

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

Phone #:919-775-1450

# Builder: DAVID WEEKLEY HOMES Model: 109 SERENITY B330 A



# 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.

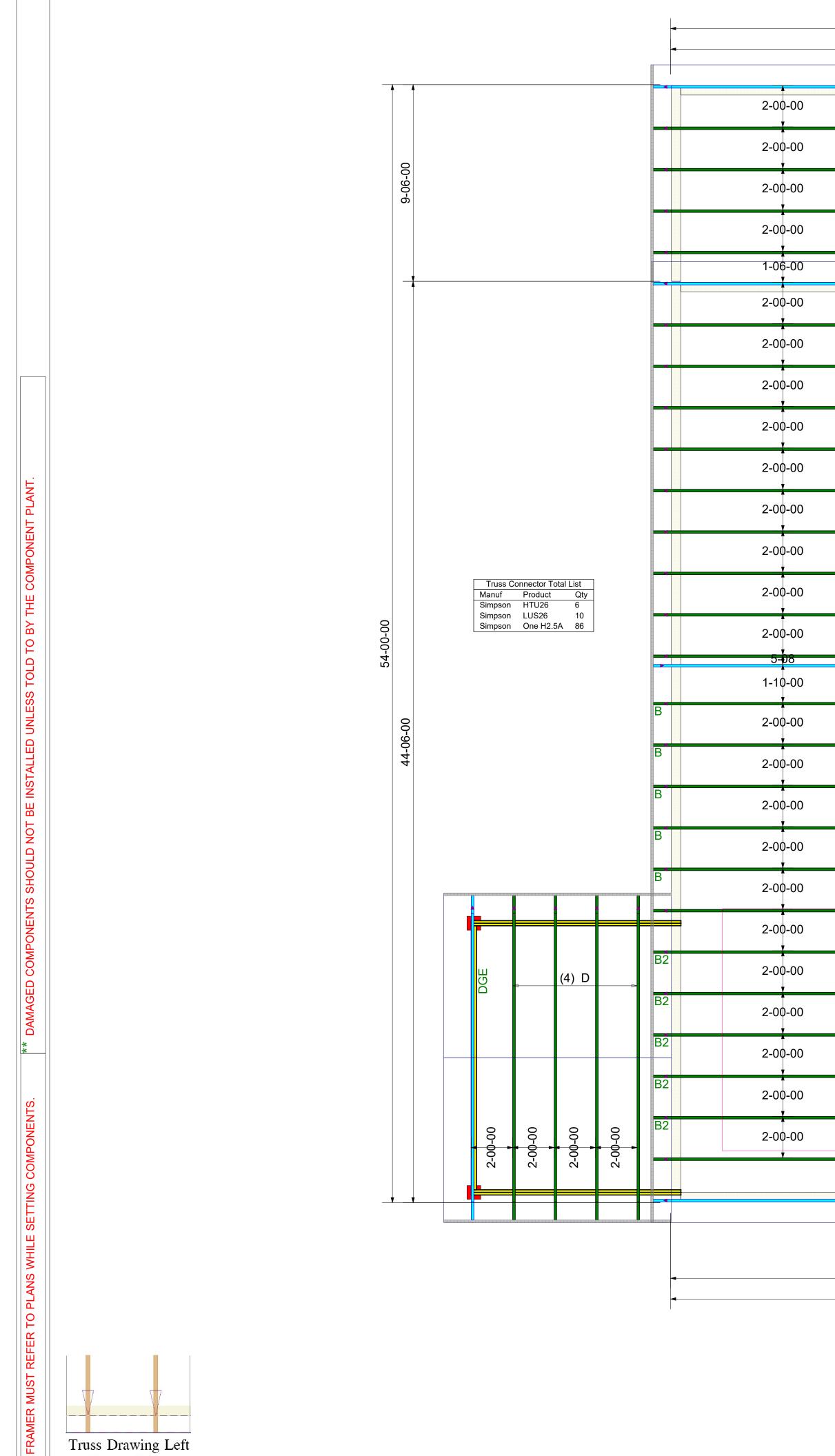
6. The Placement Plan assumes the building is dimensionally correct, structurally sound, and in a suitable condition to support each Component during installation and thereafter, including but not limited to installation of all bearing points. Proper design and construction of all structural components, 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: \_\_\_\_\_



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	TRUSS 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
	** TRUSS TO TH	THIS designed	system structure	
	DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH.			A Division of the Certer Lumber Company
	TOGETHER PRIOR TO ADDING ANY LOADS.	Davis Weekley Homes	109 Serenity	COMPONENT PLACEMENT PLAN
	GIRDERS MUST BE FULLY CONNECTED	P 2	NTS 0/13/202 Designer: ND Project Num 310001 Sheet Num	nber: <b>8</b>
	*			
ENGINEERING SHEETS FOR PLY TO PLY CONNEC	TIONS.			



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

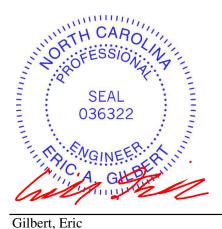
Re: 23100018 109 Serenity

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: I61412506 thru I61412534

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844



October 16,2023

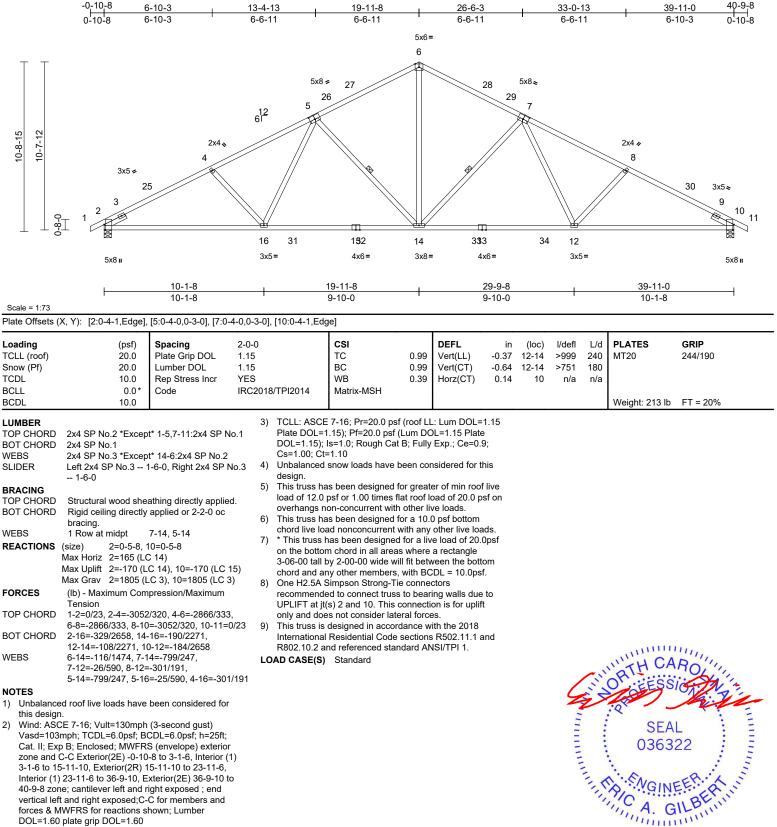
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters change (a.g., loads, supports, dimensions, shapes and design ender), which ware

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	109 Serenity	
23100018	А	Common	4	1	Job Reference (optional)	161412506

2)

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October 16,2023

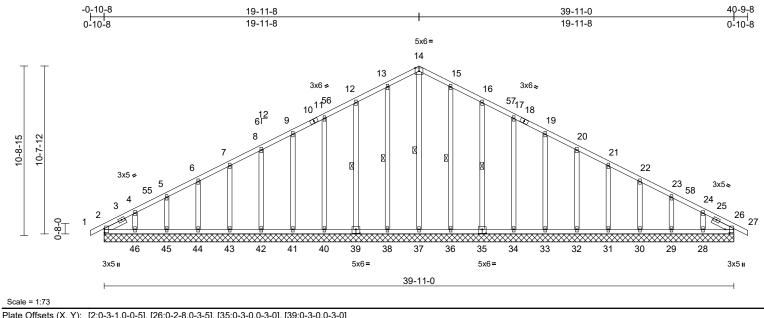
Page: 1



 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 overal 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	109 Serenity	
23100018	AGE	Common Supported Gable	1	1	Job Reference (optional)	161412507

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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/TPI2014	CSI TC BC WB Matrix-MSH	0.08 0.05 0.15	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.01	(loc) - - 26	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 285 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS SLIDER BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP N Left 2x4 S 1-6-0 Structura 6-0-0 oc I Rigid ceil bracing. 1 Row at	o.2 o.3 *Excep SP No.3 I wood she purlins. ing directly midpt 2=39-11-(	t* 37-14:2x4 SP No.: 1-6-0, Right 2x4 SP N athing directly applie applied or 10-0-0 oc 14-37, 13-38, 12-39, 15-36, 16-35 0, 26-39-11-0, 0, 20-20-10, 0	2 No.3 d or	30=160 32=161 34=180 36=245 38=245 40=180 42=161 44=160 46=158	(LC 35) (LC 35) (LC 22) (LC 22) (LC 22) (LC 22) (LC 21) (LC 21) (LC 21) (LC 21) (LC 34) (LC 34) (LC 34)	29=160 (LC 31=160 (LC 33=160 (LC 35=232 (LC 37=201 (LC 39=232 (LC 41=160 (LC 43=160 (LC 45=160 (LC 47=138 (LC on/Maximum	22), 1), 35), 22), 27), 21), 34), 1), 21), 21), 22),	this 2) Wii Va	balanceo s design. nd: ASC sd=103n	12-39 9-41= 6-44= 15-36 17-34 20-32 22-30 24-28 d roof li E 7-16; nph; TC	-120/77, 5-45=-1 205/66, 16-35= 140/76, 19-35= 121/77, 21-31= 120/77, 23-29= 114/135 ive loads have be ; Vult=130mph (3 CDL=6.0psf; BCL	140/76, 21/77, 7-43=-120/77, 21/81, 4-46=-114/135 192/83, 120/77, 120/77, 121/81, een considered for
		$\begin{array}{c} 30 = 39 - 11 \\ 32 = 39 - 11 \\ 34 = 39 - 11 \\ 36 = 39 - 11 \\ 38 = 39 - 11 \\ 40 = 39 - 11 \\ 42 = 39 - 11 \\ 44 = 39 - 11 \\ 51 = 39 - 11 \\ 2 = -165 (L \\ 2 = -21 (LC \\ 29 = .37 (L \\ 33 = .44 (L \\ 33 = .44 (L \\ 38 = .39 (L \\ 40 = .43 (L \\ 44 = .46 (L \\ 44 = .46 (L \\ 44 = .46 (L \\ 38 = .39 (L \\ 44 = .46 (L \\ 38 = .39 (L \\ 44 = .46 (L \\ 38 = .39 (L \\ 44 = .46 (L \\ 38 = .39 (L \\ 44 = .46 (L \\ 38 = .39 (L \\ $	$\begin{array}{l} -0, 29=39\cdot11-0,\\ -0, 31=39\cdot11-0,\\ -0, 35=39\cdot11-0,\\ -0, 35=39\cdot11-0,\\ -0, 39=39\cdot11-0,\\ -0, 39=39\cdot11-0,\\ -0, 41=39\cdot11-0,\\ -0, 43=39\cdot11-0,\\ -0, 45=39\cdot11-0,\\ -0, 45=39\cdot11-0,\\ -0, 47=39\cdot11-0,\\ -0, 47=39\cdot11-0,\\ -0, 5, 51=\cdot165 (LC + 12),\\ C + 15), 51=\cdot165 (LC + 12),\\ C + 15), 30=\cdot46 (LC + 12),\\ C + 15), 30=\cdot46 (LC + 12),\\ C + 15), 30=\cdot43 (LC + 12),\\ C + 15), 30=\cdot43 (LC + 12),\\ C + 14), 43=\cdot43 (LC + 14),\\ C + 14), 43=\cdot43 (LC + 14),\\ C + 14), 43=\cdot43 (LC + 14),\\ C + 14), 45=\cdot34 (LC + 14),\\ C + 14), 51=\cdot21 (LC + 10),\\ \end{array}$	BOT CHORD 15) ), 5), 5), 5), 4), 4), 4),	5-6=-129/94, 6-7= 8-9=-61/154, 9-11 12-13=-103/269, 1 14-15=-120/309, 1 16-17=-84/221, 17 19-20=-49/131, 20 22-23=-66/27, 23- 24-26=-144/59, 26 2-46=-44/167, 45- 44-45=-44/167, 38 37-38=-44/167, 38 37-38=-44/167, 36 32-33=-44/167, 25 28-29=-44/167, 26	-96/107, =-66/177 3-14=-1 5-16=-1 7-19=-66 )-21=-41 24=-100 >-27=0/2 46=-44/7 3-44=-44 -42=-44 3-40=-44 5-37=-44 3-34=-44 -32=-44 9-30=-44	7-8=-74/130, ', 11-12=-84/2 20/309, 03/269, 1176, '86, 21-22=-4 '35, 3 67, 11	,	zor 3-1 Ext 40- ver for DC	he and C -6 to 15- terior(2N -9-8 zone tical left ces & MN DL=1.60	-C Cor 11-8, 0 ) 23-11 e; canti and rig WFRS plate gr	ner(3E) -0-10-8 f Corner(3R) 15-11 1-8 to 36-9-10, C lever left and rigl ht exposed;C-C for reactions sho rip DOL=1160	o 3-1-6, Exterior(2N) -8 to 23-11-8, prner(3E) 36-9-10 to the exposed ; end for members and ware to ware to a

October 16,2023

Page: 1

Continued on page 2 Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. WARNING Design valid for use only with MTesk 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	109 Serenity	
23100018	AGE	Common Supported Gable	1	1	Job Reference (optional)	161412507

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15)
   Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 6) 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

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



Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	В	Common	5	1	Job Reference (optional)	161412508

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-0-10-8 37-1-8 6-5-8 12-7-8 18-9-8 24-11-8 36-3-0 31-1-8 0-10-8 6-5-8 6-2-0 6-2-0 6-2-0 6-2-0 5-1-8 0-10-8 5x6= 5 5x6 ≠ 19 20 5x6 👟 18 21 4 6 12 61 10-4-12 4x5 4x6 🔊 3 22 3x5 II 17 4x5 II 8 9 2 1-8-0 0-0-16 10  $\ge$ 15 23 14 13 25 26 24 12 11 3x8= 3x5= 3x5= 4x6= 3x8= 4x6= 3x5= 9-2-8 18-9-8 28-4-8 36-3-0 9-2-8 9-7-0 9-7-0 7-10-8 Scale = 1:66.4 Plate Offsets (X, Y): [2:0-2-8,0-1-12], [4:0-3-0,0-3-4], [6:0-3-0,0-3-4] Loading Spacing 2-0-0 CSI DEFL in l/defl L/d PLATES GRIP (psf) (loc) TCLL (roof) 20.0 Plate Grip DOL 1.15 TC 0.80 Vert(LL) -0.26 11-13 >999 240 MT20 244/190 Snow (Pf) 20.0 Lumber DOL 1.15 BC 0.87 Vert(CT) -0.45 11-13 >952 180 TCDL 10.0 Rep Stress Incr WB Horz(CT) YES 0.66 0.10 10 n/a n/a BCLL 0.0 Code IRC2018/TPI2014 Matrix-MSH Weight: 217 lb BCDL 10.0 FT = 20% 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) LUMBER Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 2x4 SP No 2 TOP CHORD BOT CHORD Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior 2x4 SP No.1 zone and C-C Exterior(2E) -0-10-8 to 2-9-0, Interior (1) WEBS 2x4 SP No.3 2-9-0 to 15-2-0, Exterior(2R) 15-2-0 to 22-5-0, Interior BRACING (1) 22-5-0 to 33-6-0, Exterior(2E) 33-6-0 to 37-1-8 zone; TOP CHORD Structural wood sheathing directly applied or cantilever left and right exposed ; end vertical left and 2-2-0 oc purlins, except end verticals. right exposed C-C for members and forces & MWERS BOT CHORD Rigid ceiling directly applied or 10-0-0 oc for reactions shown; Lumber DOL=1.60 plate grip bracing. DOL=1.60 WEBS 1 Row at midpt 4-13, 6-13, 3-16, 7-10 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 10=0-5-8, 16=0-5-8 **REACTIONS** (size) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate Max Horiz 16=157 (LC 13) DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Max Uplift 10=-150 (LC 15), 16=-160 (LC 14) Cs=1.00; Ct=1.10 Max Grav 10=1644 (LC 3), 16=1639 (LC 3) 4) Unbalanced snow loads have been considered for this FORCES (Ib) - Maximum Compression/Maximum desian. Tension This truss has been designed for greater of min roof live 5) TOP CHORD 1-2=0/27, 2-3=-550/149, 3-5=-2405/299, load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on 5-7=-2158/299, 7-8=-191/109, 8-9=0/27, overhangs non-concurrent with other live loads. 2-16=-457/167, 8-10=-261/140 This truss has been designed for a 10.0 psf bottom 6) NUMBTH CAA BOT CHORD 15-16=-278/2144, 13-15=-157/1885, chord live load nonconcurrent with any other live loads. 11-13=-51/1777, 10-11=-127/1755 \* This truss has been designed for a live load of 20.0psf 7) WEBS 3-15=-177/182, 4-15=-29/499, on the bottom chord in all areas where a rectangle 4-13=-681/229, 5-13=-98/1198, 3-06-00 tall by 2-00-00 wide will fit between the bottom 6-13=-539/217, 6-11=-4/262, 7-11=0/248, chord and any other members, with BCDL = 10.0psf.

