

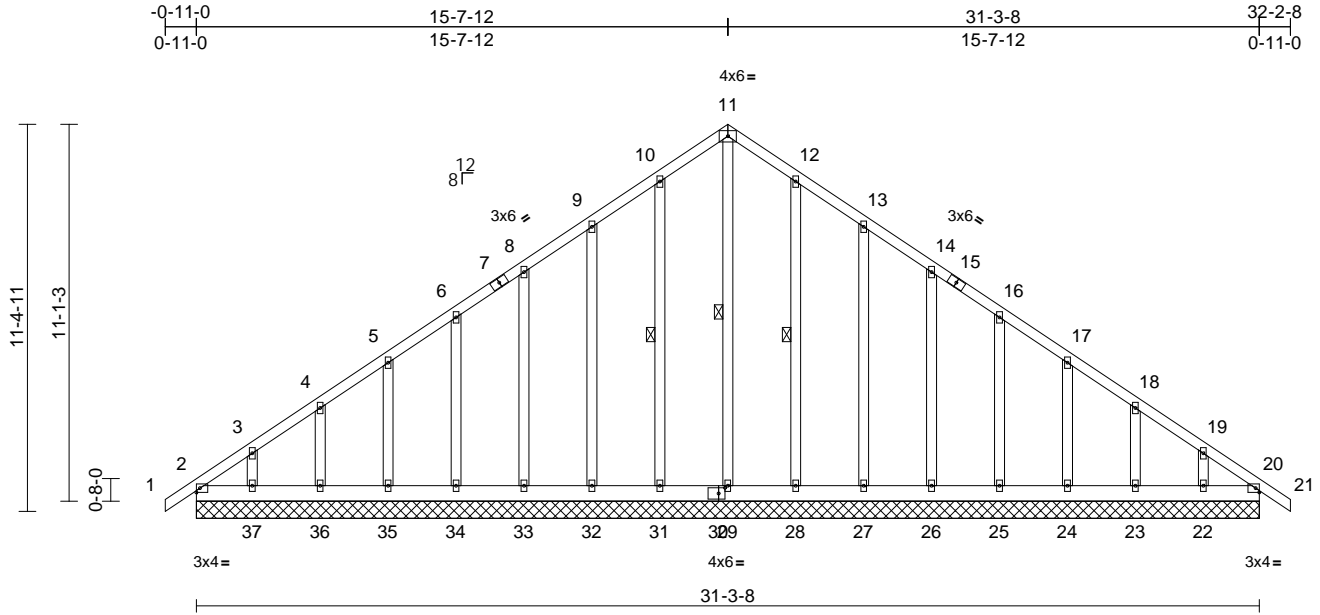


Job 3894016	Truss A01	Truss Type Common Supported Gable	Qty 1	Ply 1	Furr, Mayview B Job Reference (optional)	163825339
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:22  
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Page: 1



Scale = 1:67.8

Plate Offsets (X, Y): [30:0-2-4-0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.01	20	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 253 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
OTHERS 2x4 SP No.3

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

**WEBS** 1 Row at midpt 11-29, 10-31, 12-28

**REACTIONS (size)**  
2=31-3-8, 20=31-3-8, 22=31-3-8,  
23=31-3-8, 24=31-3-8, 25=31-3-8,  
26=31-3-8, 27=31-3-8, 28=31-3-8,  
29=31-3-8, 31=31-3-8, 32=31-3-8,  
33=31-3-8, 34=31-3-8, 35=31-3-8,  
36=31-3-8, 37=31-3-8, 38=31-3-8

Max Horiz 2=368 (LC 11), 38=368 (LC 11)  
Max Uplift 2=174 (LC 8), 23=225 (LC 13),  
24=70 (LC 13), 25=111 (LC 13),  
26=99 (LC 13), 27=112 (LC 13),  
28=86 (LC 13), 29=12 (LC 11),  
31=94 (LC 12), 32=109 (LC 12),  
33=102 (LC 12), 34=102 (LC 12),  
35=106 (LC 12), 36=91 (LC 12),  
37=162 (LC 12), 38=174 (LC 8)

