li>9) Provide n</li> <li>9) bearing p</li> <li>1, 183 lb</li> <li>10) This truss</li> <li>10) This truss</li> </ul>	ds spaced at 2-0-0 d has been designed load nonconcurrent ss has been designed tom chord in all are all by 2-00-00 wide v l any other members echanical connectic late capable of withs uplift at joint 3, 80 lb int 1. is designed in acco nal Residential Cod	bc. for a 10.0 with any dor a liv as where vill fit betv s. on (by oth standing 8 uplift at ju rdance w	D psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t b uplift at jo pint 4 and 8 lt ith the 2018 b 5502 11 1 a	ds. Dpsf om int o					
1	4=-80 (LC Max Grav 1=126 (LC 4=375 (LC	5 14), 5=-8 (LC 10) C 20), 3=49 (LC 14), C 20), 5=126 (LC 20)	R802.10.2 LOAD CASE	2 and referenced sta (S) Standard	andard AN	ISI/TPI 1.	ina					
FORCES	(lb) - Maximum Com Tension	pression/Maximum										
TOP CHORD	1-2=-31/49, 2-3=-65/	/56, 2-4=-332/326										
BOT CHORD	1-4=-52/55											
NOTES												
<ol> <li>Wind: ASC Vasd=1037 Cat. II; Exp zone and C exposed ; e members a Lumber DC</li> <li>Truss desi only. For s see Standa or consult (</li> <li>TCLL: ASC Plate DOL DOL=1.15) Cs=1.00; C</li> <li>Unbalance design.</li> </ol>	CE 7-16; Vult=130mph mph; TCDL=6.0psf; B( b) B; Enclosed; MWFR3 C-C Corner(3E) zone; end vertical left and rig and forces & MWFRS DL=1.60 plate grip DO igned for wind loads ir studs exposed to wind ard Industry Gable End qualified building desig CE 7-16; Pr=20.0 psf (Li =1.15); Pf=20.0 psf (Li ); Is=1.0; Rough Cat B Ct=1.10 ed snow loads have be	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior cantilever left and rig pht exposed; C-C for for reactions shown; L=1.60 the plane of the trus (normal to the face), d Details as applicab gner as per ANSI/TP roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; een considered for this m chord bearing.	ht ss le, l 1. .15 s						Ma transferre		SEA OSES SEA OSES SEA OSES SEA OSES SEA OSES SEA OSES SEA OSES SEA	ROLL L 22 EEREKTUU

January 26,2024

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Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	FGE	Monopitch Supported Gable	1	1	Job Reference (optional)	163264152

10-3-0

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:16 ID:\_?Pus1XWS1h0GXUA82Y8iGzF\_IC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:35.9

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2	2014	<b>CSI</b> TC BC WB Matrix-MSH	0.17 0.06 0.05	<b>DEFL</b> Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 7	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 46 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins, exx Rigid ceiling directly bracing. (size) 1=10-3-0, 9=10-3-0, 12=10-3-0 Max Uplifi 7=-13 (LC 9=-35 (LC 11=-53 (L Max Grav 1=83 (LC (LC 21), 9 (LC 21), 1 29)	athing directly applied cept end verticals. applied or 10-0-0 oc 7=10-3-0, 8=10-3-0, 10=10-3-0, 11=10-3-1 2 13), 12=139 (LC 13) 11), 8=-34 (LC 10), 14), 10=-28 (LC 10), C 14) 29), 7=84 (LC 21), 8= =221 (LC 21), 10=19: 1=196 (LC 1), 12=83	1)         Wind Vass           Cat.         Zone           3-0-         cant           i or         right           I or         for r           2)         Tru-           2)         Tru-           0,         or cat           0,         3)         TCL           0,         5)         All p           0,         6)         Gab	d: ASCE d=103mp II; Exp E e and C-(0 to 7-1-4 tilever lef t exposed eactions =1.60 ss design . For stu Standarc onsult qu L: ASCE e DOL=1 =1.15); I 1:100; Ct= 1:100;	7-16; Vult=130mpf h; TCDL=6.0psf; B s; Enclosed; MWFR C Corner(3E) 0-0-0 4, Corner(3E) 7-1-4 t and right exposed d;C-C for members shown; Lumber DC hed for wind loads i ds exposed to wind a Industry Gable Er alified building desi 7-16; Pr=20.0 psf (L s=1.0; Rough Cat I :1.10 snow loads have be 2x4 MT20 unless es continuous botto spaced at 2-0-0 oc	n (3-sec CDL=6 SS (env to 3-0- to 10- ; end v and for DL=1.60 n the p d (norm d Deta igner as (roof LL um DC 3; Fully een cor	ond gust) .0psf; h=25ft elope) exterior 0, Exterior(21 I-4 zone; rertical left ar cces & MWFF 0) plate grip ane of the tra lat to the face is as applica is per ANSI/T .: Lum DOL= JL=1.15 Plate Exp.; Ce=0.: asidered for t se indicated. d bearing.	; or N) dd RS Juss ), bble, PI 1. 1.15 9; his						
Forces Top Chord Bot Chord Webs Notes	(lb) - Maximum Com Tension 1-2=-138/137, 2-3=- 4-5=-69/92, 5-6=-56, 1-11=-65/108, 10-11 8-9=-45/81, 7-8=-45, 5-8=-186/119, 4-9=- 2-11=-136/153	pression/Maximum 91/117, 3-4=-79/105, /71, 6-7=-68/40 =-45/81, 9-10=-45/81 /81 180/138, 3-10=-163/1	8) This chor 9) * Th on ti 3-06 chor 26, 10) Prov beau 7, 3: at jo 11) This Inter R80 LOAD C	truss ha rd live loa is truss h he botton 5-00 tall b rd and ar vide mecl ring plate 4 lb uplift int 10 an 6 truss is rnational 12.10.2 ar <b>CASE(S)</b>	s been designed for d nonconcurrent w has been designed in chord in all areas by 2-00-00 wide will by other members. hanical connection capable of withsta at joint 8, 35 lb upl d 53 lb uplift at join designed in accord Residential Code s nd referenced stand Standard	r a 10.1 ith any for a liv where fit betv (by oth nding 1 ift at joi t 11. ance w ecctions dard AN	) psf bottom other live loa e load of 20.1 a rectangle veen the bott ers) of truss i 3 lb uplift at j nt 9, 28 lb up ith the 2018 R502.11.1 a ISI/TPI 1.	ids. Opsf om to joint olift		Contraction of the second seco		SEA 0363	ROUNT ROUTER	



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818 Soundside Road Edenton, NC 27932

A. GI

Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	G	Monopitch	3	1	Job Reference (optional)	163264153

### Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:16 ID:Dy\_JjEEKvGAptckEgqDBdczF\_tK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:35.4

# Plate Offsets (X, Y): [2:0-5-12,0-1-0]

Loading ICLL (roof) Snow (Pf) ICDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-MP	0.27 0.36 0.39	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.05 -0.08 0.03	(loc) 8 8 7	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 42 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD 30T CHORD WEBS BRACING TOP CHORD 30T CHORD REACTIONS	2x4 SP No.2 2x6 SP No.2 *Excep 2x4 SP No.3 Structural wood shea 4-11-9 oc purlins, ea Rigid ceiling directly bracing. (size) 2=0-5-8, 7 Max Horiz 2=121 (LC Max Grav. 2=432 (LC Max Grav. 2=432 (LC	t* 8-6:2x4 SP No.2 athing directly applie xcept end verticals. applied or 8-6-15 oc 7= Mechanical C 11) : 10), 7=-91 (LC 14) : 21) 7=561 (I C 21)	<ul> <li>4) This truss load of 12. overhangs</li> <li>5) This truss chord live</li> <li>5) * This truss on the bot</li> <li>3-06-00 ta chord and</li> <li>7) Refer to gi</li> <li>8) Bearing at using ANS designer s</li> </ul>	has been designed 0 psf or 1.00 times non-concurrent wi has been designed oad nonconcurren s has been designed om chord in all are I by 2-00-00 wide v any other member rder(s) for truss to joint(s) 2 considers I/TPI 1 angle to gra hould verify capaci	d for great s flat roof k ith other live d for a 10.0 t with any eed for a live eas where will fit betw rs. truss conr s parallel t ain formula ity of bear	er of min roo oad of 20.0 p (ve loads. ) psf bottom other live loa e load of 20. a rectangle veen the bott nections. o grain value a. Building ng surface.	t live osf on ads. Opsf tom						
FORCES TOP CHORD 30T CHORD WEBS NOTES 1) Wind: AS Vasd=100 Cat. II; Eb zone and (1) 1-11-1	(lb) - Maximum Com Tension 1-2=0/17, 2-3=-1356 4-5=-35/0, 4-7=-286, 2-8=-508/1302, 7-8= 3-8=-97/378, 3-7=-12 CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; Bf (cp B; Enclosed; MWFR3 C-C Exterior(2E) -0-10 3 to 6-7-8, Exterior(2E)	pression/Maximum //446, 3-4=-63/56, //213 469/1188, 6-7=0/0 211/516 (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior -8 to 1-11-13, Interio ) 6-7-8 to 9-7-8 zone	bearing pla 7. 10) One H2.5/ recommer UPLIFT at does not c 11) This truss Internatior R802.10.2 r LOAD CASE(5) r	A Simpson Strong- ded to connect trus jt(s) 2. This conne- onsider lateral forc is designed in acco al Residential Cod and referenced sta S) Standard	Tie conner ss to bear ction is for ces. ordance w le sections andard AN	to be a local sectors ing walls due uplift only a ith the 2018 R502.11.1 a ISI/TPI 1.	e to nd and				ORTH CA	ROUT	·
cantilever right expo for reaction DOL=1.60	left and right exposed sed;C-C for members a ons shown; Lumber DO CE 7-16: Pr=20.0 psf (	; end vertical left and and forces & MWFR L=1.60 plate grip	1 S						<u></u>	a	SEA 0363	L 22	Annu