NOTES

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

3-16=-2024/134, 7-10=-2098/144

UPLIFT at jt(s) 16 and 10. This connection is for uplift 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.

recommended to connect truss to bearing walls due to

One H2.5A Simpson Strong-Tie connectors

LOAD CASE(S) Standard

8)



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 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)

818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	B1	Roof Special	1	1	Job Reference (optional)	161412509

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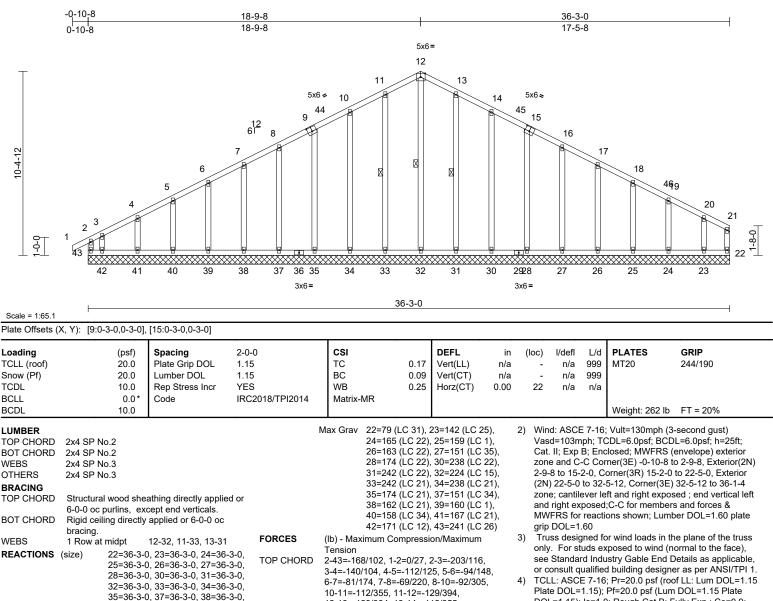
818 Soundside Road Edenton, NC 27932

-0-10 	000	12-6-6 12-9- 6-0-14 0-3-2		24-11-8 6-2-0	<u>31-1-8</u>   6-2-0	<u>36-3-0</u> 37-1-8 5-1-80-10-8
1-0-0 1-0-0 1-0-0 1-0-0 9-1-4 9-1-4 9-1-4	20 $20$ $2$ $20$ $2$ $2$ $17$ $18$ $-$ $18$ $-$ $2x4$ $4x5$ $6x12$ $4x5$ $4x5$	5x6 $61^2$ $4^2$ 16 $263x5=$	22 1 27 14 27 14 27 14 27 14		<sup>6</sup> 29 11	$4x6 \approx$ 7 25 3x5 II 8 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Scale = 1:70.4	2-5-8 8-11-8 2-5-8 6-6-0	15-5-8	18-9-8 3-4-0	<u>28-4-8</u> 9-7-0		36-3-0 7-10-8
Plate Offsets (X, Y): [4:0-3-0	,0-3-4], [6:0-3-0,0-3-4], [15:0-5-12	,0-2-12], [17:0-2-8,0-0	)-8]	r		
TCLL (roof) Snow (Pf) TCDL BCLL	Spacing         2-0-           20.0         Plate Grip DOL         1.15           20.0         Lumber DOL         1.15           10.0         Rep Stress Incr         YES           0.0*         Code         IRC           10.0         Here Stress Incr         YES	5 T 5 B 6 V	SI C 0.97 C 0.82 /B 0.68 latrix-MSH	Vert(LL) -0.31 1	(loc) I/defl L/d 1-13 >999 240 3-17 >760 180 10 n/a n/a	PLATES         GRIP           MT20         244/190           Weight: 228 lb         FT = 20%
2-15:2x4 SP SP No.1           WEBS         2x4 SP No.3           BRACING         2x4 SP No.3           TOP CHORD         Structural we except end v           BOT CHORD         Rigid ceiling bracing, Exc 6-0-0 oc brac           WEBS         1 Row at mid Max Horiz 19 Max Uplift 10 Max Grav 10           FORCES         (lb) - Maximu Tension           TOP CHORD         1.2=0/38, 2-5 5-7=-2140/30 2-19=-1686/2           BOT CHORD         18-19=-217/4 2-17=-309/25 15-16=-182/2           WEBS         4.15=-776/25 5-15=-191/12 6-13=-541/2           WEBS         4.15=-776/25 5-15=-191/12 6-13=-541/2	directly applied or 10-0-0 oc cept: cing: 14-15,13-14. lpt $5-13, 6-13, 7-10$ =0-5-8, 19=0-5-8 =160 (LC 13) =-150 (LC 15), 19=-155 (LC 14) =1630 (LC 3), 19=1649 (LC 3) im Compression/Maximum 3=-3160/339, 3-5=-2949/335, 00, 7-8=-188/116, 8-9=0/27, 230, 8-10=-260/144 198, 17-18=-84/201, 577, 16-17=-360/2821, 2165, 14-15=-42/0, 5, 11-13=-40/1755, 1740 50, 13-15=0/1543, 244, 5-13=-100/331, 15, 6-11=-1/278, 7-11=0/246, 39, 7-10=-2083/142, 26, 4-16=-89/808	<ul> <li>Vasd=103mph; Cat. II; Exp B; E zone and C-C E</li> <li>2-9-0 to 15-2-0, (1) 22-5-0 to 33 cantilever left ar right exposed; C for reactions shi DOL=1.60</li> <li>TCLL: ASCE 7- Plate DOL=1.15; Is= Cs=1.00; Ct=1.'</li> <li>Unbalanced sno design.</li> <li>This truss has b load of 12.0 psf overhangs non- 6) This truss has b chord live load r</li> <li>* This truss has b chord live load r</li> <li>* This truss has b chord and any c</li> <li>One H2.5A Sim recommended t UPLIFT at jt(s) only and does n</li> <li>This truss is dee International Re</li> </ul>	we loads have been con- een designed for great or 1.00 times flat roof li- concurrent with other li- een designed for a 10. honconcurrent with any been designed for a liv- hord in all areas where -00-00 wide will fit betw ther members, with BC pson Strong-Tie conne o connect truss to bear 19 and 10. This connect ot consider lateral force signed in accordance we sidential Code sections referenced standard AN	i.Opsf, h=25ft; elope) exterior -9-0, Interior (1) 22-5-0, Interior (1) 22-5-0, Interior 0 to 37-1-8 zone; vertical left and rcces & MWFRS 0 plate grip :: Lum DOL=1.15 DL=1.15 Plate Exp.; Ce=0.9; nsidered for this er of min roof live bad of 20.0 psf on ve loads. 0 psf bottom other live loads. e load of 20.0 psf on ve loads. 0 psf bottom other live loads. e load of 20.0 psf a rectangle veen the bottom DDL = 10.0psf. ctors ing walls due to tion is for uplift as. it the 2018 s R502.11.1 and	The second se	SEAL 036322 A. GILPERINI October 16,2023

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

Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	B1GE	Common Supported Gable	1	1	Job Reference (optional)	161412510

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:39 ID:va6oJ bKLZdwDLTYr9P9wpzF UL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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

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,

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, 15-28=-134/78, 16-27=-111/70, 17-26=-122/79, 18-25=-119/75, 19-24=-123/105, 20-23=-107/139

Unbalanced roof live loads have been considered for

22-23=-34/75

Page: 1

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



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)

Max Horiz 43=160 (LC 13)

Continued on page 2

Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE 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)

this design.

BOT CHORD

WEBS

NOTES

1)

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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

Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	B1GE	Common Supported Gable	1	1	Job Reference (optional)	161412510
Carter Components (Sanford, NC	C), Sanford, NC - 27332,	Run: 8.63 S Aug 30 2	2023 Print: 8.	.630 S Aug 3	0 2023 MiTek Industries, Inc. Fri Oct 13 15:36:39	Page: 2

ID:va6oJ\_bKLZdwDLTYr9P9wpzF\_UL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

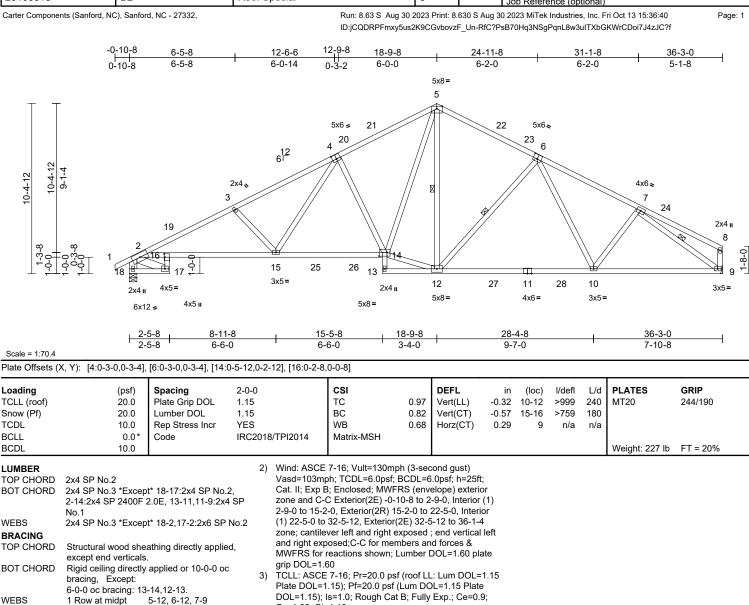
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated. 7)
- 8) Gable requires continuous bottom chord bearing.
- 9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web). 10) Gable studs spaced at 2-0-0 oc.
- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) 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 Ib uplift at joint 28, 37 Ib uplift at joint 27, 45 Ib 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

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)



Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	B2	Roof Special	5	1	Job Reference (optional)	l61412511



REACTIONS (size) 9= Mechanical, 18=0-5-8 4) Max Horiz 18=163 (LC 11) Max Uplift 9=-130 (LC 15), 18=-155 (LC 14) 5) Max Grav 9=1579 (LC 3), 18=1650 (LC 3) FORCES (Ib) - Maximum Compression/Maximum Tension 6) TOP CHORD 1-2=0/38, 2-3=-3162/341, 3-5=-2951/339, 5-7=-2146/300, 7-8=-169/91, 7) 2-18=-1687/230, 8-9=-180/82 BOT CHORD 17-18=-223/493, 16-17=-87/198 2-16=-317/2579, 15-16=-371/2814, 14-15=-191/2164, 13-14=-50/0, 8) 12-13=-68/24, 10-12=-67/1756, 9) 9-10=-141/1749 WEBS 4-14=-776/251, 12-14=0/1549, 5-14=-196/1251, 5-12=-93/324, 6-12=-544/214, 6-10=-1/284, 7-10=0/242, 2-17=-287/195, 7-9=-2112/167,

NOTES

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

3-15=-389/197, 4-15=-91/806

- Cs=1.00; Ct=1.10 Unbalanced snow loads have been considered for this desian.
- 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf. Refer to girder(s) for truss to truss connections
- Provide mechanical connection (by others) of truss to
- bearing plate capable of withstanding 130 lb uplift at joint 9.
- 10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18. This connection is for uplift only and does not consider lateral forces.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



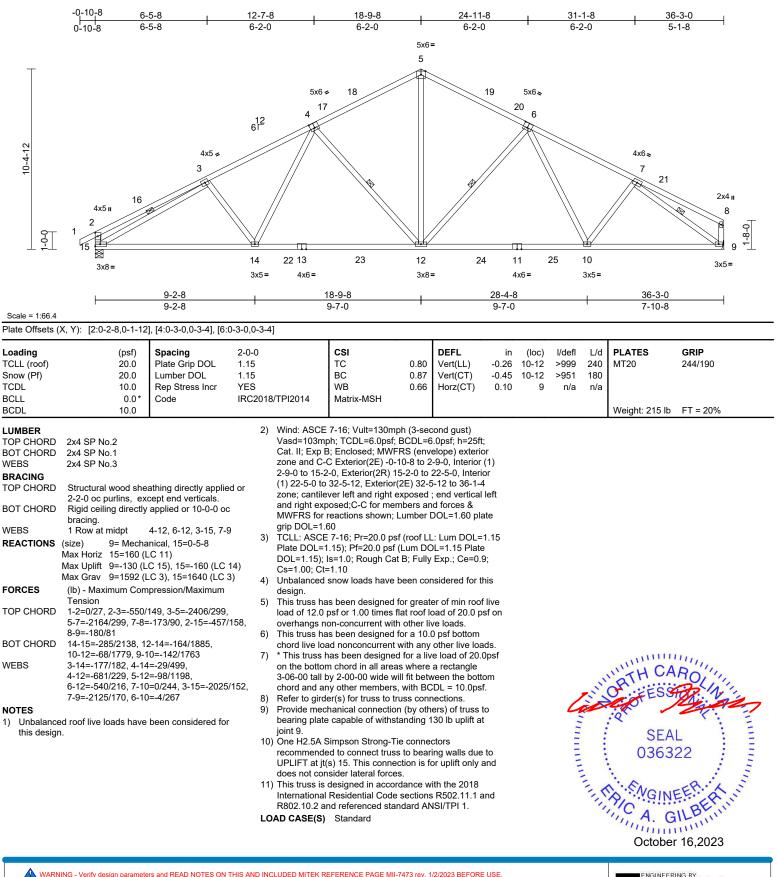
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Edenton, NC 27932

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 with a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overal bilding design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	В3	Common	1	1	Job Reference (optional)	l61412512

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:40 ID:jCQDRPFmxy5us2K9CGvbovzF\_Un-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



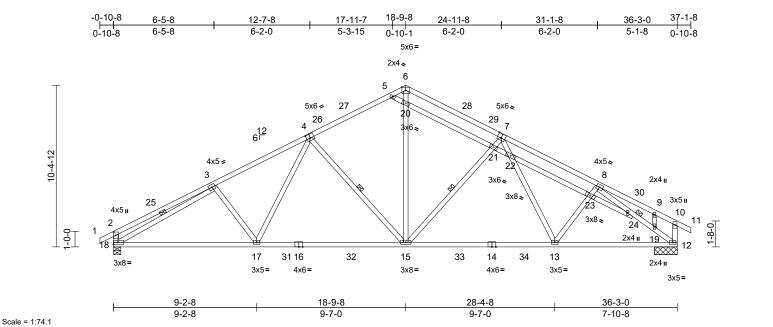
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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)

A MiTek At 818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	BSE	Common Structural Gable	1	1	Job Reference (optional)	161412513

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:41 ID:jfMMInrRxWpjnpkdD7IdQkzF\_VJ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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### Plate Offsets (X, Y): [2:0-2-8,0-1-12], [4:0-3-0,0-3-0], [7:0-3-0,0-3-4]

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	0.72	Vert(LL)	-0.26	15-17	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.45	13-15	>966	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.10	12	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 243 lb	FT = 20%

LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING	2x4 SP No.2 2x4 SP No.1 2x4 SP No.3 2x4 SP No.3
TOP CHORD	
BOT CHORD	3-3-10 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 4-15, 7-15, 3-18
JOINTS	1 Brace at Jt(s): 24
REACTIONS	(size) 12=1-5-8, 18=0-5-8
	Max Horiz 18=157 (LC 13) Max Uplift 12=-150 (LC 15), 18=-160 (LC 14) Max Grav 12=1644 (LC 3), 18=1639 (LC 3)
FORCES	(lb) - Maximum Compression/Maximum
TOP CHORD	Tension 1-2=0/27, 2-3=-537/144, 3-5=-2407/295, 5-6=-1456/228, 6-8=-1828/191, 8-9=-160/104, 9-10=-207/67, 10-11=0/27, 2-18=-445/155, 10-12=-276/107
BOT CHORD	17-18=-279/2147, 15-17=-153/1877,
WEBS	13-15=-57/1829, 12-13=-141/1867 3-17=-190/187, 4-17=-34/509, 4-15=-616/209, 15-20=-90/1185, 6-20=-91/1168, 15-21=-556/221, 7-21=-539/215, 13-23=0/207, 8-23=0/233, 3-18=-2037/157, 8-24=-1720/94, 19-24=-2182/169, 12-19=-2177/191, 7-22=-3/246, 13-22=-9/298, 9-19=-34/37, 5-20=-486/130, 20-21=-488/123, 21-22=-506/129, 22-23=-517/124, 23-24=-522/115

### NOTES

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

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 2-9-0, Interior (1) 2-9-0 to 15-2-0, Exterior(2R) 15-2-0 to 22-5-0, Interior (1) 22-5-0 to 33-6-0, Exterior(2E) 33-6-0 to 37-1-8 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

- 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 4) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live 6) load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Truss to be fully sheathed from one face or securely 7) braced against lateral movement (i.e. diagonal web). Gable studs spaced at 2-0-0 oc. 8)
- 9)
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18. This connection is for uplift only and does not consider lateral forces.