Max Grav 2=231 (LC 9), 22=315 (LC 1),  
23=162 (LC 11), 24=190 (LC 20),  
25=178 (LC 20), 26=181 (LC 20),  
27=180 (LC 20), 28=188 (LC 20),  
29=366 (LC 13), 31=196 (LC 19),  
32=177 (LC 19), 33=181 (LC 19),  
34=180 (LC 19), 35=183 (LC 19),  
36=174 (LC 19), 37=216 (LC 19),  
38=231 (LC 9)

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

**TOP CHORD** 1-2=0/31, 2-3=-346/334, 3-4=-300/303,  
4-5=-253/273, 5-6=-207/252, 6-8=-184/255,  
8-9=-202/302, 9-10=-272/353,  
10-11=-330/389, 11-12=-330/380,  
12-13=-272/311, 13-14=-202/227,  
14-16=-138/150, 16-17=-71/106,  
17-18=-49/117, 18-19=-144/137,  
19-20=-202/184, 20-21=0/31

**BOT CHORD** 2-37=-272/277, 36-37=-187/229,  
35-36=-187/229, 34-35=-187/229,  
33-34=-187/229, 32-33=-187/229,  
31-32=-187/229, 29-31=-187/229,  
28-29=-187/229, 27-28=-187/229,  
26-27=-187/229, 25-26=-187/229,  
24-25=-187/229, 23-24=-187/229,  
22-23=-187/229, 20-22=-187/229

**WEBS** 11-29=-342/223, 10-31=-156/118,  
9-32=-165/133, 8-33=-157/125,  
6-34=-158/127, 5-35=-158/126,  
4-36=-161/127, 3-37=-154/126,  
12-28=-148/110, 13-27=-165/136,  
14-26=-157/125, 16-25=-159/128,  
17-24=-157/121, 18-23=-175/150,  
19-22=-143/93

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -0-11-0 to 2-1-0, Exterior (2) 2-1-0 to 15-7-12, Corner (3) 15-7-12 to 18-7-12, Exterior (2) 18-7-12 to 32-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.



February 26, 2024

Continued on page 2

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

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Furr, Mayview B	I63825339
3894016	A01	Common Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:22  
 ID:UolyNI2sxuK2di9HW2fTBezPn2N-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 2

- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 174 lb uplift at joint 2, 12 lb uplift at joint 29, 94 lb uplift at joint 31, 109 lb uplift at joint 32, 102 lb uplift at joint 33, 102 lb uplift at joint 34, 106 lb uplift at joint 35, 91 lb uplift at joint 36, 162 lb uplift at joint 37, 86 lb uplift at joint 28, 112 lb uplift at joint 27, 99 lb uplift at joint 26, 111 lb uplift at joint 25, 70 lb uplift at joint 24, 225 lb uplift at joint 23 and 174 lb uplift at joint 2.
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