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



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Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	G1	Monopitch	6	1	Job Reference (optional)	163264154

#### Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:16 ID:Dy\_JjEEKvGAptckEgqDBdczF\_tK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





#### Scale = 1:35

# Plate Offsets (X, Y): [2:0-5-12,0-1-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MP	0.33 0.39 0.43	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.06 -0.09 0.03	(loc) 8 8 7	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 41 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x6 SP No.2 *Excep 2x4 SP No.3 Structural wood shea 4-8-12 oc purlins, ex Rigid ceiling directly bracing.	t* 8-6:2x4 SP No.2 athing directly applie xcept end verticals. applied or 7-10-7 oc	4) 5) d or 6) 7)	This truss ha load of 12.0 J overhangs no This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar	is been designed f psf or 1.00 times fl on-concurrent with is been designed f ad nonconcurrent v has been designed in chord in all area by 2-00-00 wide with y other members.	for greate lat roof le n other liv for a 10.0 with any d for a liv s where ill fit betw	er of min roo bad of 20.0 p ve loads. 0 psf bottom other live loa e load of 20. a rectangle veen the bott	flive osfon ads. Opsf com					
REACTIONS	(size) 2=0-5-8, 7 Max Horiz 2=108 (LC Max Uplift 2=-75 (LC Max Grav 2=462 (LC	/= Mechanical C 11) ⊂ 10), 7=-67 (LC 14) C 21), 7=478 (LC 21)	7) 8) 9)	Bearing at jo using ANSI/I designer sho Provide med	er(s) for truss to tr int(s) 2 considers FPI 1 angle to grain ould verify capacity hanical connectior	uss conr parallel t n formula / of beari n (by oth	o grain value o grain value a. Building ng surface. ers) of truss	e to					
FORCES	(lb) - Maximum Com Tension	pression/Maximum	-,	bearing plate	e capable of withst	anding 6	7 lb uplift at	joint					
TOP CHORD	1-2=0/17, 2-3=-1495 4-5=-8/0, 4-7=-179/9	/573, 3-4=-60/50, 14	10	) One H2.5A S recommende	Simpson Strong-Ti	e conne s to bear	ctors na walls due	e to					
BOT CHORD WEBS	2-8=-600/1432, 7-8= 3-8=-108/410, 3-7=-	-558/1308, 6-7=0/0 1332/607	11	UPLIFT at jt( does not con ) This truss is	s) 2. This connect isider lateral forces designed in accord	tion is for s. dance w	uplift only a	nd					
1) Wind: AS( Vasd=103 Cat. II; Ex zone and (1) 1-11-1 cantilever right expo for reactio DOL=1.60	CE 7-16; Vult=130mph smph; TCDL=6.0psf; B( p B; Enclosed; MWFRS C-C Exterior(2E) -0-10 3 to 5-8-0, Exterior(2E) left and right exposed sed;C-C for members a ns shown; Lumber DO	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior 8 to 1-11-13, Interio 5-8-0 to 8-8-0 zone; ; end vertical left and and forces & MWFRS L=1.60 plate grip	LC r S	International R802.10.2 ar DAD CASE(S)	Residential Code nd referenced star Standard	sections ndard AN	R502.11.1 a ISI/TPI 1.	and		1	in i	ORTH CA	

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

SEAL 036322 January 26,2024

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Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	GSE	Monopitch Structural Gable	1	1	Job Reference (optional)	163264155

#### Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:17 ID:]7LOAWWFe1s7RV5MhJbHFGzF\_qO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale	= 1.37 2
Scale	- 1.37.2

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	018/TPI2014	CSI TC BC WB Matrix-MP	0.21 0.18 0.06	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.01 -0.02 0.00	(loc) 11-14 11-14 2	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 37 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP Nc 2x4 SP Nc 2x4 SP Nc Structural 6-0-0 oc p Rigid ceilir bracing. (size) Max Horiz Max Uplift Max Grav	2.2 2.2 *Excep 3.3 wood shea urlins, exc ag directly 2=5-5-8, 8 11=5-5-8, 2=108 (LC 2=-39 (LC 10=27 (L) 12=-39 (L1 2=233 (LC 10=223 (L)	** 2-11:2x6 SP No.2 athing directly applie bept end verticals. applied or 6-0-0 oc == Mechanical, 10=0 12=5-5-8 0:11), 12=108 (LC 11 10, 8=-18 (LC 14), 10, 8=-18 (LC 14), 10, 11=-59 (LC 12) 0:21), 8=170 (LC 21) 0:21), 11=313 (LC 22) 0:21)	d or -3-8, 1) 4), 21),	<ol> <li>Truss desig only. For stu see Standard or consult qu</li> <li>TCLL: ASCE Plate DOL=1</li> <li>DOL=1.15); Cs=1.00; Ct:</li> <li>Unbalanced design.</li> <li>This truss ha load of 12.0 overhangs n</li> <li>Gable studs</li> <li>This truss ha chord live loa</li> <li>* This truss la</li> <li>on the bottor</li> </ol>	ned for wind loads uds exposed to wind d Industry Gable Er ialified building des : 7-16; Pr=20.0 psf .15); Pf=20.0 psf ( Is=1.0; Rough Cat =1.10 snow loads have b is been designed for psf or 1.00 times fi on-concurrent with spaced at 2-0-0 oc is been designed for ad nonconcurrent v as been designed n chord in all areas	in the p d (norm nd Deta signer as (roof LL Lum DC B; Fully been cor or great at roof k other lin c. or a 10.0 vith any for a liv s where	ane of the tr al to the face ils as applica s per ANSI/T .: Lum DOL= PL=1.15 Platu Exp.; Ce=0. asidered for t er of min roo bad of 20.0 p /e loads. D psf bottom other live loa e load of 20. a rectangle	uss e), able, PI 1. =1.15 e 9; this f live osf on ads. .0psf	LOAD	CASE(S)	Sta	ndard		
FORCES	(lb) - Maxii Tension	mum Com	pression/Maximum		3-06-00 tall t chord and ar	by 2-00-00 wide will by other members.	Il fit betv	veen the bott	tom						
TOP CHORD	1-2=0/17, 4-5=-41/43	2-3=-136/ <sup>*</sup> 3 5-6=-8/0	117, 3-4=-56/42, 5-8=-125/55		10) Provide mec	hanical connection	(by oth	ers) of truss	to						
3OT CHORD WEBS	2-11=-86/1 8-9=-26/38 3-11=-302	, 0 0 0/0 170, 10-11 3, 7-8=0/0, /157	=-26/33, 9-10=-26/3 4-9=-116/108	3,	8. 8. 8. 11) N/A	capable of withsta	anding 1	א זא מושט איז	joint			1	TH CA	ROU	<i>u.</i>
NOTES 1) Wind: AS( Vasd=103 Cat. II; Ex zone and (1) 1-11-1 cantilever right expo for reactio DOL=1.60	CE 7-16; Vull mph; TCDL= p B; Enclose C-C Exterior 3 to 5-8-0, E left and right sed;C-C for r ons shown; Lu	t=130mph =6.0psf; B( d; MWFRS (2E) -0-10 xterior(2E) t exposed members a umber DO	(3-second gust) CDL=6.0psf; h=25ft; 5 (envelope) exterior 8 to 1-11-13, Interior 5-8-0 to 8-8-0 zone ; end vertical left and and forces & MWFR; L=1.60 plate grip	r ; t S	<ul> <li>12) N/A</li> <li>13) N/A</li> <li>14) This truss is International R802.10.2 a</li> </ul>	designed in accorc Residential Code : nd referenced stan	lance w sections dard AN	ith the 2018 R502.11.1 a ISI/TPI 1.	and		A STATISTICS		SEA 0363	L 22 ILBER	A Manual and

