

RE: 2411-0122-A - Stonehaven Rev 2-EL-1-Floor

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Project Customer: DRB Raleigh Project Name:  
 Lot/Block: Subdivision:  
 Model:  
 Address:  
 City: Angier State: NC

**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

Design Code: IRC2021/TPI2014 Design Program: MiTek 20/20 8.8  
 Wind Code: ASCE 7-16 Design Method: MWFRS (Directional)/C-C hybrid Wind ASCE 7-16  
 Wind Speed: 120 mph Floor Load: N/A psf  
 Roof Load: 40.0 psf  
 Mean Roof Height (feet): 25 Exposure Category: B

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I73385730	2F9	5/13/25	35	I73385764	1F10	5/13/25
2	I73385731	2F9A	5/13/25	36	I73385765	1F12	5/13/25
3	I73385732	2F8	5/13/25	37	I73385766	1F13	5/13/25
4	I73385733	2F9B	5/13/25	38	I73385767	1F11	5/13/25
5	I73385734	2F14	5/13/25	39	I73385768	1F14	5/13/25
6	I73385735	2F12	5/13/25	40	I73385769	1FGE7	5/13/25
7	I73385736	2F16A	5/13/25	41	I73385770	2F22	5/13/25
8	I73385737	2FGE3	5/13/25	42	I73385771	2F22A	5/13/25
9	I73385738	2F4	5/13/25	43	I73385772	2F21	5/13/25
10	I73385739	2F1	5/13/25	44	I73385773	1F15	5/13/25
11	I73385740	2F2	5/13/25	45	I73385774	1FGE8	5/13/25
12	I73385741	2F1A	5/13/25	46	I73385775	2F18	5/13/25
13	I73385742	2FGE1	5/13/25	47	I73385776	2F17	5/13/25
14	I73385743	1F5	5/13/25	48	I73385777	2F27	5/13/25
15	I73385744	2F23A	5/13/25	49	I73385778	2F20	5/13/25
16	I73385745	1F4	5/13/25	50	I73385779	1FGE4	5/13/25
17	I73385746	1F2	5/13/25	51	I73385780	1F7	5/13/25
18	I73385747	1F1	5/13/25	52	I73385781	2F3	5/13/25
19	I73385748	1FGE1	5/13/25	53	I73385782	1F6	5/13/25
20	I73385749	2F25	5/13/25	54	I73385783	1FGE3	5/13/25
21	I73385750	2F24A	5/13/25	55	I73385784	2FGE6	5/13/25
22	I73385751	2F24	5/13/25	56	I73385785	2FG1	5/13/25
23	I73385752	1FGE6	5/13/25	57	I73385786	2FG2	5/13/25
24	I73385753	2FGE2	5/13/25	58	I73385787	1F8	5/13/25
25	I73385754	2F10	5/13/25	59	I73385788	2F15	5/13/25
26	I73385755	1F3	5/13/25	60	I73385789	1FGE5	5/13/25
27	I73385756	2F6	5/13/25	61	I73385790	2FG3	5/13/25
28	I73385757	2F5	5/13/25	62	I73385791	2F7	5/13/25
29	I73385758	2F26	5/13/25	63	I73385792	1FGE9	5/13/25
30	I73385759	2F26A	5/13/25				
31	I73385760	2FGE4	5/13/25				
32	I73385761	2F16	5/13/25				
33	I73385762	1FGR1	5/13/25				
34	I73385763	1F9	5/13/25				

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Structural, LLC.

Truss Design Engineer's Name: Gilbert, Eric

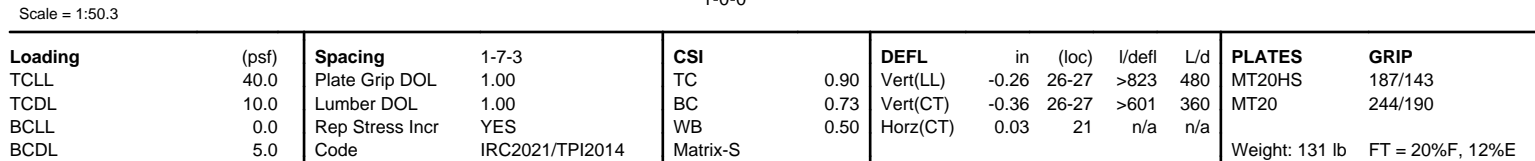
My license renewal date for the state of North Carolina is December 31, 2025.

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



May 13, 2025

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:26 Page: 1  
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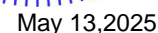
<b>BRACING</b>	
TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

<b>FORCES</b>	(lb) - Maximum Compression/Maximum Tension
<b>TOP CHORD</b>	1-30=-28/0, 17-18=-30/0, 1-2=-2/0, 2-3=-1397/0, 3-4=-2231/0, 4-5=-2231/0, 5-6=-2491/0, 6-7=-2267/0, 7-8=-1471/0, 8-9=-1471/0, 9-11=-169/62, 11-12=0/1821, 12-13=0/1820, 13-14=-62/1084, 14-15=-62/1084, 15-16=-290/473, 16-17=0/0
<b>BOT CHORD</b>	29-30=0/844, 28-29=0/1920, 27-28=0/2519, 26-27=0/2267, 25-26=0/2267, 23-25=0/2267, 22-23=0/929, 21-22=-726/0, 20-21=-1392/0, 19-20=-751/286, 18-19=-225/265
<b>WEBS</b>	6-26=-300/0, 7-25=0/309, 12-21=-101/0, 2-30=-1056/0, 2-29=0/721, 3-29=-680/0, 3-28=0/397, 4-28=-14/1, 5-28=-368/0, 5-27=-115/130, 6-27=-61/414, 11-21=-1376/0, 11-22=0/1051, 9-22=-999/0, 9-23=0/700, 16-18=-333/282, 16-19=-323/32, 15-19=0/361, 15-20=-565/0, 14-20=-70/0, 8-23=-43/135, 7-23=-1055/0, 13-20=0/626, 13-21=-769/0

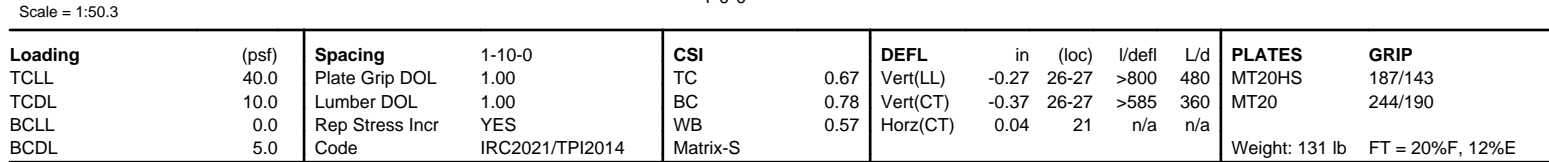
- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.

- 3) All plates are 3x3 (=) MT20 unless otherwise indicated.
- 4) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at j(s) 18. This connection is for uplift only and does not consider lateral forces.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION. Do not erect truss backwards.

LOAD CASE(S) Standard



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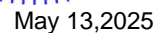


- 3) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18. This connection is for uplift only and does not consider lateral forces.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

<b>FORCES</b>	(lb) - Maximum Compression/Maximum Tension
<b>TOP CHORD</b>	1-30=-33/0, 17-18=-34/0, 1-2=-2/0, 2-3=-1618/0, 3-4=-2591/0, 4-5=-2591/0, 5-6=-2897/0, 6-7=-2663/0, 7-8=-1766/0, 8-9=-1766/0, 9-11=-285/55, 11-12=0/1985, 12-13=0/1984, 13-14=-85/1166, 14-15=-85/1166, 15-16=-339/504, 16-17=0/0
<b>BOT CHORD</b>	29-30=0/975, 28-29=0/2225, 27-28=0/2931, 26-27=0/2663, 25-26=0/2663, 23-25=0/2663, 22-23=0/1153, 21-22=-742/0, 20-21=-1503/0, 19-20=-803/339, 18-19=-238/308
<b>WEBS</b>	6-26=-304/0, 7-25=0/316, 12-21=-119/0, 2-30=-1221/0, 2-29=0/836, 3-29=-790/0, 3-28=0/468, 4-28=-14/2, 5-28=-433/0, 5-27=-142/154, 6-27=-84/452, 11-21=-1562/0, 11-22=0/1197, 9-22=-1142/0, 9-23=0/792, 16-18=-386/298, 16-19=-347/41, 15-19=0/390, 15-20=-625/0, 14-20=-81/0, 13-21=-859/0, 13-20=0/697, 8-23=-47/174, 7-23=-1200/0

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.



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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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/TPH Quality Criteria and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbccomponents.com](http://www.sbccomponents.com))



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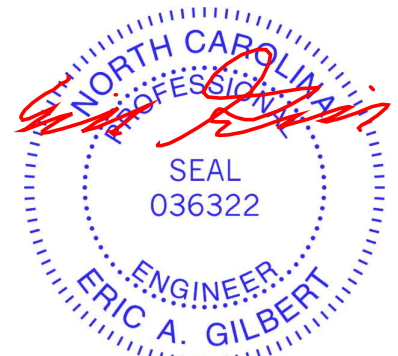
<b>LUMBER</b>		3) All plates are 3x3 (=) MT20 unless otherwise indicated.
TOP CHORD	2x4 SP No.2(flat)	4) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18. This connection is for uplift only and does not consider lateral forces.
BOT CHORD	2x4 SP SS(flat)	5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
WEBS	2x4 SP No.3(flat)	6) CAUTION, Do not erect truss backwards.
OTHERS	2x4 SP No.3(flat)	
<b>BRACING</b>		
TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	
<b>REACTIONS</b> (size) 18 0 3 3 24 0 5 0 20 0 3 0		<b>LOAD CASE(S)</b> Standard

<b>REACTIONS</b>	(size)	18=0-3-8, 21=0-5-8, 30=0-3-8	<b>LOAD CASE(S)</b>	Standard
	Max Uplift	18=-165 (LC 3)		
	Max Grav	18=234 (LC 4), 21=1485 (LC 1), 30=678 (LC 3)		

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-30=-28/0, 17-18=-30/0, 1-2=-2/0, 2-3=-1403/0, 3-4=-2243/0, 4-5=-2243/0, 5-6=-2508/0, 6-7=-2289/0, 7-8=-1466/0, 8-9=-1466/0, 9-11=-151/63, 11-12=0/1848, 12-13=0/1847, 13-14=-36/1124, 14-15=-36/1124, 15-16=-277/494, 16-17=0/0
BOT CHORD	29-30=0/847, 28-29=0/1929, 27-28=0/2534, 26-27=0/2289, 25-26=0/2289, 23-25=0/2289, 22-23=0/916, 21-22=-747/0, 20-21=-1427/0, 19-20=-780/267, 18-19=-236/258
WEBS	6-26=-299/0, 7-25=0/300, 12-21=-100/0, 2-30=-1060/0, 2-29=0/725, 3-29=-684/0, 3-28=0/401, 4-28=-14/1, 5-28=-371/0, 5-27=-112/133, 6-27=-66/411, 11-21=-1384/0, 11-22=0/1058, 9-22=-1006/0, 9-23=0/709, 16-18=-324/296, 16-19=-336/24, 15-19=0/374, 15-20=-582/0, 8-23=-51/127, 14-20=-69/0, 7-23=-1065/0, 13-20=0/625, 13-21=-760/0



- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.



May 13, 2025

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

WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEL REFERENCE PAGE MIT-TR-17-0169, 1/12/2023 BEFORE USE.

Design valid for use only with MiTeTe® 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Components Association ([www.sbcacomponents.com](http://www.sbcacomponents.com))

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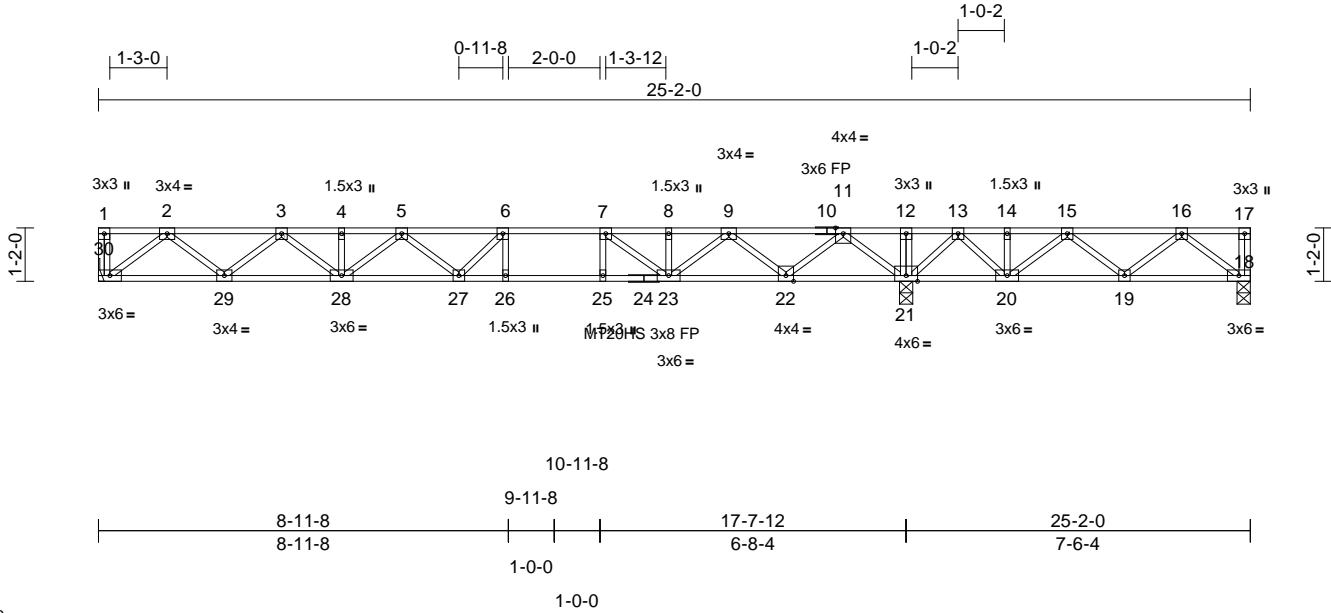
Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	173385733
	2F9B	Floor	1	1	Job Reference (optional)	

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Scale = 1:50.3

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.84	Vert(LL)	-0.24	26-27	>886	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.72	Vert(CT)	-0.32	26-27	>647	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.03	21	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
											Weight: 131 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP SS(flat) *Except* 24-18:2x4 SP No.2 (flat)
WEBS	2x4 SP No.3(flat)

#### BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-8-3 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

#### REACTIONS

(size)	18=0-3-8, 21=0-3-8, 30= Mechanical
Max Uplift	18=148 (LC 3)
Max Grav	18=241 (LC 4), 21=1455 (LC 1), 30=670 (LC 3)

#### FORCES

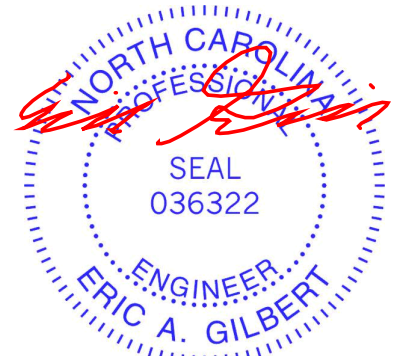
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-30=-31/0, 17-18=-30/0, 1-2=0/0, 2-3=-1371/0, 3-4=-2182/0, 4-5=-2182/0, 5-6=-2410/0, 6-7=-2214/0, 7-8=-1470/0, 8-9=-1470/0, 9-11=-195/61, 11-12=0/1765, 12-13=0/1765, 13-14=-69/1039, 14-15=-69/1039, 15-16=-293/450, 16-17=0/0
BOT CHORD	29-30=0/830, 28-29=0/1880, 27-28=0/2441, 26-27=0/2214, 25-26=0/2214, 23-25=0/2214, 22-23=0/940, 21-22=-687/0, 20-21=-1336/0, 19-20=-717/292, 18-19=-213/267
WEBS	6-26=-327/0, 7-25=0/286, 12-21=-98/0, 2-30=-1042/0, 2-29=0/703, 3-29=-664/0, 3-28=0/385, 4-28=-27/0, 5-28=-330/0, 5-27=-126/135, 6-27=-56/413, 11-21=-1355/0, 11-22=0/1027, 9-22=-979/0, 9-23=0/686, 16-18=-335/267, 16-19=-309/34, 15-19=0/346, 15-20=-553/0, 8-23=-47/125, 7-23=-996/0, 14-20=-68/0, 13-21=-760/0, 13-20=0/613

#### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.

- 3) All plates are 3x3 (=) MT20 unless otherwise indicated.
- 4) Refer to girder(s) for truss to truss connections.
- 5) 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.
- 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 7) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



May 13, 2025

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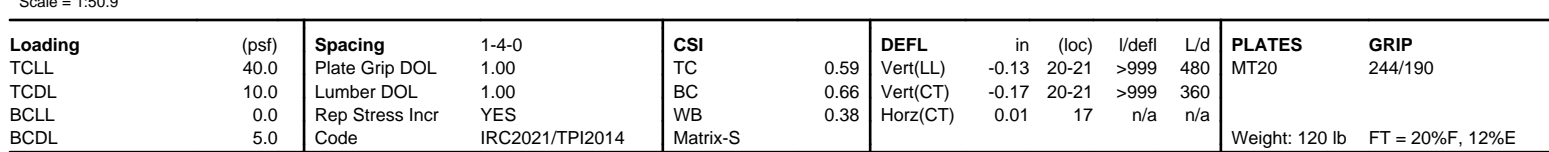
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcacomponents.com](http://www.sbcacomponents.com))

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- 3) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 25.
- 4) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 28. This connection is for uplift only and does not consider lateral forces.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

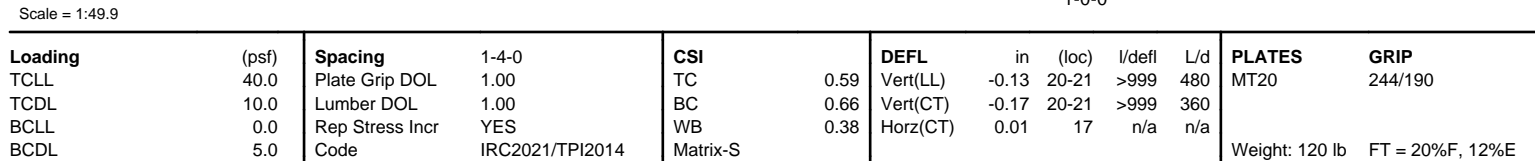
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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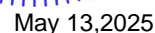
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LOAD CASE(S) Standard

**NOTES**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x3 (=) MT20 unless otherwise indicated.



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

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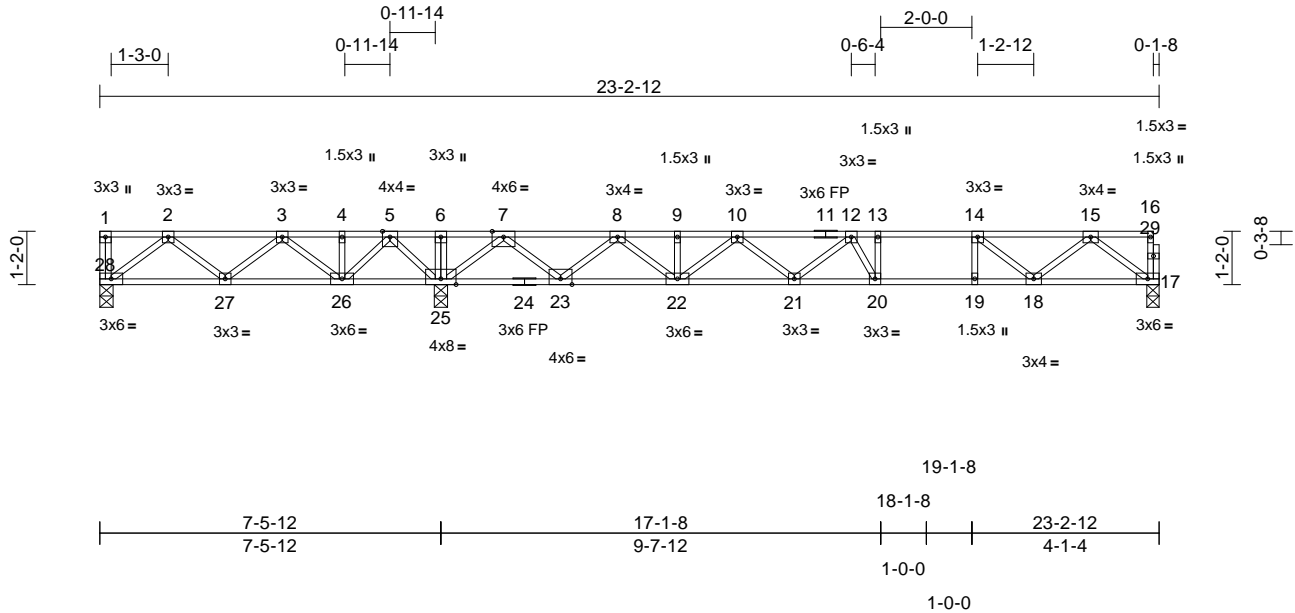
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385736
	2F16A	Floor	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:29  
ID:Vg1su3wf9k2JRaELxjd8ny8MUL-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



<b>Loading</b>	(psf)	<b>Spacing</b>	2-0-0	<b>CSI</b>		<b>DEFL</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL	40.0	Plate Grip DOL	1.00	TC	0.86	Vert(LL)	-0.18	20-21	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.50	Vert(CT)	-0.24	20-21	>786	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	-0.01	25	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 120 lb	FT = 20%F, 12%E

**LUMBER**  
TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat) \*Except\* 24-17:2x4 SP SS (flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 17=0-3-4, 25=0-3-8, 28=0-3-8  
Max Uplift 28=227 (LC 4)  
Max Grav 17=694 (LC 4), 25=1791 (LC 1), 28=286 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-28=-37/0, 16-17=-49/0, 1-2=0/0, 2-3=-329/668, 3-4=-11/1508, 4-5=-11/1508, 5-6=0/2492, 6-7=0/2492, 7-8=0/419, 8-9=-1254/0, 9-10=-1254/0, 10-12=-1995/0, 12-13=-1996/0, 13-14=-1996/0, 14-15=-1371/0, 15-16=-3/0  
BOT CHORD 27-28=-322/314, 26-27=-1052/309, 25-26=-1913/0, 23-25=-1270/0, 22-23=0/639, 21-22=0/1767, 20-21=0/2128, 19-20=0/1996, 18-19=0/1996, 17-18=0/831  
WEBS 6-25=-119/0, 13-20=-141/167, 14-19=-1/213, 2-28=-394/403, 2-27=-451/19, 3-27=0/499, 3-26=-763/0, 7-25=-1579/0, 7-23=0/1170, 8-23=-1132/0, 8-22=0/800, 9-22=-65/0, 10-22=-671/0, 10-21=0/310, 12-21=-256/0, 12-20=-361/197, 15-17=-1039/0, 15-18=0/702, 14-18=-803/0, 4-26=-84/0, 5-25=-1001/0, 5-26=0/819

**NOTES**  
1) Unbalanced floor live loads have been considered for this design.

- 2) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 28. This connection is for uplift only and does not consider lateral forces.
  - 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 4) CAUTION, Do not erect truss backwards.
- LOAD CASE(S)** Standard



May 13, 2025

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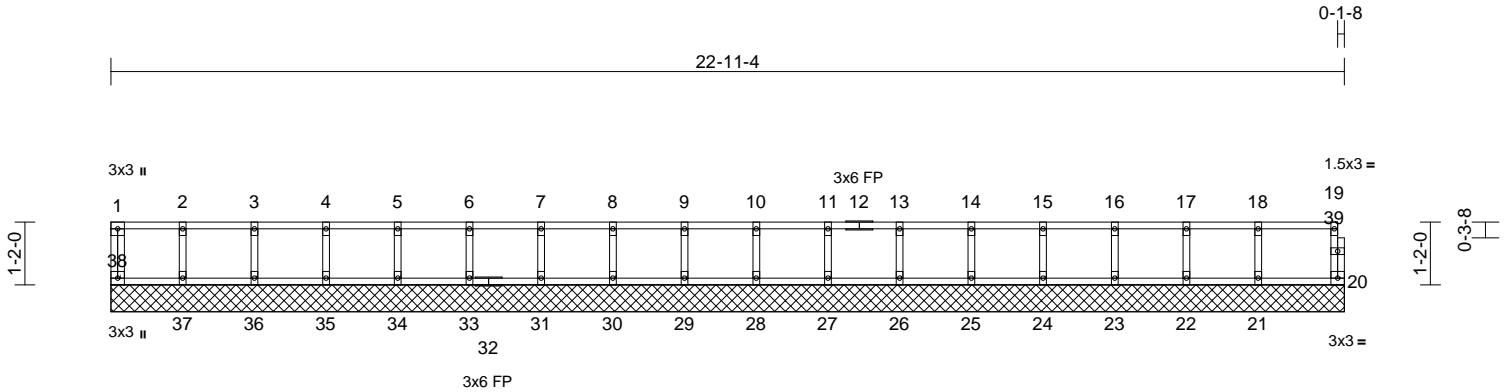
Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	173385737
	2FGE3	Floor Supported Gable	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:34

Page: 1

ID:9FIq\_HrKe\_wHulpYXkRpy8MTu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:42.8

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	20	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 95 lb	FT = 20%F, 12%E

<b>LUMBER</b>	
TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat) *Except* 20-39:2x4 SP No.2(flat)

<b>BOT CHORD</b>	37-38=0/9, 36-37=0/9, 35-36=0/9, 34-35=0/9, 33-34=0/9, 31-33=0/9, 30-31=0/9, 29-30=0/9, 28-29=0/9, 27-28=0/9, 26-27=0/9, 25-26=0/9, 24-25=0/9, 23-24=0/9, 22-23=0/9, 21-22=0/9, 20-21=0/9
<b>WEBS</b>	2-37=-85/0, 3-36=-90/0, 4-35=-89/0, 5-34=-89/0, 6-33=-89/0, 7-31=-89/0, 8-30=-89/0, 9-29=-89/0, 10-28=-89/0, 11-27=-89/0, 13-26=-89/0, 14-25=-89/0, 15-24=-89/0, 16-23=-89/0, 17-22=-87/0, 18-21=-97/0

<b>BRACING</b>	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

<b>REACTIONS</b>	(size)	20=22-11-4, 21=22-11-4, 22=22-11-4, 23=22-11-4, 24=22-11-4, 25=22-11-4, 26=22-11-4, 27=22-11-4, 28=22-11-4, 29=22-11-4, 30=22-11-4, 31=22-11-4, 33=22-11-4, 34=22-11-4, 35=22-11-4, 36=22-11-4, 37=22-11-4, 38=22-11-4
Max Grav		20=47 (LC 1), 21=108 (LC 1), 22=95 (LC 1), 23=99 (LC 1), 24=98 (LC 1), 25=98 (LC 1), 26=98 (LC 1), 27=98 (LC 1), 28=98 (LC 1), 29=98 (LC 1), 30=98 (LC 1), 31=98 (LC 1), 33=98 (LC 1), 34=98 (LC 1), 35=97 (LC 1), 36=99 (LC 1), 37=92 (LC 1), 38=44 (LC 1)

- NOTES**
- 1) All plates are 1.5x3 (||) MT20 unless otherwise indicated.
  - 2) Gable requires continuous bottom chord bearing.
  - 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 4) Gable studs spaced at 1-4-0 oc.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

<b>FORCES</b>	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-38=-39/0, 19-20=-44/0, 1-2=-9/0, 2-3=-9/0, 3-4=-9/0, 4-5=-9/0, 5-6=-9/0, 6-7=-9/0, 7-8=-9/0, 8-9=-9/0, 9-10=-9/0, 10-11=-9/0, 11-13=-9/0, 13-14=-9/0, 14-15=-9/0, 15-16=-9/0, 16-17=-9/0, 17-18=-9/0, 18-19=-9/0



May 13,2025

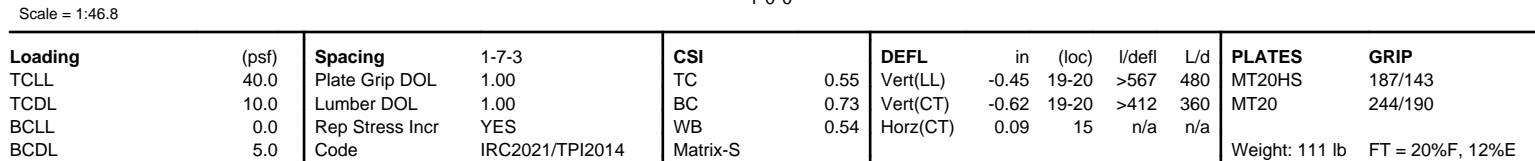
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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

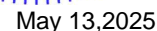
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Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:25 Page: 1  
ID:IP4Gn81I2VTmupmzNKNk?ay8MUC-RfC?PsB70Hg3NSaPanL8w3ulTXbGKWRCdoj7J4zJC?f



## LOAD CASE(S) Standard



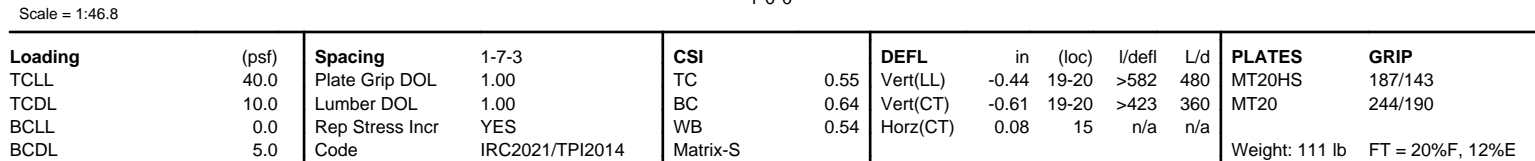
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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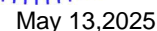


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Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:23 Page: 1  
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## LOAD CASE(S) Standard