- truss to bearing walls due to UPLIFT at jt(s) 12. This connection is for uplift only and does not consider lateral forces.
- 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



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Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	С	Common	5	1	Job Reference (optional)	l61412514

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:41 ID:VP5mnZE7ejtTka?ri?H4b3zEzov-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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818 Soundside Road Edenton, NC 27932

0-10-8 4x5 = 4x5 = 32 6x10 II 6x10 II 7x10	20 2x4 # 0-13 17:0-4-0,Edge], [12: Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	6 <sup>12</sup> 5 4x5 = 4 19 3x6 = 12-10-3 6-9-6 2:0-4-10,0-0-5] 2-0-0 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	21 18 3x5= 2x4= CSI TC BC WB	rix-MSH Vult=130n CDL=6.0pst	0 2-4 4x8= 7 7 17 2x4 ⊪ 2x4 ⊪ 10.57 0.85	1-8         6-0         4x5 ≈         8         32         39         22-4-13         4-9-5         DEFL         Vert(LL)         Vert(CT)         Horz(CT)         Horz(CT)	27-5 7-2 5 4. 36 222 16 2x4= 3x5= -0.26 -0.24 0.09	1-3 x8≈ 9 15 3x0 29			PLATES MT20	
4x5 = 32 32 6x10 II 6x10 II 10 00 P Chord P CHORD 2x6 SP No.2 T CHORD 2x4 SP 2400F 2.0E BS 2x4 SP No.3 DER Left 2x6 SP No.2 1-6- 1-6-0 ACING P CHORD Structural wood sheathi 3-4-11 oc purlins.	20 2x4 # 0-13 17:0-4-0,Edge], [12: Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	6 <sup>12</sup> 5 4x5 = 4 19 3x6 = <u>12-10-3</u> 6-9-6 2:0-4-10,0-0-5] 2-0-0 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	33 33 18 3x5= 2x4= 18 3x5= 2x4= 18 TC BC WB Mati	6 38 17-7-8 4-9-5 rix-MSH Vult=130n CDL=6.0pst	7	8 35 39 39 22-4-13 4-9-5 <b>DEFL</b> Vert(LL) Vert(CT) Horz(CT)	36 36 221 16 2x4 = 3x5 = - 0.26 -0.44	9 15 3xt 29 6- (loc) 14-16 17	5= -2-3 9-6 I/defl >999 >970	10 8 L/d 240 180	2x4 w <u>35</u> 6-1 PLATES MT20	6x10 # 6x10 # 6x10 # 6x10 #
4x5 = 32 $32$ $32$ $6x10 = 6-0-6-0-6-0-6-0-6-0-6-0-6-0-6-0-6-0-6-0$	20 2x4 # 0-13 17:0-4-0,Edge], [12: Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	6 <sup>12</sup> 5 4x5 = 4 19 3x6 = <u>12-10-3</u> 6-9-6 2:0-4-10,0-0-5] 2-0-0 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	33 33 18 3x5= 2x4= 18 3x5= 2x4= 18 TC BC WB Mati	6 38 17-7-8 4-9-5 rix-MSH Vult=130n CDL=6.0pst	□           □           □           □           17           2x4 II           1           0.71           0.57           0.85	8 35 39 39 22-4-13 4-9-5 <b>DEFL</b> Vert(LL) Vert(CT) Horz(CT)	36 36 221 16 2x4 = 3x5 = - 0.26 -0.44	9 15 3xt 29 6- (loc) 14-16 17	5= -2-3 9-6 I/defl >999 >970	10 8 L/d 240 180	2x4 w <u>35</u> 6-1 PLATES MT20	6x10 # 6x10 # 6x10 # 6x10 #
4x5 = 32 32 6x10 II 6x10 II 10 00 00 00 00 00 00 00 00 00	20 2x4 # 0-13 17:0-4-0,Edge], [12: Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	6 <sup>12</sup> 5 4x5 = 4 19 3x6 = <u>12-10-3</u> 6-9-6 2:0-4-10,0-0-5] 2-0-0 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	33 33 18 3x5= 2x4= 18 3x5= 2x4= 18 TC BC WB Mati	38 17-7-8 4-9-5 rix-MSH Vult=130n CDL=6.0pst	17 2x4 II 2x4 II 2x4 II 1 0.71 0.57 0.85	39 39 39 22-4-13 4-9-5 <b>DEFL</b> Vert(LL) Vert(CT) Horz(CT)	36 36 221 16 2x4 = 3x5 = - 0.26 -0.44	9 15 3xt 29 6- (loc) 14-16 17	5= -2-3 9-6 I/defl >999 >970	10 8 L/d 240 180	2x4 w <u>35</u> 6-1 PLATES MT20	6x10 # 6x10 # 6x10 # 6x10 #
4x5 = 32 32 6x10 II 6x10 II 10.0 O-5 7 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9	20 2x4 # 0-13 17:0-4-0,Edge], [12: Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	4x5 = 4 19 3x6 = 12-10-3 6-9-6 2:0-4-10,0-0-5] 2-0-0 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	CSI TC BC WB Mate CSI TC BC WB Mate CSI TC BC WB Mate TC BC WB Mate TC BC SC TC BC SC TC SC TC SC TC SC TC SC TC SC TC SC TC SC TC SC TC SC TC SC TC SC SC SC SC SC SC SC SC SC SC SC SC SC	17-7-8 4-9-5 rix-MSH Vult=130n CDL=6.0pst	17 2x4 II 2x4 II 2x4 II 1 0.71 0.57 0.85	22-4-13 4-9-5 DEFL Vert(LL) Vert(CT) Horz(CT)	16 2x4= 3x5= 	15 3xi 29 6- (loc) 14-16 17	5= -2-3 9-6 I/defl >999 >970	10 8 L/d 240 180	2x4 w <u>35</u> 6-1 PLATES MT20	6x10 # 6x10 # 6x10 # 6x10 #
4x5 = 32 32 6x10 II 6x10 II 10.0 O-5 7 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9	20 2x4 # 0-13 17:0-4-0,Edge], [12: Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	4x5 = 4 19 3x6 = <u>12-10-3</u> 6-9-6 2:0-4-10,0-0-5] 2-0-0 1.15 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	<b>CSI</b> 18 3x5= 2x4= <b>CSI</b> TC BC WB Mati	17-7-8 4-9-5 rix-MSH Vult=130n CDL=6.0pst	17 2x4 II 2x4 II 2x4 II 1 0.71 0.57 0.85	22-4-13 4-9-5 DEFL Vert(LL) Vert(CT) Horz(CT)	2x4 = 3x5 =   -0.26 -0.44	15 3xi 29 6- (loc) 14-16 17	5= -2-3 9-6 I/defl >999 >970	10 8 L/d 240 180	2x4 w <u>35</u> 6-1 PLATES MT20	6x10 # 6x10 # 6x10 # 6x10 #
4x5 = 32 32 6x10 II 6x10 II 10.0 -0-5], [7 ading (psf) S 7x1 I 0.0 V 5DL 10.0 II 7x1 I 0.0 V 5DL 10.0 II 7x1 I 0.0 V 7x1 I 0.0 V 7x2 I 0.0	20 2x4 # 0-13 17:0-4-0,Edge], [12: Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	19 3x6= 12-10-3 6-9-6 2:0-4-10,0-0-5] 2-0-0 1.15 1.15 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	3x5= 2x4= CSI TC BC WB Mati : ASCE 7-16; =103mph; TC	17-7-8 4-9-5 rix-MSH Vult=130n CDL=6.0pst	17 2x4 II 2x4 II 2x4 II 1 0.71 0.57 0.85	22-4-13 4-9-5 DEFL Vert(LL) Vert(CT) Horz(CT)	2x4 = 3x5 =   -0.26 -0.44	3xi 29 6- (loc) 14-16 17	5= -2-3 9-6 I/defl >999 >970	L/d 240 180	2x4 w <u>35</u> 6-1 PLATES MT20	6x10 # 6x10 # 6x10 # 6x10 #
4x5 = 32 32 6x10 II 6x10 II 10.0 O-5 7 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9	20 2x4 # 0-13 17:0-4-0,Edge], [12: Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	3x6= <u>12-10-3</u> 6-9-6 2:0-4-10,0-0-5] 2-0-0 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	3x5= 2x4= CSI TC BC WB Mati : ASCE 7-16; =103mph; TC	17-7-8 4-9-5 rix-MSH Vult=130n CDL=6.0pst	17 2x4 II 2x4 II 2x4 II 1 0.71 0.57 0.85	22-4-13 4-9-5 DEFL Vert(LL) Vert(CT) Horz(CT)	2x4 = 3x5 =   -0.26 -0.44	3xi 29 6- (loc) 14-16 17	6= -2-3 9-6 I/defl >999 >970	L/d 240 180	2x4 w <u>35</u> 6-1 PLATES MT20	6x10 # 6x10 # 6x10 # 6x10 #
32           32           6x10 II           0.0           DL           10.0           BER           P CHORD 2x6 SP No.2           T CHORD 2x4 SP 2400F 2.0E           EBS 2x4 SP No.3           DER Left 2x6 SP No.2 1-6-           - 1-6-0           ACING           P CHORD Structural wood sheathi           3-4-11 oc purlins.	20 2x4 # 0-13 17:0-4-0,Edge], [12: Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	3x6= <u>12-10-3</u> 6-9-6 2:0-4-10,0-0-5] 2-0-0 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	3x5= 2x4= CSI TC BC WB Mati : ASCE 7-16; =103mph; TC	17-7-8 4-9-5 rix-MSH Vult=130n CDL=6.0pst	17 2x4 II 2x4 II 2x4 II 1 0.71 0.57 0.85	22-4-13 4-9-5 DEFL Vert(LL) Vert(CT) Horz(CT)	2x4 = 3x5 =   -0.26 -0.44	3xi 29 6- (loc) 14-16 17	6= -2-3 9-6 I/defl >999 >970	L/d 240 180	2x4 w <u>35</u> 6-1 PLATES MT20	6x10 # 6x10 # 6x10 # 6x10 #
ading         (psf)         S           ading         (psf)         S           LL (roof)         20.0         P           ow (Pf)         20.0         LL           DL         10.0         R           DL         10.0         R           P CHORD         2x6 SP No.2         C           TC CHORD         2x4 SP 2400F 2.0E         EBS           2x4 SP No.3         IDER         Left 2x6 SP No.2 1-6-          1-6-0         Structural wood sheathin         3-4-11 oc purlins.	2x4 # 0-13 [7:0-4-0,Edge], [12: Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	3x6= <u>12-10-3</u> 6-9-6 2:0-4-10,0-0-5] 2-0-0 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	3x5= 2x4= CSI TC BC WB Mati : ASCE 7-16; =103mph; TC	17-7-8 4-9-5 rix-MSH Vult=130n CDL=6.0pst	17 2x4 II 2x4 II 2x4 II 1 0.71 0.57 0.85	22-4-13 4-9-5 DEFL Vert(LL) Vert(CT) Horz(CT)	2x4 = 3x5 =   -0.26 -0.44	3xi 29 6- (loc) 14-16 17	6= -2-3 9-6 I/defl >999 >970	L/d 240 180	2x4 w <u>35</u> 6-1 PLATES MT20	11 12 13 6x10 II 5-3-0 -0-13 GRIP 244/190
i         i         6x10 II           6x10 II         6x10 II           i         6-0-           ite Offsets (X, Y):         [2:0-4-10,0-0-5], [7           ading         (psf)         S           ite Offsets (X, Y):         [2:0-4-10,0-0-5], [7           ading         (psf)         D           bw (Pf)         20.0         PI           bw (Pf)         20.0         PI           bu (DL         10.0         R           LL         0.0*         C           DL         10.0         R           LL         0.0*         C           DL         10.0         R           P CHORD         2x6 SP No.2         C           EBS         2x4 SP 2400F 2.0E         EBS           EBS         2x4 SP No.3         IDER           DER         Left 2x6 SP No.2 1-6-         1-6-0           YACING         P         CHORD         Structural wood sheathi           3-4-11 oc purlins.	2x4 # 0-13 [7:0-4-0,Edge], [12: Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	3x6= <u>12-10-3</u> 6-9-6 2:0-4-10,0-0-5] 2-0-0 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	3x5= 2x4= CSI TC BC WB Mati : ASCE 7-16; =103mph; TC	17-7-8 4-9-5 rix-MSH Vult=130n CDL=6.0pst	17 2x4 II 2x4 II 2x4 II 1 0.71 0.57 0.85	22-4-13 4-9-5 DEFL Vert(LL) Vert(CT) Horz(CT)	2x4 = 3x5 =   -0.26 -0.44	3xi 29 6- (loc) 14-16 17	6= -2-3 9-6 I/defl >999 >970	L/d 240 180	2x4 w <u>35</u> 6-1 PLATES MT20	6x10 II 5-3-0 -0-13 GRIP 244/190
6x10 ⊪ 6x10 ⊪ 6x10 ⊫ 6-0- 6-0- 6-0- 6-0- 6-0- 6-0- 6-0- 6-0- 6-0- 6-0- 6-0- 6-0- 6-0- 6-0- 6-0- 8 10.0 P 0.0 P 0.	2x4 # 0-13 [7:0-4-0,Edge], [12: Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	3x6= <u>12-10-3</u> 6-9-6 2:0-4-10,0-0-5] 2-0-0 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	3x5= 2x4= CSI TC BC WB Mati : ASCE 7-16; =103mph; TC	17-7-8 4-9-5 rix-MSH Vult=130n CDL=6.0pst	17 2x4 II 2x4 II 2x4 II 1 0.71 0.57 0.85	22-4-13 4-9-5 DEFL Vert(LL) Vert(CT) Horz(CT)	2x4 = 3x5 =   -0.26 -0.44	3xi 29 6- (loc) 14-16 17	6= -2-3 9-6 I/defl >999 >970	L/d 240 180	2x4 w <u>35</u> 6-1 PLATES MT20	6x10 #
6-0-           6-0-           te Offsets (X, Y):         [2:0-4-10,0-0-5], [7           ading         (psf)         S           LL (roof)         20.0         LI           DL         10.0         R           LL         0.0*         C           DL         10.0         R           LL         0.0*         C           DL         10.0         R           EL         0.0*         C           DL         10.0         R           ES         2x4 SP No.2         C           EBS         2x4 SP No.3         DER           DER         Left 2x6 SP No.2 1-6-0         1-6-0           ACING         P         CHORD         Structural wood sheathin 3-4-11 oc purlins.	2x4 # 0-13 [7:0-4-0,Edge], [12: Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	3x6= <u>12-10-3</u> 6-9-6 2:0-4-10,0-0-5] 2-0-0 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	3x5= 2x4= CSI TC BC WB Mati : ASCE 7-16; =103mph; TC	17-7-8 4-9-5 rix-MSH Vult=130n CDL=6.0pst	2x4 II 2x4 II 	22-4-13 4-9-5 DEFL Vert(LL) Vert(CT) Horz(CT)	2x4 = 3x5 =   -0.26 -0.44	3xi 29 6- (loc) 14-16 17	6= -2-3 9-6 I/defl >999 >970	L/d 240 180	2x4 w <u>35</u> 6-1 PLATES MT20	GRIP 244/190
6-0-           cale = 1:66.6           ite Offsets (X, Y):           [2:0-4-10,0-0-5], [7           ading         (psf)           kL (roof)         20.0           DL         10.0           CLL         0.0*           CDL         10.0           CDL         10.0           MBER           IP CHORD         2x6 SP No.2           DT CHORD         2x4 SP 2400F 2.0E           EBS         2x4 SP No.3           IDER         Left 2x6 SP No.2 1-6-          1-6-0        16-0           CHORD         Structural wood sheathin           3-4-11 oc purlins.	0-13 [7:0-4-0,Edge], [12: Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	6-9-6 2:0-4-10,0-0-5] 2-0-0 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	I14 CSI TC BC WB Mat ASCE 7-16; =103mph; TC	4-9-5 rix-MSH Vult=130n CDL=6.0pst	0.71 0.57 0.85	4-9-5 DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.26 -0.44	6- (loc) 14-16 17	9-6 I/defl >999 >970	240 180	PLATES MT20	GRIP 244/190
6-0-           ate Offsets (X, Y):         [2:0-4-10,0-0-5], [7           ading         (psf)         S           :LL (roof)         20.0         P           :DL         10.0         R           :DL         0.0*         C           :DL         10.0         R           :DE         2x6 SP No.2         R           :DE         2x4 SP No.3         R           :DE         Left 2x6 SP No.2 1-6-0        1-6-0           :ACING         P         CHORD         Structural wood sheathin 3-4-11 oc purlins.	0-13 [7:0-4-0,Edge], [12: Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	6-9-6 2:0-4-10,0-0-5] 2-0-0 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	TC BC WB Mati : ASCE 7-16; =103mph; TC	4-9-5 rix-MSH Vult=130n CDL=6.0pst	0.57 0.85 	4-9-5 DEFL Vert(LL) Vert(CT) Horz(CT)	-0.26 -0.44	6- (loc) 14-16 17	9-6 I/defl >999 >970	240 180	PLATES MT20	0-13 GRIP 244/190
cale = 1:66.6 ate Offsets (X, Y): [2:0-4-10,0-0-5], [7 ading (psf) S CLL (roof) 20.0 ow (Pf) 20.0 LDL 10.0 CLL 0.0* CDL 10.0 CLL 0.0* CDL 10.0 MBER PP CHORD 2x6 SP No.2 DT CHORD 2x4 SP 2400F 2.0E EBS 2x4 SP No.3 IDER Left 2x6 SP No.2 1-6- 1-6-0 CACING PP CHORD Structural wood sheathin 3-4-11 oc purlins.	[7:0-4-0,Edge], [12: <b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2:0-4-10,0-0-5] 2-0-0 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd: Cat. II	TC BC WB Mati : ASCE 7-16; =103mph; TC	rix-MSH Vult=130n CDL=6.0pst	0.57 0.85 	DEFL Vert(LL) Vert(CT) Horz(CT)	-0.26 -0.44	(loc) 14-16 17	l/defl >999 >970	240 180	PLATES MT20	<b>GRIP</b> 244/190
ading         (psf)         S           SLL (roof)         20.0         P           ow (Pf)         20.0         Lu           SDL         10.0         Lu           SDL         0.0*         C           SDL         0.0*         C           SDL         10.0         R           SLL         0.0*         C           SDL         10.0         R           SDL         10.0         R           SDL         10.0         R           SDL         10.0         C           SDL         10.0         R           SDL         10.0         C           SDL         10.0         R           SDL         10.0         C           SDL         10.0         C           SDL         10.0         Z4           SP CHORD         2x4 SP No.3         SP           IDER         Left 2x6 SP No.2 1-6-0        1-6-0           CACING         PP         CHORD         Structural wood sheathi           3-4-11 oc purlins.         Structural wood sheathi        1-10	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd- Cat. II	TC BC WB Mati : ASCE 7-16; =103mph; TC	rix-MSH Vult=130n CDL=6.0pst	0.57 0.85 	Vert(LL) Vert(CT) Horz(CT)	-0.26 -0.44	14-16 17	>999 >970	240 180	MT20	244/190
LL (roof) 20.0 P ow (Pf) 20.0 Lu DL 10.0 R DL 10.0 C DL 10.0 C DL 10.0 C MBER P CHORD 2x6 SP No.2 DT CHORD 2x4 SP 2400F 2.0E EBS 2x4 SP No.3 IDER Left 2x6 SP No.2 1-6- 1-6-0 CACING P CHORD Structural wood sheathi 3-4-11 oc purlins.	Plate Grip DOL Lumber DOL Rep Stress Incr Code	1.15 1.15 YES IRC2018/TPI20 2) Wind: Vasd= Cat. II	TC BC WB Mati : ASCE 7-16; =103mph; TC	rix-MSH Vult=130n CDL=6.0pst	0.57 0.85 	Vert(LL) Vert(CT) Horz(CT)	-0.26 -0.44	14-16 17	>999 >970	240 180	MT20	244/190
Now (Pf)         20.0         Lu           CDL         10.0         R           CLL         0.0*         C           CDL         10.0         R           CDL         10.0         C           DD         2X6 SP No.2         C           DT CHORD         2x6 SP No.3         C           LIDER         Left 2x6 SP No.2 1-6-0         1-6-0           RACING         Structural wood sheathin 3-4-11 oc purlins.	Lumber DOL Rep Stress Incr Code	1.15 YES IRC2018/TPI20 2) Wind: Vasd= Cat. II	BC WB Mati : ASCE 7-16; =103mph; TC	Vult=130n CDL=6.0pst	0.57 0.85 	Vert(CT) Horz(CT)	-0.44	17	>970	180		
0.0*         0.0*         C           DL         10.0         C           IMBER         PCHORD         2x6 SP No.2           DT CHORD         2x4 SP 2400F 2.0E           EBS         2x4 SP No.3           IDER         Left 2x6 SP No.2 1-6-           1-6-0            PC CHORD         Structural wood sheathin 3-4-11 oc purlins.	Code	IRC2018/TPI20 2) Wind: Vasd= Cat. II	)14 Mat : ASCE 7-16; =103mph; TC	Vult=130n CDL=6.0pst	nph (3-sec		0.09	12	n/a	n/a	Weight: 234	5 lb FT = 20%
IMBER           DP CHORD         2x6 SP No.2           DT CHORD         2x4 SP 2400F 2.0E           EBS         2x4 SP No.3           IDER         Left 2x6 SP No.2 1-6-0           CACING         PP CHORD           Structural wood sheathin 3-4-11 oc purlins.	-6-0, Right 2x6 SP N	Vasd= Cat. I	=103mph; TC	DL=6.0pst							Weight: 234	5 lb FT = 20%
P CHORD         2x6 SP No.2           IT CHORD         2x4 SP 2400F 2.0E           EBS         2x4 SP No.3           IDER         Left 2x6 SP No.2 1-6-           1-6-0         4ACING           P CHORD         Structural wood sheathi           3-4-11 oc purlins.	6-0, Right 2x6 SP N	Vasd= Cat. I	=103mph; TC	DL=6.0pst		oond quot)					Weight. 200	
T CHORD Rigid ceiling directly app bracing. IBS 1 Row at midpt 21- ACTIONS (size) 2=0-5-8, 12= Max Horiz 2=145 (LC 14 Max Uplift 2=-47 (LC 14 Max Grav 2=1551 (LC 14 Max Grav 2=10/19, 2-4=-2444/70 6-7=-95/96, 7-8=-107/10 10-12=-2449/71, 12-13= T CHORD 2-20=-193/2078, 18-20= 17-18=0/1689, 16-17=0 12-14=-62/2085 IBS 8-22=0/603, 16-22=0/57 4-20=0/147, 10-16=-45 <sup>-</sup> 18-21=0/586, 6-21=0/61 21-23=-22/0, 22-23=-22 TES Unbalanced roof live loads have been this design.	applied or 10-0-0 oc 21-22 2=0-5-8 14) 14), 12=-47 (LC 15) C 1), 12=1551 (LC 1 oression/Maximum 70, 4-6=-2135/76, /101, 8-10=-2136/73 3=0/19 20=-98/2070, =0/1689, 14-16=0/20 /575, 4-18=-450/294 /51/295, 10-14=0/14 (512, 6-8=-1717/159 22/0, 17-23=0/66	No.2 2-10-( (1) 21 zone; and ri grip D c 3) TCLL Plate DOL= CS=1. (3) Unbal design 1) 5) This t load c overh 6) 200.0 73, from I 7) This t chord 2077, 8) * This on the 4, 3-06-( 46, chord i9, 9) One H recorr UPLIF r 0) This t not st interm R802.	and C-C Exte 0 to 14-1-3, E 1-1-13 to 32-E ight exposed; RS for reaction DOL=1.60 : ASCE 7-16 DOL=1.15); I=1.15; Is=1.0 00; Ct=1.10 lanced snow	erior(2E) -0 Exterior (2R 5-0, Exterior (C-C for me ons shown ; Pr=20.0 ps Pf=20.0 ps ; Rough Ci loads have n designed 1.00 times ncurrent wi ad placed of borted at tw and elaged of concurrent een designed rd in all are 0-00 wide v er member on Strong- connect trus and 12. This consider la consider la	In the sections of the section	10-0, Interior o 21-1-13, Ini 5-0 to 35-11- ; end vertica d forces & DOL=1.60 pl L: Lum DOL= DL=1.15 Plat / Exp.; Ce=0. nsidered for 1 ter of min roo oad of 20.0 p ve loads. tom chord, 1 5-0-0 apart. 0 psf bottom r other live loa / e load of 20. a rectangle ween the bot for the sources ring walls due ion is for uplif es. /ith the 2018 s R502.11.1	r (1) terior 5 l left =1.15 ee -9; this of live psf on 7-7-8 ads. .0psf tom e to ft					CARO SION EAL 6322