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

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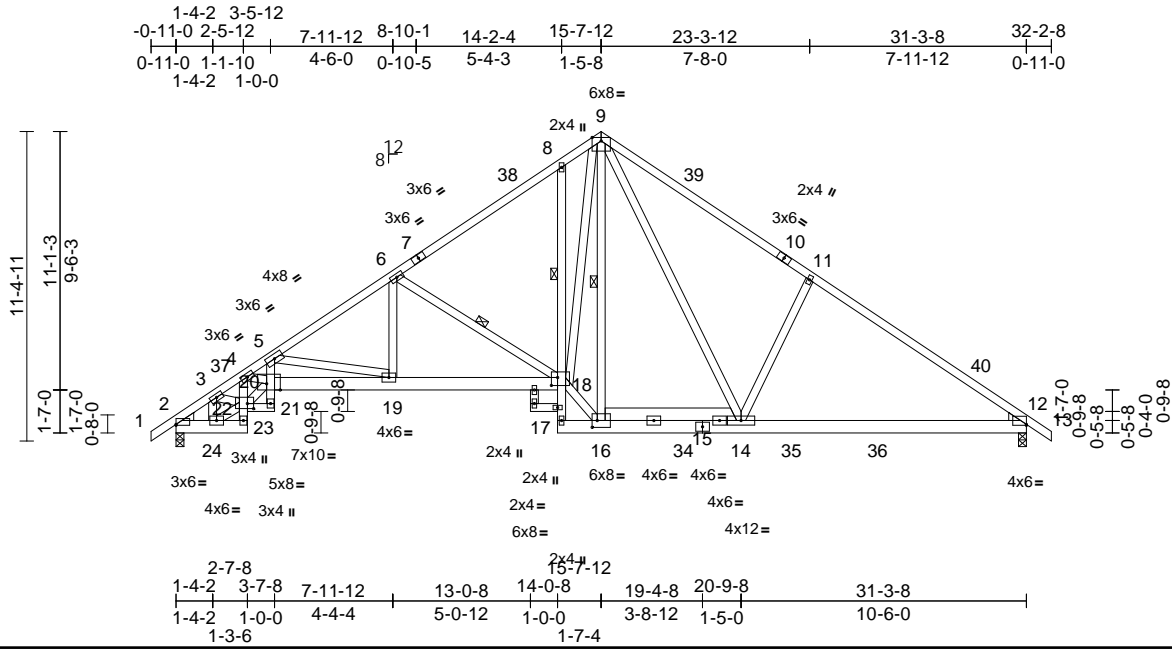
Job 3894016	Truss A03	Truss Type Roof Special	Qty 3	Ply 1	Furr, Mayview B Job Reference (optional)	163825341
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:29

Page: 1

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Scale = 1:84.8

Plate Offsets (X, Y): [2:Edge,0-0-6], [12:Edge,0-0-6], [16:0-2-4,0-3-0], [18:0-2-12,0-3-8], [20:0-6-0,Edge], [22:0-2-12,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.15	19-20	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.31	19-20	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.23	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.20	19-20	>999	240	Weight: 252 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
2-23,20-18,17-15,15-12,16-14:2x6 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 22-20:2x4 SP No.2  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

**WEBS**  
9-16=550/4, 6-19=107/647, 9-14=356/786,  
3-24=1185/390, 22-24=449/1299,  
3-22=320/1149, 5-19=2455/875,  
6-18=997/442, 11-14=562/450,  
4-20=587/1978, 20-22=891/2887,  
16-18=103/1486, 9-18=472/1591

**BRACING**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
2-2-0 oc bracing: 19-20  
9-10-6 oc bracing: 18-19.

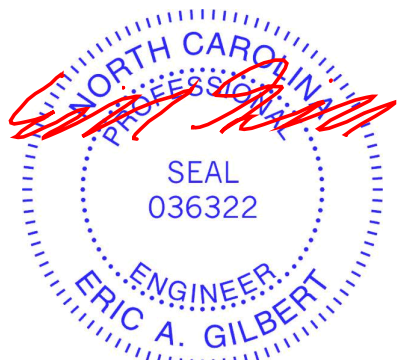
**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 15-7-12, Exterior (2) 15-7-12 to 18-7-12, Interior (1) 18-7-12 to 32-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.  
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.  
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 341 lb uplift at joint 2 and 341 lb uplift at joint 12.  
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

1 Row at midpt 8-18  
6-0-0 oc bracing: 17-18  
WEBS 1 Row at midpt 9-16, 6-18

**REACTIONS** (size) 2=0-3-8, 12=0-3-8  
Max Horiz 2=368 (LC 10)  
Max Uplift 2=341 (LC 12), 12=341 (LC 13)  
Max Grav 2=1307 (LC 1), 12=1350 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/31, 2-3=1561/367, 3-4=2758/773,  
4-5=5127/1494, 5-6=2405/640,  
6-8=1606/458, 8-9=1654/595,  
9-11=1749/573, 11-12=1795/457,  
12-13=0/31  
BOT CHORD 2-24=489/1449, 23-24=109/348,  
22-23=57/229, 4-22=1748/527,  
21-22=167/523, 20-21=61/219,  
5-20=565/1930, 19-20=1414/4603,  
18-19=559/2206, 17-18=343/76,  
8-18=250/265, 16-17=35/94,  
14-16=115/1097, 12-14=235/1400