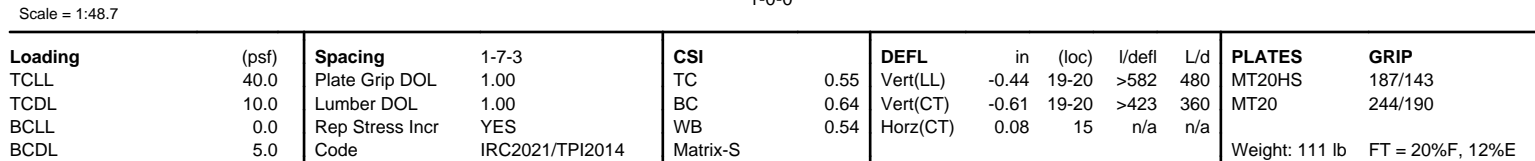
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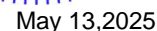


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Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:24 Page: 1  
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## LOAD CASE(S) Standard



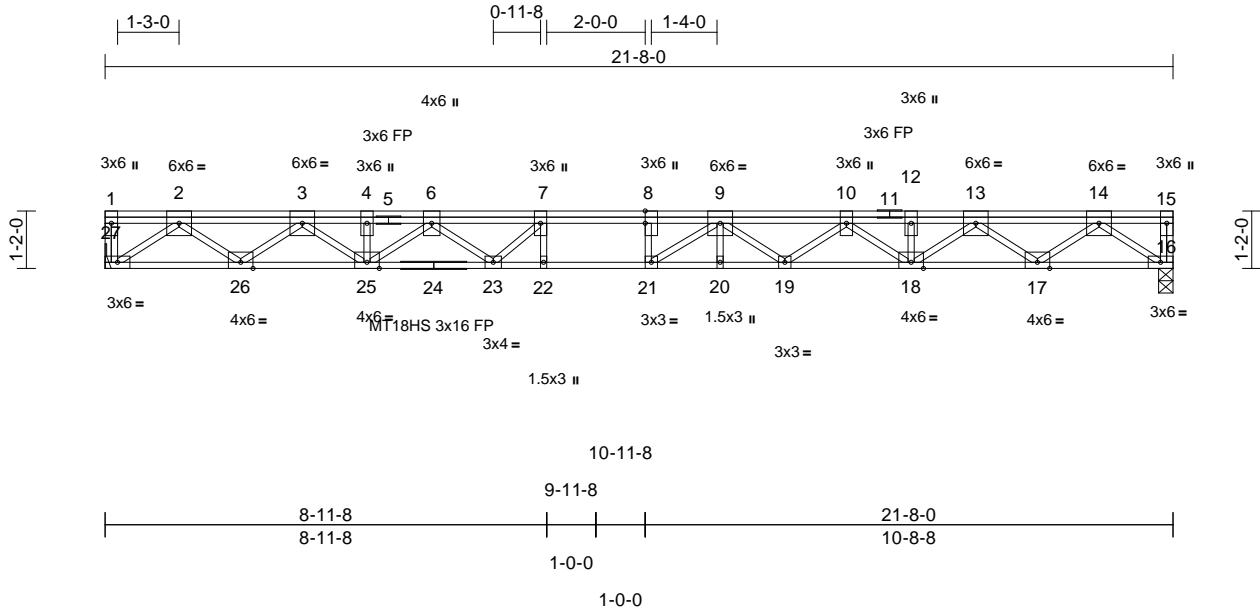
Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385741
	2F1A	Floor	3	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:24

Page: 1

ID:dvoM3it86VqcqpGT66eh\_xy8MUP-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?fi



Scale = 1:46.8									
Plate Offsets (X, Y): [8:0-3-0,Edge]									
<b>Loading</b>	(psf)	<b>Spacing</b>	1-10-0	<b>CSI</b>		<b>DEFL</b>	in (loc)	l/defl	L/d
TCLL	40.0	Plate Grip DOL	1.00	TC	0.23	Vert(LL)	-0.42 20-21	>614	480
TCDL	10.0	Lumber DOL	1.00	BC	0.59	Vert(CT)	-0.58 20-21	>447	360
BCLL	0.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.10 16	n/a	n/a
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S					
								Weight: 140 lb	FT = 20%F, 12%E

**LUMBER** **LOAD CASE(S)** Standard

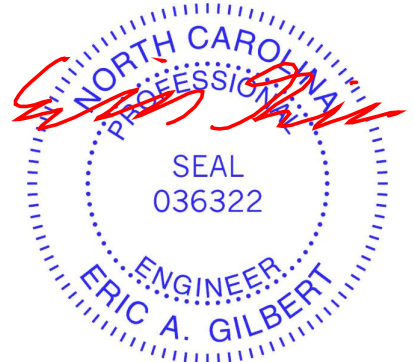
TOP CHORD 2x4 SP SS(flat)  
BOT CHORD 2x4 SP DSS(flat)  
WEBS 2x4 SP No.3(flat)

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or  
6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc  
bracing.

**REACTIONS** (size) 16=0-3-8, 27= Mechanical  
Max Grav 16=1080 (LC 1), 27=1080 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum  
Tension  
TOP CHORD 1-27=-46/0, 15-16=-46/0, 1-2=0/0,  
2-3=-2477/0, 3-4=-4315/0, 4-6=-4315/0,  
6-7=-5393/0, 7-8=-5775/0, 8-9=-5775/0,  
9-10=-5357/0, 10-12=-4307/0,  
12-13=-4307/0, 13-14=-2477/0, 14-15=0/0  
BOT CHORD 26-27=0/1435, 25-26=0/3486, 23-25=0/4926,  
22-23=0/5775, 21-22=0/5775, 20-21=0/5736,  
19-20=0/5736, 18-19=0/4962, 17-18=0/3486,  
16-17=0/1434  
WEBS 7-22=-47/112, 8-21=-272/166, 2-27=-1761/0,  
2-26=0/1324, 3-26=-1282/0, 3-25=0/1034,  
4-25=-139/0, 6-25=-762/0, 6-23=0/772,  
7-23=-747/0, 14-16=-1761/0, 14-17=0/1325,  
13-17=-1282/0, 13-18=0/1023, 12-18=-102/0,  
10-18=-818/0, 10-19=0/501, 9-19=-473/0,  
9-20=-25/45, 9-21=-407/610

**NOTES**  
1) Unbalanced floor live loads have been considered for  
this design.  
2) All plates are MT20 plates unless otherwise indicated.  
3) Refer to girder(s) for truss to truss connections.  
4) Required 2x6 strongbacks, on edge, spaced at 10-00-00  
oc and fastened to each truss with 3-10d (0.131" X 3")  
nails. Strongbacks to be attached to walls at their outer  
ends or restrained by other means.



May 13,2025

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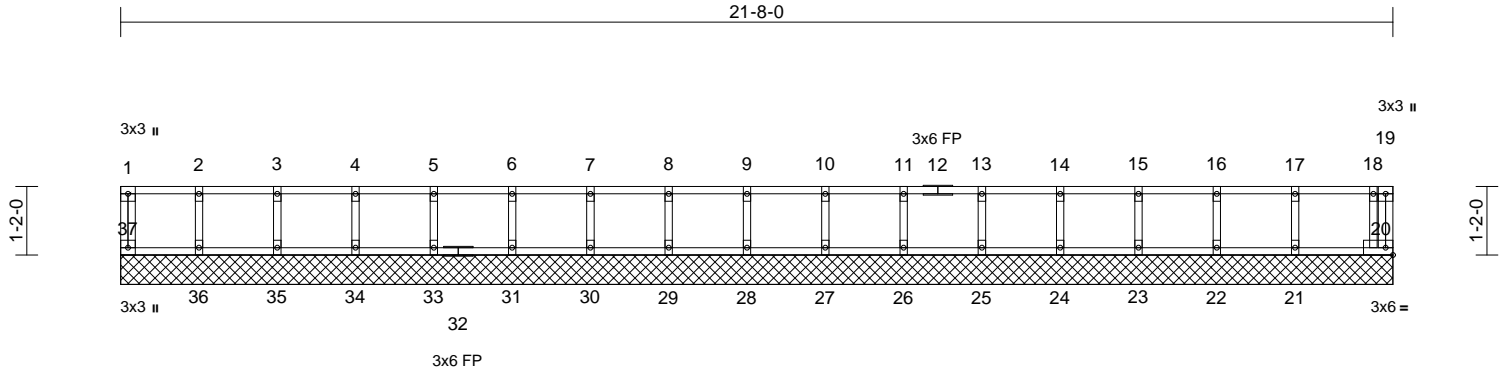


Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor
	2FGE1	Floor Supported Gable	1	1	Job Reference (optional)
					I73385742

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:33  
ID:lghLyEz1jclQQZEIPakBGy8MTx-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:39.2

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	20	n/a	n/a	
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 92 lb FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

#### WEBS

2-36=-102/0, 3-35=-108/0, 4-34=-106/0,  
5-33=-107/0, 6-31=-107/0, 7-30=-107/0,  
8-29=-107/0, 9-28=-107/0, 10-27=-107/0,  
11-26=-107/0, 13-25=-107/0, 14-24=-106/0,  
15-23=-107/0, 16-22=-105/0, 17-21=-114/0,  
18-20=-74/0

#### BRACING

TOP CHORD Structural wood sheathing directly applied or  
6'-0" oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10'-0" oc  
bracing.

#### NOTES

- 1) All plates are 1.5x3 (II) MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1'-4" oc.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10'-0" oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

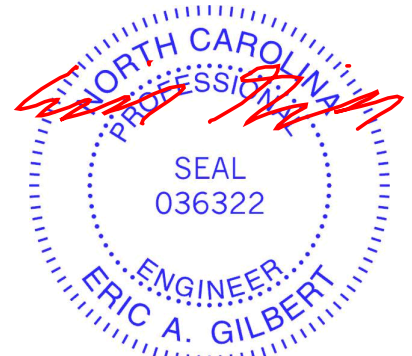
#### REACTIONS

(size) 20=21-8-0, 21=21-8-0, 22=21-8-0,  
23=21-8-0, 24=21-8-0, 25=21-8-0,  
26=21-8-0, 27=21-8-0, 28=21-8-0,  
29=21-8-0, 30=21-8-0, 31=21-8-0,  
33=21-8-0, 34=21-8-0, 35=21-8-0,  
36=21-8-0, 37=21-8-0  
Max Grav 20=68 (LC 1), 21=128 (LC 1),  
22=114 (LC 1), 23=118 (LC 1),  
24=117 (LC 1), 25=117 (LC 1),  
26=117 (LC 1), 27=117 (LC 1),  
28=117 (LC 1), 29=117 (LC 1),  
30=117 (LC 1), 31=117 (LC 1),  
33=117 (LC 1), 34=117 (LC 1),  
35=119 (LC 1), 36=110 (LC 1),  
37=54 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum  
Tension

TOP CHORD 1-37=-47/0, 19-20=0/9, 1-2=-12/0, 2-3=-12/0,  
3-4=-12/0, 4-5=-12/0, 5-6=-12/0, 6-7=-12/0,  
7-8=-12/0, 8-9=-12/0, 9-10=-12/0,  
10-11=-12/0, 11-13=-12/0, 13-14=-12/0,  
14-15=-12/0, 15-16=-12/0, 16-17=-12/0,  
17-18=-12/0, 18-19=-2/0  
BOT CHORD 36-37=0/12, 35-36=0/12, 34-35=0/12,  
33-34=0/12, 31-33=0/12, 30-31=0/12,  
29-30=0/12, 28-29=0/12, 27-28=0/12,  
26-27=0/12, 25-26=0/12, 24-25=0/12,  
23-24=0/12, 22-23=0/12, 21-22=0/12,  
20-21=0/12



May 13, 2025

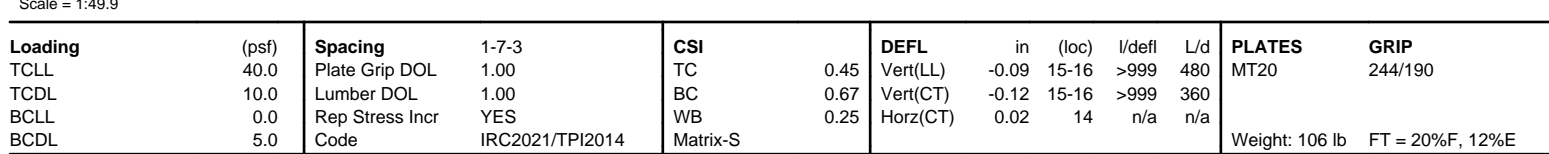
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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

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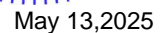
818 Soundside Road  
Edenton, NC 27932

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:19 Page: 1  
ID:9wzDLEVFShEwVt8IIATnJYzewTm-RIC?PsB70Hq3NSgPqnL8w3uITxBGKWrCDoi7J4zJC?f



## NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x3 ( $\approx$ ) MT20 unless otherwise indicated.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 4) CAUTION, Do not erect truss backwards.

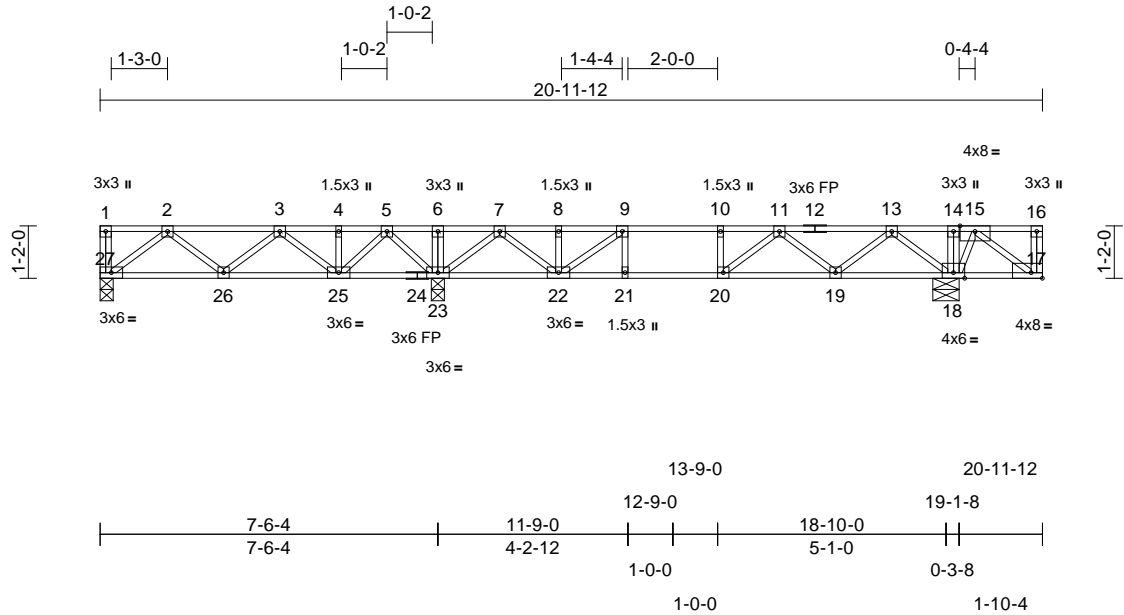


Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385744
	2F23A	Floor	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:31  
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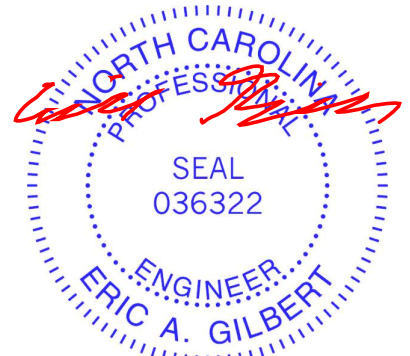
Scale = 1:51.3									
Plate Offsets (X, Y): [17:Edge,0-1-8]									
<b>Loading</b>	(psf)	<b>Spacing</b>	1-4-0	<b>CSI</b>		<b>DEFL</b>	in	(loc)	l/defl
TCLL	40.0	Plate Grip DOL	1.00	TC	0.89	Vert(LL)	0.08	19-20	>999
TCDL	10.0	Lumber DOL	1.00	BC	0.52	Vert(CT)	0.13	19-20	>999
BCLL	0.0	Rep Stress Incr	NO	WB	0.88	Horz(CT)	-0.02	18	n/a
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S					n/a
							<b>PLATES</b>	<b>GRIP</b>	
							MT20	244/190	
							Weight: 112 lb FT = 20%F, 12%E		

<b>LUMBER</b>	
TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
<b>BRACING</b>	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
<b>REACTIONS</b>	
(size)	18=0-7-0, 23=0-3-8, 27=0-3-8
Max Uplift	27=18 (LC 4)
Max Grav	18=1771 (LC 4), 23=733 (LC 3), 27=224 (LC 12)
<b>FORCES</b>	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-27=-25/0, 16-17=-1118/0, 1-2=0/0, 2-3=-303/110, 3-4=-172/340, 4-5=-172/340, 5-6=0/816, 6-7=0/817, 7-8=-199/603, 8-9=-199/603, 9-10=-360/910, 10-11=-360/910, 11-13=0/1509, 13-14=0/2044, 14-15=0/2044, 15-16=0/0, 26-27=-39/253, 25-26=-205/329, 23-25=-481/0, 22-23=-570/0, 21-22=-910/360, 20-21=-910/360, 19-20=-1248/174, 18-19=-1745/0, 17-18=-1471/0
BOT CHORD	6-23=-100/0, 9-21=-111/19, 10-20=-236/0, 14-18=-48/0, 2-27=-318/48, 2-26=-93/65, 3-26=-34/123, 3-25=-311/0, 7-23=-524/81, 7-22=-63/371, 13-18=-821/0, 13-19=0/548, 11-19=-568/0, 11-20=0/557, 15-17=0/1846, 15-18=-1329/0, 4-25=-57/0, 8-22=-170/5, 9-22=-223/375, 5-25=0/382, 5-23=-497/0
WEBS	

- NOTES**
- Unbalanced floor live loads have been considered for this design.
  - All plates are 3x3 (=) MT20 unless otherwise indicated.

- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 27. This connection is for uplift only and does not consider lateral forces.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 700 lb down at 20-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

- LOAD CASE(S)** Standard
- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 17-27=-7, 1-16=-67  
Concentrated Loads (lb)  
Vert: 16=-1084 (F=-700)



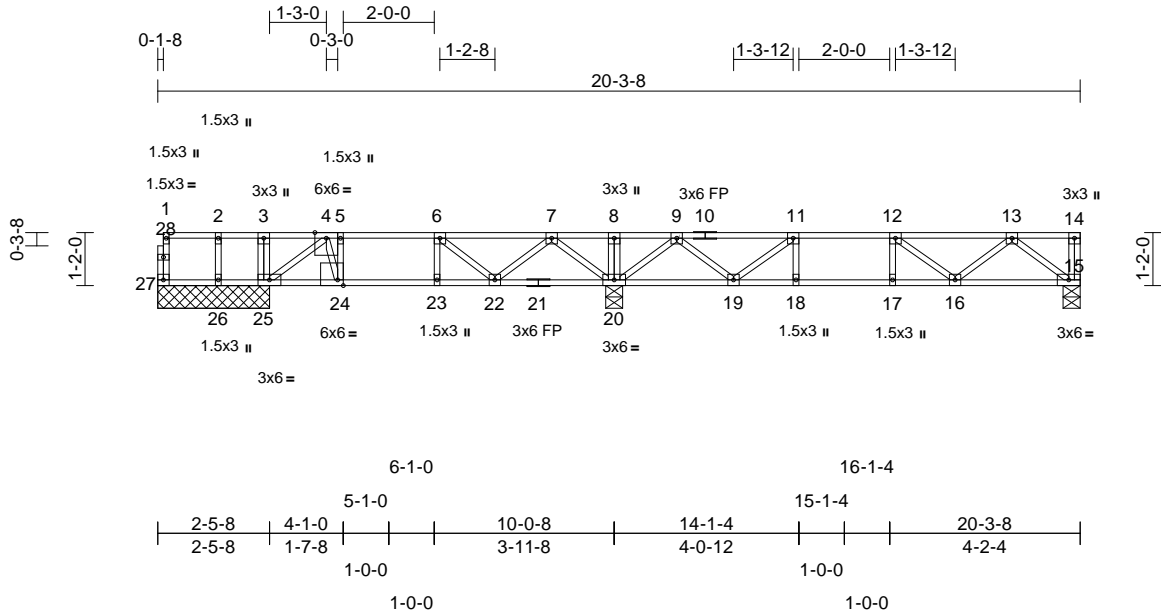
May 13,2025

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385745
	1F4	Floor	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:18  
ID:8nuj2ry3wunhW4\_YCX3Ps?zUhi3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:50.7

Plate Offsets (X, Y): [24:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.33	Vert(LL)	-0.05	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.45	Vert(CT)	-0.06	16-17	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.01	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 102 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:  
6-0-0 oc bracing: 20-22,19-20.

**REACTIONS** (size) 15=0-4-8, 20=0-4-8, 25=2-5-8, 26=2-5-8, 27=2-5-8  
Max Grav 15=412 (LC 5), 20=928 (LC 4), 25=313 (LC 3), 26=116 (LC 3), 27=42 (LC 5)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-27=-38/0, 14-15=-25/0, 1-2=-2/0, 2-3=-2/0, 3-4=-2/0, 4-5=-404/0, 5-6=-404/0, 6-7=-244/66, 7-8=0/587, 8-9=0/587, 9-11=-561/104, 11-12=-906/0, 12-13=-718/0, 13-14=0/0  
BOT CHORD 26-27=0/2, 25-26=0/2, 24-25=0/315, 23-24=0/404, 22-23=0/404, 20-22=-167/41, 19-20=-248/254, 18-19=0/906, 17-18=0/906, 16-17=0/906, 15-16=0/500  
WEBS 3-25=-100/0, 5-24=-240/10, 6-23=-33/27, 8-20=-77/0, 11-18=0/82, 12-17=-57/0, 4-25=-395/0, 4-24=-7/310, 7-20=-615/0, 7-22=0/301, 6-22=-264/0, 9-20=-745/0, 9-19=0/453, 11-19=-517/0, 13-15=-628/0, 13-16=0/283, 12-16=-237/49, 2-26=-98/0

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are 3x3 (=) MT20 unless otherwise indicated.

- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



May 13,2025

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

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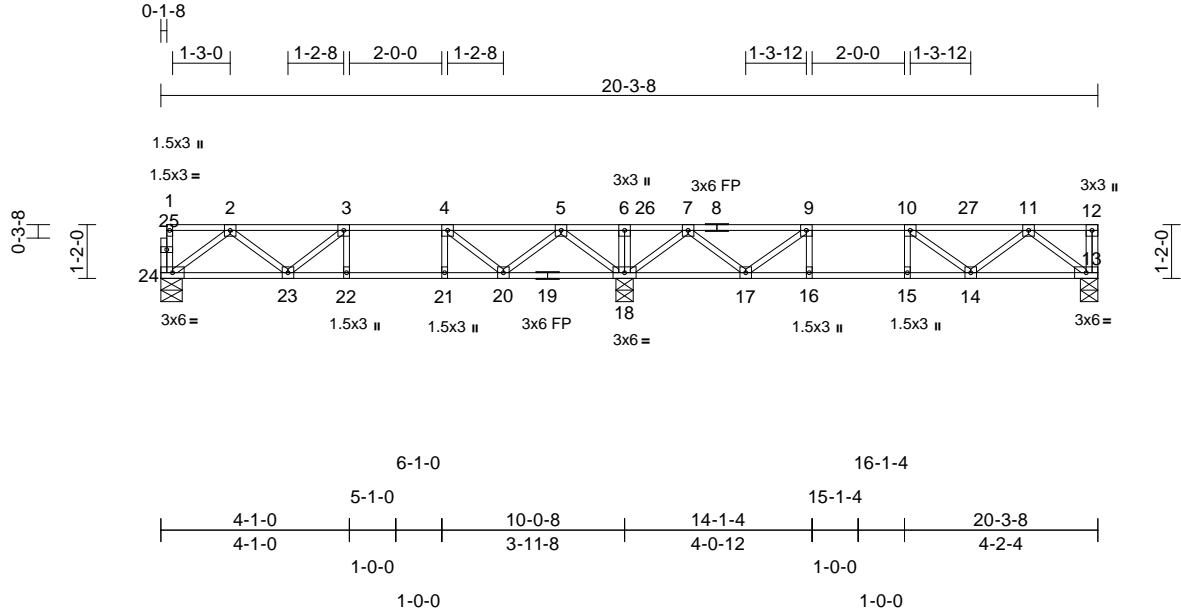
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	173385746
	1F2	Floor	4	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:18  
ID:RORMEv9Y5P\_?rGp\_4FjaMOzemTI-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:49.9

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.60	Vert(LL)	-0.05	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.65	Vert(CT)	-0.08	14-15	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.31	Horz(CT)	0.02	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 101 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or  
6'-0" oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6'-0" oc  
bracing.

**REACTIONS** (size) 13=0-4-8, 18=0-4-8, 24=0-5-8  
Max Grav 13=532 (LC 7), 18=1209 (LC 1),  
24=311 (LC 10)

**FORCES** (lb) - Maximum Compression/Maximum  
Tension

TOP CHORD 1-24=-17/1, 12-13=-16/3, 1-2=-1/0,  
2-3=-528/0, 3-4=-623/29, 4-5=-313/201,  
5-6=0/734, 6-7=0/734, 7-9=-949/0,  
9-10=-1456/0, 10-11=-1059/0, 11-12=0/0  
BOT CHORD 23-24=0/381, 22-23=-29/623, 21-22=-29/623,  
20-21=-29/623, 18-20=-342/33, 17-18=0/487,  
16-17=0/1456, 15-16=0/1456, 14-15=0/1456,  
13-14=0/671  
WEBS 3-22=-106/0, 4-21=0/127, 6-18=-74/0,  
9-16=-3/81, 10-15=-61/23, 2-24=-476/0,  
2-23=-13/192, 3-23=-123/91, 5-18=-640/0,  
5-20=0/421, 4-20=-487/0, 7-18=-1220/0,  
7-17=0/655, 9-17=-717/0, 11-13=-842/0,  
11-14=0/505, 10-14=-498/0

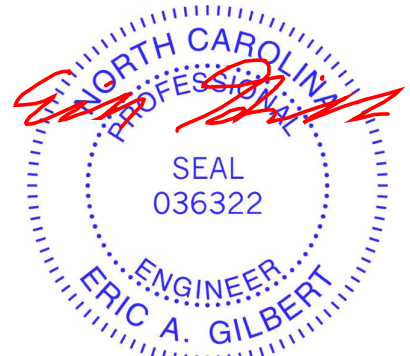
#### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x3 (≡) MT20 unless otherwise indicated.
- 3) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10'-0" oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

5) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00,  
Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 13-24=-7, 1-26=-67, 12-27=-67  
Trapezoidal Loads (lb/ft)  
Vert: 26=-151-to-7=-149, 7=-149-to-8=-148, 8=-148-  
to-9=-145, 9=-145-to-10=-141, 10=-141-to-27=-139



May 13, 2025

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

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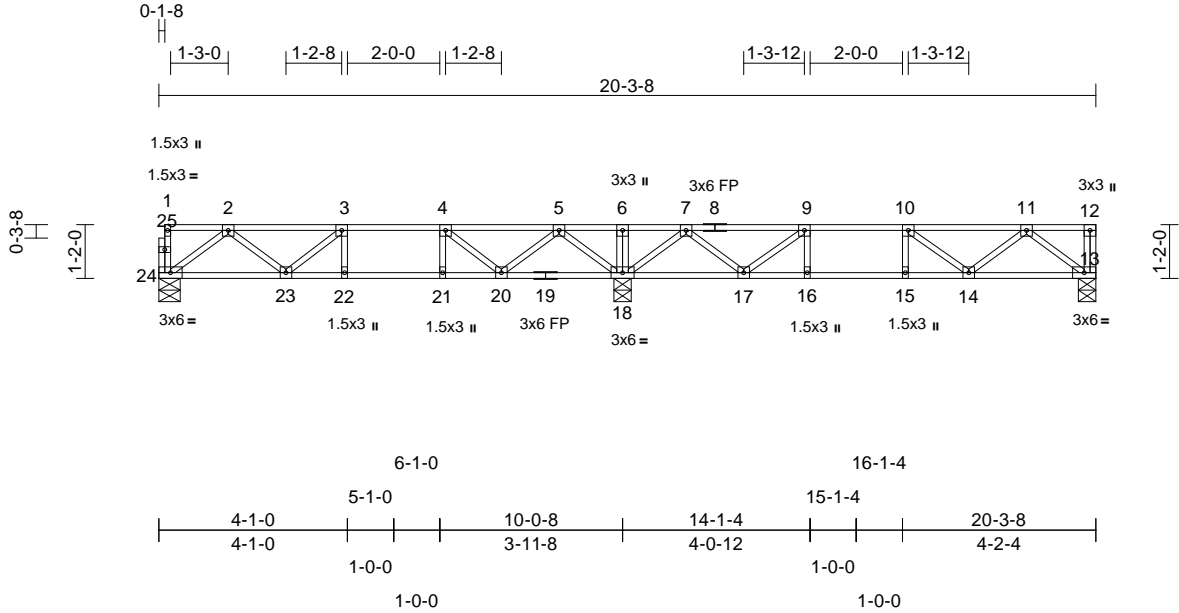


Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385747
	1F1	Floor	7	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:49.9

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.29	Vert(LL)	-0.05	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.45	Vert(CT)	-0.06	14-15	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.02	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 101 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 18-20,17-18.