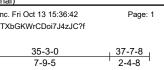
Design valid for use only with MITeK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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)

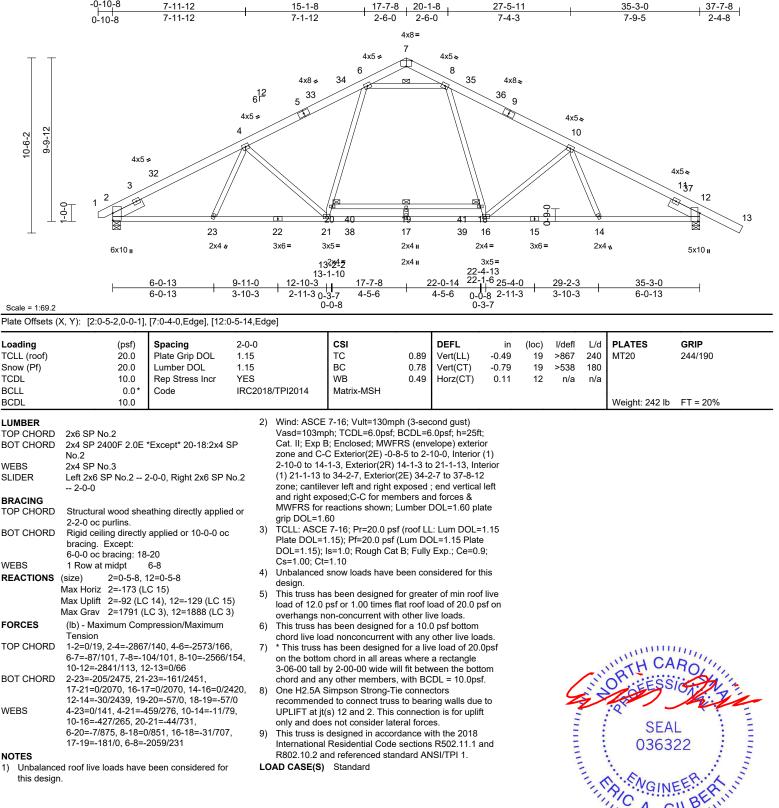
Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	C1	Common	4	1	Job Reference (optional)	l61412515

-0-10-8

7-11-12

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:42 ID:MV7Qc?M0dtQGkhooWQpRIZzEzeQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





this design.

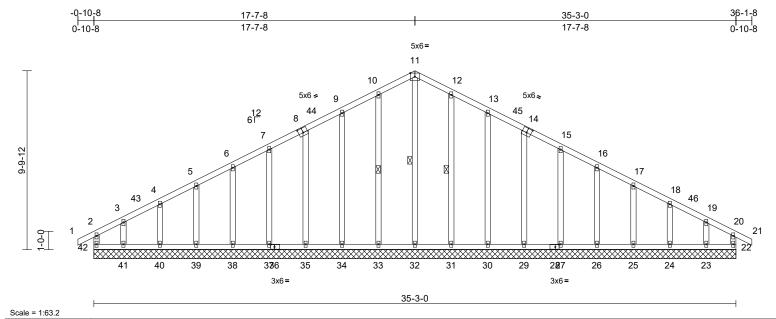


GILB 

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

Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	CGE	Common Supported Gable	1	1	Job Reference (optional)	161412516

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:43 ID:HSVLvMXIBUOh6UIn9Dc1gjzEzgn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