**LOAD CASE(S)** Standard



February 26, 2024

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**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
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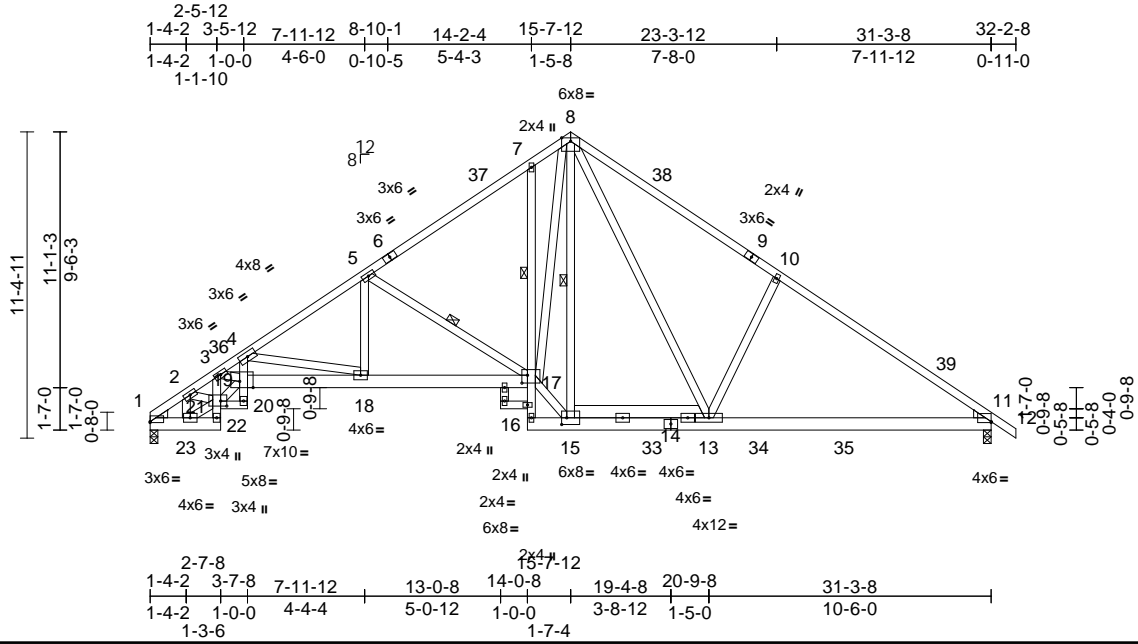


Job 3894016	Truss A04	Truss Type Roof Special	Qty 2	Ply 1	Furr, Mayview B Job Reference (optional)	163825342
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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Plate Offsets (X, Y): [1:Edge,0-0-6], [11:Edge,0-0-6], [15:0-2-4,0-3-0], [17:0-2-8,0-3-8], [19:0-6-0,Edge], [21:0-2-12,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.16	18-19	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.31	18-19	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.23	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.20	18-19	>999	240	Weight: 250 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
1-22,19-17,16-14,14-11,15-13:2x6 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 21-19:2x4 SP No.2  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

**WEBS**  
8-15=550/4, 5-18=110/651, 8-13=356/786,  
2-23=1186/391, 21-23=462/1321,  
2-21=316/1142, 4-18=2472/886,  
5-17=1001/444, 10-13=562/450,  
3-19=590/1983, 19-21=904/2907,  
15-17=104/1488, 8-17=473/1593