January 26,2024

Page: 1



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Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	H01	Common Girder	1	2	Job Reference (optional)	163264156

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:17 ID:tZyPHGMkc8?V6I5QJih2IQzrlT\_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



	3-6-8	6-9-8	10-0-8	13-7-0	
Scale = 1:47	3-6-8	3-3-0	3-3-0	3-6-8	

# Plate Offsets (X, Y): [6:Edge,0-2-0], [7:0-3-8,0-4-4], [8:0-5-0,0-4-8], [9:0-5-0,0-4-12]

(psf) 20.0 20.0 10.0 0.0*	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	1-11-4 1.15 1.15 NO IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.35 0.87 0.98	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.05 -0.09 0.02	(loc) 8-9 8-9 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	<b>GRIP</b> 244/190
10.0											Weight: 193 lb	FT = 20%
No.2 No.2 No.3 *Excep ral wood she oc purlins, e eiling directly	t* 10-1,6-5:2x6 SP N athing directly applie xcept end verticals. applied or 10-0-0 oc	3) 4) o.2 d or 5)	Unbalanced n this design. Wind: ASCE Vasd=103mp Cat. II; Exp B zone; cantilev and right exp DOL=1.60 TCLL: ASCE Plate DOL =1	oof live loads have 7-16; Vult=130mph h; TCDL=6.0psf; B ; Enclosed; MWFR ver left and right exp osed; Lumber DOL 7-16; Pr=20.0 psf ( 15); Pf=20.0 psf (	been o (3-sec CDL=6 S (enve posed ; =1.60 p	considered fo ond gust) .0psf; h=25ft; elope) exterio end vertical olate grip : Lum DOL= <sup>-1</sup>	r left I.15	Cc	oncentra Vert: 9= 15=-149	ted Loa -1490 0 (B),	ads (Ib) (B), 13=-1490 (B) 16=-1490 (B), 17	), 14=-1490 (B), =-1490 (B)
6=0-5-8, iz 10=-130 ( ft 6=-173 (L v 6=5154 (L	10=0-5-8 LC 8) C 13), 10=-184 (LC 1 .C 6), 10=5549 (LC 5	12) 6) 5)	DOL=1.15, FI=20.0 pSI (Luff DOL=1.15 Field DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10 6) Unbalanced snow loads have been considered for this design.									
aximum Corr	pression/Maximum	7)	This truss ha	s been designed fo	ra 10.0	) psf bottom	da					
, 316/204, 2-3= 525/211, 4-5= 1422/169, 5-6 133/823, 8-9=	4525/211, 5752/203, )=-4397/168 177/4783, -27/05	8)	* This truss h on the bottom 3-06-00 tall b chord and an	as been designed f n chord in all areas y 2-00-00 wide will y other members.	for a liv where fit betw	e load of 20.0 a rectangle een the botto	)psf om					
35/4730, 6-7= )9/4175, 5-7= 4/1584, 2-8=- 37/4730, 4-8=	37/005 111/4218, 1460/128, 1386/126, 4-7=-32/ <sup>,</sup>	9) 1498	One H2.5A S recommende UPLIFT at jt(s only and doe	impson Strong-Tie d to connect truss t s) 10 and 6. This co s not consider later	connection cobearion nnection al force	ctors ng walls due on is for uplift s.	to				TH CA	Doring
nnected toge follows: ted as follows ggered at 0-6 nected as foll oc. follows: 2x4 - ered equally ont (F) or ba vly to ply com te only loads	ther with 10d s: 2x4 - 1 row at 0-9-0 9-0 oc. ows: 2x6 - 2 rows - 2 rows staggered at applied to all plies, ck (B) face in the LO, nections have been noted as (F) or (B),	10 ) 11 12 LC AD 1)	) This truss is a International R802.10.2 ar ) Use Simpson 11-10dx1 1/2 spaced at 2-C end to 11-6-4 chord. ) Fill all nail ho DAD CASE(S) Dead + Sno Increase=1. Uniform Loa	designed in accorda Residential Code s dreferenced stand Strong-Tie HTU26 Truss, Single Ply ( 0-0 oc max. starting to connect truss(e les where hanger is Standard w (balanced): Lumi 15 ids (lb/ft)	ance wi ections lard AN (20-10 Girder) at 1-6- s) to ba s in con ber Inco	th the 2018 R502.11.1 a SI/TPI 1. Id Girder, or equivalent 4 from the leick face of bo tact with lumi ease=1.15, F	nd ft ttom ber. Plate		Contraction of the second second		SEA SEA 03632	L 22 ILBERTUUT
	(psf) 20.0 20.0 10.0 0.0* 10.0 0.0* 10.0 2 No.2 No.2 No.3 *Excep tral wood she oc purlins, e eiling directly 3. 6=0-5-8, - iz 10=-130 (if if 6=-173 (L ix 6=5154 (L laximum Com n 816/204, 2-3= 525/211, 4-5- 4422/169, 5-6 133/823, 8-9= 35/4730, 6-7= 09/4175, 5-7= 09/4175, 5-7= 133/823, 8-9= 35/4730, 4-8= 67/4730, 4-8= 67/4730, 4-8= 67/4730, 4-8= 67/4730, 4-8= 67/4730, 4-8= 100 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 -	(psf) 20.0 20.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	(psf)         Spacing         1-11-4           20.0         Plate Grip DOL         1.15           20.0         Lumber DOL         1.15           10.0         Rep Stress Incr         NO           0.0*         Code         IRC2018           10.0         Sep Stress Incr         NO           0.0*         Code         IRC2018           10.0         Code         IRC2018           10.0         Sep Stress Incr         NO           0.0*         Code         IRC2018           10.0         Sep Stress Incr         NO           0.0*         Code         IRC2018           10.0         Sep Stress Incr         NO           11         Ge-5-8         10-1.6-5:2x6 SP No.2           11         Sep Stress Incr         Sep Stress Incr           11         Ge-5-5.8         10-0-0 oc           12         Sep Stress Incr         Sep Stress Incr	(psf) 20.0 20.0 20.0 10.0Spacing Plate Grip DOL 1.15 Rep Stress Incr NO Code1-11-4 Plate Grip DOL 1.15 Rep Stress Incr NO Code1.15 Rep Stress Incr NO Code3)10.0 0.0* 10.00.0* CodeIRC2018/TPI20143)2 No.2 No.2 No.23)Unbalanced r this design. 4)2 No.2 No.2 No.24)Wind: ASCE Vasd=103mp Cat. II; Exp B zone; cantilev and right exp DOL=1.602 No.3 *Except* 10-1,6-5:2x6 SP No.2 vasd=103mp cat. II; Exp B zone; cantilev and right exp DOL=1.603 (Descept end verticals. eiling directly applied or 10-0-0 oc 3. 6=0-5-8, 10=0-5-8 iz 10=-130 (LC 8) tf 6=-173 (LC 13), 10=-184 (LC 12) to 6=5154 (LC 6), 10=5549 (LC 5) laximum Compression/Maximum n B16/204, 2-3=-4525/211, S25/211, 4-5=-5752/203, 4422/169, 5-6=-4397/168 133/823, 8-9=-177/4783, 35/4730, 6-7=-37/665 S09/4175, 5-7=-111/4218, 4/1584, 2-8=-1460/128, 67/4730, 4-8=-1386/126, 4-7=-32/14989)One H2:5A S cont he bottom 3-06-00 tall b chord and an 9) One H2:5A S9)One H2:5A S follows: cc. follows: 2x4 - 2 rows staggered at dered equally applied to all plies, ront (F) or back (B) face in the LOAD Ply to ply connections have been te only loads noted as (F) or (B), dicated.1)Dead + Son lncrease=1. Uniform Load Vert. 1-3-	(psf) 20.0Spacing Plate Grip DOL 1.151-11-4 TC BC20.0Lumber DOL Lumber DOL1.15TC BC10.0Rep Stress Incr CodeNOWB Matrix-MSH10.0CodeIRC2018/TPI2014Matrix-MSH10.00.0* 10.0Stress Incr CodeWB Matrix-MSH10.01.0Stress Incr CodeWB Matrix-MSH10.01.0Stress Incr CodeWB Matrix-MSH10.01.0Stress Incr CodeWB Matrix-MSH10.01.0Stress Incr CodeWB Matrix-MSH10.01.0Stress Incr CodeWB Matrix-MSH10.01.0Stress Incr CodeWB Matrix-MSH10.0No.2Stress Incr CodeWInd: ASCE 7-16; Vult=130mpt Vasd=103mpt; TCDL=6.0psf; B Cone; cantilever left and right exposed; Lumber DOL DOL=1.15); Pf=20.0 psf (L DOL=1.15); Pf=20.0	(psf) 20.0 Plate Grip DOL 1.15Spacing 1-11-4CSI TC0.35 BC20.0 20.0 1.00Lumber DOL Rep Stress Incr NO Code1.15BC0.87 WB0.0.* 10.0CodeIRC2018/TPI2014Matrix-MSH10.0CodeIRC2018/TPI2014Matrix-MSH10.0CodeIRC2018/TPI2014Matrix-MSH10.0CodeIRC2018/TPI2014Matrix-MSH10.0CodeIRC2018/TPI2014Matrix-MSH10.0CodeIRC2018/TPI2014Matrix-MSH10.0CodeIRC2018/TPI2014Matrix-MSH10.0Statistic Statistic 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January 26,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCEL Building Component Schut before the Structure Building former the Advection (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	128 Serenity	
24010048	H02	Common Supported Gable	1	1	Job Reference (optional)	163264157