## Plate Offsets (X, Y): [8:0-3-0,0-3-0], [14:0-3-0,0-3-0], [28:0-2-8,0-1-8], [36:0-2-8,0-1-8]

	(,, , ). [0.0 0 0,0 0 0]	, [ : ::e e e,e e e], [=e		o], [00:0 <b>2</b> 0	,• . •]								
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	8/TPI2014	CSI TC BC WB Matrix-MR	0.15 0.07 0.22	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.01		- n/a - n/a	L/d 999 999 n/a	PLATES MT20 Weight: 243 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS TOP CHORD BOT CHORD WEBS REACTIONS	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. 1 Row at midpt (size) 22=35-3- 25=35-3- 29=35-3- 32=35-3- 39=35-3- 42=35-3- 42=35-3- Max Horiz 42=-133 Max Uplift 22=-27 (I 24=-33 (I 24=-34 (I 31=-36 (I 34=-51 (I 39=-47 (I 41=-125) Max Grav 22=134 (I 29=173 (I 31=242 (I 35=173 (I 38=163 (I 38=163 (I)))	r applied or 6-0-0 oc 11-32, 10-33, 12-31 0, 23=35-3-0, 24=35- 0, 26=35-3-0, 27=35- 0, 30=35-3-0, 31=35- 0, 33=35-3-0, 34=35- 0, 37=35-3-0, 38=35- 0, 40=35-3-0, 41=35- 0 (LC 12) C 11), 23=-107 (LC C 15), 25=-46 (LC 12) C 15), 25=-46 (LC 12) C 15), 33=-37 (LC 12) C 15), 33=-37 (LC 12) C 15), 33=-37 (LC 12) C 14), 42=-35 (LC 12) C 14), 42=-35 (LC 12) C 22), 25=158 (LC 12) LC 22), 32=138 (LC 22) LC 22), 32=318 (LC 22) LC 22), 32=38 (LC 22) LC 22), 32=158 (LC 22) LC 21), 34=38 (LC 22) LC 21), 34=38 (LC 22) LC 21), 41=145 (LC 22) LC 22), 41=145 (LC 22) LC 21), 41	TC ad or BC -3-0, -	ORCES OP CHORD OT CHORD /EBS OTES ) Unbalance this design.	(lb) - Maximum Co Tension 2-42=-121/65, 1-2 3-4=-91/82, 4-5=-6 6-7=-52/167, 7-9= 10-11=-122/342, 1 12-13=-105/303, 1 15-16=-52/167, 16 17-18=-43/77, 18 20-21=0/27, 20-22 41-42=-44/119, 36 37-38=-44/122, 33 34-35=-44/122, 33 32-33=-44/122, 33 32-33=-44/122, 25 27-29=-43/119, 22 25-26=-43/119, 22 211-32=-232/46, 10 9-34=-198/88, 14 15-27=-111/71, 16 17-25=-118/76, 15 19-23=-91/123 d roof live loads have	=0/27, 2- 55/104, 5 -85/252, 11-12=-1: 13-15=-8: -17=-33; 19=-65/5 2=-117/5; -41=-44; -37=-44; -37=-44; -37=-44; -37=-44; -37=-44; -37=-44; -32=-44; -27=-43; -27=-43; -25=-13377 9=-118/7 31=-202; -29=-112; -29=-12;	3=-142/78, -6=-51/127, 9-10=-105/30 22/342, 5/252, 1/21, 9, 19-20=-1117 7 1/19, 1/19, 1/19, 1/19, 1/19, 1/19, 1/19, 1/19, 1/19, 1/19, 1/19, 1/19, 1/19, 1/22, 1/19, 1/19, 1/22, 1/12, 1/17, 3/79, 5/81,	3, 1/47, 771, 783,	V C Z (2 (2 E 3) fc D 3) T 0 S 0 4) T D C C U 5) U	asd=103m at. II; Exp one and C 2N) 2-7-13 xterior(2N) 6-1-8 zone ertical left : orces & MW OL=1.60 p Truss desig nly. For st ee Standar r consult q CLL: ASC (ate DOL= OL=1.15); s=1.00; C inbalancec esign.	nph; TC B; Encr-C Cor C to 14- ) 21-1- 2; cantii and rig WFRS aned fc ruds ex- rd Indu ualifierc E 7-16 1.15); Is=1.0 Is=1.0 4 snow	closed; MWFRS ( ner(3E) -0-10-8 t 1-3, Corner(3R) 1 13 to 32-7-3, Cor lever left and righ the ever left and righ that exposed; C-C f for reactions shor pip DOL=1.60 or wind loads in th coposed to wind (n istry Gable End L d building designe the construction pr=20.0 psf (Lum b; Rough Cat B; F loads have been	L=6.0psf; h=25ft; envelope) exterior o 2-7-13, Exterior 14-1-3 to 21-1-13, ner(3E) 32-7-3 to it exposed ; end for members and

October 16,2023

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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. Pracing 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	109 Serenity	
23100018	CGE	Common Supported Gable	1	1	Job Reference (optional)	l61412516

- 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 27 lb uplift at joint 22, 55 lb uplift at joint 42, 37 lb uplift at joint 33, 51 lb uplift at joint 34, 44 lb uplift at joint 35, 37 lb uplift at joint 37, 44 lb uplift at joint 38, 47 lb uplift at joint 39, 30 lb uplift at joint 40, 125 lb uplift at joint 41, 36 lb uplift at joint 31, 52 lb uplift at joint 30, 44 lb uplift at joint 29, 38 lb uplift at joint 27, 45 lb uplift at joint 26, 46 lb uplift at joint 25, 33 lb uplift at joint 24 and 107 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

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:43 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	109 Serenity	
23100018	D	Common	4	1	Job Reference (optional)	161412517

TCDL

BCLL

BCDL

WEBS

WEBS

NOTES

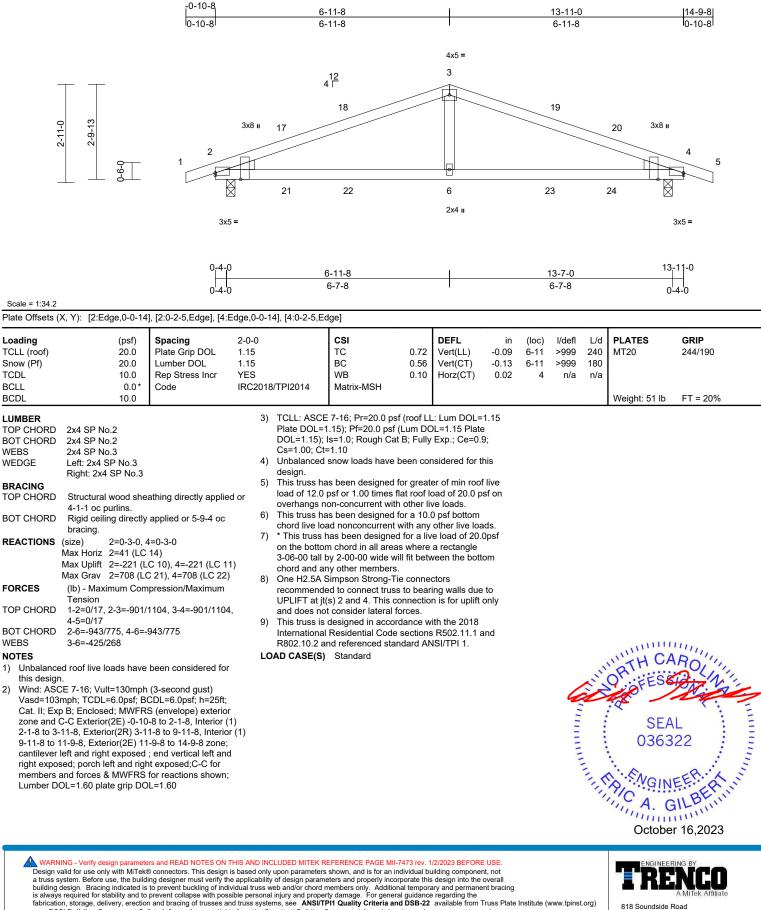
1)

2)

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:43 ID:nqLL14Jf5JAmMe82YAnlwAzF pM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

Edenton, NC 27932



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

Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	DGE	Common Supported Gable	1	1	Job Reference (optional)	l61412518

2-11-0

Scale = 1:33.5

Loading

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

WEDGE

BRACING

TOP CHORD

BOT CHORD

FORCES

TOP CHORD

BOT CHORD

WEBS

NOTES

7-8=-217/405, 8-9=0/17

7-10=-212/127

2-14=-365/260, 13-14=-365/260

10-11=-365/260, 8-10=-365/260

5-12=-360/181, 4-13=-146/110, 3-14=-275/153, 6-11=-183/128,

12-13=-365/260, 11-12=-365/260,

TOP CHORD

BOT CHORD

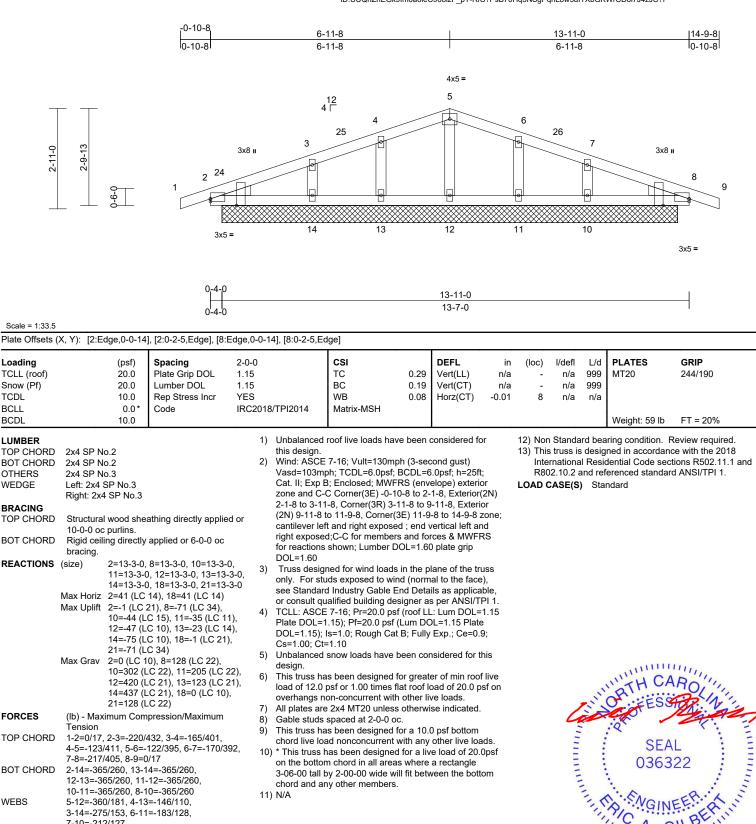
TCDL

BCLL

BCDL

#### Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:43 ID:UUQhZhEGk9Im0a6ieC968izF pT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



#### 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) N/A

036322

GI Thin the start

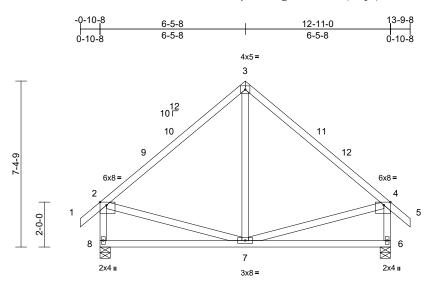
October 16,2023

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Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	E	Common	3	1	Job Reference (optional)	161412519

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:44 ID:wb1oEU3ot9zDodjcIXhweSzF\_Yu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



6-5-8 12-11-0 6-5-8 6-5-8

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

Scale = 1:51.2

	X, Y): [2:0-3-8,Edge],	, [4:0-3-8,Edge]											
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	1.00 0.35 0.09		in -0.03 -0.07 0.00	(loc) 7-8 7-8 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 81 lb	<b>GRIP</b> 244/190 FT = 20%
FORCES TOP CHORD BOT CHORD WEBS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 5-1-1 oc purlins, ex Rigid ceiling directly bracing. (size) 6=0-5-8, 8 Max Horiz 8=205 (LC Max Uplift 6=-49 (LC (lb) - Maximum Com Tension 1-2=0/39, 2-3=-528/ 4-5=0/39, 2-8=-591/ 7-8=-205/268, 6-7=- 3-7=0/211, 2-7=-50/	cept end verticals. applied or 10-0-0 or 8=0-5-8 C 13) C 15), 8=-49 (LC 14) C 22), 8=649 (LC 21 opression/Maximum 142, 3-4=-528/142, 175, 4-6=-591/160 82/168	c 7) 8) ) 9)	<ul> <li>design.</li> <li>This truss ha load of 12.0</li> <li>overhangs n</li> <li>This truss ha chord live load</li> <li>* This truss list on the bottooi</li> <li>3-06-00 tall list chord and at</li> <li>One H2.5A Si recommended</li> <li>UPLIFT at jtt and does no</li> <li>This truss is International</li> </ul>	snow loads have as been designed psf or 1.00 times f on-concurrent with as been designed ad nonconcurrent has been designed on chord in all area by 2-00-00 wide w hy other members Simpson Strong-Ti ed to connect truss (s) 8 and 6. This c t consider lateral f designed in accor Residential Code nd referenced star Standard	for great lat roof l n other li for a 10. with any d for a liv s where ill fit betv ie conne s to bear onnectio onces. dance w sections	er of min roo bad of 20.0 p ve loads. 0 psf bottom other live loa re load of 20. a rectangle veen the bott ctors ing walls due n is for uplift ith the 2018 s R502.11.1 a	f live ads. Opsf tom e to only					
this design 2) Wind: ASC Vasd=103 Cat. II; Exp	ed roof live loads have 1. CE 7-16; Vult=130mph mph; TCDL=6.0psf; Bi o B; Enclosed; MWFR C=C Exterior(2E) -0-10	i (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterio	)r							4	- AL	ORTH CA	ROLINI

- 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(2R) 3-5-8 to 9-5-8, Interior (1) 9-5-8 to 10-9-8, 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

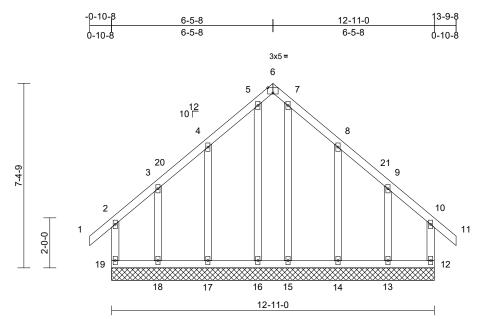
SEAL 036322 MGINEER A. GILBER October 16,2023

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Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	EGE	Common Supported Gable	1	1	Job Reference (optional)	l61412520

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:44 ID:hs\_OLPz9\_OqUDEXuG81pmYzF\_Z1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:46.1

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

Loading	(psf)	Spacing	2-0-0		csi		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15		тс	0.24	Vert(LL)	n/a	()	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.14	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES		WB	0.15	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0*	Code		8/TPI2014	Matrix-MR		(0.)						
BCDL	10.0	oouo	11102011	5/11/2011								Weight: 95 lb	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 14=12-11 16=12-11 18=12-11 Max Horiz 19=-205 ( Max Uplift 12=-132 (	applied or 6-0-0 oc -0, 13=12-11-0, -0, 15=12-11-0, -0, 17=12-11-0, -0, 19=12-11-0 LC 12) LC 11), 13=-144 (LC	3) 10), 4)	this design. Wind: ASCE Vasd=103mg Cat. II; Exp E zone and C-( (2N) 1-10-4 t (2N) 9-5-8 to cantilever lef right exposed for reactions DOL=1.60 Truss design only. For stu see Standard or consult qu	roof live loads have 7-16; Vult=130mp bh; TCDL=6.0psf; E 3; Enclosed; MWFF C Corner(3E) -0-10 o 3-5-8, Corner(3E t and right exposed d;C-C for members shown; Lumber Du ned for wind loads ids exposed to win d Industry Gable E ialified building des 7-16; Pr=20.0 psf	h (3-sec BCDL=6 RS (env )-8 to 1- R) 3-5-8 E) 10-9-1 d ; end v s and for OL=1.60 in the p d (norm nd Deta signer a:	cond gust) .0.psf; h=25ft; elope) exterior 10-4, Exterior to 9-5-8, Exter 3 to 13-9-8 zor vertical left and ces & MWFR; 0 plate grip lane of the tru: al to the face) is as applicab s per ANSI/TP	r ne; d S ss , ple, 11.	bea join 149 upli 14) This Inte	ring plat t 19, 132 ) Ib uplift ft at join s truss is ernationa )2.10.2 a	te capa 2 lb upl at join t 13. s desig al Resid and ref	al connection (by able of withstandi lift at joint 12, 84 it 18, 85 lb uplift a ned in accordand dential Code sec erenced standar	y others) of truss to ing 138 lb uplift at lb uplift at joint 17, at joint 14 and 144 lb ce with the 2018 tions R502.11.1 and
Max Opint 12132 (LC 15), 13144 (LC 10), 1485 (LC 15), 1784 (LC 14), 18149 (LC 11), 19138 (LC 10) Max Grav 12-206 (LC 24), 13-253 (LC 25), 14-270 (LC 22), 15-191 (LC 22), 16-191 (LC 21), 17-270 (LC 21), 18-257 (LC 24), 19-212 (LC 25)				<ul> <li>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>5) Unbalanced snow loads have been considered for this design.</li> <li>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.</li> <li>7) All holtes are 224 MT20 unless otherwise indicated</li> </ul>								111111 2	
FORCES	(lb) - Maximum Com Tension	pression/Maximum			psf or 1.00 times fl			fon				"aTH OF	TO I'L
TOP CHORD	2-19=-157/201, 1-2= 3-4=-64/218, 4-5=-1 6-7=-88/237, 7-8=-1	=0/39, 2-3=-125/137, 17/346, 5-6=-89/237, 18/345, 8-9=-60/222, 1=0/39, 10-12=-153/	7) 8) 9) 158	All plates are Gable require Truss to be f	on-concurrent with 2x4 MT20 unless es continuous botto ully sheathed from	otherwi om chor one fac	se indicated. d bearing. e or securely			4	20		KAU
BOT CHORD	18-19=-108/102, 17- 16-17=-108/102, 15- 14-15=-108/102, 13- 12-13=-108/102	-18=-108/102, -16=-108/102,	10 11	) Gable studs ) This truss ha chord live loa	ast lateral movement spaced at 2-0-0 oc ls been designed for ad nonconcurrent v	c. or a 10.0 vith any	) psf bottom other live load			11111		SEA 0363	
WEBS		178/7, 4-17=-228/17 I=-228/170,	'8, <sup>12</sup>	<ul> <li>9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).</li> <li>10) Gable studs spaced at 2-0-0 oc.</li> <li>11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.</li> <li>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.</li> </ul>						EERER			
NOTES					-							- ///////	