**BRACING**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
2-2-0 oc bracing: 18-19  
9-10-1 oc bracing: 17-18.

1 Row at midpt 7-17  
6-0-0 oc bracing: 16-17  
WEBS 1 Row at midpt 8-15, 5-17

**REACTIONS** (size) 1=0-3-8, 11=0-3-8  
Max Horiz 1=362 (LC 8)  
Max Uplift 1=311 (LC 12), 11=341 (LC 13)  
Max Grav 1=1251 (LC 1), 11=1350 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=1554/382, 2-3=2779/786,  
3-4=5153/1510, 4-5=2410/643,  
5-7=1608/462, 7-8=1656/596,  
8-10=1750/573, 10-11=1795/458,  
11-12=0/31

BOT CHORD 1-23=503/1472, 22-23=111/351,  
21-22=57/229, 3-21=1750/528,  
20-21=169/526, 19-20=62/220,  
4-19=574/1945, 18-19=1428/4625,  
17-18=562/2211, 16-17=343/76,  
7-17=-250/265, 15-16=-35/94,  
13-15=-116/1098, 11-13=-235/1401

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust)  
Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft;  
Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 15-7-12, Exterior (2) 15-7-12 to 18-7-12, Interior (1) 18-7-12 to 32-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 311 lb uplift at joint 1 and 341 lb uplift at joint 11.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



February 26, 2024

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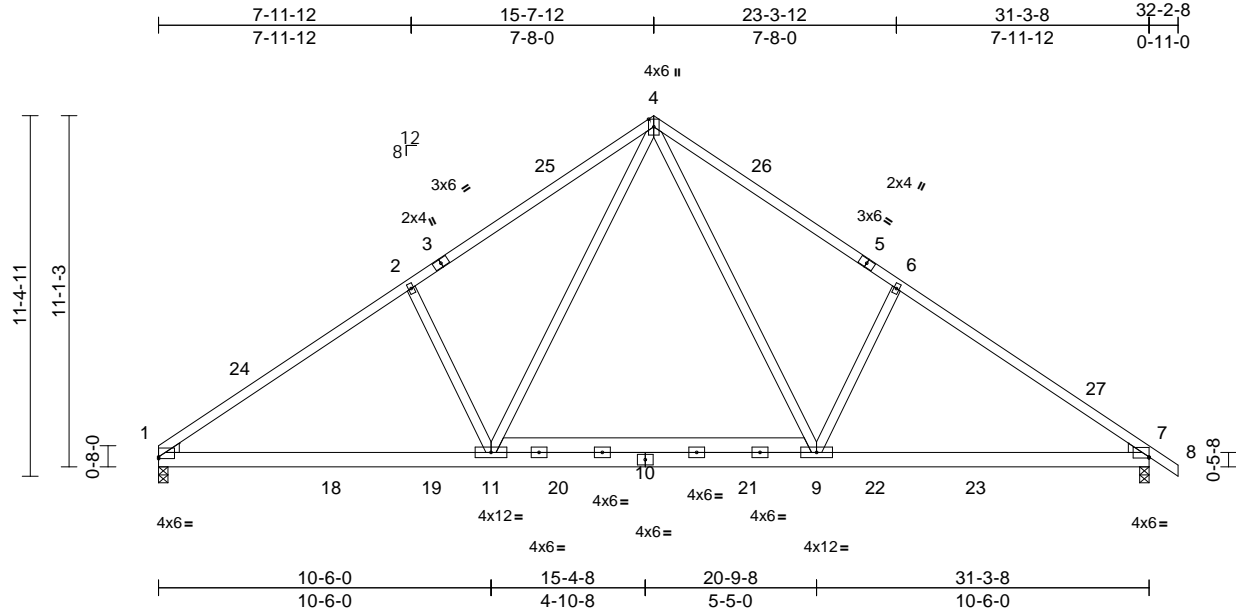
818 Soundside Road  
Edenton, NC 27932

Job 3894016	Truss A05	Truss Type Common	Qty 1	Ply 1	Furr, Mayview B Job Reference (optional)	I63825343
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:32  
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Page: 1