**REACTIONS** (size) 13=0-4-8, 18=0-4-8, 24=0-5-8  
Max Grav 13=351 (LC 7), 18=814 (LC 1), 24=340 (LC 10)

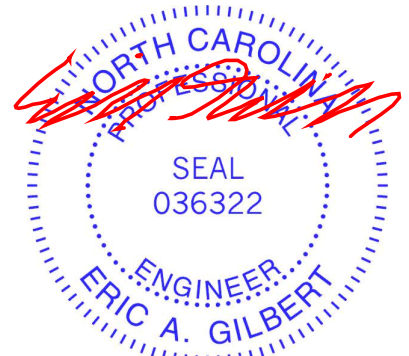
**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-24=-21/0, 12-13=-21/0, 1-2=-1/0, 2-3=-602/0, 3-4=-760/0, 4-5=-514/0, 5-6=0/462, 6-7=0/462, 7-9=-521/0, 9-10=-792/0, 10-11=-617/0, 11-12=0/0  
BOT CHORD 23-24=0/413, 22-23=0/760, 21-22=0/760, 20-21=0/760, 18-20=-101/275, 17-18=-91/276, 16-17=0/792, 15-16=0/792, 14-15=0/792, 13-14=0/426  
WEBS 3-22=-73/10, 4-21=0/93, 6-18=-71/0, 9-16=0/91, 10-15=-70/14, 2-24=-517/0, 2-23=0/245, 3-23=-204/9, 5-18=-601/0, 5-20=0/369, 4-20=-405/0, 7-18=-614/0, 7-17=0/371, 9-17=-422/0, 11-13=-534/0, 11-14=0/250, 10-14=-219/2

#### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x3 (=) MT20 unless otherwise indicated.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 4) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



May 13,2025

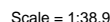
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:21 Page: 1  
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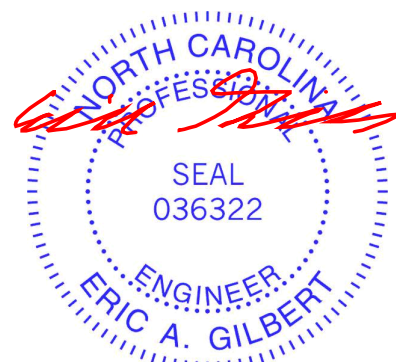
<b>LUMBER</b>		1) All plates are 1.5x3 (  ) MT20 unless otherwise indicated.
TOP CHORD	2x4 SP No.2(flat)	2) Gable requires continuous bottom chord bearing.
BOT CHORD	2x4 SP No.2(flat)	3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
WEBS	2x4 SP No.3(flat)	4) Gable studs spaced at 1-4-0 oc.
OTHERS	2x4 SP No.3(flat)	5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
<b>BRACING</b>		6) CAUTION, Do not erect truss backwards.
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
<b>REACTIONS</b>	(size) 18=20-3-8, 19=20-3-8, 20=20-3-8, 21=20-3-8, 22=20-3-8, 23=20-3-8, 24=20-3-8, 25=20-3-8, 26=20-3-8, 27=20-3-8, 28=20-3-8, 29=20-3-8, 30=20-3-8, 31=20-3-8, 32=20-3-8, 33=20-3-8, 34=20-3-8, 35=20-3-8, 36=20-3-8, 37=20-3-8, 38=20-3-8, 39=20-3-8, 40=20-3-8, 41=20-3-8, 42=20-3-8, 43=20-3-8, 44=20-3-8, 45=20-3-8, 46=20-3-8, 47=20-3-8, 48=20-3-8, 49=20-3-8, 50=20-3-8, 51=20-3-8, 52=20-3-8, 53=20-3-8, 54=20-3-8, 55=20-3-8, 56=20-3-8, 57=20-3-8, 58=20-3-8, 59=20-3-8, 60=20-3-8, 61=20-3-8, 62=20-3-8, 63=20-3-8, 64=20-3-8, 65=20-3-8, 66=20-3-8, 67=20-3-8, 68=20-3-8, 69=20-3-8, 70=20-3-8, 71=20-3-8, 72=20-3-8, 73=20-3-8, 74=20-3-8, 75=20-3-8, 76=20-3-8, 77=20-3-8, 78=20-3-8, 79=20-3-8, 80=20-3-8, 81=20-3-8, 82=20-3-8, 83=20-3-8, 84=20-3-8, 85=20-3-8, 86=20-3-8, 87=20-3-8, 88=20-3-8, 89=20-3-8, 90=20-3-8, 91=20-3-8, 92=20-3-8, 93=20-3-8, 94=20-3-8, 95=20-3-8, 96=20-3-8, 97=20-3-8, 98=20-3-8, 99=20-3-8, 100=20-3-8, 101=20-3-8, 102=20-3-8, 103=20-3-8, 104=20-3-8, 105=20-3-8, 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936=20-3-8, 937=20-3-8, 938=20-3-8, 939=20-3-8, 940=20-3-8, 941=20-3-8, 942=20-3-8, 943=20-3-8, 944=20-3-8, 945=20-3-8, 946=20-3-8, 947=20-3-8, 948=20-3-8, 949=20-3-8, 950=20-3-8, 951=20-3-8, 952=20-3-8, 953=20-3-8, 954=20-3-8, 955=20-3-8, 956=20-3-8, 957=20-3-8, 958=20-3-8, 959=20-3-8, 960=20-3-8, 961=20-3-8, 962=20-3-8, 963=20-3-8, 964=20-3-8, 965=20-3-8, 966=20-3-8, 967=20-3-8, 968=20-3-8, 969=20-3-8, 970=20-3-8, 971=20-3-8, 972=20-3-8, 973=20-3-8, 974=20-3-8, 975=20-3-8, 976=20-3-8, 977=20-3-8, 978=20-3-8, 979=20-3-8, 980=20-3-8, 981=20-3-8, 982=20-3-8, 983=20-3-8, 984=20-3-8, 985=20-3-8, 986=20-3-8, 987=20-3-8, 988=20-3-8, 989=20-3-8, 990=20-3-8, 991=20-3-8, 992=20-3-8, 993=20-3-8, 994=20-3-8, 995=20-3-8, 996=20-3-8, 997=20-3-8, 998=20-3-8, 999=20-3-8, 1000=20-3-8, 1001=20-3-8, 1002=20-3-8, 1003=20-3-8, 1004=20-3-8, 1005=20-3-8, 1006=20-3-8, 1007=20-3-8, 1008=20-3-8, 1009=20-3-8, 1010=20-3-8, 1011=20-3-8, 1012=20-3-8, 1013=20-3-8, 1014=20-3-8, 1015=20-3-8, 1016=20-3-8, 1017=20-3-8, 1018=20-3-8, 1019=20-3-8, 1020=	

**REACTIONS** (size) 18=20-3-8, 19=20-3-8, 20=20-3-8,  
21=20-3-8, 22=20-3-8, 23=20-3-8,  
24=20-3-8, 25=20-3-8, 26=20-3-8,  
27=20-3-8, 28=20-3-8, 30=20-3-8,  
31=20-3-8, 32=20-3-8, 33=20-3-8,  
34=20-3-8

Max Grav 18=44 (LC 1), 19=92 (LC 1), 20=99  
(LC 1), 21=97 (LC 1), 22=98 (LC  
1), 23=98 (LC 1), 24=98 (LC 1),  
25=98 (LC 1), 26=98 (LC 1), 27=98  
(LC 1), 28=98 (LC 1), 30=98 (LC  
1), 31=99 (LC 1), 32=95 (LC 1),  
33=109 (LC 1), 34=48 (LC 1)

<b>FORCES</b>	(lb) - Maximum Compression/Maximum Tension
<b>TOP CHORD</b>	1-34=45/0, 17-18=39/0, 1-2=9/0, 2-3=9/0, 3-4=9/0, 4-5=9/0, 5-6=9/0, 6-7=9/0, 7-8=9/0, 8-9=9/0, 9-10=9/0, 10-11=9/0, 11-13=9/0, 13-14=9/0, 14-15=9/0, 15-16=9/0, 16-17=9/0
<b>BOT CHORD</b>	33-34=0/9, 32-33=0/9, 31-32=0/9, 30-31=0/9, 28-30=0/9, 27-28=0/9, 26-27=0/9, 25-26=0/9, 24-25=0/9, 23-24=0/9, 22-23=0/9, 21-22=0/9, 20-21=0/9, 19-20=0/9, 18-19=0/9
<b>WEBS</b>	16-19=85/0, 15-20=90/0, 14-21=89/0, 13-22=89/0, 11-23=89/0, 10-24=89/0, 9-25=89/0, 8-26=89/0, 7-27=89/0, 6-28=89/0, 5-30=89/0, 4-31=90/0, 3-32=86/0, 2-33=98/0

## NOTES



May 13, 2025



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-7473 Rev. 1/2/2023 BEFORE USE.**

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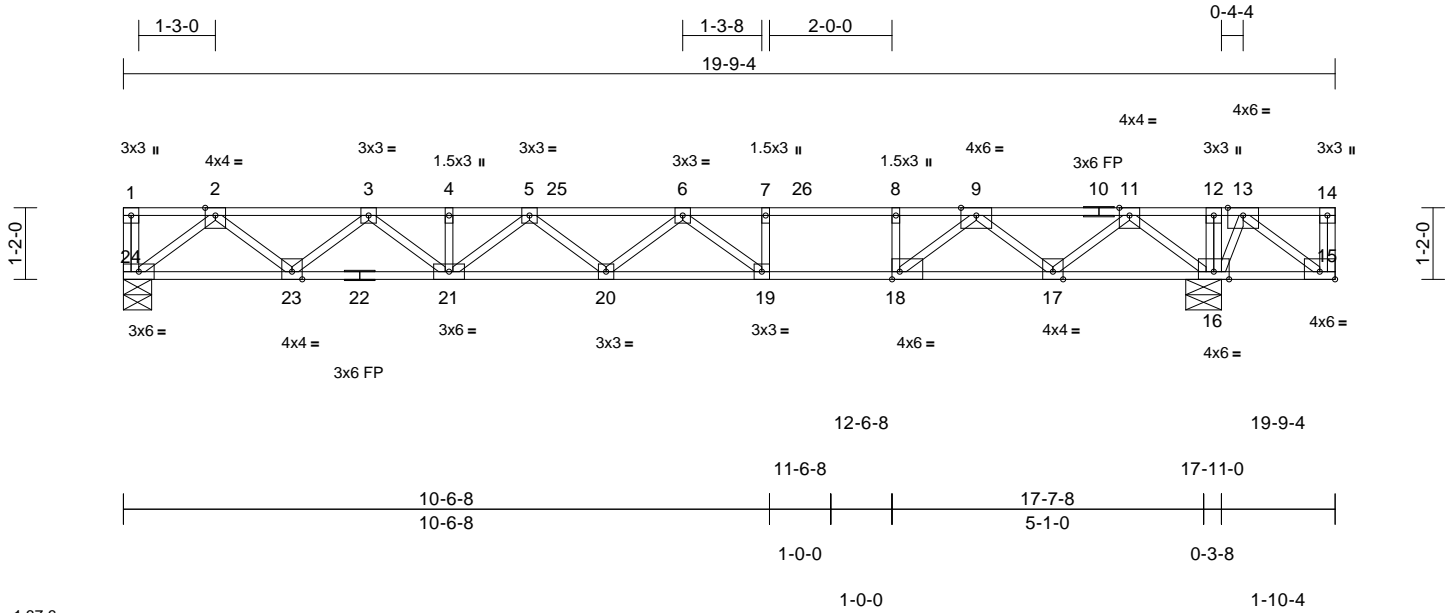
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385749
	2F25	Floor Girder	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:32  
ID:8mc0MWOPXz71SZzqE1a\_ZszvBP3-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:37.6									
Plate Offsets (X, Y): [15:Edge,0-1-8], [18:0-1-8,Edge]									
<b>Loading</b>	(psf)	<b>Spacing</b>	1-8-0	<b>CSI</b>		<b>DEFL</b>	in (loc)	l/defl	L/d
TCLL	40.0	Plate Grip DOL	1.00	TC	0.89	Vert(LL)	-0.33 19-20	>641	480
TCDL	10.0	Lumber DOL	1.00	BC	0.91	Vert(CT)	-0.49 19-20	>435	360
BCLL	0.0	Rep Stress Incr	NO	WB	0.66	Horz(CT)	0.05 16	n/a	n/a
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S					
								Weight: 103 lb	FT = 20%F, 12%E

<b>LUMBER</b>	
TOP CHORD	2x4 SP SS(flat) *Except* 10-14:2x4 SP No.2 (flat)
BOT CHORD	2x4 SP No.2(flat) *Except* 22-15:2x4 SP SS (flat)
WEBS	2x4 SP No.3(flat)
<b>BRACING</b>	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
<b>REACTIONS</b>	
(size)	16=0-7-0, 24=0-5-8
Max Grav	16=1904 (LC 1), 24=804 (LC 3)
<b>FORCES</b>	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-24=-33/0, 14-15=-844/0, 1-2=0/0, 2-3=-1694/0, 3-4=-2802/0, 4-5=-2802/0, 5-6=-3333/0, 6-7=-2902/6, 7-8=-2902/6, 8-9=-2902/6, 9-11=-1238/841, 11-12=0/1563, 12-13=0/1563, 13-14=0/0
BOT CHORD	23-24=0/1005, 21-23=0/2348, 20-21=0/3182, 19-20=0/3363, 18-19=-6/2902, 17-18=-484/2038, 16-17=-1160/513, 15-16=-1110/0
WEBS	7-19=-17/313, 8-18=-586/0, 12-16=-56/0, 2-24=-1260/0, 2-23=0/897, 3-23=-851/0, 3-21=0/580, 4-21=-66/0, 5-21=-485/0, 5-20=-27/205, 6-20=-129/160, 6-19=-901/0, 11-16=-1413/0, 11-17=0/1025, 9-17=-1152/0, 9-18=0/1386, 13-15=0/1393, 13-16=-1050/0

- NOTES**
- Unbalanced floor live loads have been considered for this design.
  - Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.

- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 700 lb down at 19-7-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard
- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 15-24=-8, 1-25=-83, 25-26=-98, 14-26=-83  
Concentrated Loads (lb)  
Vert: 14=-800 (F=700)



May 13,2025

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

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

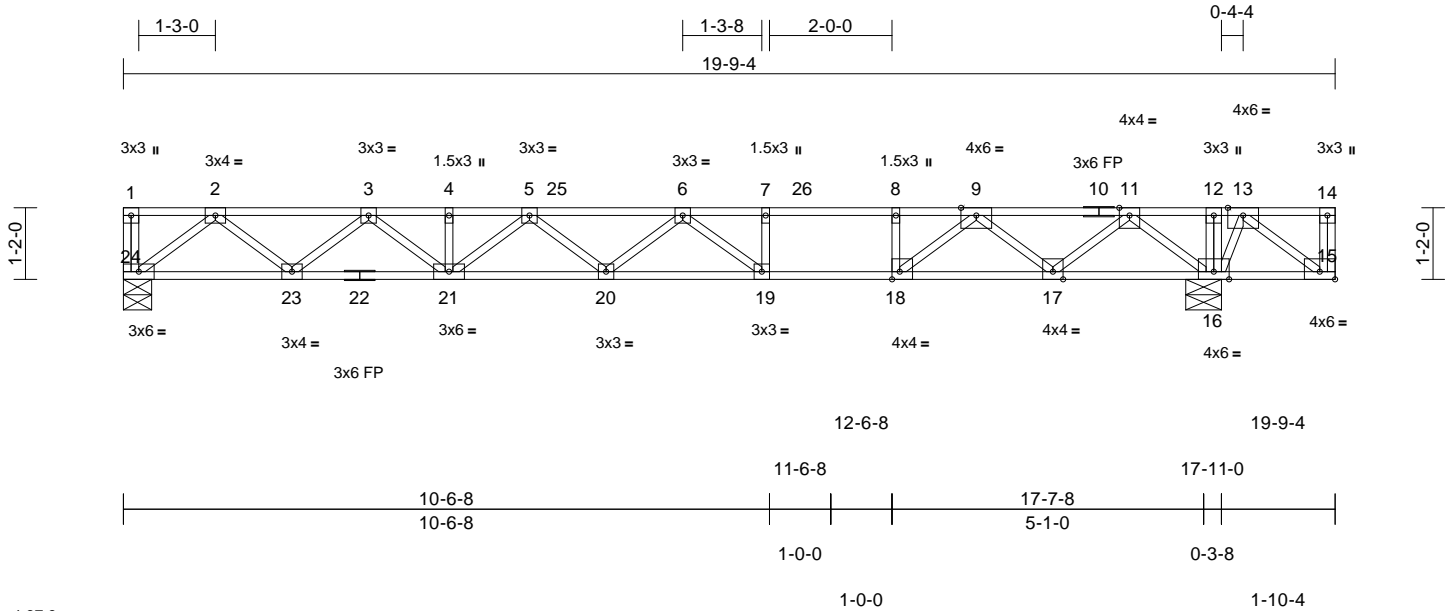
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	173385750
	2F24A	Floor	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:31  
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Page: 1



Scale = 1:37.6									
Plate Offsets (X, Y): [15:Edge,0-1-8], [18:0-1-8,Edge]									
<b>Loading</b>	(psf)	<b>Spacing</b>	1-8-0	<b>CSI</b>		<b>DEFL</b>	in (loc)	l/defl	L/d
TCLL	40.0	Plate Grip DOL	1.00	TC	0.85	Vert(LL)	-0.33 19-20	>641	480
TCDL	10.0	Lumber DOL	1.00	BC	0.85	Vert(CT)	-0.46 19-20	>465	360
BCLL	0.0	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.05 16	n/a	n/a
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S					
								Weight: 103 lb	FT = 20%F, 12%E

**LUMBER**  
TOP CHORD 2x4 SP SS(flat) \*Except\* 10-14:2x4 SP No.2 (flat)  
BOT CHORD 2x4 SP No.2(flat) \*Except\* 22-15:2x4 SP SS (flat)  
WEBS 2x4 SP No.3(flat)

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 16=0-7-0, 24=0-5-8  
Max Grav 16=1937 (LC 1), 24=775 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-24=-33/0, 14-15=-896/0, 1-2=0/0, 2-3=-1620/0, 3-4=-2657/0, 4-5=-2657/0, 5-6=-3120/0, 6-7=-2694/214, 7-8=-2694/214, 8-9=-2694/214, 9-11=-1099/980, 11-12=0/1657, 12-13=0/1656, 13-14=0/0  
BOT CHORD 23-24=0/966, 21-23=0/2239, 20-21=0/2995, 19-20=0/3129, 18-19=-214/2694, 17-18=-649/1873, 16-17=-1278/395, 15-16=-1179/0  
WEBS 7-19=-27/304, 8-18=-564/0, 12-16=-57/0, 2-24=-1212/0, 2-23=0/851, 3-23=-806/0, 3-21=0/534, 4-21=-70/0, 5-21=-431/25, 5-20=-61/170, 6-20=-102/187, 6-19=-867/0, 11-16=-1381/0, 11-17=0/999, 9-17=-1118/0, 9-18=0/1331, 13-15=0/1479, 13-16=-1106/0

**NOTES**  
1) Unbalanced floor live loads have been considered for this design.  
2) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.

- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.  
4) CAUTION, Do not erect truss backwards.  
5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 700 lb down at 19-7-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.  
6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard  
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 15-24=-8, 1-25=-83, 25-26=-86, 14-26=-83  
Concentrated Loads (lb)  
Vert: 14=-852 (F=700)



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
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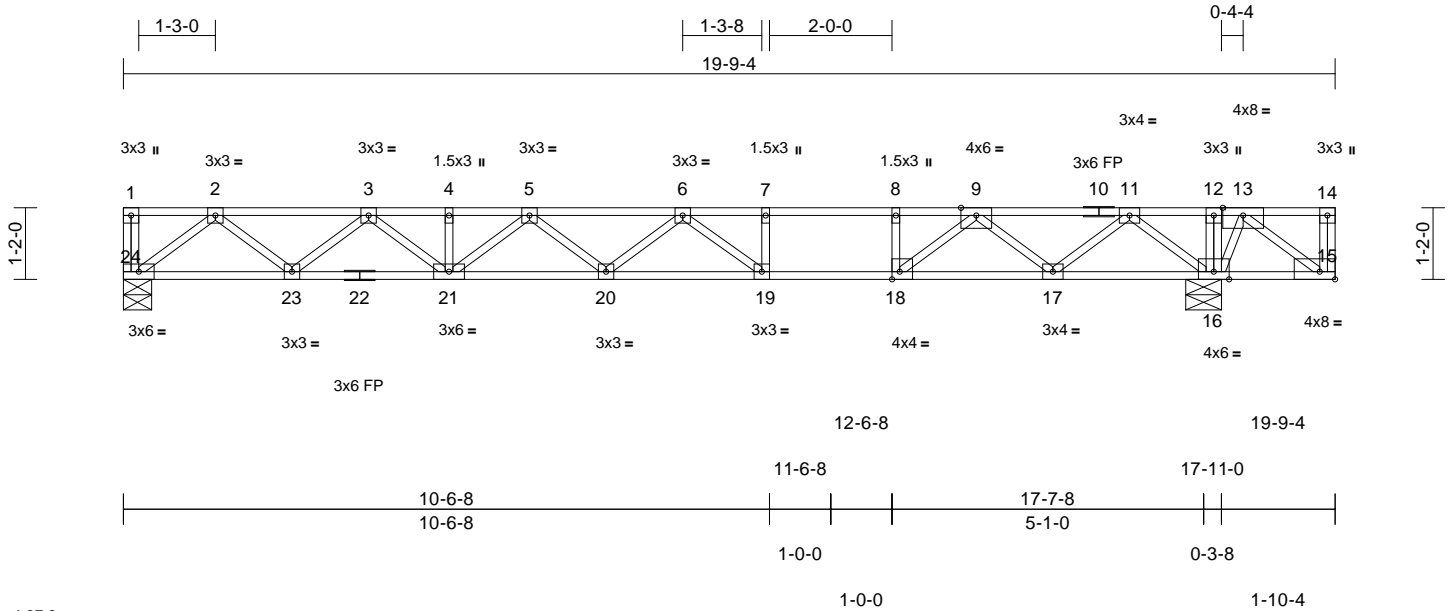
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385751
	2F24	Floor	2	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:31  
ID:BhD\_FilW17SRq8pm9vVfbzvBRI-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:37.6									
Plate Offsets (X, Y): [15:Edge,0-1-8], [18:0-1-8,Edge]									
<b>Loading</b>	(psf)	<b>Spacing</b>	1-4-0	<b>CSI</b>		<b>DEFL</b>	in (loc)	l/defl	L/d
TCLL	40.0	Plate Grip DOL	1.00	TC	0.81	Vert(LL)	-0.26 19-20	>801	480
TCDL	10.0	Lumber DOL	1.00	BC	0.69	Vert(CT)	-0.36 19-20	>596	360
BCLL	0.0	Rep Stress Incr	NO	WB	0.87	Horz(CT)	0.03 16	n/a	n/a
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S					
								Weight: 103 lb	FT = 20%F, 12%E

**LUMBER**  
TOP CHORD 2x4 SP SS(flat) \*Except\* 10-14:2x4 SP No.2 (flat)  
BOT CHORD 2x4 SP No.2(flat) \*Except\* 22-15:2x4 SP SS (flat)  
WEBS 2x4 SP No.3(flat)

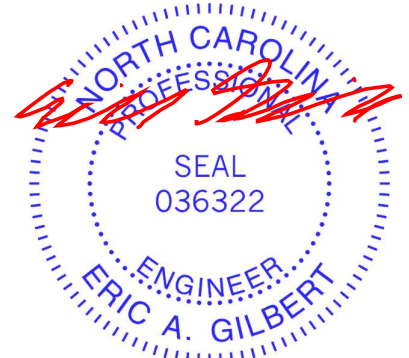
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:  
10-0-0 oc bracing: 23-24,21-23.

**REACTIONS** (size) 16=0-7-0, 24=0-5-8  
Max Grav 16=1981 (LC 1), 24=585 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-24=-26/0, 14-15=-1109/0, 1-2=0/0, 2-3=-1209/0, 3-4=-1953/0, 4-5=-1953/0, 5-6=-2245/142, 6-7=-1795/649, 7-8=-1795/649, 8-9=-1795/649, 9-11=-420/1400, 11-12=0/2024, 12-13=0/2023, 13-14=0/0  
BOT CHORD 23-24=0/727, 21-23=0/1662, 20-21=-57/2180, 19-20=-303/2207, 18-19=-649/1795, 17-18=-1082/1078, 16-17=-1678/0, 15-16=-1457/0  
WEBS 7-19=0/288, 8-18=-494/0, 12-16=-52/0, 2-24=-913/0, 2-23=0/627, 3-23=-590/14, 3-21=-60/372, 4-21=-58/0, 5-21=-289/93, 5-20=-110/90, 6-20=-24/227, 6-19=-806/0, 11-16=-1159/0, 11-17=0/850, 9-17=-964/0, 9-18=0/1173, 13-15=0/1828, 13-16=-1312/0

- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 4) CAUTION, Do not erect truss backwards.
  - 5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 700 lb down at 19-7-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard
- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 15-24=-7, 1-14=-67  
Concentrated Loads (lb)  
Vert: 14=-1075 (F=-700)

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.



May 13,2025

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Edenton, NC 27932

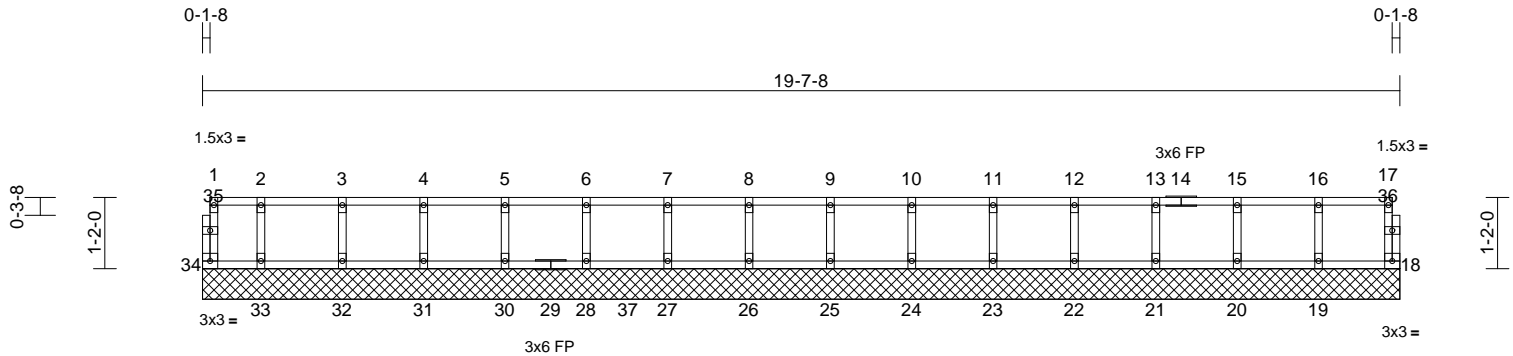


Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385752
	1FGE6	Floor Supported Gable	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:22  
ID:aNITxbud2ohdoJUTQTIIm3azew7J-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:37.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horiz(TL)	0.00	18	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 82 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

#### BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	18=19-7-8, 19=19-7-8, 20=19-7-8, 21=19-7-8, 22=19-7-8, 23=19-7-8, 24=19-7-8, 25=19-7-8, 26=19-7-8, 27=19-7-8, 28=19-7-8, 30=19-7-8, 31=19-7-8, 32=19-7-8, 33=19-7-8, 34=19-7-8
Max Grav		18=53 (LC 1), 19=147 (LC 1), 20=147 (LC 1), 21=147 (LC 1), 22=147 (LC 1), 23=147 (LC 1), 24=146 (LC 1), 25=147 (LC 1), 26=144 (LC 1), 27=158 (LC 1), 28=158 (LC 1), 30=145 (LC 1), 31=146 (LC 1), 32=152 (LC 1), 33=120 (LC 1), 34=37 (LC 1)

#### FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-34=-32/0, 17-18=-49/0, 1-2=-7/0, 2-3=-7/0, 3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0, 7-8=-7/0, 8-9=-7/0, 9-10=-7/0, 10-11=-7/0, 11-12=-7/0, 12-13=-7/0, 13-15=-7/0, 15-16=-7/0, 16-17=-7/0
BOT CHORD	33-34=0/7, 32-33=0/7, 31-32=0/7, 30-31=0/7, 28-30=0/7, 27-28=0/7, 26-27=0/7, 25-26=0/7, 24-25=0/7, 23-24=0/7, 22-23=0/7, 21-22=0/7, 20-21=0/7, 19-20=0/7, 18-19=0/7
WEBS	16-19=-132/0, 15-20=-134/0, 13-21=-133/0, 12-22=-133/0, 11-23=-133/0, 10-24=-133/0, 9-25=-133/0, 8-26=-133/0, 7-27=-133/0, 6-28=-133/0, 5-30=-134/0, 4-31=-132/0, 3-32=-138/0, 2-33=-112/0

#### NOTES

- 1) All plates are 1.5x3 (||) MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

#### LOAD CASE(S) Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 18-34=-10, 1-17=-100  
Concentrated Loads (lb)  
Vert: 1=-3, 37=-19



May 13, 2025

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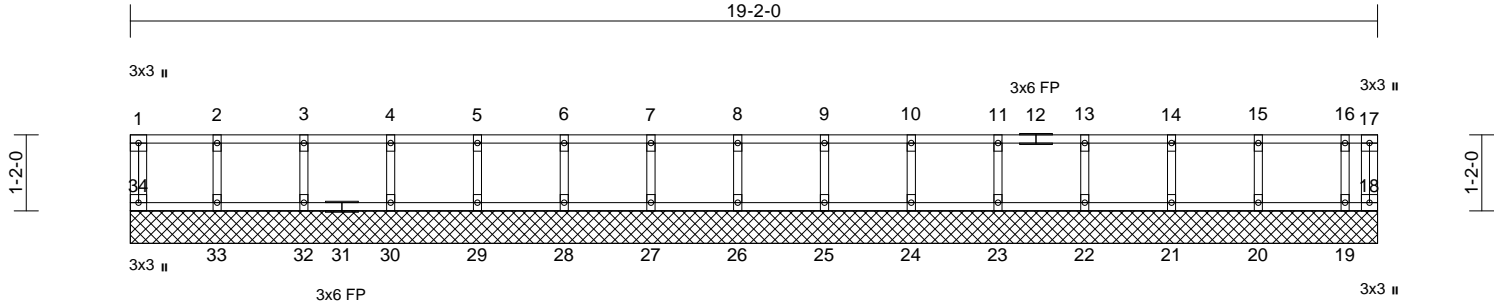
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385753
	2FGE2	Floor Supported Gable	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:34  
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Page: 1



Scale = 1:35.4

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	0.00	18	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 82 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

#### BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	18=19-2-0, 19=19-2-0, 20=19-2-0, 21=19-2-0, 22=19-2-0, 23=19-2-0, 24=19-2-0, 25=19-2-0, 26=19-2-0, 27=19-2-0, 28=19-2-0, 29=19-2-0, 30=19-2-0, 32=19-2-0, 33=19-2-0, 34=19-2-0
Max Grav		18=7 (LC 1), 19=80 (LC 1), 20=122 (LC 1), 21=116 (LC 1), 22=118 (LC 1), 23=117 (LC 1), 24=117 (LC 1), 25=117 (LC 1), 26=117 (LC 1), 27=117 (LC 1), 28=117 (LC 1), 29=117 (LC 1), 30=117 (LC 1), 32=117 (LC 1), 33=118 (LC 1), 34=47 (LC 1)

#### FORCES

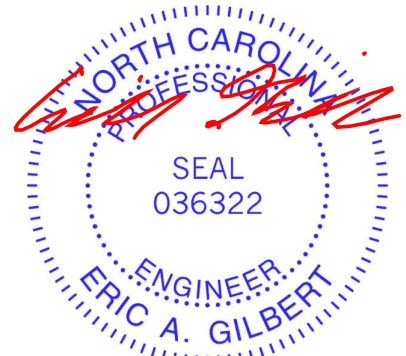
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-34=-44/0, 17-18=0/0, 1-2=-5/0, 2-3=-5/0, 3-4=-5/0, 4-5=-5/0, 5-6=-5/0, 6-7=-5/0, 7-8=-5/0, 8-9=-5/0, 9-10=-5/0, 10-11=-5/0, 11-13=-5/0, 13-14=-5/0, 14-15=-5/0, 15-16=-5/0, 16-17=-5/0
BOT CHORD	33-34=0/5, 32-33=0/5, 30-32=0/5, 29-30=0/5, 28-29=0/5, 27-28=0/5, 26-27=0/5, 25-26=0/5, 24-25=0/5, 23-24=0/5, 22-23=0/5, 21-22=0/5, 20-21=0/5, 19-20=0/5, 18-19=0/5
WEBS	2-33=-106/0, 3-32=-107/0, 4-30=-107/0, 5-29=-107/0, 6-28=-107/0, 7-27=-107/0, 8-26=-107/0, 9-25=-107/0, 10-24=-107/0, 11-23=-107/0, 13-22=-107/0, 14-21=-106/0, 15-20=-111/0, 16-19=-80/0

#### NOTES

- 1) All plates are 1.5x3 (II) MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

#### LOAD CASE(S)

Standard



May 13, 2025

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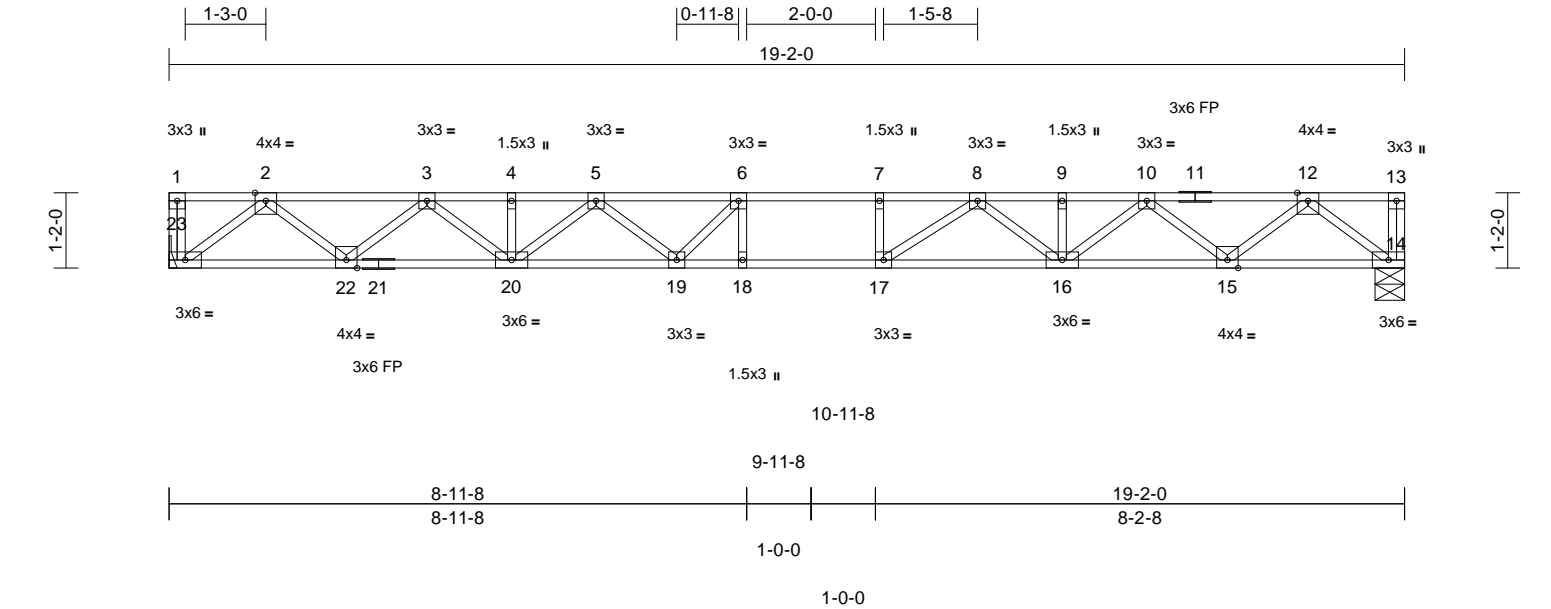
Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385754
	2F10	Floor	7	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:27

Page: 1

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Scale = 1:35.7

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	-0.32	18	>715	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.67	Vert(CT)	-0.44	18	>522	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.06	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 98 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat) \*Except\* 21-14:2x4 SP SS (flat)  
WEBS 2x4 SP No.3(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-7 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

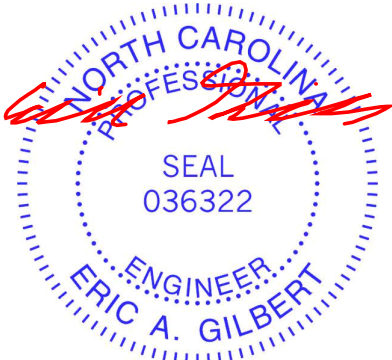
REACTIONS (size) 14=0-5-8, 23= Mechanical  
Max Grav 14=832 (LC 1), 23=832 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-23=-32/0, 13-14=-31/0, 1-2=0/0, 2-3=-1775/0, 3-4=-2992/0, 4-5=-2992/0, 5-6=-3617/0, 6-7=-3732/0, 7-8=-3732/0, 8-9=-2995/0, 9-10=-2995/0, 10-12=-1776/0, 12-13=0/0  
BOT CHORD 22-23=0/1042, 20-22=0/2480, 19-20=0/3420, 18-19=0/3732, 17-18=0/3732, 16-17=0/3402, 15-16=0/2478, 14-15=0/1043  
WEBS 6-18=-191/144, 7-17=-224/0, 2-23=-1308/0, 2-22=0/954, 3-22=-918/0, 3-20=0/654, 4-20=-50/0, 5-20=-546/0, 5-19=0/397, 6-19=-451/146, 12-14=-1309/0, 12-15=0/953, 10-15=-914/0, 10-16=0/660, 9-16=-77/0, 8-16=-521/0, 8-17=0/642

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Refer to girder(s) for truss to truss connections.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 13,2025

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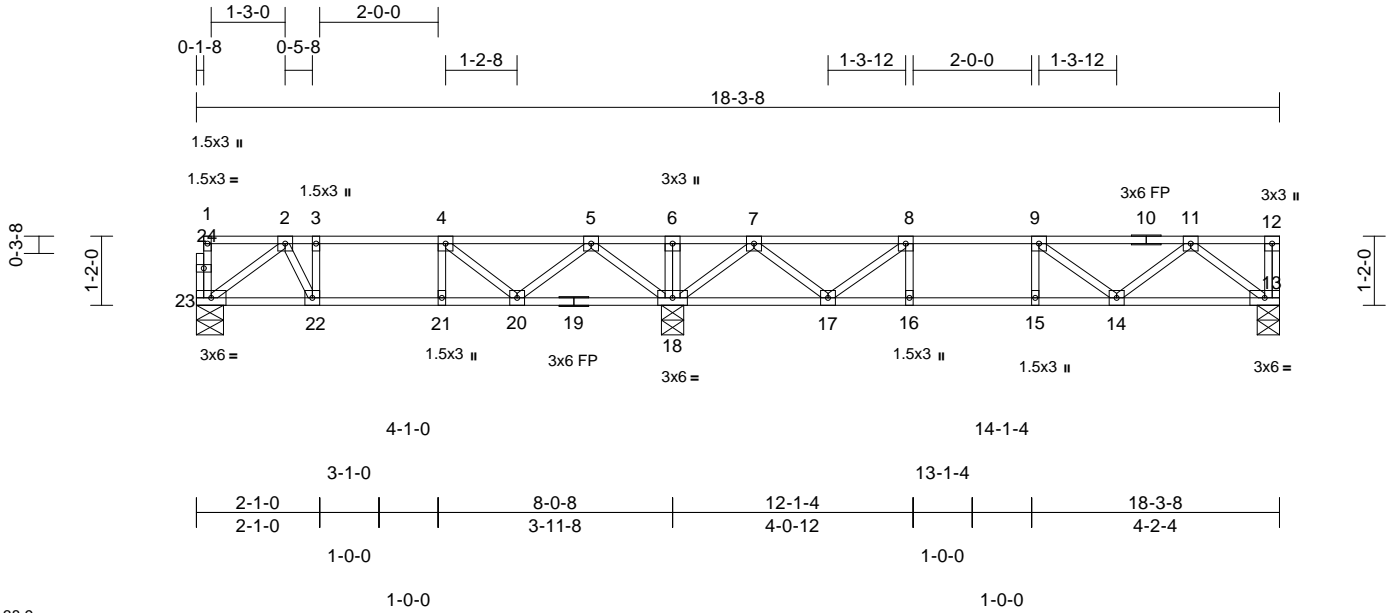
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	173385755
	1F3	Floor	12	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:18  
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Page: 1



Scale = 1:38.9

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.45	Vert(LL)	-0.06	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.64	Vert(CT)	-0.08	14-15	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.22	Horz(CT)	0.01	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 92 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6'-0" oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing, Except: 6'-0" oc bracing: 18-20, 17-18.

**REACTIONS** (size) 13=0-4-8, 18=0-4-8, 23=0-5-8  
Max Grav 13=413 (LC 4), 18=933 (LC 1), 23=294 (LC 10)

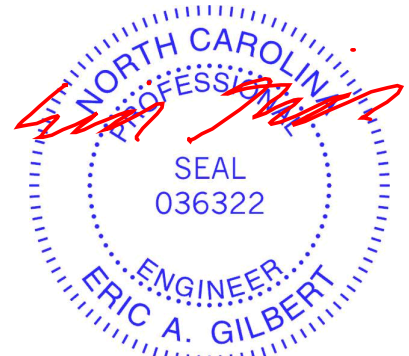
**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-23=-49/0, 12-13=-25/0, 1-2=-3/0, 2-3=-463/0, 3-4=-463/0, 4-5=-307/54, 5-6=0/684, 6-7=0/684, 7-8=-567/97, 8-9=-910/0, 9-11=-720/0, 11-12=0/0  
BOT CHORD 22-23=0/334, 21-22=0/463, 20-21=0/463, 18-20=-168/108, 17-18=-239/261, 16-17=0/910, 15-16=0/910, 14-15=0/910, 13-14=0/501  
WEBS 3-22=-206/10, 4-21=-34/33, 6-18=-78/0, 8-16=0/126, 9-15=-101/2, 2-23=-415/0, 2-22=-3/289, 5-18=-646/0, 5-20=0/341, 4-20=-318/0, 7-18=-747/0, 7-17=0/456, 8-17=-522/0, 11-13=-629/0, 11-14=0/284, 9-14=-239/46

#### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x3 (=) MT20 unless otherwise indicated.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10'-0" oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 4) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



May 13, 2025

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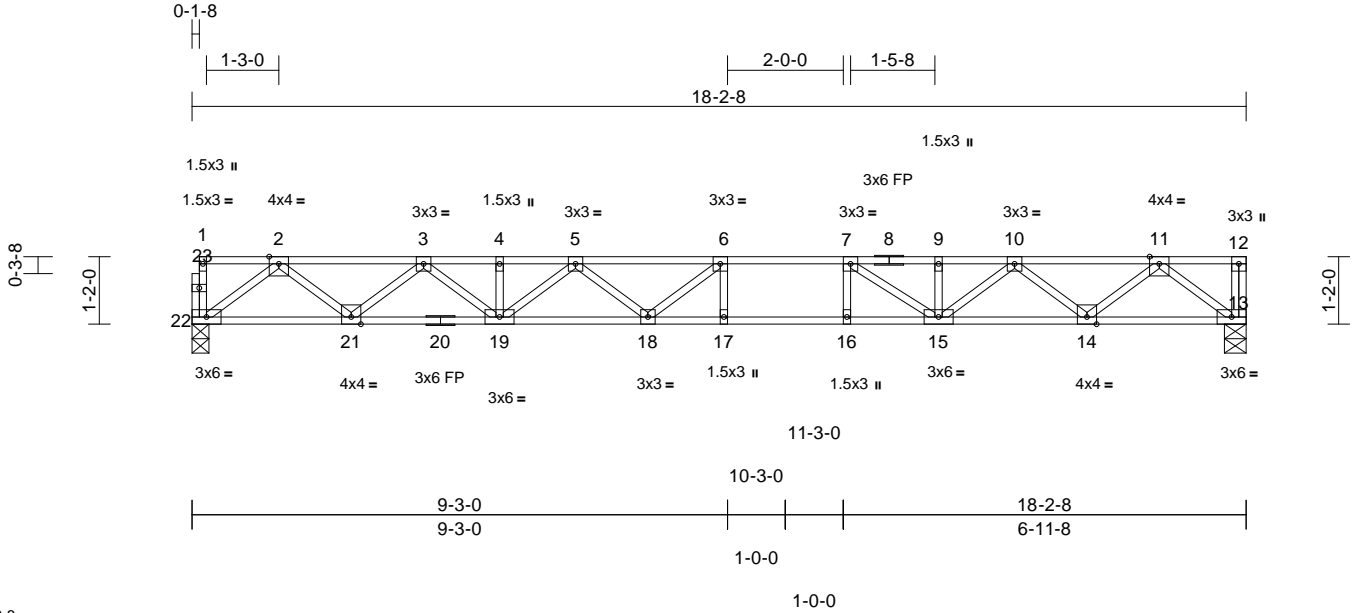
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	173385756
	2F6	Floor	5	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:25  
ID:hoC1Cq3YZ6jU77wMUJPC55y8MUA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?fi

Page: 1



Scale = 1:39.8												
<b>Loading</b>	(psf)	<b>Spacing</b>	1-7-3	<b>CSI</b>		<b>DEFL</b>				<b>PLATES</b>	<b>GRIP</b>	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.68	Vert(LL)	-0.29	17-18	>733	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.68	Vert(CT)	-0.40	17-18	>534	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.06	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 93 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat) *Except* 20-13:2x4 SP SS (flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

#### BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-7-1 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size) 13=0-4-8, 22=0-3-8
	Max Grav 13=790 (LC 1), 22=785 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
--------	--

TOP CHORD	1-22=-29/0, 12-13=-32/0, 1-2=-2/0, 2-3=-1670/0, 3-4=-2778/0, 4-5=-2778/0, 5-6=-3298/0, 6-7=-3318/0, 7-9=-2765/0, 9-10=-2765/0, 10-11=-1673/0, 11-12=0/0
BOT CHORD	21-22=0/987, 19-21=0/2324, 18-19=0/3178, 17-18=0/3318, 16-17=0/3318, 15-16=0/3318, 14-15=0/2320, 13-14=0/988
WEBS	6-17=-217/72, 7-16=-39/221, 2-22=-1236/0, 2-21=0/890, 3-21=-851/0, 3-19=0/579, 4-19=-30/0, 5-19=-511/0, 5-18=0/301, 6-18=-336/213, 11-13=-1240/0, 11-14=0/891, 10-14=-843/0, 10-15=0/567, 9-15=-100/88, 7-15=-848/0

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



May 13, 2025

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

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Edenton, NC 27932

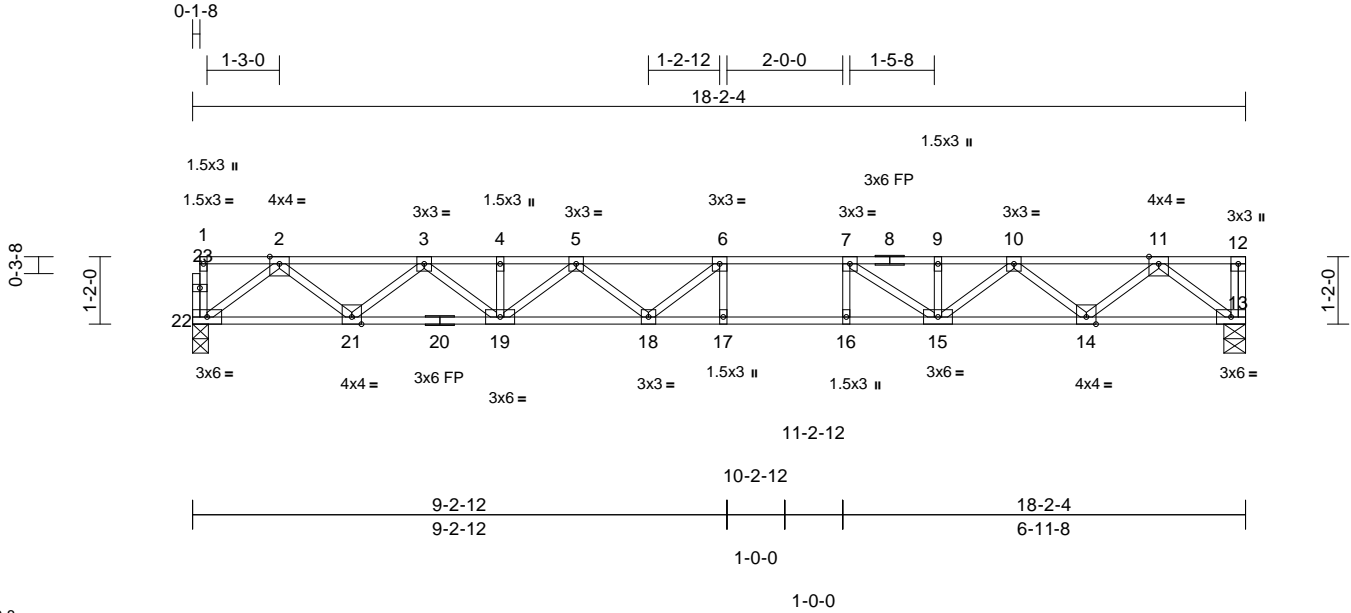


Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	173385757
	2F5	Floor	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:25  
ID:Dbee?U2wpobdWzL9x2uzYuy8MUB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:39.8												
<b>Loading</b>	(psf)	<b>Spacing</b>	1-7-3	<b>CSI</b>		<b>DEFL</b>					<b>PLATES</b>	<b>GRIP</b>
TCLL	40.0	Plate Grip DOL	1.00	TC	0.67	Vert(LL)	-0.29	17-18	>736	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.67	Vert(CT)	-0.40	17-18	>537	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.06	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 92 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat) *Except* 20-13:2x4 SP SS (flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

#### BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-7-14 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size) 13=0-4-8, 22=0-3-4
	Max Grav 13=789 (LC 1), 22=784 (LC 1)

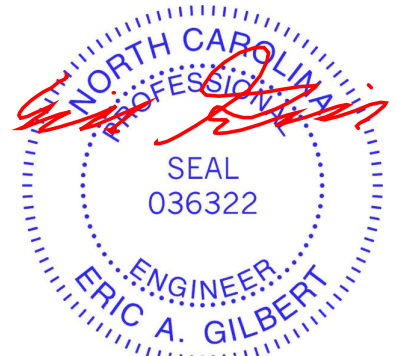
FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	1-22=-29/0, 12-13=-32/0, 1-2=-2/0, 2-3=-1668/0, 3-4=-2773/0, 4-5=-2773/0, 5-6=-3292/0, 6-7=-3311/0, 7-9=-2761/0, 9-10=-2761/0, 10-11=-1671/0, 11-12=0/0
BOT CHORD	21-22=0/985, 19-21=0/2321, 18-19=0/3171, 17-18=0/3311, 16-17=0/3311, 15-16=0/3311, 14-15=0/2317, 13-14=0/987
WEBS	6-17=-218/73, 7-16=-39/220, 2-22=-1234/0, 2-21=0/889, 3-21=-849/0, 3-19=0/578, 4-19=-31/0, 5-19=-508/0, 5-18=0/301, 6-18=-335/213, 11-13=-1239/0, 11-14=0/890, 10-14=-841/0, 10-15=0/566, 9-15=-101/88, 7-15=-845/0

#### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 3) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



May 13, 2025

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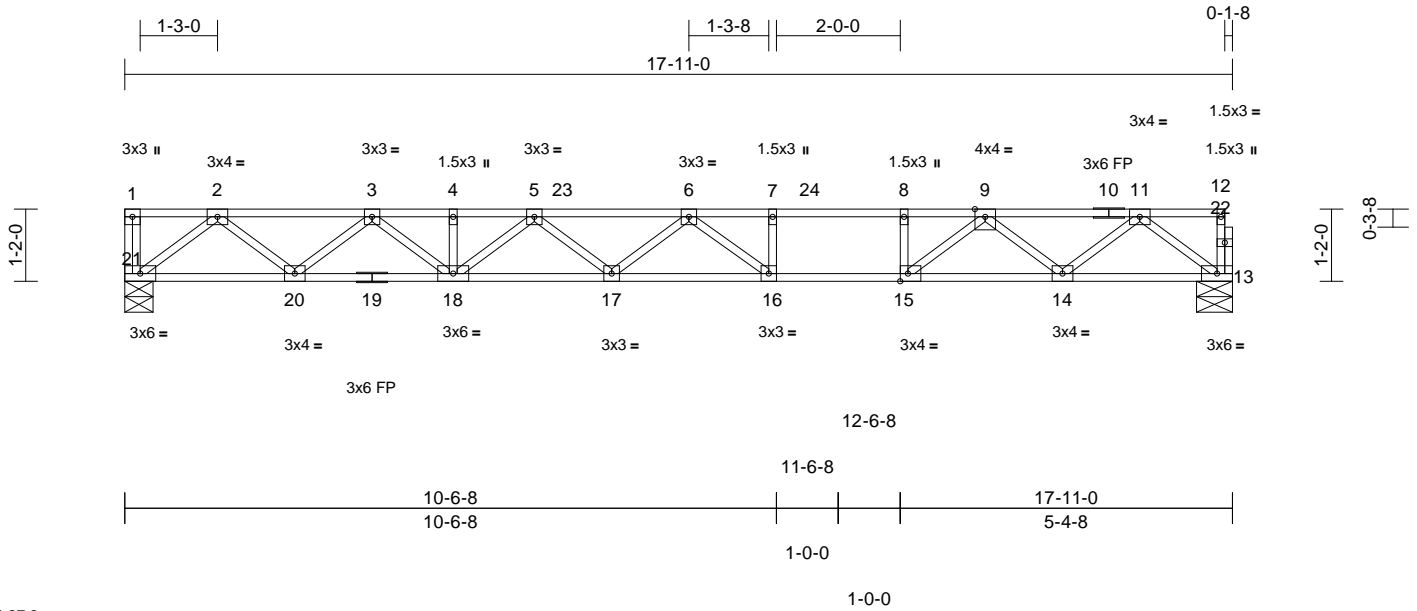
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385758
	2F26	Floor	2	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:32  
ID:ehsevcSoehPMAXWyOkEbQdzvFV4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:37.3

Plate Offsets (X, Y): [15:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.59	Vert(LL)	-0.26	16-17	>800	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.70	Vert(CT)	-0.40	16-17	>532	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.43	Horz(CT)	0.05	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 90 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD	2x4 SP SS(flat) *Except* 10-12:2x4 SP No.2 (flat)
BOT CHORD	2x4 SP No.2(flat) *Except* 19-13:2x4 SP SS (flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

#### BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size) 13=0-7-0, 21=0-5-8
	Max Grav 13=671 (LC 1), 21=674 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
--------	--

TOP CHORD	1-21=-27/0, 12-13=-23/1, 1-2=0/0, 2-3=-1432/0, 3-4=-2395/0, 4-5=-2395/0, 5-6=-2890/0, 6-7=-2641/0, 7-8=-2641/0, 8-9=-2641/0, 9-11=-1401/0, 11-12=-1/0
BOT CHORD	20-21=0/844, 18-20=0/1993, 17-18=0/2737, 16-17=0/2953, 15-16=0/2641, 14-15=0/2005, 13-14=0/838
WEBS	7-16=-42/168, 8-15=-387/0, 2-21=-1059/0, 2-20=0/766, 3-20=-729/0, 3-18=0/513, 4-18=-49/0, 5-18=-437/0, 5-17=0/205, 6-17=-154/0, 6-16=-511/39, 11-13=-1050/0, 11-14=0/732, 9-14=-786/0, 9-15=0/901

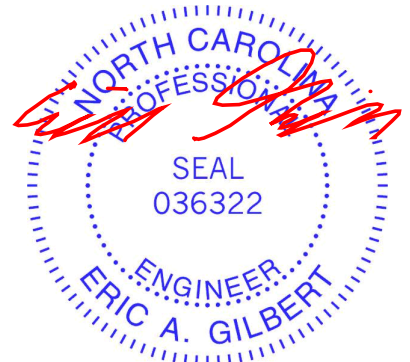
#### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

4) CAUTION, Do not erect truss backwards.

#### LOAD CASE(S)

- Standard
- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 13-21=-7, 1-23=-67, 23-24=-80, 12-24=-67



May 13, 2025

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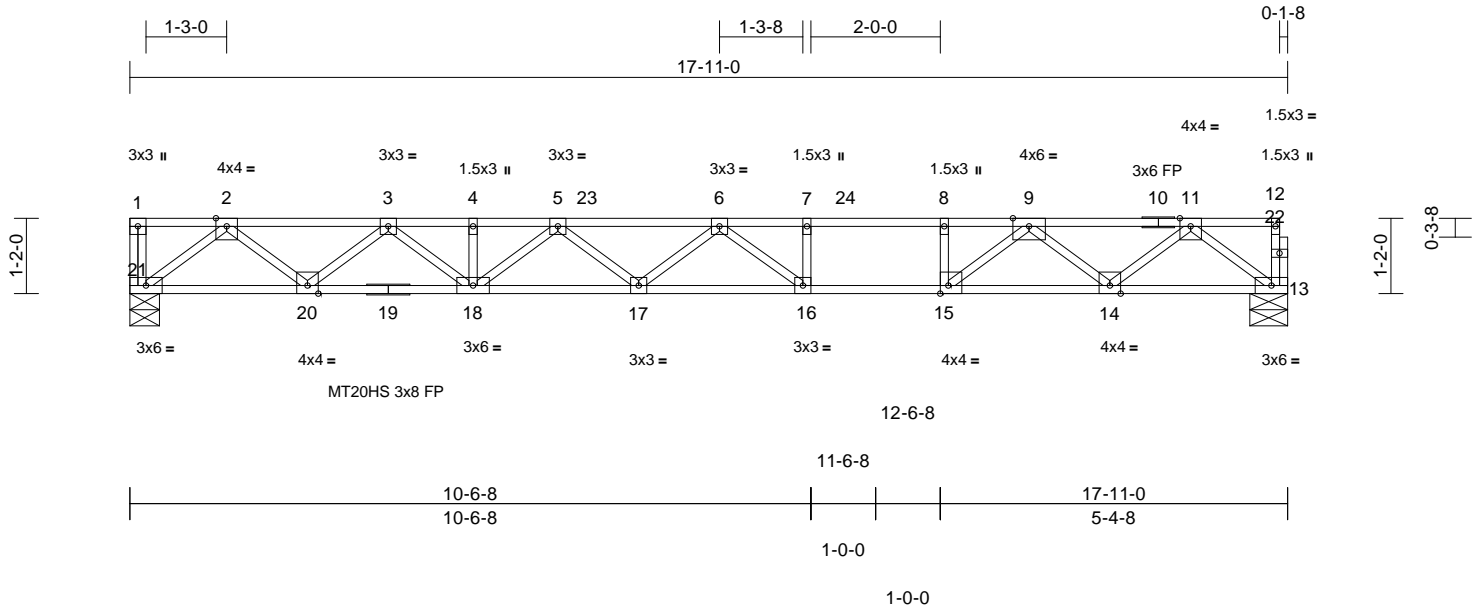
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385759
	2F26A	Floor	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:32  
ID:ehsevcSoehPMAXWyOkEbQdzvFV4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:35.7									
Plate Offsets (X, Y): [15:0-1-8,Edge]									
<b>Loading</b>	(psf)	<b>Spacing</b>	1-8-0	<b>CSI</b>		<b>DEFL</b>	in (loc)	l/defl	L/d
TCLL	40.0	Plate Grip DOL	1.00	TC	0.79	Vert(LL)	-0.33 16-17	>641	480
TCDL	10.0	Lumber DOL	1.00	BC	0.87	Vert(CT)	-0.49 16-17	>431	360
BCLL	0.0	Rep Stress Incr	NO	WB	0.53	Horz(CT)	0.06 13	n/a	n/a
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S					
								Weight: 90 lb	FT = 20%F, 12%E

**LUMBER**  
TOP CHORD 2x4 SP SS(flat)  
BOT CHORD 2x4 SP No.2(flat) \*Except\* 19-13:2x4 SP SS (flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