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:18 ID:RYdnzx2hIOCGNhN27wvgimzrmH2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:39

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	1-11-4 1.15 1.15 YES IRC2018	/TPI2014	CSI TC BC WB Matrix-MR	0.35 0.07 0.11	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 12	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 80 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins, exx Rigid ceiling directly bracing	athing directly applie xept end verticals. applied or 6-0-0 oc	2) d or	Wind: ASCE Vasd=103mp Cat. II; Exp E zone and C-0 2-1-8 to 3-9-1 9-9-8 to 11-5 cantilever lef right exposed for reactions DOL=1.60	7-16; Vult=130i sh; TCDL=6.0ps 3; Enclosed; MV C Corner(3E) -0 8, Corner(3E) 3 -8, Corner(3E) t and right expo d;C-C for memb shown; Lumber	mph (3-sec if; BCDL=6 VFRS (enve -10-8 to 2 -9-8 to 9-9- 11-5-8 to 1- sed ; end v ers and for DOL=1.60	ond gust) .0psf; h=25ft elope) exterior 1-8, Exterior(2 8, Exterior(2 4-5-8 zone; ertical left ar ces & MWFF plate grip	;; pr (2N) N) nd RS	14) This Inter R80 15) Han prov Ib do desi resp 16) In th of th	truss is rnationa 2.10.2 a ger(s) o ided sur own and gn/selec ionsibilit ie LOAE ie truss	desig and ref or other fficient 55 lb ction o ty of ot 0 CASI are no	ned in accordar dential Code sec reconced standa r connection dev to support conc up at -0-5-12 o f such connection hers. E(S) section, loa ted as front (F)	ce with the 2018 tions R502.11.1 d ANSI/TPI 1. ice(s) shall be entrated load(s) n top chord. The n device(s) is th ds applied to the or back (B).	and 220 e le e face
REACTIONS	(size) 12=13-7-0 15=13-7-0 18=13-7-0 Max Horiz 20=-148 (I Max Uplift 12=-145 (I	, 13=13-7-0, 14=13- , 16=13-7-0, 17=13- , 19=13-7-0, 20=13- _C 12) _C 53), 13=-90 (LC	-7-0, 3) -7-0, -7-0 4) 10),	Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1	ned for wind loa ds exposed to v d Industry Gable alified building o . 7-16; Pr=20.0 . 15); Pf=20.0 ps	ds in the pl wind (norma End Detai designer as osf (roof LL sf (Lum DO	ane of the tru al to the face ls as applica per ANSI/TI Lum DOL= L=1.15 Plate	uss e), ble, PI 1. 1.15 e	LOAD C 1) De Inc Un	ASE(S) ad + Sn rease=1 iform Lc Vert: 1-2 12-20=-	) Stai low (ba 1.15 bads (ll 2=-58, 19	ndard alanced): Lumbe b/ft) 2-6=-58, 6-10=-	r Increase=1.15 58, 10-11=-58,	, Plate

		15=13-7-0, 16=13-7-0, 17=13-7-0
		18=13-7-0, 19=13-7-0, 20=13-7-0
	Max Horiz	20=-148 (LC 12)
	Max Uplift	12=-145 (LC 53), 13=-90 (LC 10),
		14=-58 (LC 55), 15=-57 (LC 15),
		17=-58 (LC 14), 18=-55 (LC 14),
		19=-276 (LC 53), 20=-69 (LC 23)
	Max Grav	12=130 (LC 28), 13=195 (LC 13),
		14=220 (LC 45), 15=253 (LC 22),
		16=187 (LC 22), 17=251 (LC 21),
		18=224 (LC 21), 19=120 (LC 28),
		20=460 (LC 21)
FORCES	(lb) - Max	imum Compression/Maximum
	Tension	
TOP CHORD	2-20=-440	0/64, 1-2=-21/144, 2-3=-149/73,
	3-4=-53/1	06, 4-5=-43/183, 5-6=-68/252,
	0 7 00/0	

	6-7=-68/252, 7-8=-43/183, 8-9=-43/104,
	9-10=-61/108, 10-11=0/33, 10-12=-100/107
BOT CHORD	19-20=-88/79, 18-19=-88/79, 17-18=-88/79,
	16-17=-88/79, 15-16=-88/79, 14-15=-88/79,
	13-14=-88/79, 12-13=-88/79
WEBS	6-16=-204/0, 5-17=-213/101, 4-18=-183/118,
	3-19=-85/237, 7-15=-214/101,
	8-14=-180/119, 9-13=-109/84

#### NOTES

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

- 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
- 5) Unbalanced snow loads have been considered for this 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.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- 9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 10) Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 69 lb uplift at joint 20, 145 lb uplift at joint 12, 58 lb uplift at joint 17, 55 lb uplift at joint 18, 276 lb uplift at joint 19, 57 lb uplift at joint 15, 58 lb uplift at joint 14 and 90 lb uplift at joint 13.

) 818 Soundside Road Edenton, NC 27932

CA

SEAL

036322

GI

January 26,2024

111111111

Concentrated Loads (lb)

Vert: 21=-201 (B)

Man and and the

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Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	V1	Valley	1	1	Job Reference (optional)	163264158

5-11-8

5-11-8

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

3-8-3

0-0-0

3-11-15

### Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:18 ID:F?srD3E8Afz2EulzeZOMFizF\_Uo-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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11-11-0

Scale = 1:37.2				1									I	
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	18/TPI2014	CSI TC BC WB Matrix-MSH	0.30 0.12 0.08	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 5	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 45 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP N 2x4 SP N 2x4 SP N Structural 6-0-0 oc p Rigid ceili bracing. (size) Max Horiz Max Uplift Max Grav	o.2 o.2 o.3 I wood shea ing directly 1=11-11-0 7=11-11-0 1=-90 (LC 8=-108 (L 1=68 (LC (LC 21), 7	athing directly applie applied or 10-0-0 or ), 5=11-11-0, 6=11-1 ), 8=11-11-0 : 10), 5 (10), 6=-106 (LC 15 C 14) 24), 5=52 (LC 27), 6 =275 (LC 20), 8=44	3 ed or 5 5 11-0, 6 7 5 ), 8 5=443 3 (LC	<ul> <li>Truss desig only. For str see Standar or consult qu</li> <li>TCLL: ASCE Plate DOL=: DOL=1.15); Cs=1.00; Ct</li> <li>Unbalanced design.</li> <li>Gable requir</li> <li>Gable requir</li> <li>Gable studs</li> <li>This truss ha chord live lo</li> <li>* This truss la on the botton 3-06-00 tall l</li> </ul>	ned for wind load uds exposed to w d Industry Gable Jalified building d E 7-16; Pr=20.0 p. 1.15); Pf=20.0 p. sis=1.0; Rough Ca =1.10 snow loads have res continuous bo spaced at 4-0-0 d as been designed ad nonconcurrent has been designed m chord in all are by 2-00-00 wide v	s in the p ind (norm End Deta esigner a: sf (roof LL f (Lum DC t dum DC been cor thom chor oc. I for a 10.1 t with any ed for a liv as where will fit beet	lane of the tru al to the face ils as applica s per ANSI/TI .: Lum DOL= Del-1.15 Plate Exp.; Ce=0.9 asidered for the d bearing. D psf bottom other live loa e load of 20.0. a rectangle veen the botto	uss e), bble, Pl 1. 1.15 e 9; his ads. Opsf om					