Scale = 1:72.8  
Plate Offsets (X, Y): [1:Edge,0-0-10], [7:Edge,0-0-6]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.10	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.17	9-11	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.08	11-14	>999	240	Weight: 207 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-8, 7=0-3-8  
Max Horiz 1=-362 (LC 10)  
Max Uplift 1=-311 (LC 12), 7=-341 (LC 13)  
Max Grav 1=1357 (LC 19), 7=1411 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-1918/465, 2-4=-1780/575,  
4-6=-1775/572, 6-7=-1913/457, 7-8=0/31  
BOT CHORD 1-11=-446/1748, 9-11=-110/1125,  
7-9=-233/1496  
WEBS 2-11=-555/452, 4-11=-340/948,  
4-9=-337/942, 6-9=-556/452

- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 311 lb uplift at joint 1 and 341 lb uplift at joint 7.
- 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 15-7-12, Exterior (2) 15-7-12 to 18-7-12, Interior (1) 18-7-12 to 32-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are 4x6 MT20 unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



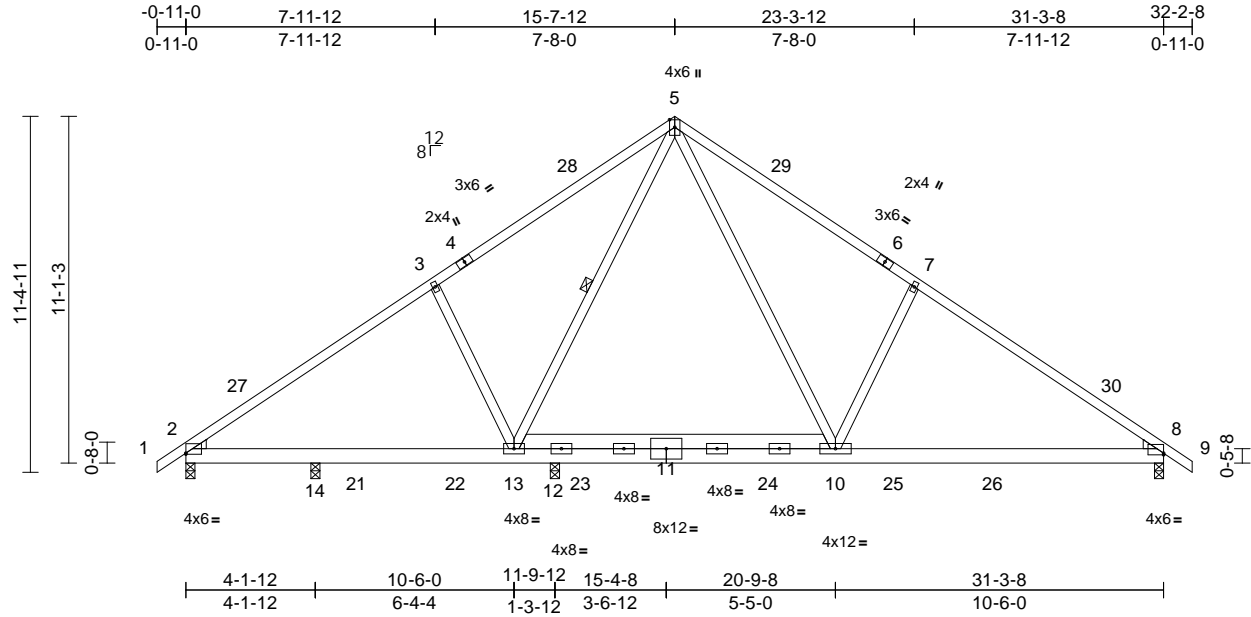
February 26, 2024

Job 3894016	Truss A06	Truss Type Common	Qty 2	Ply 1	Furr, Mayview B Job Reference (optional)	163825344
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:32  
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Page: 1



Scale = 1:73.7

Plate Offsets (X, Y): [2:Edge,0-0-6], [8:Edge,0-0-10]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.08	10-20	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.17	10-20	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.09	10-20	>999	240	Weight: 209 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 WEDGE Left: 2x4 SP No.3  
 Right: 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-1-11 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-13