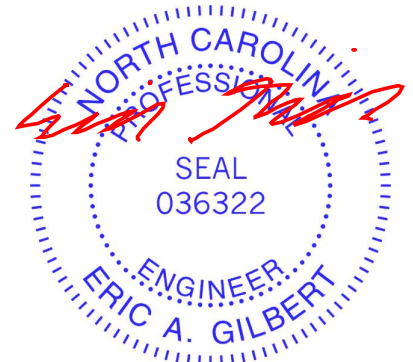
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 13=0-7-0, 21=0-5-8  
Max Grav 13=834 (LC 1), 21=838 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-21=-33/0, 12-13=-26/3, 1-2=0/0, 2-3=-1780/0, 3-4=-2973/0, 4-5=-2973/0, 5-6=-3583/0, 6-7=-3276/0, 7-8=-3276/0, 8-9=-3276/0, 9-11=-1742/0, 11-12=-2/0  
BOT CHORD 20-21=0/1050, 18-20=0/2476, 17-18=0/3395, 16-17=0/3660, 15-16=0/3276, 14-15=0/2489, 13-14=0/1046  
WEBS 7-16=-55/208, 8-15=-480/0, 2-21=-1317/0, 2-20=0/951, 3-20=-906/0, 3-18=0/635, 4-18=-62/0, 5-18=-539/0, 5-17=0/251, 6-17=-190/0, 6-16=-630/58, 11-13=-1311/0, 11-14=0/906, 9-14=-972/0, 9-15=0/1114

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

- 5) CAUTION, Do not erect truss backwards.
- LOAD CASE(S)** Standard
- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 13-21=-8, 1-23=-83, 23-24=-98, 12-24=-83



May 13,2025

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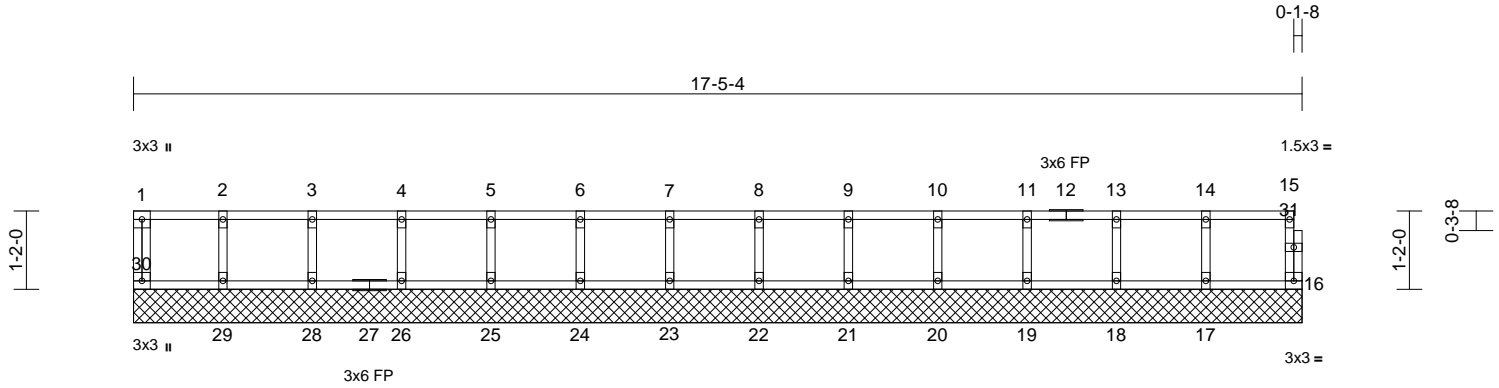
Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385760
	2FGE4	Floor Supported Gable	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:34

Page: 1

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Scale = 1:34.4

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.02	Horiz(TL)	0.00	16	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 73 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

#### BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS

(size)	16=17-5-4, 17=17-5-4, 18=17-5-4, 19=17-5-4, 20=17-5-4, 21=17-5-4, 22=17-5-4, 23=17-5-4, 24=17-5-4, 25=17-5-4, 26=17-5-4, 28=17-5-4, 29=17-5-4, 30=17-5-4
Max Grav	16=41 (LC 1), 17=100 (LC 1), 18=97 (LC 1), 19=98 (LC 1), 20=98 (LC 1), 21=99 (LC 1), 22=101 (LC 1), 23=101 (LC 1), 24=99 (LC 1), 25=98 (LC 1), 26=98 (LC 1), 28=99 (LC 1), 29=94 (LC 1), 30=42 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-30=-38/0, 15-16=-38/0, 1-2=-8/0, 2-3=-8/0, 3-4=-8/0, 4-5=-8/0, 5-6=-8/0, 6-7=-8/0, 7-8=-8/0, 8-9=-8/0, 9-10=-8/0, 10-11=-8/0, 11-13=-8/0, 13-14=-8/0, 14-15=-8/0
BOT CHORD	29-30=0/8, 28-29=0/8, 26-28=0/8, 25-26=0/8, 24-25=0/8, 23-24=0/8, 22-23=0/8, 21-22=0/8, 20-21=0/8, 19-20=0/8, 18-19=0/8, 17-18=0/8, 16-17=0/8
WEBS	2-29=-86/0, 3-28=-90/0, 4-26=-89/0, 5-25=-89/0, 6-24=-90/0, 7-23=-92/0, 8-22=-92/0, 9-21=-90/0, 10-20=-89/0, 11-19=-89/0, 13-18=-89/0, 14-17=-91/0

#### NOTES

- All plates are 1.5x3 (||) MT20 unless otherwise indicated.
- 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 1-4-0 oc.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

#### LOAD CASE(S)

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 16-30=-7, 1-6=-67, 6-9=-69, 9-15=-67



May 13, 2025

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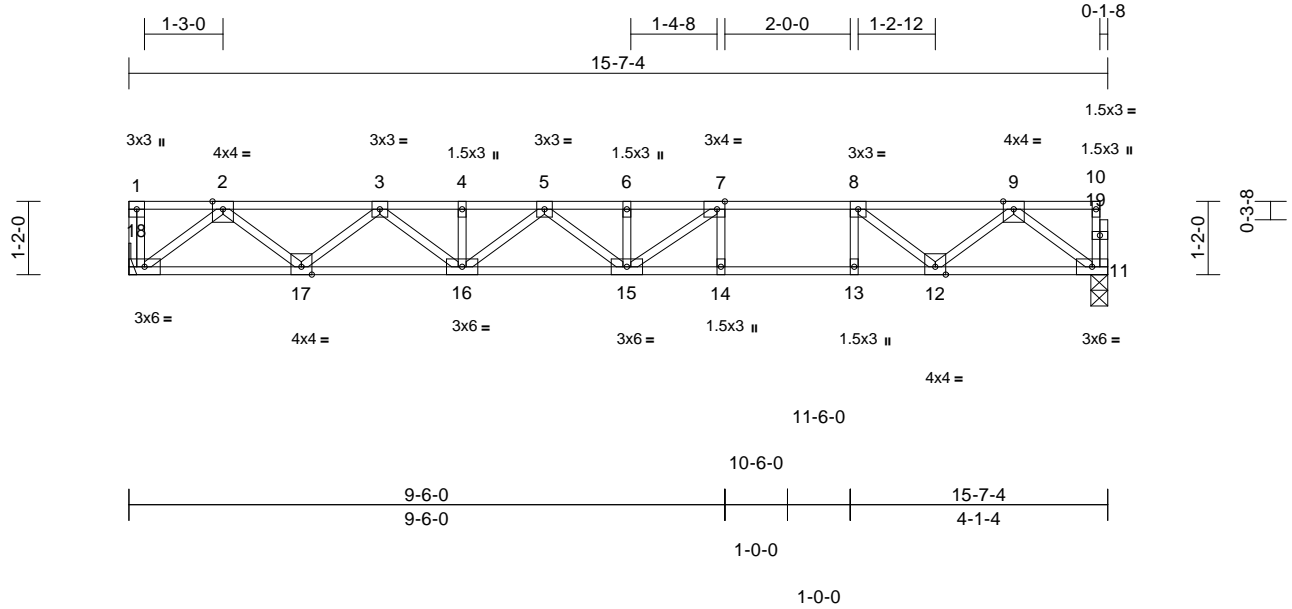
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385761
	2F16	Floor	2	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:28  
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Page: 1



Scale = 1:36.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.60	Vert(LL)	-0.28	14-15	>654	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.84	Vert(CT)	-0.38	14-15	>480	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.04	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 80 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP SS(flat)  
BOT CHORD 2x4 SP SS(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or  
6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc  
bracing.

REACTIONS (size) 11=0-3-4, 18= Mechanical  
Max Grav 11=838 (LC 1), 18=844 (LC 1)

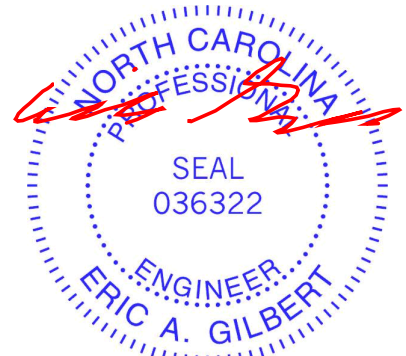
FORCES (lb) - Maximum Compression/Maximum  
Tension

TOP CHORD 1-18=-39/0, 10-11=-67/0, 1-2=0/0,  
2-3=-1730/0, 3-4=-2776/0, 4-5=-2776/0,  
5-6=-3178/0, 6-7=-3178/0, 7-8=-2686/0,  
8-9=-1743/0, 9-10=-4/0  
BOT CHORD 17-18=0/1048, 16-17=0/2372, 15-16=0/3036,  
14-15=0/2686, 13-14=0/2686, 12-13=0/2686,  
11-12=0/992  
WEBS 7-14=-316/0, 8-13=0/373, 2-18=-1315/0,  
2-17=0/887, 3-17=-837/0, 3-16=0/516,  
4-16=-109/0, 5-16=-332/0, 5-15=0/197,  
9-11=-1240/0, 9-12=0/978, 8-12=-1211/0,  
6-15=-317/0, 7-15=-55/744

#### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Refer to girder(s) for truss to truss connections.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 4) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



May 13,2025

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818 Soundside Road  
Edenton, NC 27932

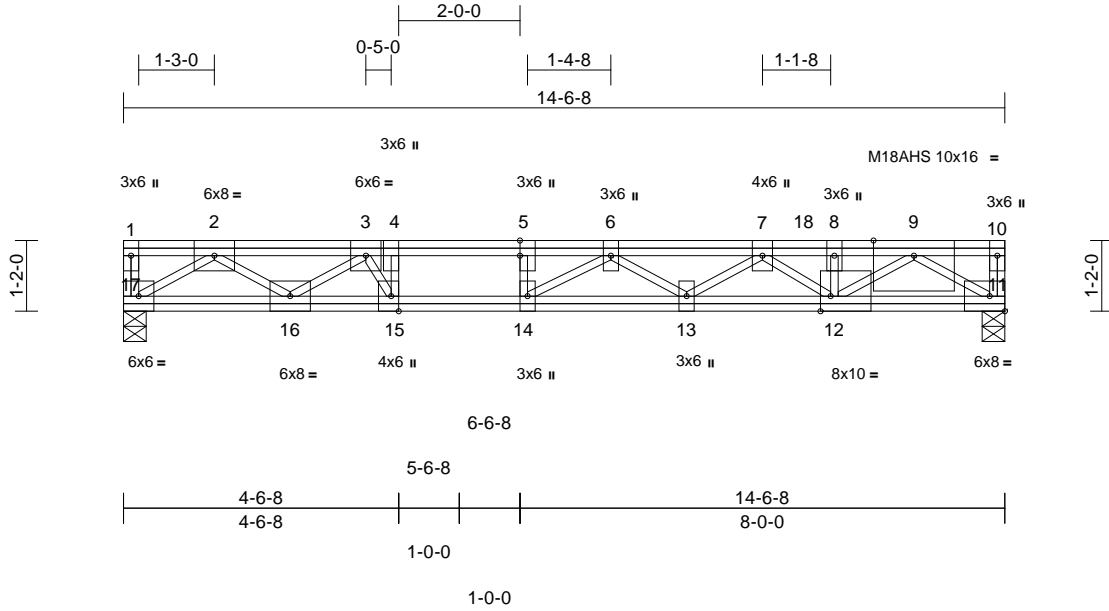


Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385762
	1FGR1	Floor Girder	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:23  
ID:zIpeZ242xdQ8wBhV8VgWQZzewHO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:38

Plate Offsets (X, Y): [5:0-3-0,Edge], [12:0-2-0,Edge], [15:0-3-0,Edge]

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.52	Vert(LL)	-0.06	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.57	Vert(CT)	-0.28	13-14	>603	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	NO	WB	0.97	Horz(CT)	0.04	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
											Weight: 114 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP SS(flat)  
BOT CHORD 2x4 SP SS(flat)  
WEBS 2x4 SP No.3(flat) \*Except\* 11-9,12-9:2x4 SP No.2(flat)

- Dead + Floor Live (balanced): Lumber Increase=1.00,  
Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 11-17=-7, 1-10=-67  
Concentrated Loads (lb)  
Vert: 3=-696, 18=-1725

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS

(size) 11=0-4-8, 17=0-4-8  
Max Grav 11=2053 (LC 1), 17=1416 (LC 1)

#### FORCES

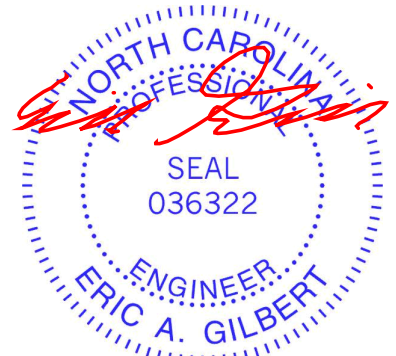
(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-17=-34/0, 10-11=-66/0, 1-2=0/0,  
2-3=-3656/0, 3-4=-5936/0, 4-5=-5936/0,  
5-6=-5936/0, 6-7=-6735/0, 7-8=-5731/0,  
8-9=-5731/0, 9-10=0/0  
BOT CHORD 16-17=0/2029, 15-16=0/5417, 14-15=0/5936,  
13-14=0/6532, 12-13=0/6799, 11-12=0/2925  
WEBS 4-15=-859/0, 5-14=0/242, 2-17=-2439/0,  
2-16=0/2018, 3-16=-2183/0, 3-15=0/1263,  
9-11=-3516/0, 7-13=-148/0, 6-13=0/319,  
6-14=-814/0, 8-12=-1172/0, 7-12=-1349/0,  
9-12=0/3422

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 13,2025

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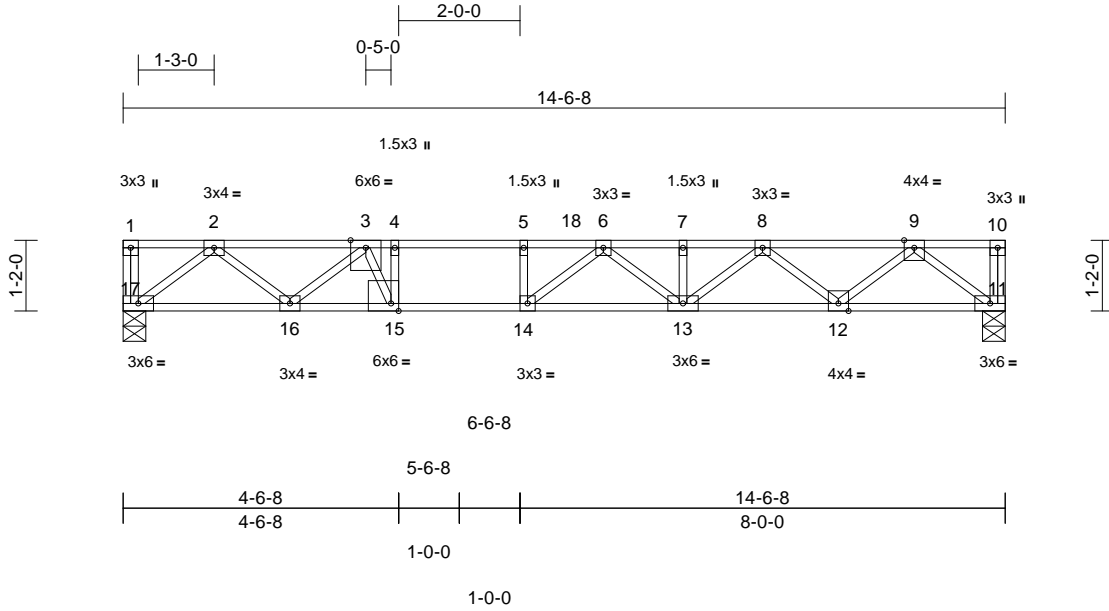
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385763
	1F9	Floor	2	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:19  
ID:5NHigshRC7IjyEgOUSRSGzewO7-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:38

Plate Offsets (X, Y): [15:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.89	Vert(LL)	-0.15	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.82	Vert(CT)	-0.34	13-14	>500	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.60	Horz(CT)	0.04	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 75 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP DSS(flat)  
BOT CHORD 2x4 SP SS(flat)  
WEBS 2x4 SP No.3(flat)

Vert: 11-17=-8, 1-10=-80  
Concentrated Loads (lb)  
Vert: 11=-58, 8=-47, 18=-280

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6'-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.

**REACTIONS** (size) 11=0-4-8, 17=0-4-8  
Max Grav 11=864 (LC 1), 17=779 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

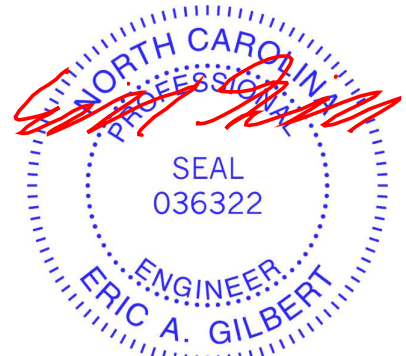
TOP CHORD 1-17=-30/0, 10-11=-32/0, 1-2=0/0,  
2-3=-1613/0, 3-4=-2807/0, 4-5=-2807/0,  
5-6=-2807/0, 6-7=-2823/0, 7-8=-2823/0,  
8-9=-1703/0, 9-10=0/0  
BOT CHORD 16-17=0/964, 15-16=0/2362, 14-15=0/2807,  
13-14=0/3151, 12-13=0/2397, 11-12=0/1004  
WEBS 4-15=-886/0, 5-14=-13/166, 2-17=-1210/0,  
2-16=0/845, 3-16=-974/0, 3-15=0/1253,  
9-11=-1259/0, 9-12=0/910, 8-12=-903/0,  
8-13=0/544, 7-13=0/48, 6-13=-432/0,  
6-14=-558/0

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Recommend 2x6 strongbacks, on edge, spaced at 10'-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

#### LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00,  
Plate Increase=1.00  
Uniform Loads (lb/ft)



May 13, 2025

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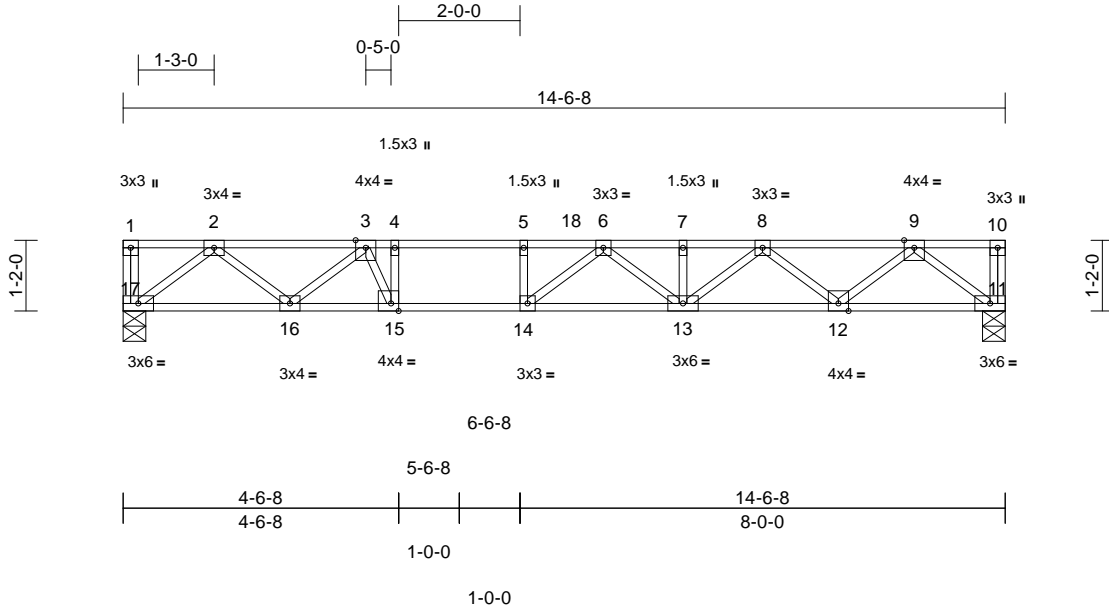
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385764
	1F10	Floor	3	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:20  
ID:wLDF39ZR0jJD2i5dEyzpGhzewNE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?i

Page: 1



Scale = 1:38

Plate Offsets (X, Y): [15:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.75	Vert(LL)	-0.16	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.65	Vert(CT)	-0.29	13-14	>602	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.48	Horz(CT)	0.03	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 75 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP SS(flat)

BOT CHORD 2x4 SP SS(flat)

WEBS 2x4 SP No.3(flat)

Vert: 11-17=-8, 1-10=-80

Concentrated Loads (lb)

Vert: 11=-58, 8=-223, 18=-28

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 11=0-4-8, 17=0-4-8

Max Grav 11=864 (LC 1), 17=703 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-17=-30/0, 10-11=-32/0, 1-2=0/0,

2-3=-1429/0, 3-4=-2400/0, 4-5=-2400/0,

5-6=-2400/0, 6-7=-2603/0, 7-8=-2603/0,

8-9=-1703/0, 9-10=0/0

BOT CHORD 16-17=0/866, 15-16=0/2060, 14-15=0/2400,

13-14=0/2678, 12-13=0/2391, 11-12=0/1005

WEBS 4-15=-710/0, 5-14=-16/159, 2-17=-1087/0,

2-16=0/733, 3-16=-821/0, 3-15=0/1000,

9-11=-1261/0, 9-12=0/908, 8-12=-895/0,

8-13=0/272, 7-13=-37/0, 6-13=-111/0,

6-14=-474/0

#### NOTES

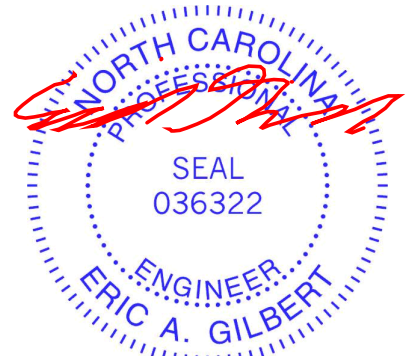
- 1) Unbalanced floor live loads have been considered for this design.
- 2) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

#### LOAD CASE(S)

Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (lb/ft)



May 13, 2025

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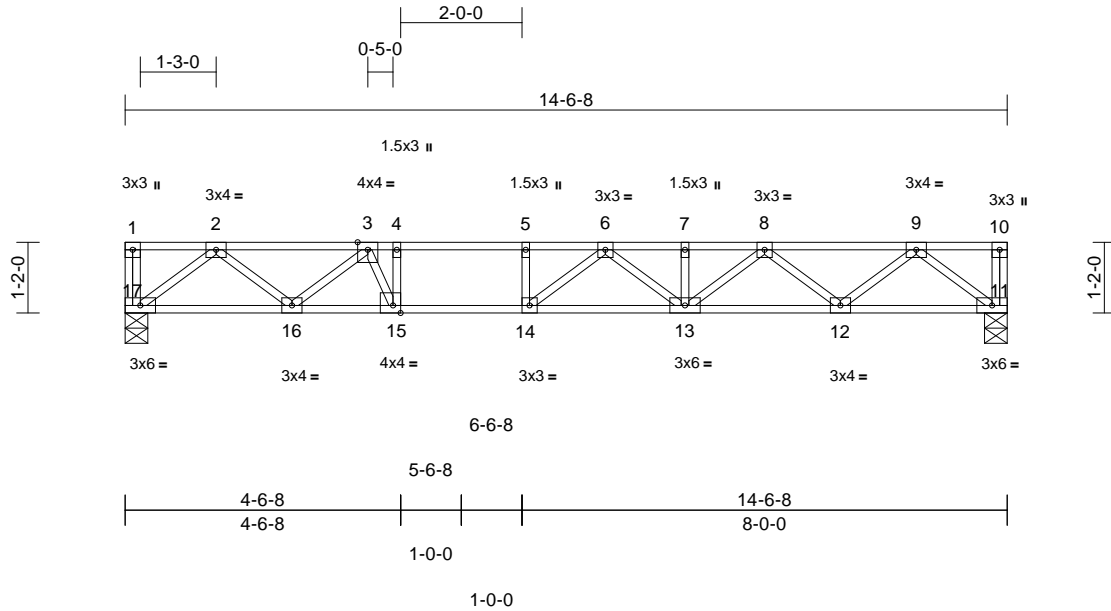
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385765
	1F12	Floor	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:20  
ID:6XV6eAW?P\_G?1rdpM2uKzLzewM?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:38

Plate Offsets (X, Y): [15:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.48	Vert(LL)	-0.16	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.46	Vert(CT)	-0.21	13-14	>820	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.37	Horz(CT)	0.03	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 75 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP SS(flat)  
BOT CHORD 2x4 SP SS(flat)  
WEBS 2x4 SP No.3(flat)

Vert: 11-17=-8, 1-10=-80  
Concentrated Loads (lb)  
Vert: 3=-141

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6'-0" oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

**REACTIONS** (size) 11=0-4-8, 17=0-4-8  
Max Grav 11=667 (LC 1), 17=732 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-17=-31/0, 10-11=-31/0, 1-2=0/0,  
2-3=-1512/0, 3-4=-2332/0, 4-5=-2332/0,  
5-6=-2332/0, 6-7=-2191/0, 7-8=-2191/0,  
8-9=-1359/0, 9-10=0/0

BOT CHORD 16-17=0/907, 15-16=0/2138, 14-15=0/2332,  
13-14=0/2374, 12-13=0/1874, 11-12=0/825

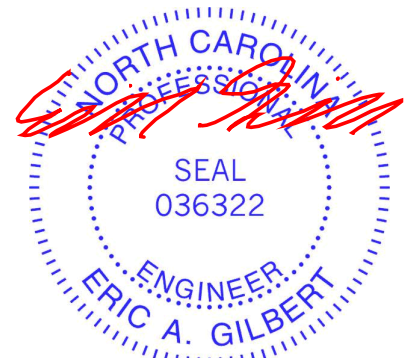
WEBS 4-15=-470/0, 5-14=-138/37, 2-17=-1138/0,  
2-16=0/787, 3-16=-815/0, 3-15=0/650,  
9-11=-1035/0, 9-12=0/695, 8-12=-671/0,  
8-13=0/405, 7-13=-59/0, 6-13=-250/0,  
6-14=-173/275

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Recommend 2x6 strongbacks, on edge, spaced at 10'-0" oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

#### LOAD CASE(S)

- Standard
- Dead + Floor Live (balanced): Lumber Increase=1.00,  
Plate Increase=1.00  
Uniform Loads (lb/ft)



May 13, 2025

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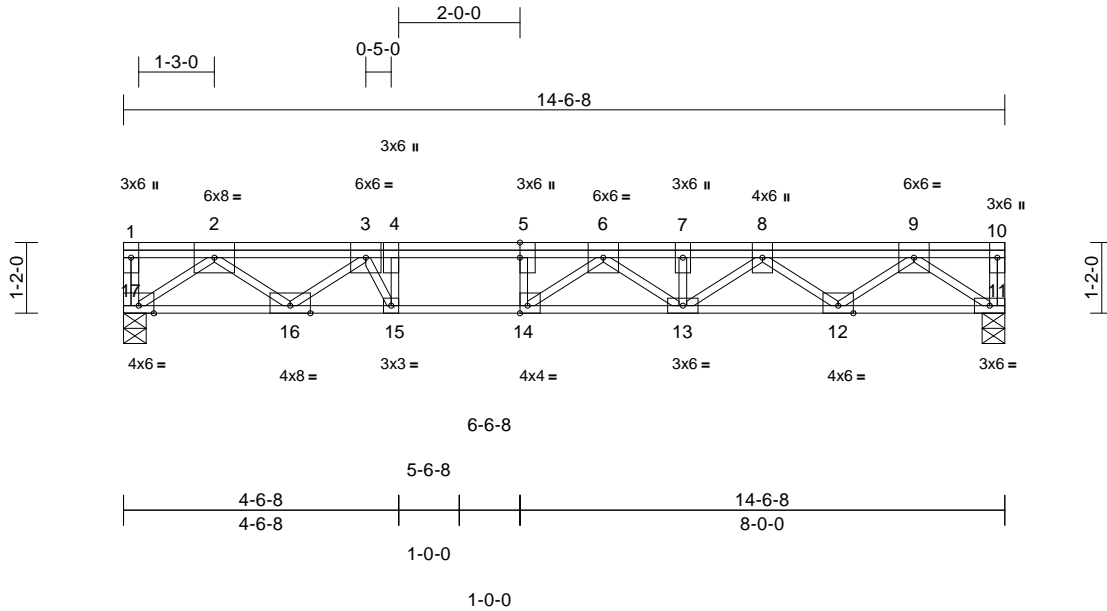
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	173385766
	1F13	Floor	2	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:21  
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Page: 1



Scale = 1:38

Plate Offsets (X, Y): [5:0-3-0,Edge], [14:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	-0.11	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.71	Vert(CT)	-0.23	14-15	>739	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.91	Horz(CT)	0.06	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 94 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP SS(flat)  
WEBS 2x4 SP No.3(flat)

Vert: 11-17=-8, 1-10=-80  
Concentrated Loads (lb)  
Vert: 3=-1097

#### BRACING

TOP CHORD Structural wood sheathing directly applied or  
6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc  
bracing.