20) FORCES (Ib) - Maximum Compression/Maximum Tension TOP CHORD 1-2=-89/80, 2-3=-180/92, 3-4=-180/92, 4-5=-64/51 BOT CHORD 1-8=-21/57, 7-8=-18/57, 6-7=-18/57, 5-6=-18/57 WEBS 3-7=-187/18, 2-8=-417/179, 4-6=-417/179

#### NOTES

- Unbalanced roof live loads have been considered for 1) this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Exterior(2R) 3-0-6 to 8-11-6, Exterior(2E) 8-11-6 to 11-11-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

chord and any other members.

LOAD CASE(S) Standard

10) Provide mechanical connection (by others) of truss to

1, 108 lb uplift at joint 8 and 106 lb uplift at joint 6.

11) This truss is designed in accordance with the 2018

R802.10.2 and referenced standard ANSI/TPI 1.

bearing plate capable of withstanding 21 lb uplift at joint

International Residential Code sections R502.11.1 and



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	V2	Valley	1	1	Job Reference (optional)	163264159

2-11-15

# Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:18 ID:jCQDRPFmxy5us2K9CGvbovzF\_Un-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f







8-11-0

Scale =	1:29
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Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MP	0.41 0.39 0.12	<b>DEFL</b> 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: 31 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 8-11-0 oc purlins. Rigid ceiling directly bracing. (size) 1=8-11-0 Max Horiz 1=-66 (LC Max Uplift 1=-46 (LC 4=-80 (LC Max Grav 1=103 (L 4=706 (L	eathing directly applie v applied or 6-0-0 oc , 3=8-11-0, 4=8-11-0 C 10) C 21), 3=-46 (LC 20), C 14) C 20), 3=103 (LC 21 C 21)	4) ed or 6 7 8) 9) ), 11	<ul> <li>TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct:</li> <li>Unbalanced design.</li> <li>Gable requir</li> <li>Gable studs</li> <li>This truss ha chord live loa</li> <li>* This truss ha chord live loa</li> <li>* This truss ha chord and ar</li> <li>Provide mec</li> <li>basring plate</li> </ul>	57-16; Pr=20.0 psf 1.15); Pf=20.0 psf ( Is=1.0; Rough Cat =1.10 snow loads have t es continuous bott spaced at 4-0-0 oc is been designed f ad nonconcurrent v has been designed in chord in all areas by 2-00-00 wide wi by other members. hanical connectior a capable of withets	(roof LL Lum DC B; Fully peen cor om chor c. or a 10.0 vith any for a liv s where Il fit betw (by oth	:: Lum DOL=1 IL=1.15 Plate Exp.; Ce=0.9 isidered for th d bearing. ) psf bottom other live load e load of 20.0 e load of 20.0 e rectangle veen the botto ers) of truss to 6 lb unlift at in	l.15 ; iis ds. psf om o					
FORCES TOP CHORD BOT CHORD WEBS NOTES	(Ib) - Maximum Con Tension 1-2=-114/355, 2-3=- 1-4=-239/166, 3-4=- 2-4=-527/215	npression/Maximum -114/355 -239/166	1" L	1, 46 lb upliff 1) This truss is International R802.10.2 ar OAD CASE(S)	t at joint 3 and 80 ll designed in accord Residential Code nd referenced stan Standard	anding 4 b uplift a dance w sections dard AN	t joint 4. ith the 2018 R502.11.1 a ISI/TPI 1.	nd					
<ol> <li>Unbalance this design</li> <li>Wind: ASC</li> </ol>	ed roof live loads have n. CE 7-16; Vult=130mpt	e been considered for n (3-second gust)										TH CA	Route

- Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Exterior(2R) 3-0-6 to 5-11-6, Exterior(2E) 5-11-6 to 8-11-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss 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.

annunun a \* ITTELEVENTIAL INT SEAL 036322 GI minim January 26,2024

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Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	V3	Valley	1	1	Job Reference (optional)	163264160

1-8-3

1-11-15

#### Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:19 ID:\_PCt1VqtCUIRorSEgzcdUCzF\_Jj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



5-11-0

Scale = 1:24 9

Scale = 1:24.9															
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	0.14 0.16 0.05	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: 20 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No. 2x4 SP No. 2x4 SP No. Structural w 5-11-0 oc p Rigid ceiling bracing. (size) 1 Max Horiz 1 Max Uplift 1 (I Max Grav 1	2 2 3 wood shea urlins. g directly =5-11-0, =-43 (LC =-4 (LC LC 14) =97 (LC	athing directly applie applied or 6-0-0 oc 3=5-11-0, 4=5-11-0 12) 14), 3=-11 (LC 15), 4 20), 3=97 (LC 21), 4	ed or 4=-36 4=380	<ul> <li>5) Unbalanced design.</li> <li>6) Gable requir</li> <li>7) Gable studs</li> <li>8) This truss ha chord live loo.</li> <li>9) * This truss loo on the botton 3-06-00 tall lichord and ai</li> <li>10) Provide mechaning plate 1, 11 lb uplif</li> <li>11) This truss is International</li> </ul>	snow loads hav es continuous b spaced at 4-0-0 is been designe ad nonconcurrer nas been designe n chord in all arro y 2-00-00 wide hanical connect e capable of with t at joint 3 and designed in acco Residential Coo	re been cor ottom chor o c. d for a 10.0 nt with any ned for a liv eas where will fit betw rs. cion (by oth nstanding 4 6 lb uplift a cordance w de sections	sidered for the d bearing. ) psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t lb uplift at joi t joint 4. th the 2018 R502.11.1 a	nis ds. Dpsf om o int nd						
FORCES TOP CHORD BOT CHORD	(lb) - Maxim Tension 1-2=-95/156 1-4=-116/10	LC 20) num Com 6, 2-3=-9! 02, 3-4=- <sup>-</sup>	pression/Maximum 5/156 116/102		R802.10.2 a L <b>OAD CASE(S)</b>	nd referenced si Standard	tandard AN	ISI/TPI 1.							
<ul> <li>WEBS</li> <li>NOTES</li> <li>1) Unbalance this design</li> <li>2) Wind: ASG Vasd=103 Cat. II; Ex zone and exposed ; members Lumber D</li> <li>3) Truss dee only. For see Stand or consult</li> <li>4) TCLL: AS Plate DOL DOL=1.15 Cs=1.00;</li> </ul>	2-4=-250/12 ed roof live loa n. CE 7-16; Vult= 3mph; TCDL=6 p B; Enclosed C-C Exterior(2 end vertical le and forces & 1 00L=1.60 plate signed for win- studs exposed Jard Industry C t qualified build CE 7-16; Pr=2 L=1.15); Pf=20 5); Is=1.0; Rou Ct=1.10	ads have =130mph 5.0psf; BG ; MWFRS 2E) zone; et and rig MWFRS e grip DO d loads in d to wind Bable Enc ding desig 20.0 psf (Li 0.0 psf (Li 1gh Cat B	been considered for (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterio cantilever left and r ht exposed;C-C for for reactions shown; L=1.60 the plane of the tru (normal to the face) d Details as applicat gner as per ANSI/TF roof LL: Lum DOL=1 Jm DOL=1.15 Plate ; Fully Exp.; Ce=0.9	r right ; ss ), ole, PI 1. I.15 ;								The second secon	SEA 0363	L 22 L L BEER. L BER. L L BER. L L BER. L L L L 22	Manuna