October 16,2023

Page: 1

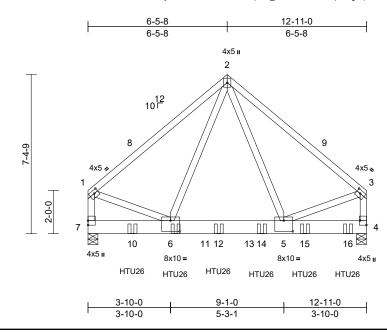


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Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	EGR	Common Girder	1	2	Job Reference (optional)	l61412521

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:44 ID:ySTbSlhb7CBDnk89ITG2qHzF\_9Z-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

r



Scale = 1:53.4

3cale = 1.33.4													
Plate Offsets (	X, Y): [1:0-2-4,0-1-12	2], [3:0-2-4,0-1-12], [4	:Edge,0-3	-8], [5:0-5-0,0-	6-0], [6:0-5-0,0-6-0	0]							
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.77 0.28 0.70	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.05 -0.09 0.00	(loc) 5-6 5-6 4	I/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 202 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.1 2x8 SP 2400F 2.0E 2x4 SP No.3 Structural wood she 5-2-11 oc purlins, e Rigid ceiling directly bracing. (size) 4=0-5-8, Max Horiz 7=174 (L0 Max Uplift 4=-495 (L Max Grav 4=5658 (I (Ib) - Maximum Con Tension 1-2=-4324/435, 2-3= 1-7=-4234/385, 3-4=	v applied or 10-0-0 oc 7=0-5-8 C 9) LC 12), 7=-419 (LC 1 LC 6), 7=4833 (LC 5) npression/Maximum =-4349/439,	d or 5) ; (3) 7) (8)	Vasd=103mj Cat. II; Exp E zone; cantile and right exp DOL=1.60 TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct Unbalanced design. This truss ha chord live loa * This truss ha on the bottor 3-06-00 tall h chord and ar	7-16; Vult=130mp oh; TCDL=6.0psf; 3; Enclosed; MWF ver left and right e bosed; Lumber DC 57-16; Pr=20.0 psf (1.15); Pf=20.0 psf (1.5); Rough Cat =1.10 snow loads have f ad nonconcurrent to has been designed f ad nonconcurrent to has been designed n chord in all area by 2-00-00 wide wid by other members, Simpson Strong-Ti	BCDL=6 RS (env xposed L=1.60   f (roof LL (Lum DC B; Fully been cor for a 10. with any I for a liv s where ill fit betw with BC	<ul> <li>Dpsf; h=25ft; elope) interio; end vertical plate grip</li> <li>Lum DOL=:</li> <li>DL=1.15 Plate Exp.; Ce=0.5</li> <li>nsidered for the 0 psf bottom other live loa e load of 20.6 a rectangle ween the botts</li> <li>DL = 10.0psf</li> </ul>	r left 1.15 9; his ds. Dpsf om				, ,	3), 12=-1414 (B),
<ul> <li>(0.131"x3" Top chord oc.</li> <li>Bottom ch staggered Web conn</li> <li>All loads a except if n CASE(S) s provided tu unless oth</li> </ul>	2-5=-255/2742, 2-6= 1-6=-309/3396, 3-5= to be connected toge ') nails as follows: s connected as follows: ords connected as foll at 0-6-0 oc. ected as follows: 2x4 re considered equally loted as front (F) or ba section. Ply to ply cont o distribute only loads lerwise indicated. ed roof live loads have h.	0 11 AD 12 LQ 1)	UPLIFT at jtt and does no 0) This truss is International R802.10.2 a 1) Use Simpson 11-10dx1 1/2 spaced at 2- end to 12-0- bottom chord 2) Fill all nail ho <b>DAD CASE(S)</b> Dead + Snd Increase=1 Uniform Lo Vert: 1-2	bles where hanger Standard bw (balanced): Lur .15	onnectio orces. dance w sections odard AN 26 (20-10 ' Girder) ng at 2-0 s(es) to l is in cor mber Inc	n is for uplift of the 2018 SR502.11.1 a SI/TPI 1. Dd Girder, or equivalent -12 from the I boack face of ntact with lum	only ind eft ber.		Contraction of the second seco	A MANUTATION	201111	EER H	

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818 Soundside Road Edenton, NC 27932

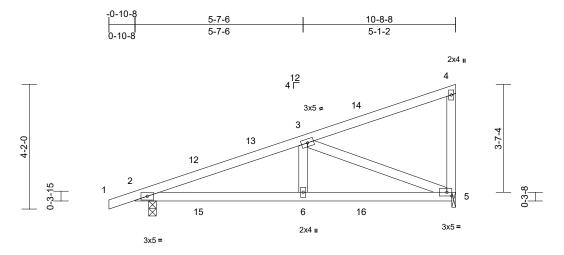
October 16,2023

Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	F	Monopitch	2	1	Job Reference (optional)	l61412522

Scale = 1:38.5

#### Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:45 ID:9J?nSM2QtleiTNQUoeql4rzF\_lq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



0-5-8	5-7-6	10-7-0	10-8-8
0-5-8	5-1-14	4-11-10	0-1-8

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.40 0.28 0.44	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.06 0.05 0.01	(loc) 5-6 5-6 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 49 lb	<b>GRIP</b> 244/190 FT = 20%
FORCES TOP CHORD BOT CHORD WEBS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 2=0-3-0, 5 Max Horiz 2=147 (LC Max Uplift 2=-191 (L Max Grav 2=560 (LC (Ib) - Maximum Com Tension 1-2=0/17, 2-3=-862/ 4-5=-188/103 2-6=-737/778, 5-6=- 3-6=-309/217, 3-5=-	cept end verticals. applied or 6-5-13 oc 5=0-1-8 C 13) C 10), 5=-160 (LC 1 C 21), 5=527 (LC 21) pression/Maximum 778, 3-4=-104/63, 737/778	7) 8) 0) 9) 10	<ul> <li>chord live loa</li> <li>* This truss h</li> <li>on the bottor</li> <li>3-06-00 tall b</li> <li>chord and ar</li> <li>Bearings are</li> <li>capacity of 5</li> <li>Bearing at jo</li> <li>using ANSI/I</li> <li>designer sho</li> <li>Provide mec</li> <li>bearing plate</li> <li>One H2.5A S</li> <li>recommende</li> <li>UPLIFT at jt( and does noi</li> <li>This truss is International</li> <li>R802.10.2 at</li> </ul>	int(s) 5 considers PI 1 angle to grai uld verify capacity hanical connection at joint(s) 5. Simpson Strong-T d to connect trust s) 2 and 5. This c c consider lateral f designed in accor Residential Code and referenced stal	with any d for a liv ss where ill fit betv Joint 5 S parallel t in formula y of beari n (by oth ie connection forces. dance we sections	other live load e load of 20.0 a rectangle veen the botto SP No.3 crush o grain value a. Building ng surface. ers) of truss t ctors ing walls due n is for uplift of ith the 2018 : R502.11.1 a	Dpsf om hing o to only					
NOTES			L	OAD CASE(S)	Standard								

 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 7-6-12, Exterior(2E) 7-6-12 to 10-6-12 zone; cantilever left and right exposed; end vertical left and right exposed; porch 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
- 3) Unbalanced snow loads have been considered for this design.
- 4) 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.



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Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	F1	Monopitch	4	1	Job Reference (optional)	l61412523

<u>5-1-14</u> 5-1-14

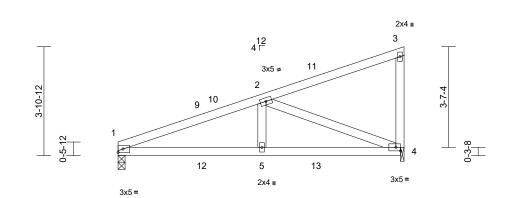
Carter Components (Sanford, NC), Sanford, NC - 27332,

#### Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:45 ID:GvbiD6mwqAlkl5J6aNwunUzF\_nU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

10-3-0

5-1-2





I	5-1-14	10-1-8	10-3-0
ſ	5-1-14	4-11-10	0-1-8

Scale :	= 1:41.3	

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL LUMBER	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.41 0.28 0.45 I for a liv	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.05 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%
	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 1=0-3-0,4 Max Uplift 1=-142 (L Max Uplift 1=-142 (L Max Grav 1=465 (LC (lb) - Maximum Com Tension 1-2=-883/851, 2-3=- 1-5=-826/799, 4-5=-	cept end verticals. applied or 6-2-4 oc 4=0-1-8 C 13) C 10), 4=-163 (LC 1 C 21), 4=532 (LC 21) pression/Maximum 104/50, 3-4=-187/10	7) 8) 0) )	3-06-00 tall b chord and ar Bearings are capacity of 5 Bearing at jo using ANSI/ designer sho Provide mec bearing plate One H2.5A S recommende UPLIFT at jt and does no )) This truss is International	int(s) 4 considers IFPI 1 angle to grain buld verify capacity hanical connectior	Il fit betw Joint 4 s parallel in formul of bear n (by oth e conne s to bear ponnectio porces. dance w sections	veen the botto SP No.3 crush to grain value a. Building ing surface. ers) of truss t ctors ing walls due n is for uplift o ith the 2018 s R502.11.1 a	hing to to only					
WEBS NOTES	2-5=-337/220, 2-4=-		L	OAD CASE(S)	Standard								
Vasd=103 Cat. II; Exp zone and ( 3-0-0 to 7- cantilever right expos members a Lumber D( 2) TCLL: ASC	CE 7-16; Vult=130mph mph; TCDL=6.0psf; B p B; Enclosed; MWFR C-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 OL=1.60 plate grip DC CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L	CDL=6.0psf, h=25ft; S (envelope) exterio to 3-0-0, Interior (1) I to 10-1-4 zone; ; end vertical left and the exposed;C-C for for reactions shown; DL=1.60 roof LL: Lum DOL=1	r d							<b>U</b>	in	OR FESS	ROUT

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

SEAL 036322 A. GILBERNATION October 16,2023

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Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	F1GE	Monopitch Supported Gable	1	1	Job Reference (optional)	161412524

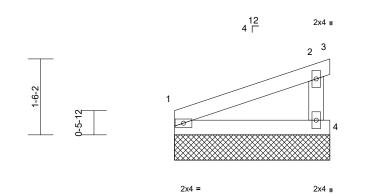
3-1-0

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

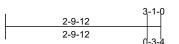
Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:45 ID:05Rb2nqdzWbg0FxJai2r9FzF\_oh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

1-6-2

Page: 1







#### Scale = 1:22.9

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/TPI2014	<b>CSI</b> TC BC WB Matrix-MP	0.12 0.08 0.00	<b>DEFL</b> Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 1	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 11 lb	<b>GRIP</b> 244/190 FT = 20%
3-1-0 c BOT CHORD Rigid o bracing <b>REACTIONS</b> (size) Max Hor Max Upl	No.2 No.3 ral wood she c purlins, ex eiling directly J. 1=3-1-0, iz 1=43 (LC fft 1=-8 (LC 4=-80 (LC v 1=126 (L	athing directly applie cept end verticals. applied or 10-0-0 oc 3=3-1-0, 4=3-1-0, 5= 13), 5=43 (LC 13) 10), 3=-183 (LC 20), 2 14), 5=-8 (LC 10) 2 (20), 3=49 (LC 14), C 20), 5=126 (LC 20)	7) This truss chord live 8) * This trus on the bo 3-06-00 t chord and 9) Provide n bearing p 3-1-0 1, 183 lb uplift at jc 10) This truss Internatio R802.10	is designed in acco nal Residential Code and referenced sta	I for a 10. t with any ed for a liv as where will fit betw s. on (by oth standing & uplift at j ordance w e sections	other live load e load of 20.0 a rectangle veen the botto ers) of truss to b uplift at joir point 4 and 8 lb ith the 2018 s R502.11.1 ar	psf m o nt					
Tensio	n 1/49, 2-3=-65	pression/Maximum /56, 2-4=-332/326										
Cat. II; Exp B; Encl zone and C-C Corr exposed ; end verti members and force Lumber DOL=1.60 2) Truss designed for only. For studs exp see Standard Indus or consult qualified 3) TCLL: ASCE 7-16; Plate DOL=1.15); F	DL=6.0psf; B bosed; MWFR er(3E) zone; cal left and ri s & MWFRS plate grip DC wind loads i bosed to wind try Gable Er building desi Pr=20.0 psf (L Rough Cat I boads have bo	CDL=6.0psf; h=25ft; S (envelope) exterior cantilever left and rig ght exposed;C-C for for reactions shown; DL=1.60 n the plane of the tru: I (normal to the face) d Details as applicab gner as per ANS/ITP roof LL: Lum DOL=1 um DOL=1.15 Plate B; Fully Exp.; Ce=0.9 seen considered for th	r ght ss , ole, Pl 1. 1.15 ;						CN CHILLING		SEA 0363	EER C

October 16,2023

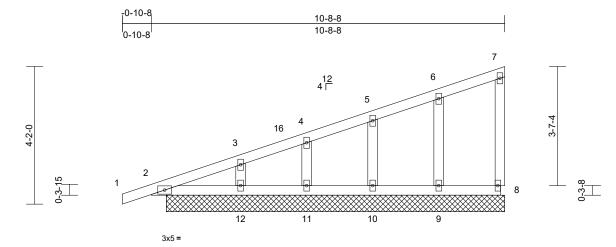
818 Soundside Road Edenton, NC 27932

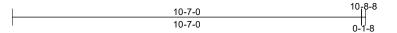
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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 109 Serenity		109 Serenity		
23100018	FGE	Monopitch Supported Gable	1	1	Job Reference (optional)	l61412525

### Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:46 ID:\_?Pus1XWS1h0GXUA82Y8iGzF\_IC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:34.9