REACTIONS (size) 11=0-4-8, 17=0-4-8  
Max Grav 11=926 (LC 1), 17=1429 (LC 1)

FORCES (lb) - Maximum Compression/Maximum  
Tension

TOP CHORD 1-17=-39/0, 10-11=-39/0, 1-2=0/0,  
2-3=-3450/0, 3-4=-4772/0, 4-5=-4772/0,  
5-6=-4772/0, 6-7=-3680/0, 7-8=-3680/0,  
8-9=-2124/0, 9-10=0/0

BOT CHORD 16-17=0/1938, 15-16=0/4910, 14-15=0/4772,  
13-14=0/4181, 12-13=0/2983, 11-12=0/1233

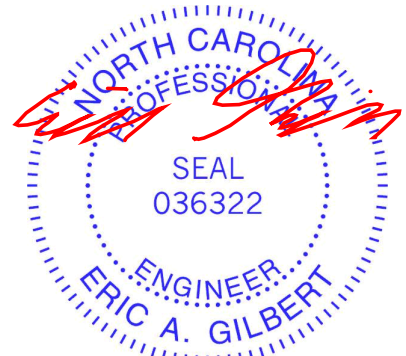
WEBS 2-17=-2379/0, 2-16=0/1921, 3-16=-1855/0,  
3-15=-791/0, 9-11=-1513/0, 9-12=0/1132,  
8-12=-1090/0, 8-13=0/870, 7-13=-140/0,  
6-13=-625/0, 6-14=0/1092, 4-15=0/638,  
5-14=-566/0

#### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

#### LOAD CASE(S)

- Standard
- 1) Dead + Floor Live (balanced): Lumber Increase=1.00,  
Plate Increase=1.00  
Uniform Loads (lb/ft)



May 13,2025

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**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

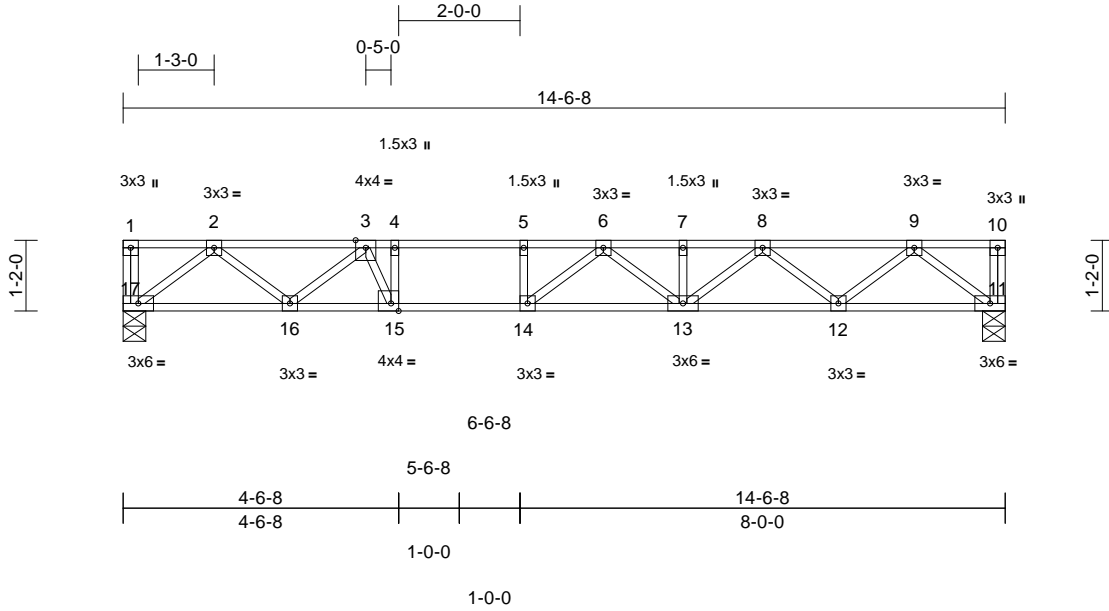


Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385767
	1F11	Floor	4	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:20  
ID:OLMv\_xB3mhsqHi3dHtv?NfzewMQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWwRCDoi7J4zJC?f

Page: 1



Scale = 1:38

Plate Offsets (X, Y): [15:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.56	Vert(LL)	-0.16	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.48	Vert(CT)	-0.21	13-14	>803	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.37	Horz(CT)	0.03	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 75 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP SS(flat)  
BOT CHORD 2x4 SP SS(flat)  
WEBS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 11=0-4-8, 17=0-4-8  
Max Grav 11=629 (LC 1), 17=629 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-17=-31/0, 10-11=-31/0, 1-2=0/0,  
2-3=-1250/0, 3-4=-2010/0, 4-5=-2010/0,  
5-6=-2010/0, 6-7=-2003/0, 7-8=-2003/0,  
8-9=-1262/0, 9-10=0/0  
BOT CHORD 16-17=0/771, 15-16=0/1767, 14-15=0/2010,  
13-14=0/2137, 12-13=0/1734, 11-12=0/774  
WEBS 4-15=-550/0, 5-14=-93/82, 2-17=-967/0,  
2-16=0/624, 3-16=-673/0, 3-15=0/767,  
9-11=-971/0, 9-12=0/635, 8-12=-614/0,  
8-13=0/344, 7-13=-52/0, 6-13=-186/0,  
6-14=-280/168

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard



May 13, 2025

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

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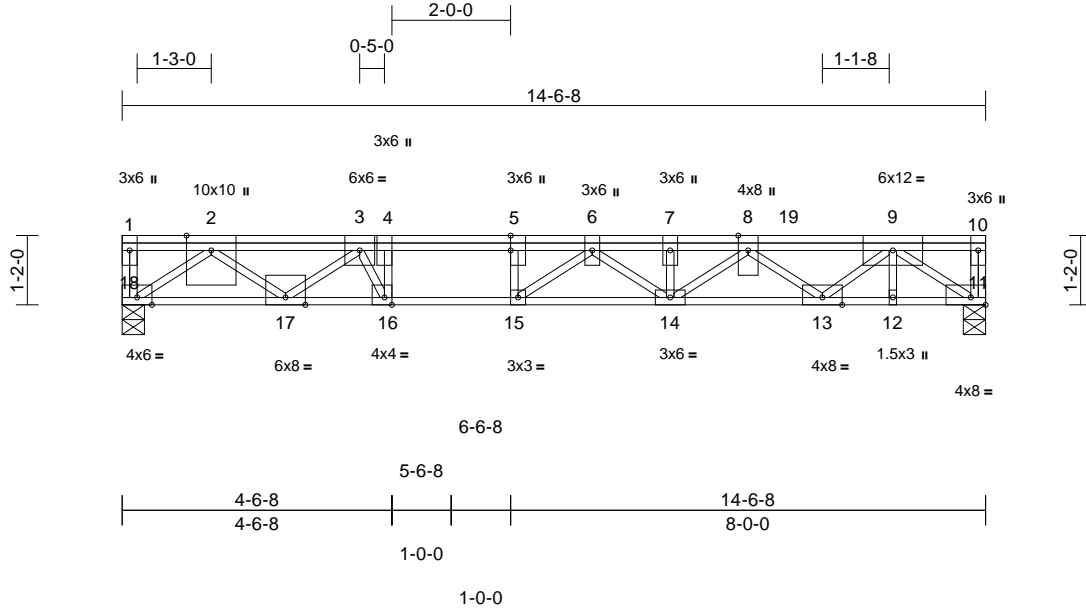
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385768
	1F14	Floor	8	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:38.8

Plate Offsets (X, Y): [5:0-3-0,Edge], [11:Edge,0-1-8], [16:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.42	Vert(LL)	-0.10	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.72	Vert(CT)	-0.30	14-15	>565	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.86	Horz(CT)	0.08	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 95 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP SS(flat)  
BOT CHORD 2x4 SP SS(flat)  
WEBS 2x4 SP No.3(flat) \*Except\* 17-2:2x4 SP No.2 (flat)

- Dead + Floor Live (balanced): Lumber Increase=1.00,  
Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 11-18=-8, 1-10=-80  
Concentrated Loads (lb)  
Vert: 3=-1062, 19=-875

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 11=0-4-8, 18=0-4-8  
Max Grav 11=1597 (LC 1), 18=1598 (LC 1)

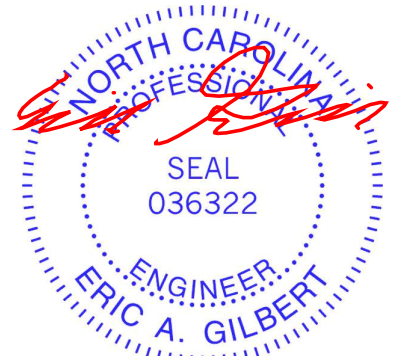
#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-18=-43/0, 10-11=0/52, 1-2=0/0,  
2-3=-3886/0, 3-4=-5766/0, 4-5=-5766/0,  
5-6=-5766/0, 6-7=-5399/0, 7-8=-5399/0,  
8-9=-3742/0, 9-10=0/0  
BOT CHORD 17-18=0/2167, 16-17=0/5585, 15-16=0/5766,  
14-15=0/5661, 13-14=0/5179, 12-13=0/2353,  
11-12=0/2353  
WEBS 2-18=-2660/0, 2-17=0/2184, 3-17=-2158/0,  
3-16=-62/600, 9-11=-2847/0, 8-14=0/274,  
7-14=0/106, 6-14=-328/0, 6-15=-2/482,  
8-13=-1825/0, 9-12=-2/0, 9-13=0/1801,  
4-16=-510/43, 5-15=-251/4

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 13,2025

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

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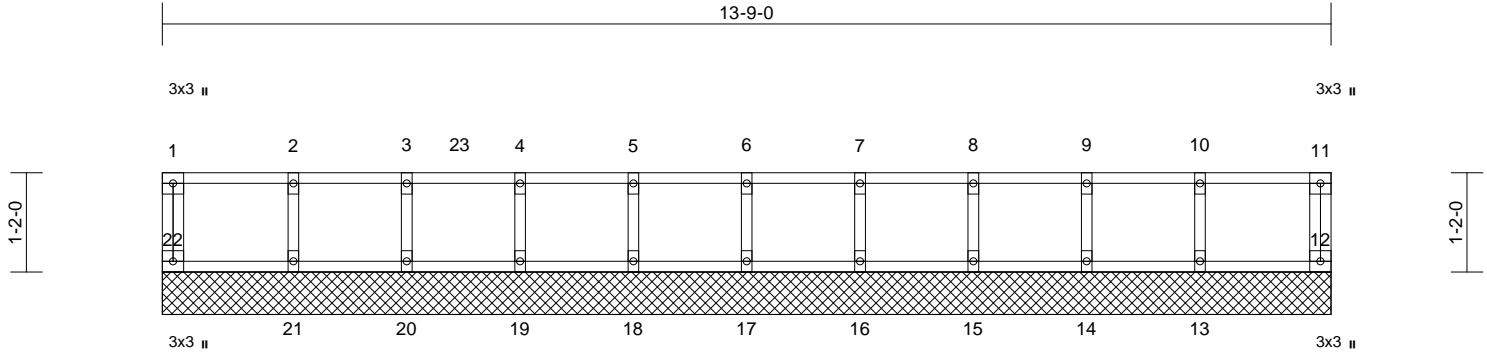
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	173385769
	1FGE7	Floor Supported Gable	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:22  
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Page: 1



Scale = 1:27.1

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.56	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.03	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.16	Horiz(TL)	0.00	12	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 59 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP SS(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS

(size) 12=13-9-0, 13=13-9-0, 14=13-9-0, 15=13-9-0, 16=13-9-0, 17=13-9-0, 18=13-9-0, 19=13-9-0, 20=13-9-0, 21=13-9-0, 22=13-9-0  
Max Grav 12=63 (LC 1), 13=123 (LC 1), 14=730 (LC 1), 15=124 (LC 1), 16=109 (LC 1), 17=141 (LC 1), 18=28 (LC 1), 19=538 (LC 1), 20=594 (LC 1), 21=32 (LC 1), 22=78 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-22=-73/0, 11-12=-56/0, 1-2=-16/0, 2-3=-16/0, 3-4=-16/0, 4-5=-16/0, 5-6=-16/0, 6-7=-16/0, 7-8=-16/0, 8-9=-16/0, 9-10=-16/0, 10-11=-16/0  
BOT CHORD 21-22=0/16, 20-21=0/16, 19-20=0/16, 18-19=0/16, 17-18=0/16, 16-17=0/16, 15-16=0/16, 14-15=0/16, 13-14=0/16, 12-13=0/16  
WEBS 6-17=-130/0, 5-18=-17/0, 4-19=-527/0, 3-20=-584/0, 2-21=-19/0, 7-16=-99/0, 8-15=-113/0, 9-14=-718/0, 10-13=-115/0

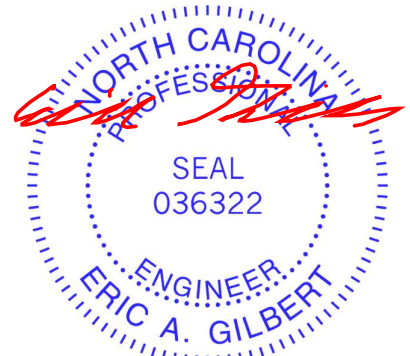
#### NOTES

- All plates are 1.5x3 (||) MT20 unless otherwise indicated.
- 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 1-4-0 oc.

- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

#### LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 12-22=-8, 1-11=-80  
Concentrated Loads (lb)  
Vert: 9=-620, 23=-753



May 13, 2025

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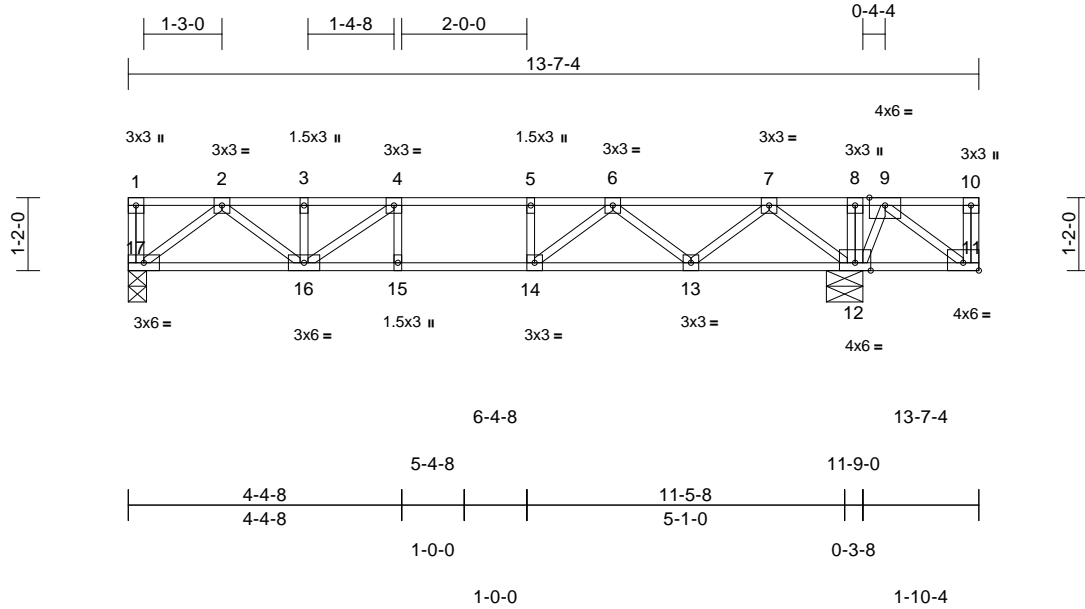
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385770
	2F22	Floor	2	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:36.8									
Plate Offsets (X, Y): [11:Edge,0-1-8]									
<b>Loading</b>	(psf)	<b>Spacing</b>	1-4-0	<b>CSI</b>		<b>DEFL</b>	in (loc)	l/defl	L/d
TCLL	40.0	Plate Grip DOL	1.00	TC	0.84	Vert(LL)	0.09 13-14	>999	480
TCDL	10.0	Lumber DOL	1.00	BC	0.66	Vert(CT)	0.11 13-14	>999	360
BCLL	0.0	Rep Stress Incr	NO	WB	0.65	Horz(CT)	0.01 12	n/a	n/a
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S					
								Weight: 73 lb	FT = 20%F, 12%E

**LUMBER**  
TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 12=0-7-0, 17=0-3-8  
Max Uplift 17=26 (LC 4)  
Max Grav 12=1495 (LC 1), 17=371 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-17=-41/0, 10-11=-830/0, 1-2=0/0, 2-3=-714/101, 3-4=-714/101, 4-5=-876/404, 5-6=-876/404, 6-7=-364/997, 7-8=0/1531, 8-9=0/1531, 9-10=0/0  
BOT CHORD 16-17=-53/430, 15-16=-404/876, 14-15=-404/876, 13-14=-738/690, 12-13=-1231/25, 11-12=-1093/0  
WEBS 4-15=-136/31, 5-14=-268/0, 8-12=-43/0, 2-17=-539/66, 2-16=-62/362, 7-12=-845/0, 7-13=0/566, 6-13=-590/0, 6-14=0/639, 9-11=0/1371, 9-12=-1014/0, 3-16=-184/17, 4-16=-272/369

**NOTES**  
1) Unbalanced floor live loads have been considered for this design.  
2) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17. This connection is for uplift only and does not consider lateral forces.  
3) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.

- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 5) CAUTION, Do not erect truss backwards.
  - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 700 lb down at 13-5-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard
- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 11-17=-7, 1-10=-67  
Concentrated Loads (lb)  
Vert: 10=-796 (F=700)



May 13,2025

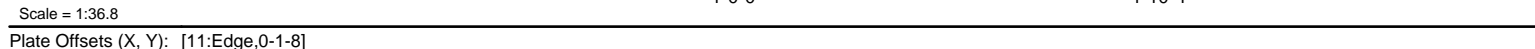
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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

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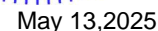
818 Soundside Road  
Edenton, NC 27932

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:30 Page: 1  
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<b>LUMBER</b>		4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
TOP CHORD	2x4 SP No.2(flat)	5) CAUTION, Do not erect truss backwards.
BOT CHORD	2x4 SP No.2(flat)	6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 700 lb down at 13-5-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
WEBS	2x4 SP No.3(flat)	7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
<b>BRACING</b>		<b>LOAD CASE(S)</b> Standard
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	Uniform Loads (lb/ft) Vert: 11-17=-7, 1-10=-67
<b>REACTIONS</b>		Concentrated Loads (lb) Vert: 10=-810 (F=-700), 8=-2300
(size)	12=0-7-0, 17=0-3-8	
Max Uplift	17=-33 (LC 4)	
Max Grav	12=3816 (LC 1), 17=365 (LC 3)	
<b>FORCES</b>		
	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-17=-41/0, 10-11=-840/0, 1-2=0/0, 2-3=-699/116, 3-4=-699/116, 4-5=-845/436, 5-6=-845/436, 6-7=-311/1050, 7-8=0/1608, 8-9=0/1565, 9-10=0/0	
BOT CHORD	16-17=-61/422, 15-16=-436/845, 14-15=-436/845, 13-14=-784/644, 12-13=-1289/0, 11-12=-1106/0	
WEBS	4-15=-141/26, 5-14=-276/0, 8-12=-2303/0, 2-17=-529/76, 2-16=-70/354, 7-12=-868/0, 7-13=0/572, 6-13=-599/0, 6-14=0/658, 9-11=0/1387, 9-12=-1065/0, 3-16=-188/13, 4-16=-251/389	

- 1) Unbalanced floor live loads have been considered for this design.
- 2) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17. This connection is for uplift only and does not consider lateral forces.
- 3) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.



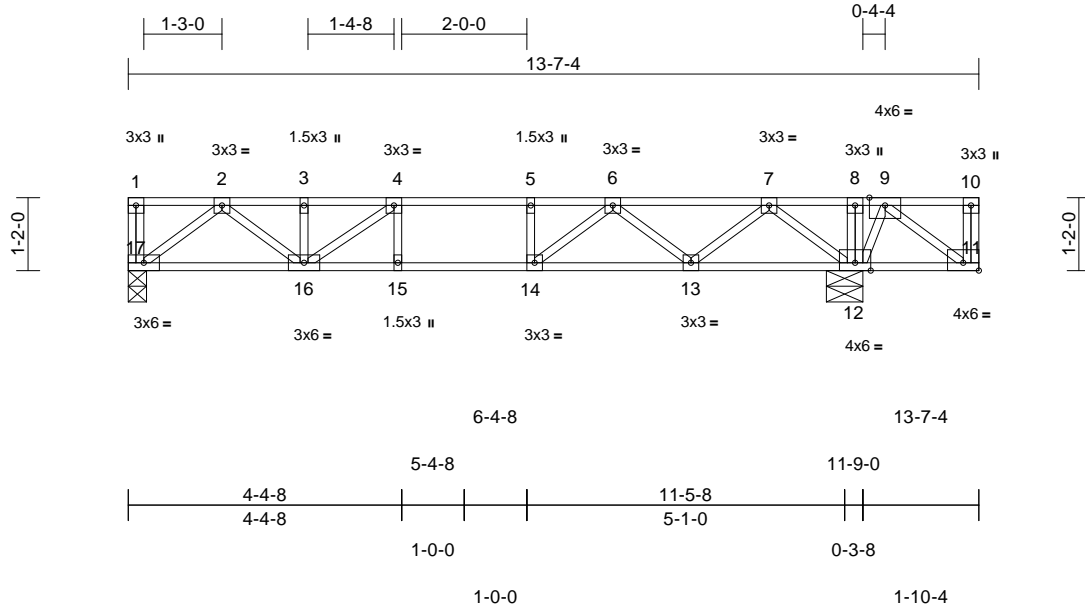


Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	
	2F21	Floor Girder	1	1	Job Reference (optional)	I73385772

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:30  
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Page: 1



Scale = 1:36.8

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

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.83	Vert(LL)	0.09	13-14	>999	480	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.66	Vert(CT)	0.11	13-14	>999	360	
BCLL	0.0	Rep Stress Incr	NO	WB	0.64	Horz(CT)	0.01	12	n/a	n/a	
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							
										Weight: 73 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 12=0-7-0, 17=0-3-8  
Max Uplift 17=24 (LC 4)  
Max Grav 12=1476 (LC 1), 17=374 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-17=-41/0, 10-11=-814/0, 1-2=0/0, 2-3=-720/95, 3-4=-720/95, 4-5=-890/390, 5-6=-890/390, 6-7=-388/973, 7-8=0/1501, 8-9=0/1501, 9-10=0/0  
BOT CHORD 16-17=-49/433, 15-16=-390/890, 14-15=-390/890, 13-14=-718/710, 12-13=-1204/51, 11-12=-1071/0  
WEBS 4-15=-133/34, 5-14=-265/0, 8-12=-43/0, 2-17=-544/62, 2-16=-58/366, 7-12=-840/0, 7-13=0/562, 6-13=-585/0, 6-14=0/632, 9-11=0/1344, 9-12=-996/0, 3-16=-183/19, 4-16=-281/360

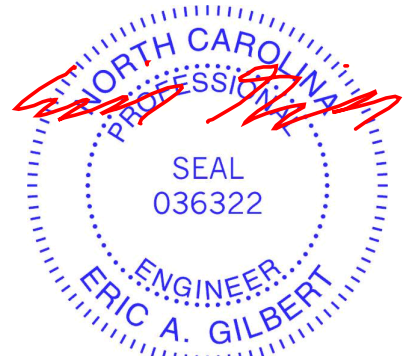
#### NOTES

- Unbalanced floor live loads have been considered for this design.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17. This connection is for uplift only and does not consider lateral forces.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.

- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 700 lb down at 13-5-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 11-17=-7, 1-10=-67  
Concentrated Loads (lb)  
Vert: 10=-779 (F=700)



May 13,2025

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

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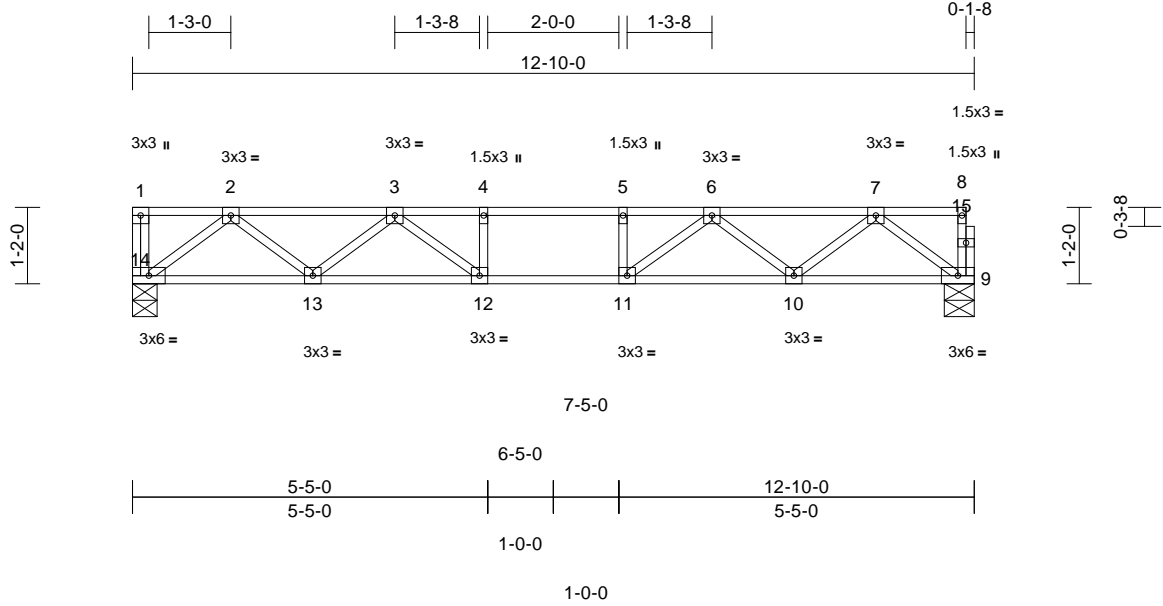
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	173385773
	1F15	Floor	15	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:21  
ID:6wCg9RgKHGQBey60NhQYKnzew7b-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:35.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.56	Vert(LL)	-0.11	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.71	Vert(CT)	-0.14	12-13	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.31	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 64 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

Concentrated Loads (lb)  
Vert: 14=-58

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS

(size) 9=0-5-8, 14=0-4-8

Max Grav 9=686 (LC 1), 14=750 (LC 1)

#### FORCES

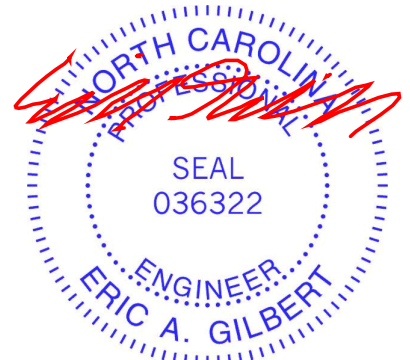
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-14=-40/0, 8-9=-36/0, 1-2=0/0, 2-3=-1345/0, 3-4=-2050/0, 4-5=-2050/0, 5-6=-2050/0, 6-7=-1345/0, 7-8=-2/0  
BOT CHORD 13-14=0/848, 12-13=0/1807, 11-12=0/2050, 10-11=0/1807, 9-10=0/848  
WEBS 4-12=-235/0, 5-11=-235/0, 2-14=-1064/0, 2-13=0/647, 3-13=-601/0, 3-12=0/509, 7-9=-1061/0, 7-10=0/648, 6-10=-602/0, 6-11=0/509

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

#### LOAD CASE(S)

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 9-14=-10, 1-8=-100



May 13, 2025

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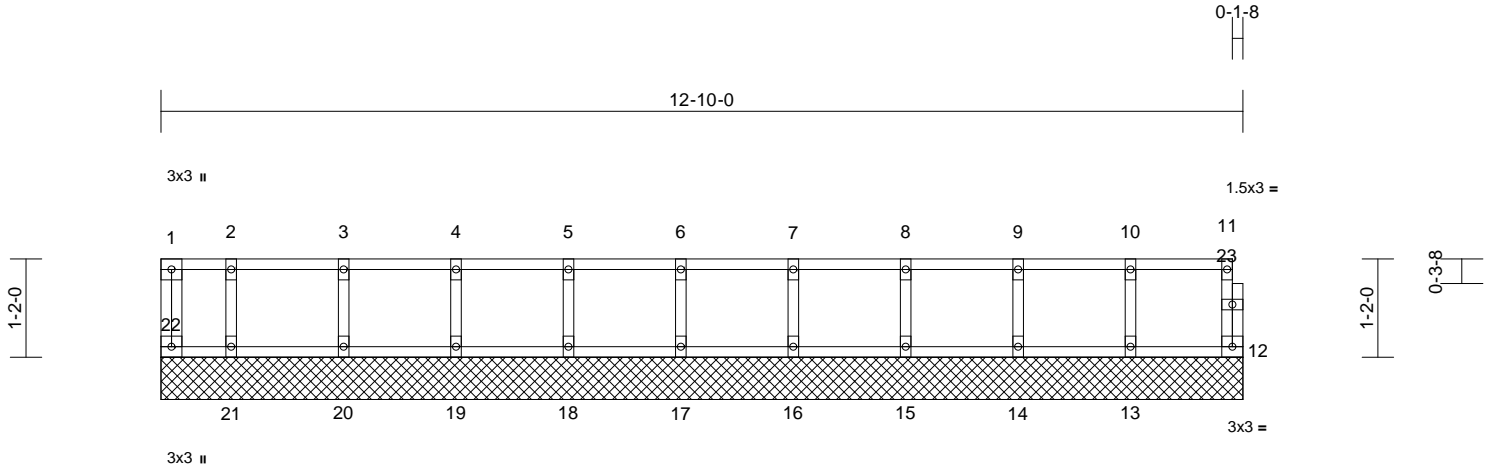
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	173385774
	1FGE8	Floor Supported Gable	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:23  
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Page: 1



Scale = 1:27.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	12	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 55 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS

(size) 12=12-10-0, 13=12-10-0,  
14=12-10-0, 15=12-10-0,  
16=12-10-0, 17=12-10-0,  
18=12-10-0, 19=12-10-0,  
20=12-10-0, 21=12-10-0,  
22=12-10-0  
Max Grav 12=53 (LC 1), 13=147 (LC 1),  
14=147 (LC 1), 15=147 (LC 1),  
16=147 (LC 1), 17=147 (LC 1),  
18=147 (LC 1), 19=145 (LC 1),  
20=153 (LC 1), 21=114 (LC 1),  
22=33 (LC 1)

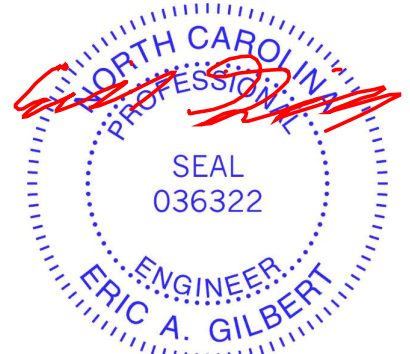
#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-22=-26/0, 11-12=-49/0, 1-2=-7/0, 2-3=-7/0,  
3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0,  
7-8=-7/0, 8-9=-7/0, 9-10=-7/0, 10-11=-7/0  
BOT CHORD 21-22=0/7, 20-21=0/7, 19-20=0/7, 18-19=0/7,  
17-18=0/7, 16-17=0/7, 15-16=0/7, 14-15=0/7,  
13-14=0/7, 12-13=0/7  
WEBS 10-13=-132/0, 9-14=-134/0, 8-15=-133/0,  
7-16=-133/0, 6-17=-133/0, 5-18=-134/0,  
4-19=-132/0, 3-20=-138/0, 2-21=-107/0

#### NOTES

- All plates are 1.5x3 (||) MT20 unless otherwise indicated.
- 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 1-4-0 oc.