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LUMBER		
TOP CHORD	2x4 SP N	o.2
BOT CHORD	2x4 SP N	o.2
OTHERS	2x4 SP N	o.3
BRACING		
TOP CHORD	Structural	wood sheathing directly applied o
	5-11-0 oc	purlins.
BOT CHORD	Rigid ceili	ng directly applied or 6-0-0 oc
	bracing.	
REACTIONS	(size)	1=5-11-0, 3=5-11-0, 4=5-11-0
	Max Horiz	1=-43 (LC 12)
	Max Uplift	1=-4 (LC 14), 3=-11 (LC 15), 4=-3
		(LC 14)
	Max Grav	1=97 (LC 20), 3=97 (LC 21), 4=3
		(LC 20)
FORCES	(lb) - Max	imum Compression/Maximum
	Tension	
TOP CHORD	1-2=-95/1	56, 2-3=-95/156

### В ٧

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- 2
- 3 4

Job	Truss	Truss Type	/pe Qty Ply 128 Serenity		128 Serenity	
24010048	V4	Valley	1	1	Job Reference (optional)	163264161

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:19 ID:\_PCt1VqtCUIRorSEgzcdUCzF\_Jj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

2-5-13 1-0-5

1-5-8 1-5-8

Page: 1





2-11-0

2x4 💊

# Scale = 1:24.8

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

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> 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	0.06 0.07 0.00	<b>DEFL</b> 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: 8 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD 2 BOT CHORD 2 BRACING TOP CHORD 5 BOT CHORD 6 BOT CHORD 6 BOT CHORD 6 CONTENT FORCES ( TOP CHORD 1 BOT CHORD 1 BOT CHORD 1 BOT CHORD 1 BOT CHORD 1 NOTES 1) Unbalanced 1 this design. 2) Wind: ASCE Vasd=103mg Cat. I; Exp E zone and C-C exposed ; en members an Lumber DOL 3) Truss design only. For stu see Standarc Lumber DOL 3) TCL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= 5) Unbalanced design. 6) Gable require	2x4 SP No.2 2x4 SP No.2 Structural wood she 2-11-0 oc purlins. Rigid ceiling directly oracing. ize) 1=2-11-0, ax Horiz 1=19 (LC ax Uplift 1=-11 (LC ax Grav 1=131 (LC Ib) - Maximum Com Fension I-2=-177/68, 2-3=-1 I-3=-44/140 roof live loads have 7-16; Vult=130mph oh; TCDL=6.0psf; Bi S; Enclosed; MWFRS = 1.60 plate grip DC red for wind loads in d sexposed to wind d Industry Gable En alified building desig 7-16; Pr=20.0 psf ( 15); Pf=20.0 psf ( 15);	athing directly applied applied or 10-0-0 oc 3=2-11-0 13) 2 14), 3=-11 (LC 15) 2 20), 3=131 (LC 21) pression/Maximum 77/68 been considered for (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior ; cantilever left and rig ght exposed;C-C for for reactions shown; <sup>1</sup> L=1.60 n the plane of the trus (normal to the face), d Details as applicabl gner as per ANSI/TPI um DOL=1.15 Plate B; Fully Exp.; Ce=0.9; een considered for this m chord bearing.	7) Gable studs 8) This truss ha chord live lo 9) * This truss l on the bottor 3-06-00 tall l chord and and 10) Provide mee bearing plate 1 and 11 lb i 11) This truss is International R802.10.2 a LOAD CASE(S) 9 9 9 15 5	spaced at 4-0-0 o so been designed ad nonconcurrent has been designed in chord in all area yy 2-00-00 wide w hy other members hanical connectio e capable of withs uplift at joint 3. designed in accoo Residential Code and referenced sta Standard	rc. for a 10.0 with any d for a liv as where ill fit betw n (by oth tanding 1 rdance wi e sections ndard AN	) psf bottom other live loa e load of 20.0 a rectangle /een the botto ers) of truss t 1 lb uplift at ji ith the 2018 .R502.11.1 a ISI/TPI 1.	ds. Dpsf o oint nd				SEA 0363	L 22 L 26,2024	



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Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	V5	Valley	1	1	Job Reference (optional)	163264162

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:19 ID:y4XzCnqOXsxqCw?a38bSzzzrmHK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:	35.2
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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-MSH	0.29 0.12 0.08	<b>DEFL</b> Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 5	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 47 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins. Rigid ceiling directly bracing. (size) 1=12-4-0, 7=12-4-0, Max Horiz 1=-93 (LC Max Uplift 1=-18 (LC 8=-110 (L Max Grav 1=-77 (LC (LC 21), 7 20)	athing directly applie applied or 10-0-0 or 5=12-4-0, 6=12-4-0 8=12-4-0 : 10), 6=-107 (LC 15 C 14) 24), 5=60 (LC 23), 6 =281 (LC 20), 8=44	3) ed or ; 5) , 6) 7) ), 8) 3;=442 2 (LC	Truss desig only. For stu see Standari or consult qu 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 h on the bottor 3-06-00 tall t chord and an	ned for wind load dids exposed to w d Industry Gable lalified building d 7-16; Pr=20.0 ps I.15); Pf=20.0 ps Is=1.0; Rough Ca =1.10 snow loads have es continuous bo spaced at 4-0-0 as been designed ad nonconcurrent has been designed ad nonconcurrent has been designed no chord in all are by 2-00-00 wide v o other member:	s in the p ind (norm End Deta esigner as of (roof LL (Lum DC at B; Fully been cor ttom chor bc. for a 10.0 with any ed for a liv as where s.	lane of the trr lane of the trr al to the face ils as applica s per ANSI/T .: 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 veen the bott	uss .), ble, PI 1. 1.15 e 9; his nds. 0psf om					
FORCES TOP CHORD	(lb) - Maximum Com Tension 1-2=-100/82, 2-3=-1	pression/Maximum 74/93, 3-4=-174/93,	10	) Provide mec bearing plate 1, 110 lb upl	hanical connection capable of withs ift at joint 8 and 1	on (by oth standing 1 07 lb upli	ers) of truss t l8 lb uplift at j ft at joint 6.	to joint					
BOT CHORD WEBS <b>NOTES</b>	4-5=-74/49 1-8=-23/69, 7-8=-22/ 5-6=-22/59 3-7=-193/15, 2-8=-4(	/55, 6-7=-22/55, 03/170, 4-6=-403/17	11 <sup>0</sup> LC	) This truss is International R802.10.2 a DAD CASE(S)	designed in acco Residential Code nd referenced sta Standard	rdance w e sections andard AN	ith the 2018 R502.11.1 a NSI/TPI 1.	and			AL.	TH CA	Rolin

- 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) 0-0-6 to 3-0-6, Exterior(2R) 3-0-6 to 9-4-6, Exterior(2E) 9-4-6 to 12-4-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



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Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	V6	Valley	1	1	Job Reference (optional)	163264163

3-1-9

(psf)

20.0

20.0

10.0

10.0

2x4 SP No.2

2x4 SP No.2

2x4 SP No.3

9-4-0 oc purlins.

bracing.

Max Uplift

Max Grav

Tension

2-4=-551/211

(size)

0.0

#### Run: 8.63 S. Nov. 1.2023 Print: 8.630 S.Nov. 1.2023 MiTek Industries. Inc. Thu Jan 25 17:22:20 ID:YVsrZInWFxZFLSG?001IMLzrmHN-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



GRIP

244/190

FT = 20%

4-8-0 8-10-13 4-8-0 4-2-13 4x5 = 2 2-9-8 Г 3 4 2x4 II 3x5 🕫 3x5 💊 9-4-0 Spacing 2-0-0 CSI DEFL l/defl L/d PLATES in (loc) Plate Grip DOL 1.15 TC 0.39 Vert(LL) n/a n/a 999 MT20 BC 1 15 0.38 Lumber DOL Vert(TL) n/a n/a 999 Rep Stress Incr YES WB 0.13 Horiz(TL) 0.00 4 n/a n/a Code IRC2018/TPI2014 Matrix-MSH Weight: 33 lb TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 4) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10 Unbalanced snow loads have been considered for this 5) desian. Structural wood sheathing directly applied or Gable requires continuous bottom chord bearing. 6) 7) Gable studs spaced at 4-0-0 oc. Rigid ceiling directly applied or 6-0-0 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 1=9-4-0, 3=9-4-0, 4=9-4-0 9) Max Horiz 1=69 (LC 13) on the bottom chord in all areas where a rectangle 1=-38 (LC 21), 3=-38 (LC 20), 3-06-00 tall by 2-00-00 wide will fit between the bottom 4=-74 (LC 14) chord and any other members. 1=120 (LC 20), 3=120 (LC 21), 10) Provide mechanical connection (by others) of truss to 4=721 (LC 20) bearing plate capable of withstanding 38 lb uplift at joint (lb) - Maximum Compression/Maximum 1, 38 lb uplift at joint 3 and 74 lb uplift at joint 4. 11) This truss is designed in accordance with the 2018 1-2=-107/361, 2-3=-107/361 International Residential Code sections R502.11.1 and 1-4=-214/141, 3-4=-214/141 R802.10.2 and referenced standard ANSI/TPI 1.