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	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES		WB	0.05	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018	/TPI2014	Matrix-MSH		(- )						
BCDL	10.0											Weight: 49 lb	FT = 20%
	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) 2=10-3-0, 10=10-3-( 15=10-3-0 Max Horiz 2=147 (LC 9=2-36 (LC 9=2-36 (LC 9=2-30 (LC 11=-37 (L 15=-40 (L Max Grav 2=239 (LC 9=230 (LC 11=-23 (L 15=239 (L 15=23) (L 15=239 (L 15=23) (L 15=239 (L 15=23) (L) (L) (L) (L) (L) (L) (L) (L) (L) (L	applied or 10-0-0 oc 8=10-3-0, 9=10-3-0, 0, 11=10-3-0, 12=10- 0 C 13), 15=147 (LC 13) C 10), 8=-13 (LC 14), C 10), 10=-34 (LC 14) C 10), 12=-38 (LC 14) C 10) C 21), 10=214 (LC 21), C 21), 10=214 (LC 21), C 21), 10=214 (LC 21), C 21), 10=214 (LC 21), C 21), 10=99 (LC 1), C 21) apression/Maximum 133, 3-4=-91/117, 9/92, 6-7=-56/70, 2=-45/81, 10-11=-45/8 5/81	d or 2) 3-0, ) 3) 3) 4) 5) 6) 7) 8) 9) 31, 10)	Vasd=103m; Cat. II; Exp E zone and C-1 2-1-8 to 7-6- cantilever lef right exposed for reactions DOL=1.60 Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct= Unbalanced design. This truss ha load of 12.0   overhangs nn All plates are Gable studs This truss ha chord live loa * This truss ha chord live loa * This truss ha chord on and ar N/A	snow loads have s been designed on-concurrent witi 2x4 MT20 unless spaced at 2-0-0 o s been designed d nonconcurrent as been designed n chord in all area y 2-00-00 wide w y other members	BCDL=6 RS (env 0-8 to 2- 6-12 to 1 dd; end v s and foi )OL=1.6( a in the p nd (norm End Deta signer a: f (roof LL (Lum DC t B; Fully been con for great flat roof I h o other lin s other	.0psf, h=25ft; leope) exterio 1-8, Exterior(2 0-6-12 zone; vertical left an ces & MWFR ) plate grip lane of the tru al to the face) ils as applicat s per ANSI/TF L=1.15 Plate Exp.; Ce=0.9 nsidered for the er of min roof bad of 20.0 ps ve loads. se indicated. 0 psf bottom other live load e load of 20.0 a rectangle veen the bottc	r 2N) d S ss ble, ble, el 1. 1.15 live sf on ds. psf om	trus con forc 13) Nor 14) This Inte R8C LOAD (	s to bea nection es. Standa truss is rnationa 02.10.2 a	Iring w is for u ard beze s desig al Resi and rei ) Sta	ralls due to UPLIf uplift only and do aring condition. F ned in accordan dential Code sec ferenced standar indard	Review required. the 2018 tions R502.11.1 and d ANSI/TPI 1.
			11)	truss to bear	iTek connectors i ng walls due to U for uplift only and	PLIFT a	jt(s) 2. This			3	in the second se	RIC A. C	CARIN



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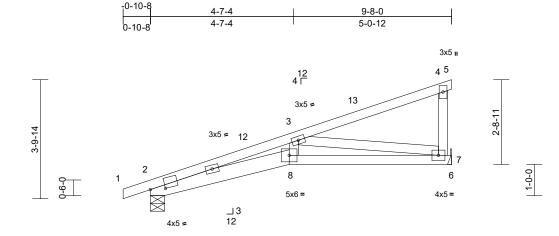
818 Soundside Road Edenton, NC 27932

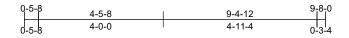
A. GI A. GIL October 16,2023

Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	G	Monopitch	9	1	Job Reference (optional)	161412526

#### Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:46 ID:Dy\_JjEEKvGAptckEgqDBdczF\_tK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f







Scale	= 1	:37

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

	). [2.0-0-12,0-1-0												
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	8/TPI2014	CSI TC BC WB Matrix-MSH	0.60 0.52 0.69	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.08 -0.13 0.05	(loc) 8 7-8 7	l/defl >999 >872 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 46 lb	<b>GRIP</b> 244/190 FT = 20%
BOT CHORD 2x6 WEBS 2x4 BRACING TOP CHORD Str 4-5 BOT CHORD Rig bra REACTIONS (size Max Max Max FORCES (lb) TOP CHORD 1-2 BOT CHORD 1-2 BOT CHORD 2-8 WEBS 3-8 NOTES 1) Wind: ASCE 7- Vasd=103mph; Cat. II; Exp B; E zone and C-C E (1) 1-11-13 to 6 cantilever left a right exposed;C for reactions sh DOL=1.60 2) TCLL: ASCE 7- Plate DOL=1.15; Is= Cs=1.00; Ct=1.	4 SP No.3 ructural wood she 5-5 oc purlins, ex gid ceiling directly acing. e) 2=0-5-8, 7 (Horiz 2=121 (LC Cuplift 2=-81 (LC Carav 2=491 (LC) ) - Maximum Com- nsion 2=0/17, 2-3=-1714 5=-8/0, 4-7=-224/1 3=-574/1652, 7-8= 3=-70/407, 3-7=-1 -16; Vult=130mph ; TCDL=6.0psf; Bi Enclosed; MWFR Exterior(2E) -0-10 5-8-0, Exterior(2E) and right exposed C-C for members nown; Lumber DO -16; Pr=20.0 psf (L =1.0; Rough Cat E 10	<ul> <li>Cho, 7=-74 (LC 14)</li> <li>C 21), 7=524 (LC 21)</li> <li>ppression/Maximum</li> <li>t/550, 3-4=-154/35,</li> <li>119</li> <li>-544/1531, 6-7=0/0</li> <li>460/561</li> <li>(3-second gust)</li> <li>CDL=6.0psf; h=25ft;</li> <li>S (envelope) exterior</li> <li>Pa to 1-11-13, Interici</li> <li>O -8-0 to 9-8-0 zone</li> <li>; end vertical left anc</li> <li>and forces &amp; MWFR</li> </ul>	20 7) 8) 9) 10 11 11 r r LC 5 5 .15 ;	load of 12.0 g overhangs nd This truss ha chord live loa * This truss h on the bottom 3-06-00 tall b chord and an Refer to girdd Bearing at jo using ANSI/T designer sho Provide meci bearing plate 7. ) One H2.5A S recommende UPLIFT at jt( does not con ) This truss is International	s been designed f psf or 1.00 times fl on-concurrent with s been designed f ad nonconcurrent v has been designed n chord in all areas by 2-00-00 wide wi y other members. er(s) for truss to tru- int(s) 2 considers f TPI 1 angle to grain uld verify capacity hanical connection capable of withsta Simpson Strong-Tie d to connect truss s) 2. This connect isider lateral forces designed in accord Residential Code nd referenced stam Standard	at roof le other life or a 10.1 with any if or a life s where Il fit betw uss comp parallel of bear of	bad of 20.0 p ve loads. O psf bottom other live loa e load of 20. a rectangle veen the bott nections. to grain value a. Building ing surface. ers) of truss t '4 lb uplift at j ctors ing walls due r uplift only at ith the 2018 s R502.11.1 a	esfon ads. Opsf oom e to joint e to nd				SEA 0363	22 EERER III

- 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.

G minim October 16,2023

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Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	GSE	Monopitch	1	1	Job Reference (optional)	161412527

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:46

Page: 1

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

#### ID:j7LOAWWFe1s7RV5MhJbHFGzF\_qO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f -0-10-8 4-7-4 9-8-0 4-7-4 5-0-12 0-10-8 4-6-0 3x5 II 56 4⊺ 4⊺ 17 2-8-11 4 3-9-14 16 ւե 8 년 1-0-0 9 7 0-9-0 2x4 II \_\_3 3x10 = 5x6 =



12

Scale = 1:40.5

### Plate Offsets (X, Y): [3:0-7-4,0-0-7]

Loading TCLL (roof) Snow (Pf) TCDL BCLL	(psf) 20.0 20.0 10.0 0.0*	Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES IRC2018/T	FPI2014	CSI TC BC WB Matrix-MSH	0.42 0.21 0.09	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.02 -0.03 0.00	(loc) 8-9 8-9 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	<b>GRIP</b> 244/190
BCDL	10.0											Weight: 39 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD	DP CHORD       2x4 SP No.2         DT CHORD       2x6 SP No.2 *Except* 9-7:2x4 SP No.2         EBS       2x4 SP No.3         RACING       Structural wood sheathing directly applied o 6-0-0 oc purlins, except end verticals.         DT CHORD       Rigid ceiling directly applied or 6-0-0 oc bracing.				hed for wind loads dds exposed to wird d Industry Gable E alified building de: .7-16; Pr=20.0 psf .15); Pf=20.0 psf (ls=1.0; Rough Cat =1.10 snow loads have I	id (norm nd Deta signer a (roof Ll Lum DC B; Fully	al to the face ils as applica s per ANSI/TI .: Lum DOL= DL=1.15 Plate Exp.; Ce=0.9	e), Ible, PI 1. 1.15 e 9;	Inte R80 16) Gra or t bott	ernationa )2.10.2 a phical p	al Resid and ref urlin re tation o rd.	erenced standar presentation doe of the purlin alon	tions R502.11.1 and d ANSI/TPI 1. es not depict the size
REACTIONS	(size) 2=0-5-8, 9=4-5-8, Max Horiz 3=164 (L Max Uplift 2=-37 (L) 8=-24 (L) 10=-117 Max Grav 2=87 (LC	3=4-5-8, 8= Mechanica 10=4-5-8 C 11), 10=164 (LC 11) C 10), 3=-117 (LC 10), C 14), 9=-151 (LC 14), (LC 10) c 21), 3=332 (LC 1), 8=2 9=628 (LC 21), 10=332	5) 1 6) ( 7) 1 56 8) *	oad of 12.0   overhangs no Gable studs This truss ha chord live loa ' This truss h on the bottor	s been designed f psf or 1.00 times fl on-concurrent with spaced at 2-0-0 or s been designed ad nonconcurrent has been designed n chord in all area	at roof l other li or a 10. with any for a liv s where	bad of 20.0 p ve loads. O psf bottom other live loa e load of 20.0 a rectangle	sfon ads. Opsf					
FORCES	(lb) - Maximum Cor Tension	npression/Maximum	c	<ul><li>3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.</li><li>9) Bearings are assumed to be: Joint 3 SP No.2 crushing</li></ul>									
TOP CHORD	1-2=0/17, 2-3=-149 4-5=-130/29, 5-6=-{	3/0, 5-8=-202/109	ć		65 psi, Joint 2 SP								11111
BOT CHORD WEBS NOTES	3-9=-634/472, 8-9= 4-9=-475/292	-17/62, 7-8=0/0	10) F 11) E	Refer to girde Bearing at jo	er(s) for truss to tr int(s) 3, 9, 2, 3 cor ANSI/TPI 1 angle t	nsiders p	parallel to gra				A	ORTHUR	
1) Wind: ASC Vasd=103 Cat. II; Ex zone and (1) 1-11-1 cantilever right expo	C-C Exterior(2E) -0-1 3 to 6-8-0, Exterior(2E left and right exposed	CDL=6.0psf; h=25ft; RS (envelope) exterior 0-8 to 1-11-13, Interior E) 6-8-0 to 9-8-0 zone; I ; end vertical left and and forces & MWFRS	12) F	designer sho Provide mec bearing plate 3 and 37 lb u	uld verify capacity hanical connection capable of withst plift at joint 2.	of bear (by oth	ing surface. ers) of truss f	to				SEA 0363	
DOL=1.60			ŕt	russ to bear	liTek connectors r ing walls due to U	PLIFT a	t jt(s) 9. This				1111	PIC A	EEFERATION

- (1) 1-11-13 to 6-8-0, Exterior(2E) 6-8-0 to 9-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - connection is for uplift only and does not consider lateral forces.

818 Soundside Road Edenton, NC 27932

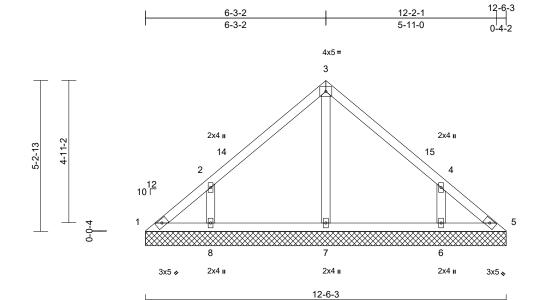
GI minimum

October 16,2023

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Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	V1	Valley	1	1	Job Reference (optional)	161412528

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:46 ID:F?srD3E8Afz2EulzeZOMFizF\_Uo-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:40

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/ <sup>-</sup>	TPI2014	<b>CSI</b> TC BC WB Matrix-MSH	0.35 0.12 0.15	Vert(TL)	in n/a n/a 0.00	(loc) - - 5	l/defl n/a n/a n/a	L/d 999 999 n/a	<b>PLATES</b> MT20	<b>GRIP</b> 244/190
BCDL	10.0											Weight: 52 lb	FT = 20%
	2x4 SP No.3 Structural wood shea 6-0-0 oc purlins. Rigid ceiling directly bracing. (size) 1=12-6-3, 7=12-6-3, Max Horiz 1=-118 (L Max Uplift 1=-66 (LC 6=-137 (L) 13=-1 (LC Max Grav 1=75 (LC 7=401 (LC	applied or 6-0-0 oc 5=12-6-3, 6=12-6-3 8=12-6-3, 13=12-6- C 12) (10), 5=-1 (LC 23), C 15), 8=-143 (LC 1 (23) (13), 6=438 (LC 21), C 20), 8=421 (LC 20)	4) d or 5) 3 6) 3 7) 8) 4), 9)	only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced: design. Gable require Gable studs a This truss ha chord live los * This truss ha on the botton 3-06-00 tall b	ned for wind load ds exposed to w d Industry Gable alified building dr 7-16; Pr=20.0 ps s=1.0; Rough Ca 1.10 snow loads have es continuous bo spaced at 4-0-0 d s been designed d nonconcurrent tas been designed n chord in all are: y 2-00-00 wide v y other members	ind (norm End Deta esigner as sf (roof LL ( (Lum DC t (Lum DC been cor ttom chor oc. for a 10.0 with any ed for a liv as where vill fit betw	al to the face ils as applica is per ANSI/TI :: Lum DOL= :L=1.15 Plate Exp.; Ce=0.9 asidered for the d bearing. D psf bottom other live load e load of 20.0 a rectangle	), ble, PI 1. 1.15 9; his ds. 0psf					
FORCES TOP CHORD	(lb) - Maximum Com Tension 1-2=-116/212, 2-3=- 4-5=-24/137		75,	bearing plate 1, 1 lb uplift a	hanical connection capable of withs at joint 5, 143 lb u	standing 6 uplift at joi	6 lb uplift at j	oint					
BOT CHORD WEBS	4-524/137 1-8=-61/33, 7-8=-61/ 5-6=-61/32 3-7=-317/0, 2-8=-382	, ,	11)	This truss is International	1 lb uplift at joint designed in acco Residential Code nd referenced sta	rdance w e sections	R502.11.1 a	ind				OR EESS	ROU
NOTES 1) Unbalance	ed roof live loads have	been considered for	LOA	AD CASE(S)							- AN	OR	6 Asis

this design.
Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 9-6-8, Exterior(2E) 9-6-8 to 12-6-8 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



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Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	V2	Valley	1	1	Job Reference (optional)	161412529

5-0-11

5-0-11

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

#### Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:47 ID:jCQDRPFmxy5us2K9CGvbovzF\_Un-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4x5 = 2

9-9-4

4-8-9

3

PLATES

Weight: 39 lb

MT20

GRIP

244/190

FT = 20%



9 10 3-11-2 4-2-13 12 10 □ 4 2x4 II 3x5 🖌 3x5 💊 10-1-6 Spacing 2-0-0 CSI DEFL l/defl L/d in (loc) Plate Grip DOL 1.15 TC 0.50 Vert(LL) n/a n/a 999 BC Lumber DOL 1 15 0.47 Vert(TL) n/a n/a 999 Rep Stress Incr YES WB 0.21 Horiz(TL) 0.01 4 n/a n/a Code IRC2018/TPI2014 Matrix-MSH 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=10-1-6, 3=10-1-6, 4=10-1-6 9) Max Horiz 1=-95 (LC 12) on the bottom chord in all areas where a rectangle 1=-62 (LC 21), 3=-62 (LC 20), 3-06-00 tall by 2-00-00 wide will fit between the bottom 4=-119 (LC 14) chord and any other members. 1=92 (LC 20), 3=92 (LC 21), 4=833 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint (lb) - Maximum Compression/Maximum 1, 62 lb uplift at joint 3 and 119 lb uplift at joint 4. 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and

R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

TOP CHORD 1-2=-126/409, 2-3=-126/409 1-4=-233/182, 3-4=-233/182 BOT CHORD WFBS 2-4=-648/288 NOTES

Tension

FORCES

Scale = 1:35.6 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.

(LC 21)

(psf)

20.0

20.0

10.0

10.0

2x4 SP No.2

2x4 SP No.2

2x4 SP No.3

bracing.