May 13, 2025

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Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:29 Page: 1  
ID: tbF6PxHw1Suwa9RvfEsh y8MUK-RfC?PsB70Ha3NSaPqnL8w3ulTXbGKWrCDoi7J4zJC?f



## LUMBER

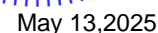
## BRACING

WEBS 4-11=-211/28, 5-10=0/243, 2-14=-1039/0,  
2-13=0/672, 3-13=-642/0, 3-12=0/259,  
4-12=-252/151, 6-8=-1022/0, 6-9=0/685,  
5-9=-800/0

## NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



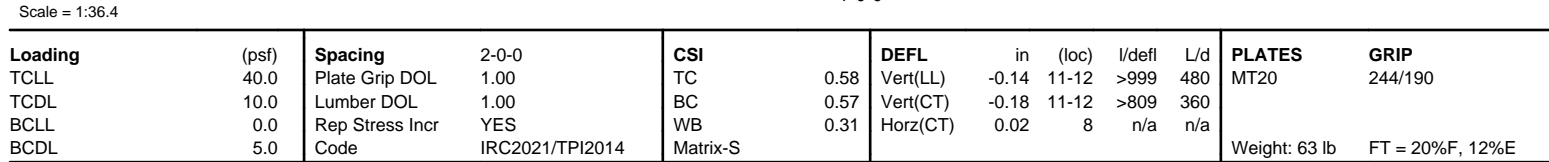
 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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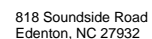
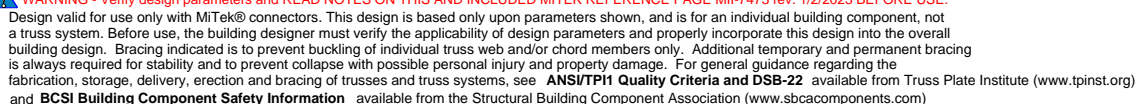
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Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:29 Page: 1  
ID: \_tbF6PxHw1Suwa9RvfEsh\_y8MUK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRcDoi7J4zJC?f



May 13, 2025





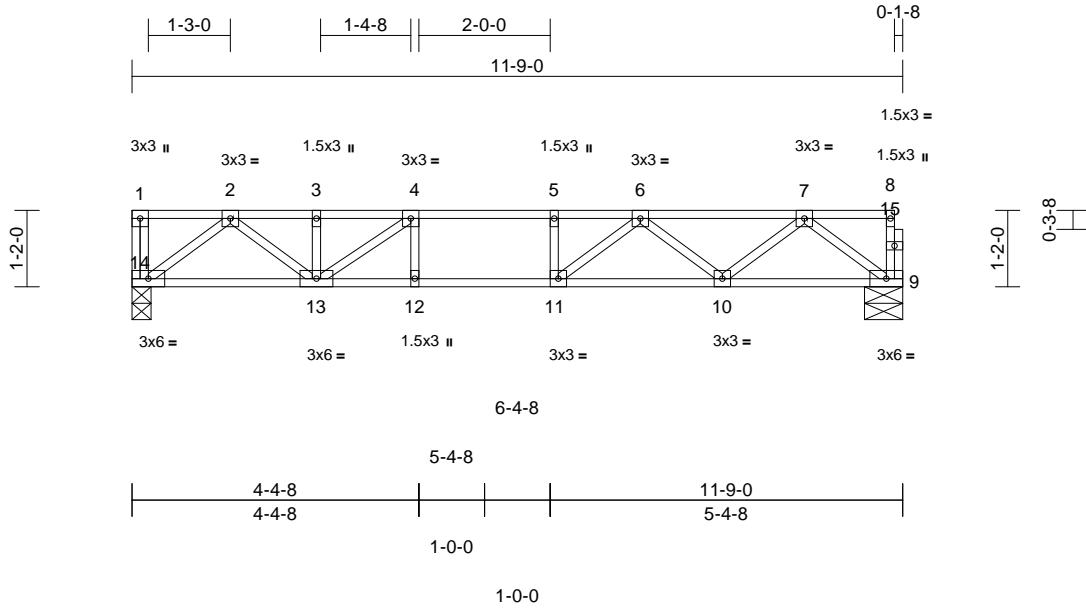
Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385777
	2F27	Floor	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:33

Page: 1

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Scale = 1:35.1

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.37	Vert(LL)	-0.07	10-11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.48	Vert(CT)	-0.09	10-11	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 60 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
 BOT CHORD 2x4 SP No.2(flat)  
 WEBS 2x4 SP No.3(flat)  
 OTHERS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or  
 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc  
 bracing.

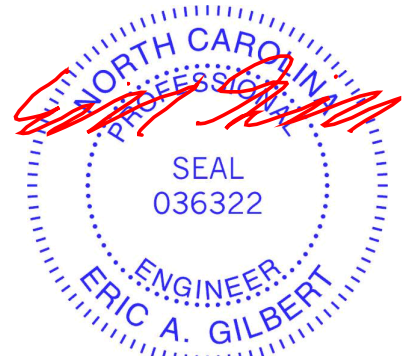
**REACTIONS** (size) 9=0-7-0, 14=0-3-8  
 Max Grav 9=418 (LC 1), 14=422 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum  
 Tension  
 TOP CHORD 1-14=-38/0, 8-9=-24/0, 1-2=0/0, 2-3=-832/0,  
 3-4=-832/0, 4-5=-1131/0, 5-6=-1131/0,  
 6-7=-802/0, 7-8=-1/0  
 BOT CHORD 13-14=0/496, 12-13=0/1131, 11-12=0/1131,  
 10-11=0/1057, 9-10=0/513  
 WEBS 4-12=-15/74, 5-11=-116/0, 2-14=-622/0,  
 2-13=0/429, 7-9=-642/0, 7-10=0/375,  
 6-10=-332/0, 6-11=-20/242, 3-13=-96/48,  
 4-13=-438/0

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



May 13,2025

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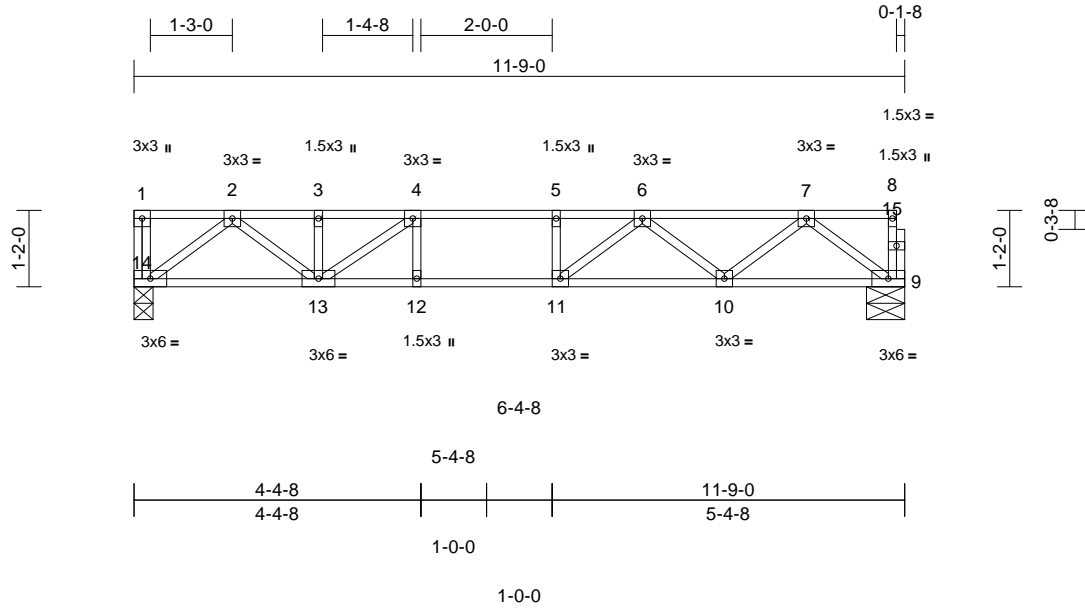
Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385778
	2F20	Floor	3	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:29

Page: 1

ID:OSHnkRz9DyqTn2t0annZldy8MUH-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f



Scale = 1:35.1

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.39	Vert(LL)	-0.06	10-11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.25	Vert(CT)	-0.08	10-11	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.20	Horz(CT)	0.01	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 60 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
 BOT CHORD 2x4 SP SS(flat)  
 WEBS 2x4 SP No.3(flat)  
 OTHERS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or  
 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc  
 bracing.

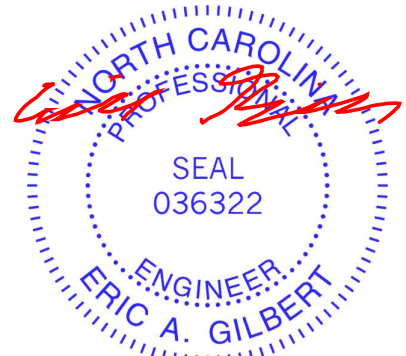
**REACTIONS** (size) 9=0-7-0, 14=0-3-8  
 Max Grav 9=418 (LC 1), 14=422 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum  
 Tension  
 TOP CHORD 1-14=-38/0, 8-9=-24/0, 1-2=0/0, 2-3=-832/0,  
 3-4=-832/0, 4-5=-1131/0, 5-6=-1131/0,  
 6-7=-802/0, 7-8=-1/0  
 BOT CHORD 13-14=0/496, 12-13=0/1131, 11-12=0/1131,  
 10-11=0/1056, 9-10=0/514  
 WEBS 4-12=-19/83, 5-11=-113/0, 2-14=-622/0,  
 2-13=0/429, 7-9=-643/0, 7-10=0/375,  
 6-10=-330/0, 6-11=-16/240, 3-13=-93/43,  
 4-13=-438/0

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION: Do not erect truss backwards.

**LOAD CASE(S)** Standard



May 13, 2025

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

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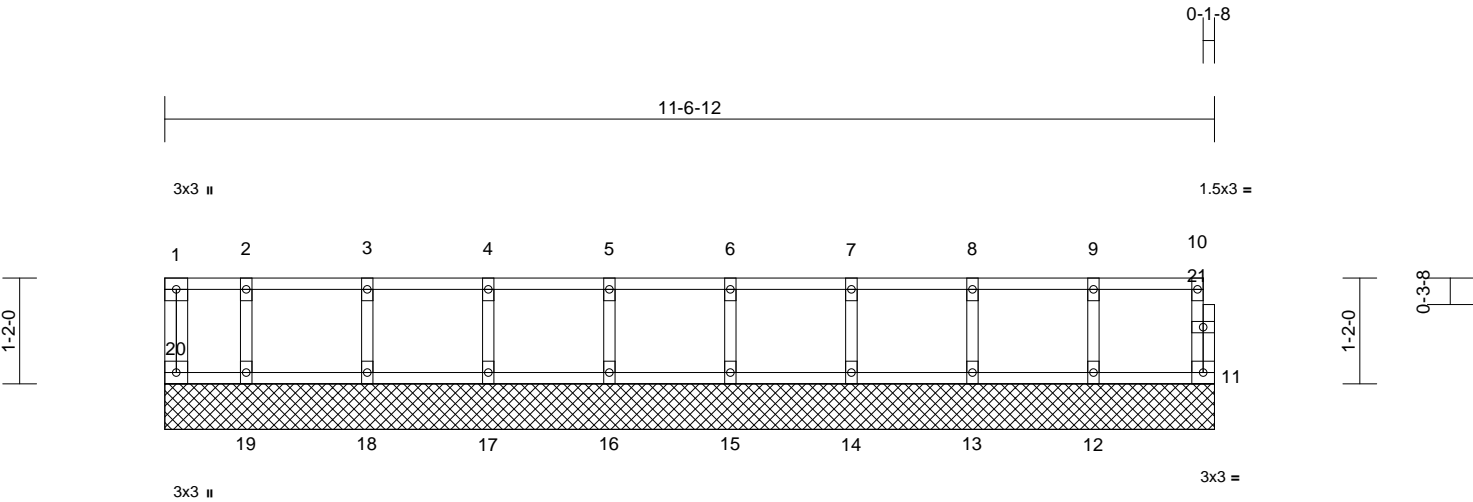
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	173385779
	1FGE4	Floor Supported Gable	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:22  
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Page: 1



Scale = 1:25.4

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	11	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 50 lb	FT = 20%F, 12%E

**LUMBER**

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

- 5) Recommend 2x6 strongbacks, on edge, spaced at 10'-0"-0" oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.  
6) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6'-0" oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

**REACTIONS** (size)

11=11'-6"-12, 12=11'-6"-12,  
13=11'-6"-12, 14=11'-6"-12,  
15=11'-6"-12, 16=11'-6"-12,  
17=11'-6"-12, 18=11'-6"-12,  
19=11'-6"-12, 20=11'-6"-12

Max Grav 11=42 (LC 1), 12=118 (LC 1),  
13=117 (LC 1), 14=117 (LC 1),  
15=117 (LC 1), 16=118 (LC 1),  
17=116 (LC 1), 18=122 (LC 1),  
19=93 (LC 1), 20=30 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-20=-24/0, 10-11=-39/0, 1-2=-5/0, 2-3=-5/0,  
3-4=-5/0, 4-5=-5/0, 5-6=-5/0, 6-7=-5/0,  
7-8=-5/0, 8-9=-5/0, 9-10=-5/0  
BOT CHORD 19-20=0/5, 18-19=0/5, 17-18=0/5, 16-17=0/5,  
15-16=0/5, 14-15=0/5, 13-14=0/5, 12-13=0/5,  
11-12=0/5  
WEBS 9-12=-106/0, 8-13=-107/0, 7-14=-107/0,  
6-15=-107/0, 5-16=-107/0, 4-17=-106/0,  
3-18=-110/0, 2-19=-88/0

**NOTES**

- 1) All plates are 1.5x3 (||) MT20 unless otherwise indicated.  
2) Gable requires continuous bottom chord bearing.  
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).  
4) Gable studs spaced at 1'-4" oc.



May 13, 2025

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

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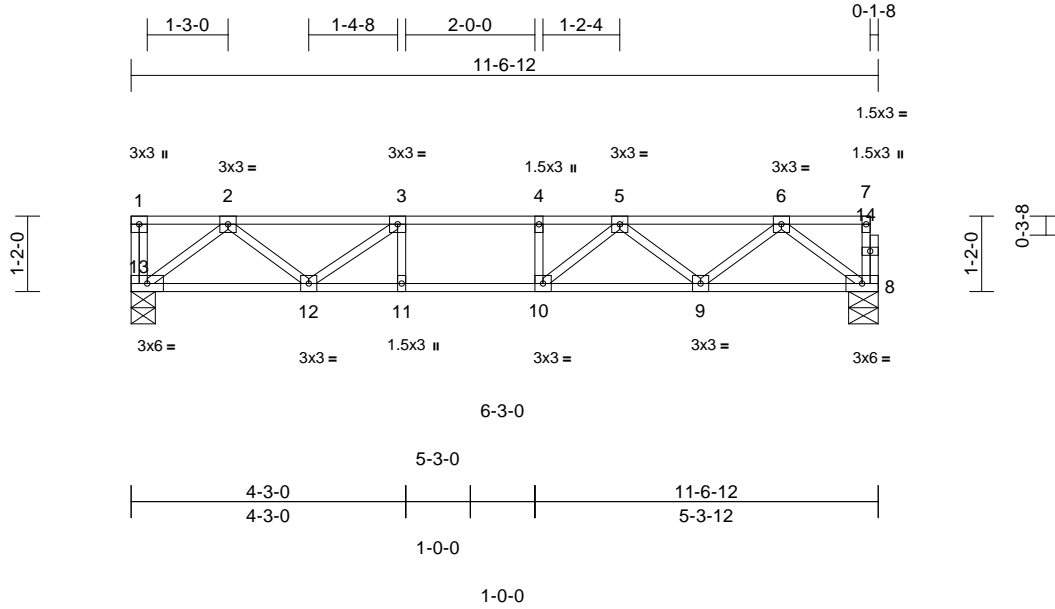
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor
	1F7	Floor	8	1	173385780
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:19  
ID:HnuHvkjhNO\_cfXd7UIEmICzewSE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:35.7

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.36	Vert(LL)	-0.08	9-10	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.50	Vert(CT)	-0.10	9-10	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.01	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 58 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

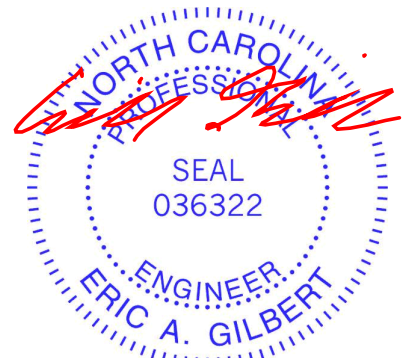
**REACTIONS** (size) 8=0-5-8, 13=0-4-8  
Max Grav 8=411 (LC 1), 13=415 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-13=-27/0, 7-8=-24/0, 1-2=0/0, 2-3=-780/0, 3-4=-1096/0, 4-5=-1096/0, 5-6=-784/0, 6-7=-1/0  
BOT CHORD 12-13=0/500, 11-12=0/1096, 10-11=0/1096, 9-10=0/1032, 8-9=0/504  
WEBS 3-11=-25/83, 4-10=-109/0, 2-13=-628/0, 2-12=0/364, 3-12=-401/0, 6-8=-631/0, 6-9=0/364, 5-9=-323/0, 5-10=-32/234

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



May 13, 2025

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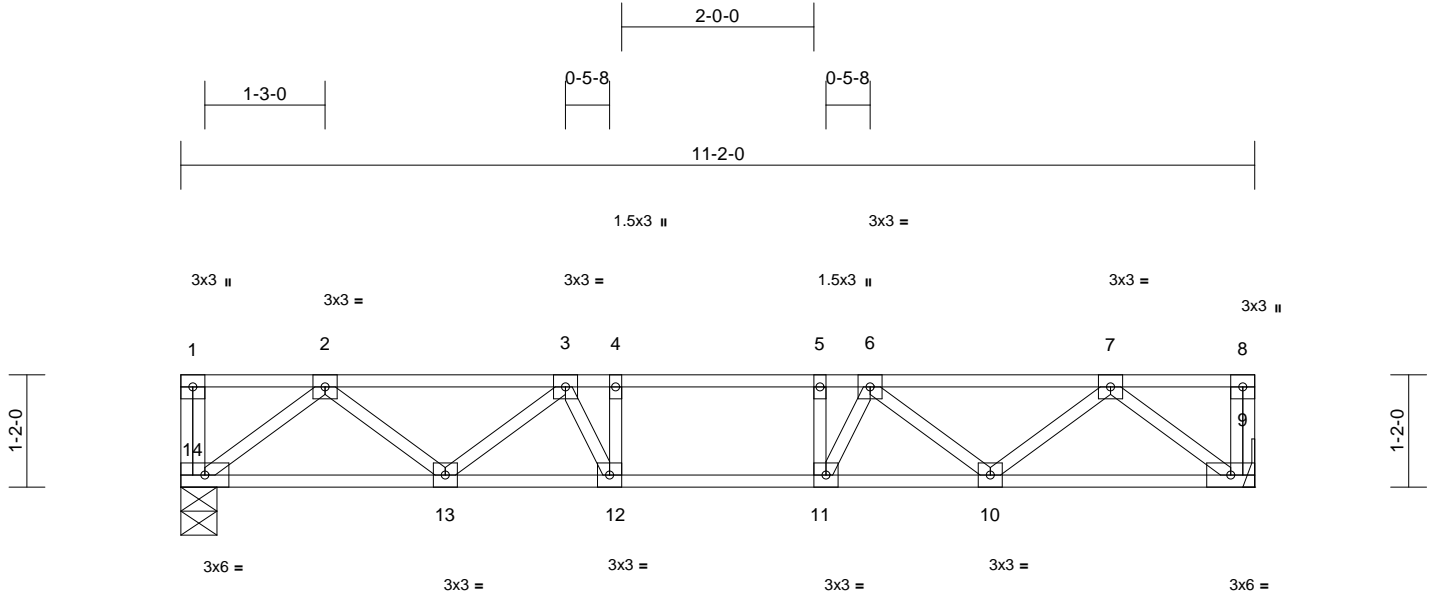
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385781
	2F3	Floor	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:24  
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Page: 1



Scale = 1:24

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.40	Vert(LL)	-0.06	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.49	Vert(CT)	-0.08	12-13	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 58 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or  
6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc  
bracing.

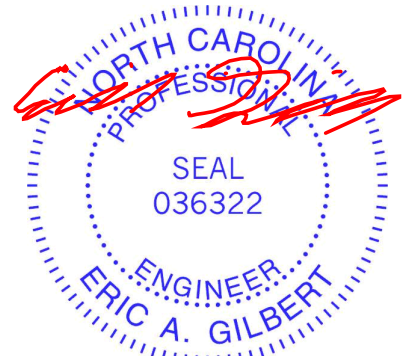
REACTIONS (size) 9= Mechanical, 14=0-4-8  
Max Grav 9=600 (LC 1), 14=600 (LC 1)

FORCES (lb) - Maximum Compression/Maximum  
Tension  
TOP CHORD 1-14=-39/0, 8-9=-39/0, 1-2=0/0, 2-3=-1116/0,  
3-4=-1536/0, 4-5=-1536/0, 5-6=-1536/0,  
6-7=-1116/0, 7-8=0/0  
BOT CHORD 13-14=0/726, 12-13=0/1476, 11-12=0/1536,  
10-11=0/1476, 9-10=0/726  
WEBS 2-14=-910/0, 7-9=-910/0, 2-13=0/508,  
7-10=0/508, 3-13=-468/0, 6-10=-468/0,  
3-12=-72/402, 6-11=-72/402, 4-12=-298/37,  
5-11=-298/37

#### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Refer to girder(s) for truss to truss connections.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 13, 2025

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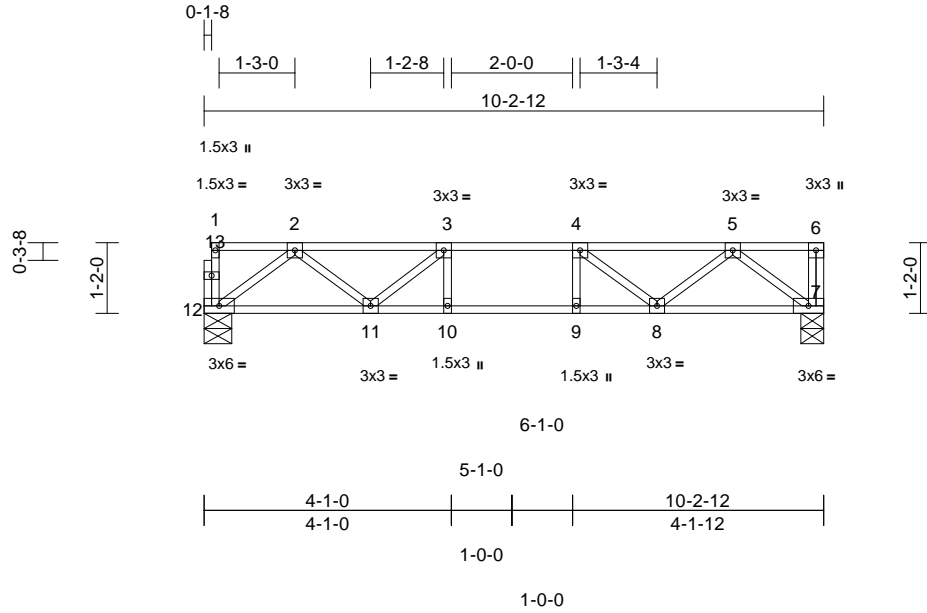
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	173385782
	1F6	Floor	6	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:19  
ID:Jtvz6U\_rutuFPG4GwPjTlBzewVj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:38

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.26	Vert(LL)	-0.05	8-9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.47	Vert(CT)	-0.06	8-9	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 52 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 7=0-4-8, 12=0-5-8  
Max Grav 7=439 (LC 1), 12=434 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-12=-27/0, 6-7=-29/0, 1-2=-2/0, 2-3=-789/0, 3-4=-1036/0, 4-5=-788/0, 5-6=0/0  
BOT CHORD 11-12=0/526, 10-11=0/1036, 9-10=0/1036, 8-9=0/1036, 7-8=0/529  
WEBS 3-10=-57/84, 4-9=-61/77, 5-7=-664/0, 5-8=0/337, 4-8=-347/0, 2-12=-657/0, 2-11=0/343, 3-11=-351/0

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



May 13, 2025

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

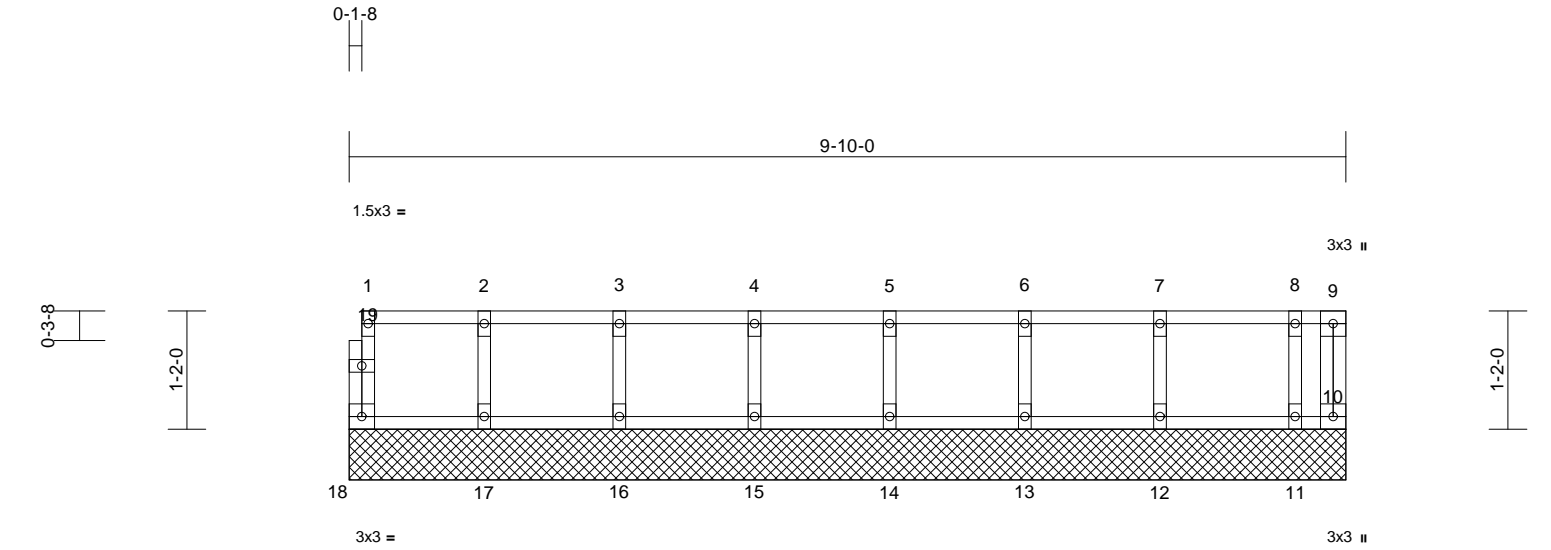
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385783
	1FGE3	Floor Supported Gable	1	1	Job Reference (optional)	



Scale = 1:22.7

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 44 lb	FT = 20%F, 12%E

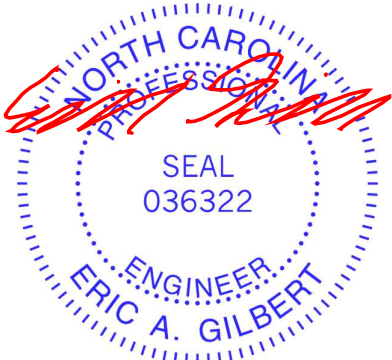
<b>LUMBER</b>		<b>LOAD CASE(S)</b>	Standard
TOP CHORD	2x4 SP No.2(flat)		
BOT CHORD	2x4 SP No.2(flat)		
WEBS	2x4 SP No.3(flat)		
OTHERS	2x4 SP No.3(flat)		

<b>BRACING</b>	
TOP CHORD	Structural wood sheathing directly applied or 6'-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10'-0-0 oc bracing.

<b>REACTIONS</b>	(size)	10=9-10-0, 11=9-10-0, 12=9-10-0, 13=9-10-0, 14=9-10-0, 15=9-10-0, 16=9-10-0, 17=9-10-0, 18=9-10-0
Max Grav		10=8 (LC 1), 11=80 (LC 1), 12=122 (LC 1), 13=116 (LC 1), 14=118 (LC 1), 15=117 (LC 1), 16=118 (LC 1), 17=117 (LC 1), 18=43 (LC 1)

<b>FORCES</b>	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-18=-39/0, 9-10=0/0, 1-2=-6/0, 2-3=-6/0, 3-4=-6/0, 4-5=-6/0, 5-6=-6/0, 6-7=-6/0, 7-8=-6/0, 8-9=-6/0
BOT CHORD	17-18=0/6, 16-17=0/6, 15-16=0/6, 14-15=0/6, 13-14=0/6, 12-13=0/6, 11-12=0/6, 10-11=0/6
WEBS	2-17=-105/0, 3-16=-107/0, 4-15=-106/0, 5-14=-107/0, 6-13=-106/0, 7-12=-111/0, 8-11=-80/0

- NOTES**
- All plates are 1.5x3 (||) MT20 unless otherwise indicated.
  - 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 1'-4" oc.
  - Recommend 2x6 strongbacks, on edge, spaced at 10'-0"-0" oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.