#### WFBS NOTES

FORCES

TOP CHORD

BOT CHORD

Scale = 1:29.6 Loading

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

BRACING

TOP CHORD

BOT CHORD

TOP CHORD

BOT CHORD

REACTIONS

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) 0-0-6 to 3-0-6, Exterior(2R) 3-0-6 to 6-4-6, Exterior(2E) 6-4-6 to 9-4-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss 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.

LOAD CASE(S) Standard



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	128 Serenity	
24010048	V7	Valley	1	1	Job Reference (optional)	163264164

2-1-9

#### Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:20 ID:fkcKkOk?Bi2ptryE9AypBVzrmHR-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



2x4 🔊



2x4 🥠

2x4 II

6-4-0

Scale = 1.25.5

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/TF	PI2014	CSI TC BC WB Matrix-MP	0.17 0.18 0.06	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	<b>GRIP</b> 244/190
BCDL	10.0											Weight: 21 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 6-4-0 oc purlins. Rigid ceiling directly bracing. (size) 1=6-4-0, 3 Max Horiz 1=-46 (LC Max Uplift 1=-2 (LC (LC 14) Max Grav 1=100 (LL 4=420 (LC	athing directly applie r applied or 6-0-0 oc 3=6-4-0, 4=6-4-0 2 10) 14), 3=-10 (LC 15), 4 C 20), 3=-100 (LC 21) C 21)	5) U de 6) G 7) G 8) Ti or 9) * 9) * 7 10) Pi 10) Pi 10, Pi 11) Ti 1, 11) Ti 1, 11) Ti	Inbalanced : esign. able require bable studs : his truss ha hord live loa This truss ha hord and an rovide mecl earing plate earing plate , 10 lb uplift his truss is o tternational	snow loads have es continuous bot spaced at 4-0-0 o s been designed d nonconcurrent as been designed n chord in all area y 2-00-00 wide w y other members nanical connection capable of withst at joint 3 and 41 designed in accor Residential Code	been cor tom chor c. for a 10.0 with any d for a liv s where ill fit betv n n (by oth tanding 2 b uplift a dance w sections	sidered for the d bearing. D psf bottom other live load e load of 20.0 e load of	ds. )psf om int					
FORCES	(lb) - Maximum Corr	pression/Maximum	LOAD	D CASE(S)	Standard		NOI/TET 1.						
TOP CHORD BOT CHORD WEBS	1-2=-97/179, 2-3=-9 1-4=-131/111, 3-4=- 2-4=-283/140	7/179 131/111											
NOTES													
<ol> <li>Unbalance this design</li> <li>Wind: ASS Vasd=103 Cat. II; Ex zone and exposed; members Lumber D</li> <li>Truss des only. For see Stance or consult</li> <li>TCLL: AS Plate DOI DOL=1.15 Cs=1.00;</li> </ol>	ed roof live loads have n. CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; B p; B; Enclosed; MWFR C-C Exterior(2E) zone end vertical left and rig and forces & MWFRS I/OL=1.60 plate grip DC signed for wind loads in studs exposed to wind lard Industry Gable En : qualified building desi CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat E Ct=1.10	been considered for (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior; ; cantilever left and ri ght exposed;C-C for for reactions shown; DL=1.60 in the plane of the true (normal to the face) d Details as applicab gner as per ANSI/TP roof LL: Lum DOL=1 um DOL=1.15 Plate 3; Fully Exp.; Ce=0.9	- ight ss le, l 1. .15								The second se	SEA 0363	EER.KI

January 26,2024



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Job	Truss	Truss Type Qty Ply 128 Serenity		128 Serenity		
24010048	V8	Valley	1	1	Job Reference (optional)	163264165

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:20 ID:jLUZJijlf5o5dXps1lwL64zrmHT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

> 1-8-0 1-8-0

2x4 🍫

2-10-13

1-2-13

3-4-0

Page: 1





2x4 💊

3-4-0

Scale = 1:22.5

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

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	/TPI2014	CSI TC BC WB Matrix-MP	0.09 0.08 0.00	<b>DEFL</b> 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: 9 lb	<b>GRIP</b> 244/190 FT = 20%
BCDL LUMBER TOP CHORE BOT CHORE BOT CHORE BOT CHORE BOT CHORE BOT CHORE REACTIONS FORCES TOP CHORE BOT CHORE BOT CHORE BOT CHORE DOT CHORE NOTES 1) Unbalann this design (2) Wind: AS Vasd=10 Cat. II; E zone and exposed member: Lumber I 3) Truss di only. Fo see Stan or consu 4) TCLL: AS Plate DC DOL=1.1 CS=1.00 5) Unbalann 5) Unbalann	<ul> <li>2x4 SP No.2</li> <li>2x4 SP No.2</li> <li>2x4 SP No.2</li> <li>Structural w 3-4-0 oc pur</li> <li>Rigid ceiling bracing.</li> <li>(size) 1: Max Horiz 1: Max Uplift 1: Max Grav 1: (Ib) - Maximi Tension</li> <li>1-2=-212/80</li> <li>1-3=-54/168</li> <li>Ccd 7-16; Vult= 3mph; TCDL=6 xp B; Enclosed;</li> <li>C-C Exterior(2 ; end vertical le signed for wind r studs exposed dard Industry G ti qualified build SCE 7-16; Pr=2/ Ll=1.15); Pf=20</li> <li>5); Is=1.0; Roug Ct=1.10</li> </ul>	ood sheat iins. directly =3-4-0, 3 =22 (LC =151 (LC um Com , 2-3=-21 ds have 130mph .0psf; BC MWFRS E) zone; ft and rig MWFRS E) zone; ft and rig dwFRS ft and rig dwFRS grip DOI l loads in l to wind able Enci 0.0 psf (L ggh Cat B have bee	athing directly applied applied or 10-0-0 oc =3-4-0 11) 14), 3=-12 (LC 15) ; 20), 3=151 (LC 21) pression/Maximum 12/80 been considered for (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior cantilever left and right exposed;C-C for for reactions shown; L=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. Im DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for this	7) 8) 9) 107 117 LO ght s e, 1. 15 s	Gable studs s This truss ha chord live loa * This truss h on the botton 3-06-00 tall b chord and an Provide mect bearing plate 1 and 12 lb u This truss is of 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 wil y other members. nanical connection capable of withsta plift at joint 3. Jesigned in accord Residential Code s d referenced stand Standard	c. or a 10.0 vith any for a liv s where I fit betw (by oth anding 1 dance w sections dard AN	0 psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t 2 lb uplift at jo ith the 2018 : R502.11.1 a ISI/TPI 1.	ds. lpsf on oint nd				Weight: 9 lb	FT = 20%
design. 6) Gable re	Unbalanced snow loads have been considered for this design. Gable requires continuous bottom chord bearing.												26,2024	



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Job	Truss	Truss Type	Qty	Ply	128 Serenity		
24010048	V9	Valley	1	1	Job Reference (optional)	163264166	

Run: 8.63 S. Nov. 1.2023 Print: 8.630 S.Nov. 1.2023 MiTek Industries. Inc. Thu Jan 25 17:22:20 ID:05Rb2nqdzWbg0FxJai2r9FzF oh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