Max Uplift

Max Grav

(size)

10-0-0 oc purlins.

0.0

- Wind: ASCE 7-16; Vult=130mph (3-second gust) 2) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 7-1-11, Exterior(2E) 7-1-11 to 10-1-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss 3) only. For studs exposed to wind (normal to the face). see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.



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)

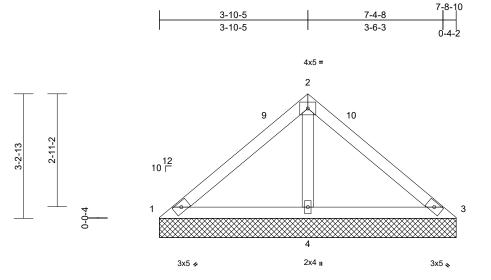


Edenton, NC 27932

Job	Truss	Truss Type	e Qty Ply 109 Serenity		109 Serenity	
23100018	V3	Valley	1	1	Job Reference (optional)	161412530

#### Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:47 ID:\_PCt1VqtCUIRorSEgzcdUCzF\_Jj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





7-8-10

Scale	1 = י	.30

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MP	0.30 0.30 0.10	( )	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: 29 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	7-8-10 oc purlins. Rigid ceiling directly bracing.	3=7-8-10, 4=7-8-10 11) 2 21), 3=-27 (LC 20), 2 40) C 20), 3=105 (LC 21) C 21) apression/Maximum 102/260	6) 7) 8) 9) 7 10	Plate DOL= DOL=1.15); Cs=1.00; Ct: Unbalanced design. Gable requir Gable studs This truss ha chord live loo * This truss ha chord live loo 3-06-00 tall 1 chord and an ) Provide mec bearing plate 1, 27 lb uplif ) This truss is International	snow loads hav es continuous b spaced at 4-0-0 is been designe ad nonconcurrer has been design m chord in all ar py 2-00-00 wide y other membe hanical connect e capable of with t at joint 3 and 8 designed in acc Residential Coo nd referenced si	of (Lum DC cat B; Fully e been cor octom chor oc. d for a 10.0 t with any ued for a liv ed for a liv eas where will fit betw rs. ion (by oth standing 2 4 lb uplift a ordance wi de sections	DL=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 ers) of truss t t joint 4. it boulift at j t joint 4. it the 2018 is R502.11.1 a	e - his ds. Opsf om ro oint					

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 4-8-14, Exterior(2E) 4-8-14 to 7-8-14 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 only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

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



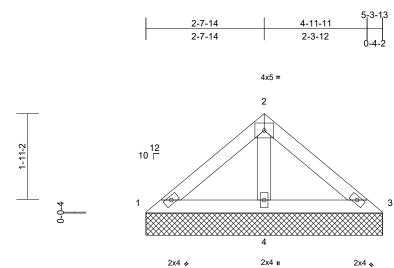
ENGINEERING BY ERENCO A MITek Atfiliate 818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	pe Qty Ply 109 Serenity		109 Serenity	
23100018	V4	Valley	1	1	Job Reference (optional)	l61412531

2-2-13

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:47 ID:\_PCt1VqtCUIRorSEgzcdUCzF\_Jj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





5-3-13

Scale = 1:25.9

									1	
Loading (psf) Spacing	2-0-0	csi		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0 Plate Grip DOL	1.15	тс	0.11	Vert(LL)	n/a	-	n/a	999	МТ20	244/190
Snow (Pf) 20.0 Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999	-	
TCDL 10.0 Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	4	n/a	n/a		
BCLL 0.0* Code	IRC2018/TPI2014	Matrix-MP	0.0.		0.00	•		, ca		
									Weight: 19 lb	FT = 20%
BCDL       10.0         LUMBER       TOP CHORD 2x4 SP No.2         BOT CHORD 2x4 SP No.2       OTHERS 2x4 SP No.3         BRACING       TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc bracing.         BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.         REACTIONS (size)       1=5-3-13, 3=5-3-13, 4=5-3-13 Max Horiz         Max Uplit       3=-6 (LC 15), 4=-40 (LC 14) Max Grav         Max Grav       1=93 (LC 20), 3=93 (LC 21), 4* (LC 21)         FORCES       (lb) - Maximum Compression/Maximum Tension         TOP CHORD       1-2=-85/124, 2-3=-85/124         BOT CHORD       1-2=-85/124, 2-3=-85/124         BOT CHORD       1-2=-48(1117         NOTES       1) Unbalanced roof live loads have been considered for this design.         2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and rige exposed; end vertical left and right exposed; C-C for	<ul> <li>5) Unbalanced design.</li> <li>6) Gable requir</li> <li>7) Gable studs</li> <li>8) This truss has chord live loo</li> <li>9) * This truss loon the botton 3-06-00 tall lechord and an</li> <li>10) Provide meer bearing plate and 40 lb up</li> <li>11) This truss is International R802.10.2 a</li> <li>LOAD CASE(S)</li> </ul>	snow loads have be es continuous bottor spaced at 4-0-0 oc. Is been designed for ad nonconcurrent wi has been designed for n chord in all areas by 2-00-00 wide will hy other members. hanical connection ( e capable of withstar lift at joint 4. designed in accorda Residential Code se nd referenced stand	m chor r a 10.0 ith any for a liv where fit betv (by oth nding 6 ance w ections	d bearing. ) psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t i lb uplift at jou ith the 2018 i R502.11.1 a	ds. Dpsf om o 1		4	Èr	Weight: 19 lb	FT = 20%
<ul> <li>members and forces &amp; MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60</li> <li>Truss designed for wind loads in the plane of the trus only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicabl or consult qualified building designer as per ANSI/TPI</li> <li>TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1. 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> </ul>	e, 1.						<b>A</b> THEFT AND A STATE		SEA 0363	EER. KUU

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)



A. GIL October 16,2023

Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	V5	Valley	1	1	Job Reference (optional)	161412532

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:47 ID:yvQIJ7HG7Iv1hWYdmKf4S6zF\_A5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

2-8-11

1-2-4



2x4 4 3-0-13

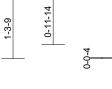
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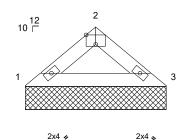
# Plate Offsets (X, Y): [2:0-2-8.Edge]

	( )											
Loading TCLL (roof)	(psf) 20.0	Spacing Plate Grip DOL	2-0-0 1.15	CSI TC	0.07	DEFL Vert(LL)	in n/a	(loc)	l/defl n/a	L/d 999	PLATES MT20	<b>GRIP</b> 244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999	101120	244/150
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	1	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 9 lb	FT = 20%
LUMBER TOP CHORD	2x4 SP No.2			uds spaced at 4-0-0 s has been designed		0 psf bottom						
BOT CHORD	2x4 SP No.2			e load nonconcurren								
BRACING			, , , , , , , , , , , , , , , , , , , ,	iss has been designe ottom chord in all are			)pst					
TOP CHORD	Structural wood she 3-0-13 oc purlins.	athing directly applie		tall by 2-00-00 wide			om					
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 of	c chord ar	d any other member	s.							
	bracing.			mechanical connection plate capable of with								
REACTIONS (	, , , ,		•	Ib uplift at joint 3.	standing	o io apint at j	onn					
	Max Horiz 1=-26 (LC Max Uplift 1=-10 (LC	,		s is designed in acco								
	Max Grav 1=141 (LC		internati	onal Residential Cod .2 and referenced st			nd					
	(lb) - Maximum Com	pression/Maximum		E(S) Standard		NOI/TET 1.						
	Tension 1-2=-178/73, 2-3=-1	79/72										
	1-3=-42/129	10/13										
NOTES	10 12,120											
1) Unbalanced	d roof live loads have	been considered fo	or									
this design.		(2										
	E 7-16; Vult=130mph nph; TCDL=6.0psf; B(											111.
Cat. II; Exp	B; Enclosed; MWFR	S (envelope) exterio	or								IN'LY CA	ROUL
	-C Exterior(2E) zone									5	RI	
	end vertical left and rig nd forces & MWFRS								/	53	OFFE	10 Maria
	L=1.60 plate grip DO		',						6	U		Mall
, .	gned for wind loads ir									1	× .	
	tuds exposed to wind rd Industry Gable End								Ξ		SEA	AL : E
	ualified building desig								=	:	0363	322 : =
4) TCLL: ASC	E 7-16; Pr=20.0 psf (	roof LL: Lum DOL=	1.15						-	1 8		1 E
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;										-	A. A.	airs
Cs=1.00; Cl		, i ully Exp., Ce-0.8	э,							15	SEA 0363	EER. KING
5) Unbalanced	d snow loads have be	en considered for th	his							11	CA C	II BEIN
design.	iroo continuquo hatta	m abard baarin-									11111	
J) Gable requi	ires continuous bottor	in chord bearing.									Octobe	or 16 2023

818 Soundside Road Edenton, NC 27932

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3x5 =

1-6-6

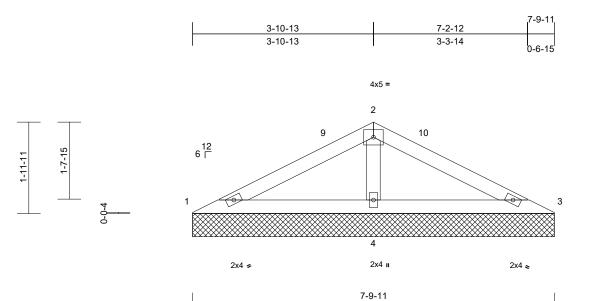
1-6-6

Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	V11	Valley	1	1	Job Reference (optional)	161412533

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C?f



Scal	e = 1	1.24	Q

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-MP	0.26 0.27 0.07	<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: 25 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	7-9-11 oc purlins. Rigid ceiling direct bracing. (size) 1=7-9-1 Max Horiz 1=29 (L Max Uplift 1=-9 (LC (LC 14)	C 14), 3=-16 (LC 15), 4 LC 20), 3=113 (LC 21	Alphane DOL= DOL=1.15); CS=1.00; CI 5) Unbalanced design. 6) Gable requi 7) Gable studs 8) This truss h chord live lo 9) * This truss on the botto 3-06-00 tall chord and a 10) Provide med	E 7-16; Pr=20.0 p 1.15); Pf=20.0 ps Is=1.0; Rough C =1.10 snow loads have res continuous bo spaced at 2-0-0 as been designer m chord in all are by 2-00-00 wide thanical connecti e capable of with	f (Lum DC at B; Fully e been cor oc. d for a 10. t with any ed for a liv eas where will fit betw s. on (by oth	DL=1.15 Plate Exp.; Ce=0.9 nsidered for the d bearing. D psf bottom other live loa e load of 20.1 a rectangle veen the botther ers) of truss f	e 9; his ds. Dpsf om					
FORCES TOP CHORD BOT CHORD WEBS	(Ib) - Maximum Co Tension 1-2=-127/270, 2-3: 1-4=-201/154, 3-4: 2-4=-366/213		1, 16 lb upli 11) This truss is Internationa	t at joint 3 and 43 designed in acco Residential Cod nd referenced st	3 lb uplift a ordance w le sections	it joint 4. ith the 2018 s R502.11.1 a						
NOTES 1) Unbalance	ed roof live loads hav	ve been considered for									~	11.

- this design.
  Wind: ASCE 7-16; Vult=130mph (3-second gust)
  Vacd=103mph; TCDL=6 0pcf; BCDL=6 0pcf; bc2
- Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-8 to 3-0-8, Exterior(2R) 3-0-8 to 4-10-3, Exterior(2E) 4-10-3 to 7-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.

SEAL 036322 October 16,2023



Job	Truss	Truss Type	Qty	Ply	109 Serenity	
23100018	V12	Valley	1	1	Job Reference (optional)	161412534

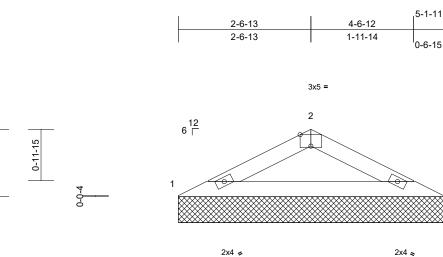
1-3-11

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Fri Oct 13 15:36:48 ID:OFXJJBg5e0puLYiHs6bBoUzF\_ZP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

5-1-11

Page: 1

3



Scale = 1:22.3

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

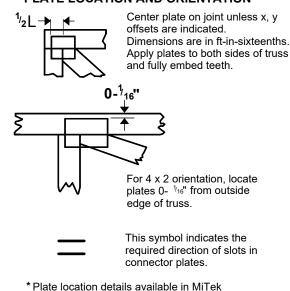
Loading         (psf)           TCLL (roof)         20.0           Snow (Pf)         20.0           TCDL         10.0           BCLL         0.0*	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-MP	0.22 0.18 0.00	<b>DEFL</b> Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.01	(loc) - - 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20	<b>GRIP</b> 244/190
BCDL     10.0       LUMBER     TOP CHORD     2x4 SP No.2       BOT CHORD     2x4 SP No.2       BACING     2x4 SP No.2       TOP CHORD     Structural wood sheat       5-1-11 oc purlins.       BOT CHORD     Rigid ceiling directly bracing.       REACTIONS     (size)     1=5-1-11, Max Horiz       Max Horiz     1=18 (LC Max Uplift       Max Grav     1=237 (LC Max Grav       FORCES     (lb) - Maximum Com Tension       TOP CHORD     1-2=-419/183, 2-3=-4       BOT CHORD     1-3=-150/364       NOTES     1       1     Unbalanced roof live loads have this design.       2)     Wind: ASCE 7-16; Vult=130mph Vasd=103mph; TCDL=6.0psf; BC	athing directly applie applied or 10-0-0 oc 3=5-1-11 14) 14), 3=-20 (LC 15) 2 20), 3=237 (LC 21) pression/Maximum 419/183 been considered for (3-second gust) CDL=6.0psf; h=25ft;	<ul> <li>7) Gable studs</li> <li>8) This truss h chord live lo</li> <li>9) * This truss on the botto 3-06-00 tall chord and a</li> <li>10) Provide me bearing plat 1 and 20 lb</li> <li>11) This truss is Internationa R802.10.2 a</li> <li>LOAD CASE(S)</li> </ul>	spaced at 4-0-0 d as been designed ad nonconcurrent has been designed m chord in all are by 2-00-00 wide w ny other members chanical connectic e capable of withs uplift at joint 3. designed in acco I Residential Code and referenced sta	for a 10.0 with any d for a liv as where vill fit betv s. on (by oth tanding 2 rdance w e sections	other live load e load of 20.0 a rectangle veen the botto ers) of truss to 0 lb uplift at jo ith the 2018 R502.11.1 a	opsf om o pint				Weight: 14 lb	FT = 20%
<ul> <li>Cat. II; Exp B; Enclosed; MWFR3 zone and C-C Exterior(2E) zone; exposed ; end vertical left and rig members and forces &amp; MWFRS Lumber DOL=1.60 plate grip DO</li> <li>Truss designed for wind loads ir only. For studs exposed to wind see Standard Industry Gable Enc or consult qualified building desig</li> <li>TCLL: ASCE 7-16; Pr=20.0 psf (L DOL=1.15); Is=1.0; Rough Cat B Cs=1.00; Ct=1.10</li> <li>Unbalanced snow loads have be design.</li> <li>Gable requires continuous bottor</li> </ul>	cantilever left and ri ht exposed;C-C for for reactions shown; L=1.60 h the plane of the trus (normal to the face), d Details as applicab gner as per ANSI/TP roof LL: Lum DOL=1.15 Plate ; Fully Exp.; Ce=0.9; hen considered for thi	ght ss le, 11. .15						Contraction of the second seco		SEA 0363	EER.HT

**ERENCE** A Mittek Attille

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# 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

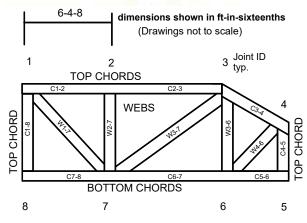


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

### **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.
- 16. 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.