May 13,2025

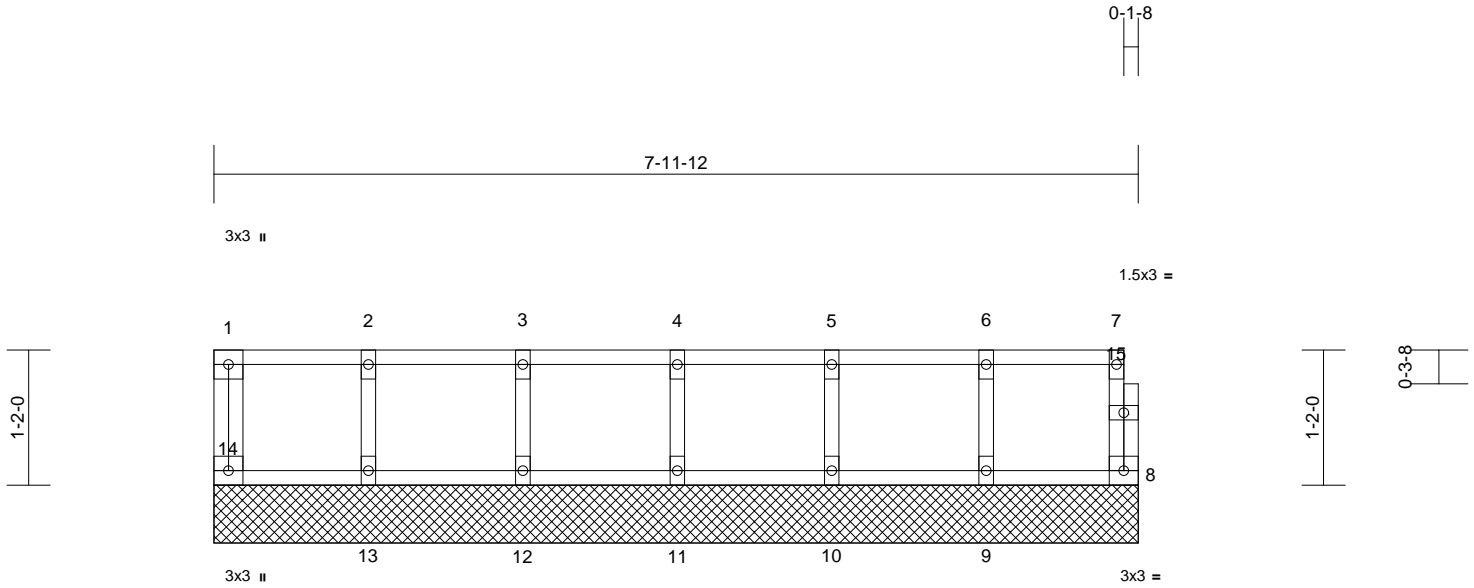
Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385784
	2FGE6	Floor Supported Gable	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:34

Page: 1

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Scale = 1:19.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.09	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horiz(TL)	0.00	8	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 36 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
 BOT CHORD 2x4 SP No.2(flat)  
 WEBS 2x4 SP No.3(flat)  
 OTHERS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or  
 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc  
 bracing.

**REACTIONS** (size) 8=7-11-12, 9=7-11-12, 10=7-11-12,  
 11=7-11-12, 12=7-11-12,  
 13=7-11-12, 14=7-11-12  
 Max Grav 8=56 (LC 1), 9=141 (LC 1), 10=148  
 (LC 1), 11=146 (LC 1), 12=148 (LC  
 1), 13=143 (LC 1), 14=63 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum  
 Tension  
 TOP CHORD 1-14=-57/0, 7-8=-50/0, 1-2=-10/0, 2-3=-10/0,  
 3-4=-10/0, 4-5=-10/0, 5-6=-10/0, 6-7=-10/0  
 BOT CHORD 13-14=0/10, 12-13=0/10, 11-12=0/10,  
 10-11=0/10, 9-10=0/10, 8-9=0/10  
 WEBS 2-13=-130/0, 3-12=-134/0, 4-11=-133/0,  
 5-10=-135/0, 6-9=-129/0

#### NOTES

- 1) All plates are 1.5x3 (||) MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



May 13, 2025

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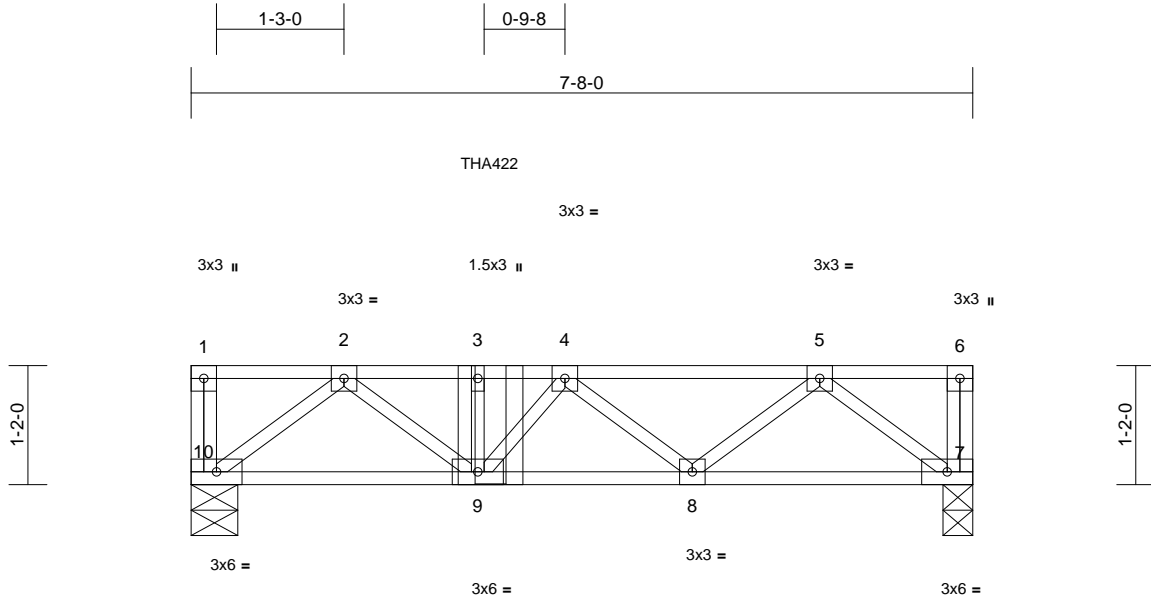
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385785
	2FG1	Floor Girder	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:22.6

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.23	Vert(LL)	-0.02	8-9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.34	Vert(CT)	-0.03	8-9	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.29	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 43 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 7=0-3-8, 10=0-5-8  
Max Grav 7=464 (LC 1), 10=568 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-10=-43/0, 6-7=-31/0, 1-2=0/0, 2-3=-1154/0, 3-4=-1154/0, 4-5=-851/0, 5-6=0/0

BOT CHORD 9-10=0/679, 8-9=0/1119, 7-8=0/559

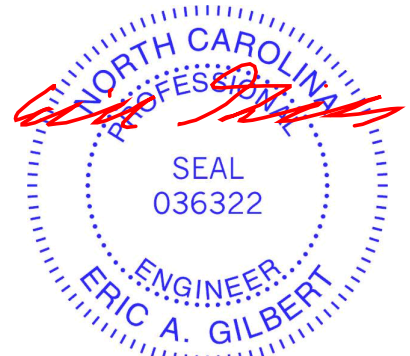
WEBS 5-7=-701/0, 2-10=-852/0, 5-8=0/381, 2-9=0/606, 4-8=-349/0, 3-9=-401/0, 4-9=0/55

#### NOTES

- 1) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 2) Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent at 2-11-4 from the left end to connect truss(es) to front face of top chord.
- 3) Fill all nail holes where hanger is in contact with lumber.
- 4) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 7-10=-8, 1-6=-80  
Concentrated Loads (lb)  
Vert: 3=-379 (F)



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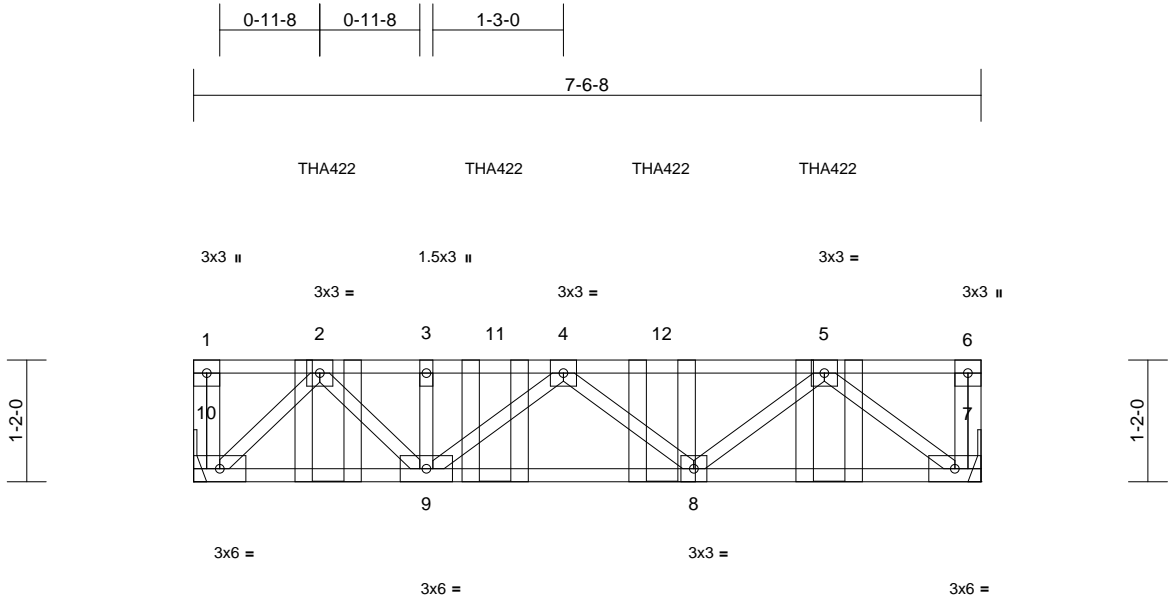
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385786
	2FG2	Floor Girder	1	1	Job Reference (optional)	



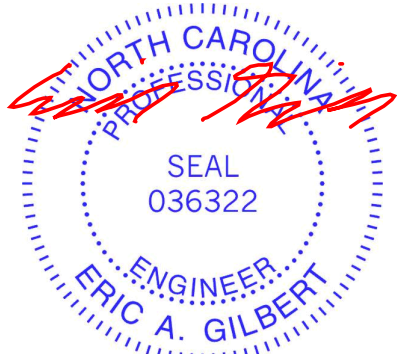
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.34	Vert(LL)	-0.01	8-9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.28	Vert(CT)	-0.02	8-9	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.17	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 42 lb	FT = 20%F, 12%E

- LUMBER**  
TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)
- BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- REACTIONS** (size) 7= Mechanical, 10= Mechanical  
Max Grav 7=459 (LC 1), 10=463 (LC 1)
- FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-10=-44/0, 6-7=-35/0, 1-2=0/0, 2-3=-676/0, 3-4=-676/0, 4-5=-720/0, 5-6=0/0  
BOT CHORD 9-10=0/426, 8-9=0/860, 7-8=0/545  
WEBS 5-7=-684/0, 5-8=0/227, 4-8=-183/0, 4-9=-235/0, 3-9=-85/0, 2-9=0/358, 2-10=-591/0

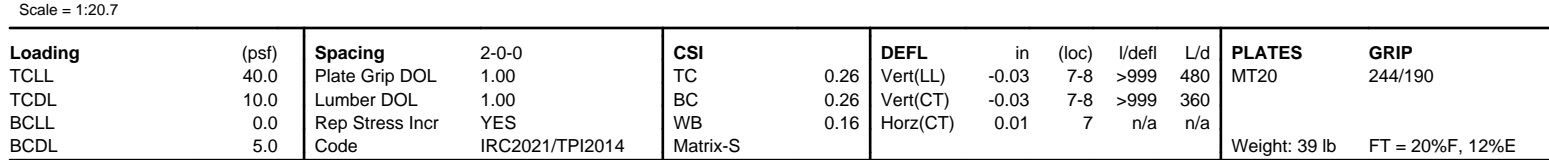
- NOTES**  
1) Refer to girder(s) for truss to truss connections.  
2) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.  
3) Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent spaced at 1-7-3 oc max. starting at 1-3-7 from the left end to 6-1-1 to connect truss(es) to back face of top chord.  
4) Fill all nail holes where hanger is in contact with lumber.  
5) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

- LOAD CASE(S)** Standard  
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 7-10=-10, 1-6=-100  
Concentrated Loads (lb)  
Vert: 5=-30 (B), 2=-30 (B), 11=-30 (B), 12=-30 (B)

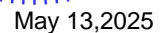


May 13,2025

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:19 Page: 1  
ID:N51nABj5p09nPLTPK1E95ezewPc-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zC?f



## LOAD CASE(S) Standard



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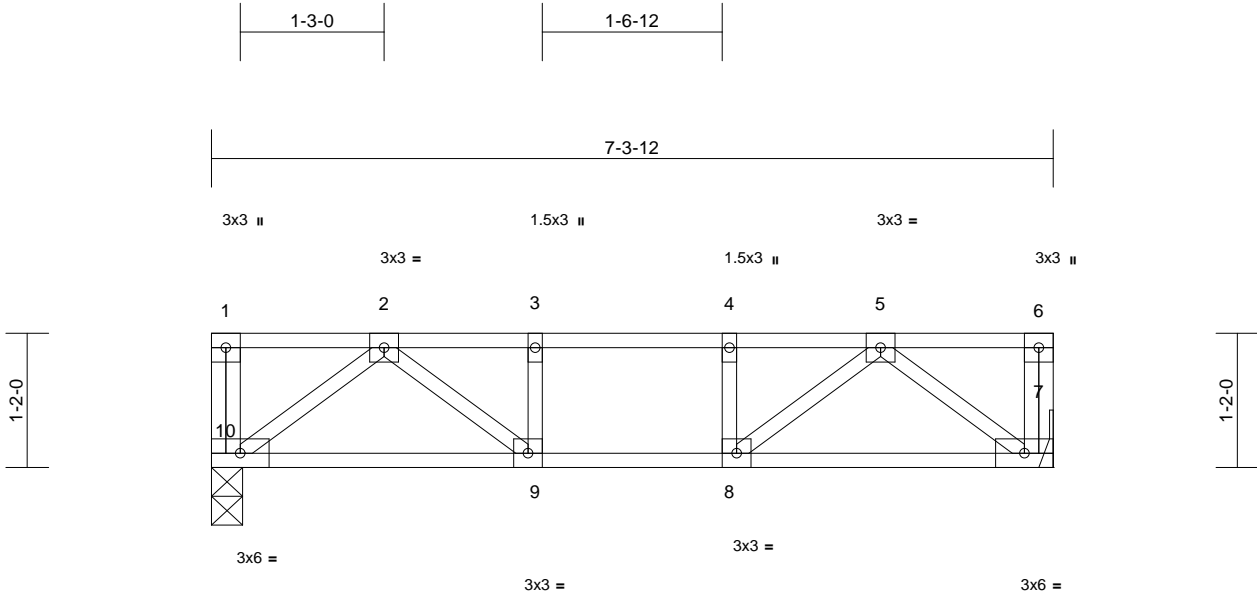
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385788
	2F15	Floor	2	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:28  
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Page: 1



Scale = 1:20

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.22	Vert(LL)	-0.02	9-10	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.24	Vert(CT)	-0.03	9-10	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 39 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or  
6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc  
bracing.

**REACTIONS** (size) 7= Mechanical, 10=0-3-4  
Max Grav 7=388 (LC 1), 10=388 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum  
Tension

TOP CHORD 1-10=-57/0, 6-7=-57/0, 1-2=0/0, 2-3=-641/0,  
3-4=-641/0, 4-5=-641/0, 5-6=0/0

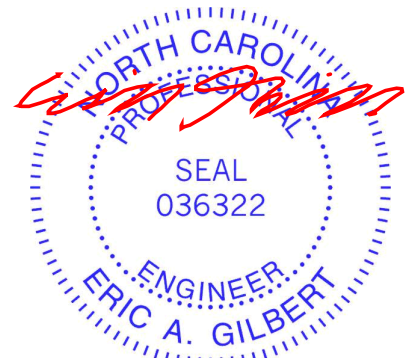
BOT CHORD 9-10=0/421, 8-9=0/641, 7-8=0/421

WEBS 5-7=-529/0, 2-10=-529/0, 5-8=0/321,  
2-9=0/321, 3-9=-155/0, 4-8=-155/0

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard



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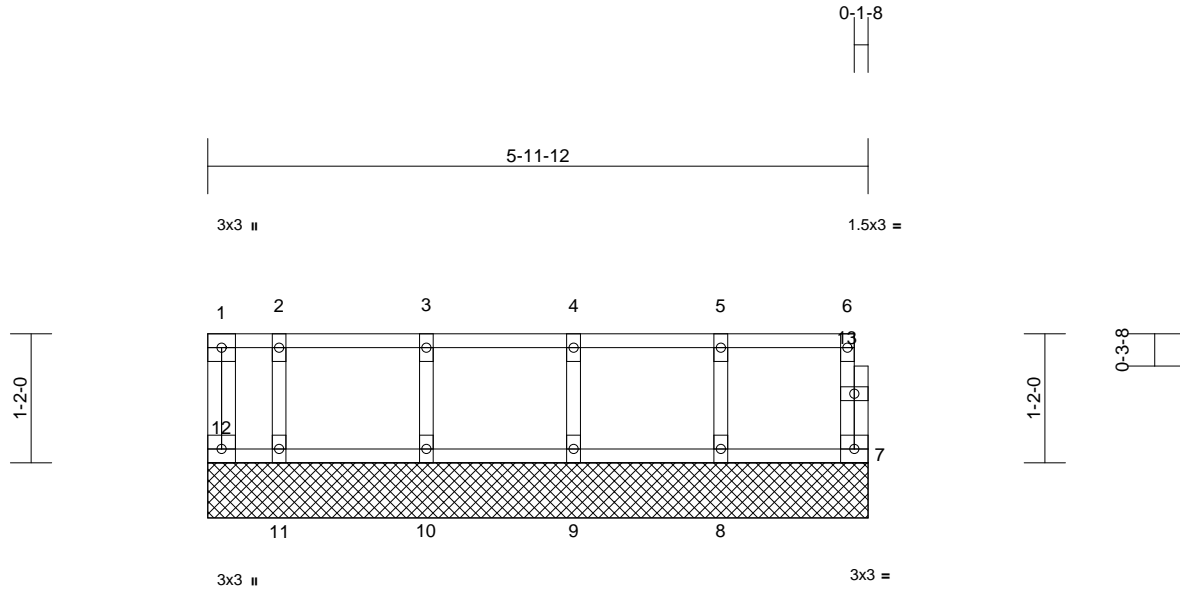


Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385789
	1FGE5	Floor Supported Gable	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:22  
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Page: 1



Scale = 1:20.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 28 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

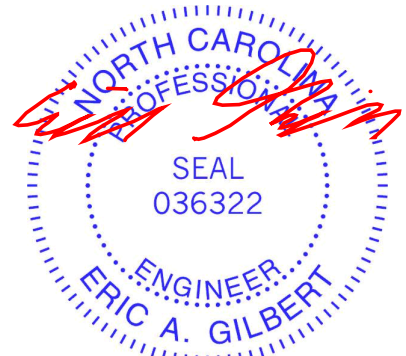
**REACTIONS** (size) 7=5-11-12, 8=5-11-12, 9=5-11-12, 10=5-11-12, 11=5-11-12, 12=5-11-12  
Max Grav 7=53 (LC 1), 8=147 (LC 1), 9=145 (LC 1), 10=153 (LC 1), 11=104 (LC 1), 12=21 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-12=-13/0, 6-7=-49/0, 1-2=-7/0, 2-3=-7/0, 3-4=-7/0, 4-5=-7/0, 5-6=-7/0  
BOT CHORD 11-12=0/7, 10-11=0/7, 9-10=0/7, 8-9=0/7, 7-8=0/7  
WEBS 5-8=-132/0, 4-9=-133/0, 3-10=-138/0, 2-11=-102/0

#### NOTES

- 1) All plates are 1.5x3 (||) MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



May 13, 2025

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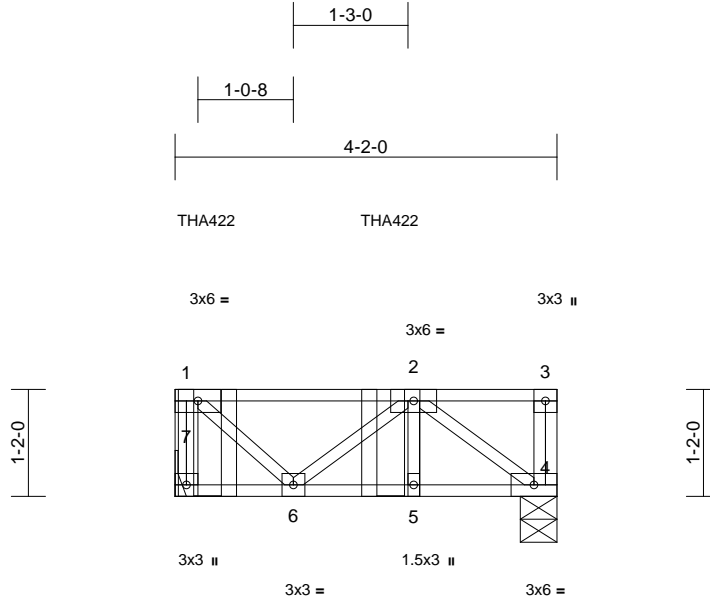
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor	I73385790
	2FG3	Floor Girder	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:33  
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Page: 1



Scale = 1:25.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.41	Vert(LL)	-0.01	5	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.25	Vert(CT)	-0.01	5-6	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.23	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 26 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 4-2-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 4=0-4-13, 7= Mechanical  
Max Grav 4=579 (LC 1), 7=1038 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

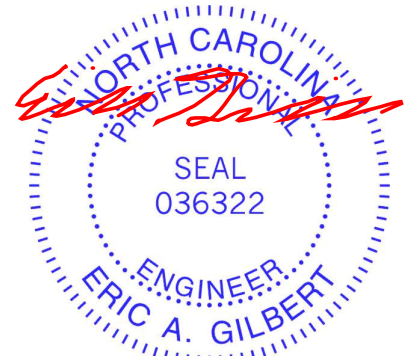
TOP CHORD 1-7=-1033/0, 3-4=-35/0, 1-2=-357/0, 2-3=0/0  
BOT CHORD 6-7=0/0, 5-6=0/735, 4-5=0/735  
WEBS 2-4=-908/0, 2-5=0/5, 2-6=-483/0, 1-6=0/478

#### NOTES

- 1) Refer to girder(s) for truss to truss connections.
- 2) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 3) Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent spaced at 2-0-0 oc max. starting at 0-4-4 from the left end to 2-4-4 to connect truss(es) to front face of top chord.
- 4) Fill all nail holes where hanger is in contact with lumber.
- 5) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 4-7=-10, 1-3=-100  
Concentrated Loads (lb)  
Vert: 2=-574 (F), 1=-612 (F)



May 13, 2025

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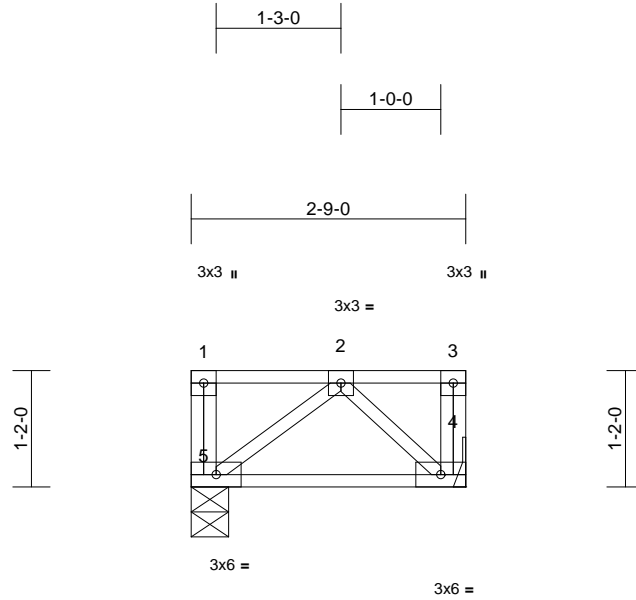
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor
	2F7	Floor	4	1	I73385791
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:26  
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Page: 1



Scale = 1:23.1

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.06	Vert(CT)	-0.01	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 18 lb	FT = 20%F, 12%E

#### LUMBER

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)

#### BRACING

TOP CHORD Structural wood sheathing directly applied or  
2-9-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc  
bracing.

REACTIONS (size) 4= Mechanical, 5=0-4-8  
Max Grav 4=110 (LC 1), 5=110 (LC 1)

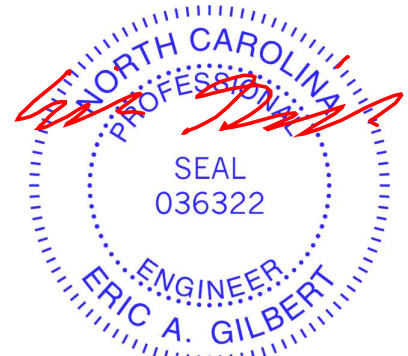
FORCES (lb) - Maximum Compression/Maximum  
Tension

TOP CHORD 1-5=-44/0, 3-4=-31/0, 1-2=0/0, 2-3=0/0  
BOT CHORD 4-5=0/74  
WEBS 2-5=-93/0, 2-4=-101/0

#### NOTES

- 1) Refer to girder(s) for truss to truss connections.
- 2) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 13, 2025

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

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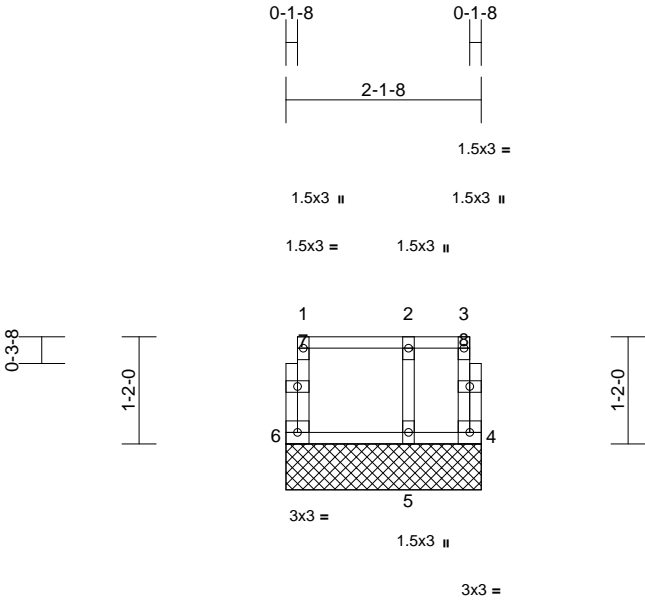
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-EL-1-Floor
	1FGE9	Floor Supported Gable	1	1	Job Reference (optional)
					I73385792

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Fri May 09 13:48:23  
ID:K15mZQuv0gYIVFHsxlSdRPzUV2d-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWwCDoi7J4zJC?f

Page: 1



Scale = 1:25.1

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	4	n/a	n/a	
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 12 lb FT = 20%F, 12%E

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-1-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	4=2-1-8, 5=2-1-8, 6=2-1-8
	Max Grav	4=23 (LC 1), 5=84 (LC 1), 6=48 (LC 1)

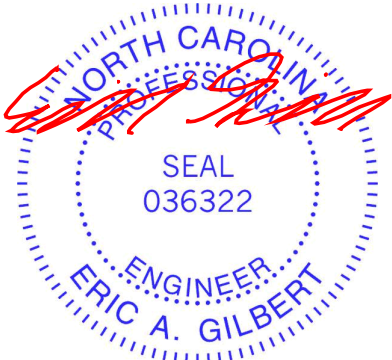
FORCES	(lb) - Maximum Compression/Maximum Tension
--------	--

TOP CHORD	1-6=-44/0, 3-4=-17/0, 1-2=-7/0, 2-3=-7/0
BOT CHORD	5-6=0/7, 4-5=0/7
WEBS	2-5=-80/0

NOTES

- 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 1-4-0 oc.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



May 13,2025

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

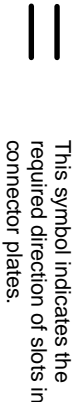
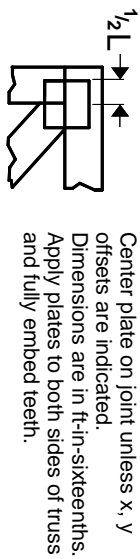
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



\* Plate location details available in MITek software or upon request.

## PLATE SIZE

**4 X 4**

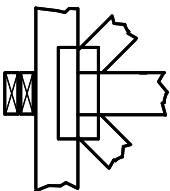
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

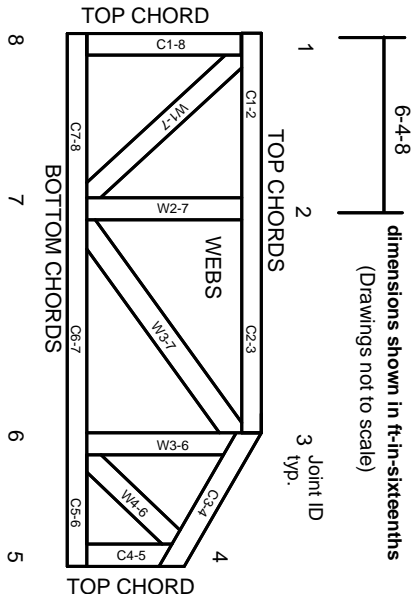


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-22: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

# 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/TP1 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**

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. 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.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. 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.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. 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.
14. 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.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

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MITek Engineering Reference Sheet: MII-7473 rev. 1/2/2023