13-10-11

0-8-6

20

3x5 ≈

GRIP

244/190

FT = 20%

6-11-6 13-2-5 6-11-6 6-3-0 4x5 =4 3 5 18 19 ø 2-7-4 2-11-0 12 5 Г 6 2 he 17 0-0-0 12 11 10 9 8 3x5 ≠ 13-10-11 Scale = 1:29.9 Loading 2-0-0 CSI DEFL l/defl L/d PLATES (psf) Spacing in (loc) TCLL (roof) 20.0 Plate Grip DOL 1.15 TC 0.11 Vert(LL) n/a n/a 999 MT20 Snow (Pf) 20.0 BC Lumber DOL 1 15 0.10 Vert(TL) n/a n/a 999 10.0 Rep Stress Incr YES WB 0.04 Horiz(TL) 0.00 7 n/a n/a 0.0 Code IRC2018/TPI2014 Matrix-MSH 10.0 Weight: 51 lb Wind: ASCE 7-16; Vult=130mph (3-second gust) LUMBER 2) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; TOP CHORD 2x4 SP No.2 Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior BOT CHORD 2x4 SP No.2 2x4 SP No.3 zone and C-C Exterior(2E) 0-0-10 to 2-11-15, Interior (1) OTHERS 2-11-15 to 3-11-15, Exterior(2R) 3-11-15 to 9-11-15, BRACING Interior (1) 9-11-15 to 10-11-5, Exterior(2E) 10-11-5 to TOP CHORD Structural wood sheathing directly applied or

- 10-0-0 oc purlins. BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. REACTIONS (size) 1=13-10-11, 7=13-10-11, 8=13-10-11, 9=13-10-11, 10=13-10-11, 11=13-10-11, 12=13-10-11
  - Max Horiz 1=44 (LC 14) Max Uplift 1=-3 (LC 15), 7=-10 (LC 15), 8=-49 (LC 15), 9=-39 (LC 15), 11=-39 (LC 14), 12=-50 (LC 14) Max Grav 1=98 (LC 20), 7=98 (LC 21), 8=313 (LC 21), 9=210 (LC 21), 10=196
- (LC 21), 11=210 (LC 20), 12=313 (LC 20) FORCES (Ib) - Maximum Compression/Maximum Tension TOP CHORD 1-2=-141/89, 2-3=-8/77, 3-4=-7/83, 4-5=-7/79. 5-6=0/77. 6-7=-141/89 1-12=-46/124, 11-12=-46/51, 10-11=-46/51, BOT CHORD
- 9-10=-46/51, 8-9=-46/51, 7-8=-46/124 4-10=-149/25, 3-11=-189/99, 2-12=-216/82, WEBS 5-9=-189/99. 6-8=-216/82

#### NOTES

TCDL

BCLL

BCDL

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

- 13-11-5 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
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1. TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15
- Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- All plates are 2x4 MT20 unless otherwise indicated. 6)
- Gable requires continuous bottom chord bearing. 7)
- Gable studs spaced at 2-0-0 oc. 8)
- This truss has been designed for a 10.0 psf bottom 9) 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.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 1, 10 lb uplift at joint 7, 39 lb uplift at joint 11, 50 lb uplift at joint 12, 39 lb uplift at joint 9 and 49 lb uplift at joint 8.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and
- R802.10.2 and referenced standard ANSI/TPI 1. LOAD CASE(S) Standard



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	128 Serenity		
24010048	V10	Valley	1	1	Job Reference (optional)	163264167	

#### Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:21 ID:OFXJJBg5e0puLYiHs6bBoUzF\_ZP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





10-8-5

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	)18/TPI2014	CSI TC BC WB Matrix-MSH	0.46 0.46 0.12	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: 33 lb		
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	UMBER         OP CHORD       2x4 SP No.2         OT CHORD       2x4 SP No.2         ITHERS       2x4 SP No.3         RACING       OP CHORD         OP CHORD       Structural wood sheathing directly applied o 10-0-0 oc purlins.         OT CHORD       Rigid ceiling directly applied or 6-0-0 oc bracing.         EACTIONS       (size)       1=10.8-5       3=10.8-5       4=10.8-5		d or	<ol> <li>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</li> <li>Unbalanced snow loads have been considered for this design.</li> <li>Gable requires continuous bottom chord bearing.</li> <li>Gable studs spaced at 4-0-0 oc.</li> <li>This truss has been designed for a 10.0 psf bottom cobort live loads paperopurgent with any other live loads</li> </ol>											
	Max Horiz Max Uplift Max Grav	1=-33 (LC 1=-21 (LC 4=-56 (LC 1=140 (LC 4=760 (LC	: 15) : 21), 3=-22 (LC 15), : 14) : 20), 3=140 (LC 21) : 20)		on the botto 3-06-00 tall chord and a 10) Provide med bearing plat	nas been designed m chord in all area by 2-00-00 wide w ny other members chanical connection e capable of withst	a for a liv as where vill fit betw n (by oth tanding 2	a rectangle veen the bott ers) of truss i 21 lb uplift at j	om to joint						
FORCES TOP CHORD BOT CHORD WEBS	(lb) - Maximum Compression/Maximum Tension 1-2=-185/447, 2-3=-185/447 1-4=-340/191, 3-4=-340/191 2-4=-571/299				<ol> <li>1, 22 Ib uplift at joint 3 and 56 Ib uplift at joint 4.</li> <li>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.</li> <li>LOAD CASE(S) Standard</li> </ol>										

#### NOTES

Scale = 1:27

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) 0-0-10 to 3-0-10, Exterior (2R) 3-0-10 to 7-8-14, Exterior(2E) 7-8-14 to 10-8-14 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 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.

MUTH CAN ORTH Winning SEAL 036322 GI munin January 26,2024

Page: 1

GRIP

244/190

FT = 20%



Job	Truss	Truss Type	Qty	Ply	128 Serenity		
24010048	V11	Valley	1	1	Job Reference (optional)	163264168	

1-3-4

0-0-4

1-7-0

# Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Jan 25 17:22:21 ID:0QuoCHbT00YWR?2xSfl?izzrmHd-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



7-5-14

Scale = 1:23.3														
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MP	0.21 0.24 0.06	<b>DEFL</b> 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: 22 lb	<b>GRIP</b> 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 she 7-5-14 oc purlins. Rigid ceiling directly bracing. (size) 1=7-5-14, Max Horiz 1=-23 (LC Max Uplift 1=-14 (LC 4=-33 (LC (Max Grav 1=118 (LC 4=469 (LC (lb) - Maximum Com Tension 1-2=-148/245, 2-3=- 1-4=-194/135, 3-4=- 2-4=-307/180	eathing directly applie y applied or 6-0-0 oc , 3=7-5-14, 4=7-5-14 C 15) C 14), 3=-18 (LC 15), C 20), 3=118 (LC 21) C 20) 10pression/Maximum 148/245 194/135	4) 5) d or 6) 7) 8) 9) , 1( 1 <sup>-</sup>	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Uhbalanced design. Gable requiri Gable studs This truss ha chord live loa This truss ha chord live loa This truss ha chord live loa This truss ha chord and an D) Provide med bearing plate 1, 18 lb uplift This truss is International R802.10.2 ar DAD CASE(S)	5 7-16; Pr=20.0 psf .15); Pf=20.0 psf ( Is=1.0; Rough Cat =1.10 snow loads have b es continuous botts spaced at 4-0-0 oc is been designed for ad nonconcurrent w has been designed in chord in all areas by 2-00-00 wide will y other members. hanical connection e capable of withstat at joint 3 and 33 ll designed in accord Residential Code s nd referenced stan Standard	(roof LL Lum DC B; Fully peen cor om chor c. or a 10.0 vith any for a liv s where I fit betv (by oth anding 1 c upliff a dance w sections dard AN	L: Lum DOL=1 DL=1.15 Plate Exp.; Ce=0.9 asidered for the d bearing. D psf bottom other live load e load of 20.0 e load of 20.0 ers) of truss to 4 lb uplift at jo the the 2018 \$ R502.11.1 a JSI/TPI 1.	1.15 ); ds. )psf om oint nd						
1) Unbalance	ed roof live loads have	been considered for											111	

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) 0-0-10 to 3-0-10, Exterior (2R) 3-0-10 to 4-6-8, Exterior(2E) 4-6-8 to 7-6-8 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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Page: 1

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

# Symbols

# PLATE LOCATION AND ORIENTATION



# PLATE SIZE

software or upon request.



The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

# LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated

### BEARING



Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

### **Industry Standards:**



# **Numbering System**



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

# **Product Code Approvals**

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282 ESR-4722, ESL-1388

# **Design General Notes**

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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# General Safety Notes

# Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- 5. Cut members to bear tightly against each other.
- Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
- 7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- 8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- 10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- 11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- 12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- 13. Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- 15. Connections not shown are the responsibility of others.
- Do not cut or alter truss member or plate without prior approval of an engineer.
- 17. Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- 20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- 21. The design does not take into account any dynamic or other loads other than those expressly stated.