**REACTIONS**

(size) 2=0-3-8, 8=0-3-8, 12=0-3-8, 14=0-3-8  
 Max Horiz 2=368 (LC 11)  
 Max Uplift 2=-150 (LC 12), 8=-294 (LC 13), 12=-223 (LC 12), 14=-59 (LC 12)  
 Max Grav 2=532 (LC 1), 8=1008 (LC 20), 12=1091 (LC 19), 14=322 (LC 19)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/31, 2-3=-637/313, 3-5=-570/346, 5-7=-1094/489, 7-8=-1209/369, 8-9=0/31  
 BOT CHORD 2-14=-419/573, 13-14=-207/573, 12-13=-27/642, 10-12=-15/506, 8-10=-219/886  
 WEBS 3-13=-553/452, 5-13=-481/58, 5-10=-321/865, 7-10=-564/453

**NOTES**

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

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 15-7-12, Exterior (2) 15-7-12 to 18-7-12, Interior (1) 18-7-12 to 32-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 150 lb uplift at joint 2, 294 lb uplift at joint 8, 59 lb uplift at joint 14 and 223 lb uplift at joint 12.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



February 26, 2024

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

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



818 Soundside Road  
Edenton, NC 27932

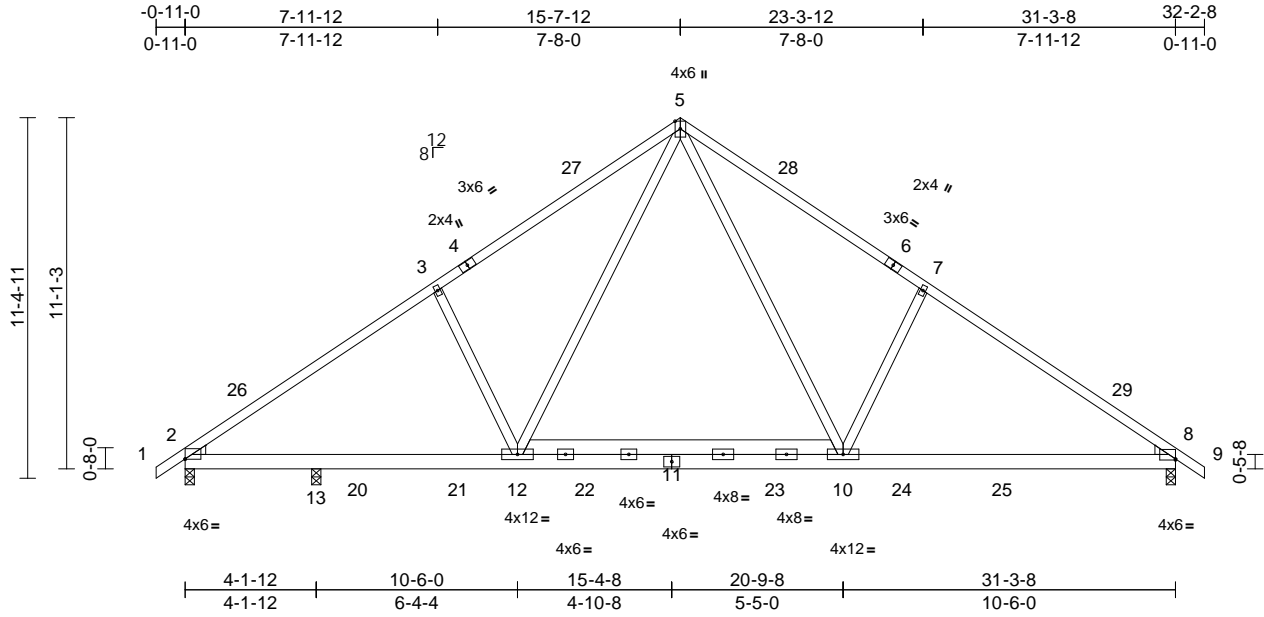


Job 3894016	Truss A07	Truss Type Common	Qty 2	Ply 1	Furr, Mayview B Job Reference (optional)	I63825345
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:33  
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Page: 1



Scale = 1:72.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.11	10-12	>999	360	MT20 244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.19	10-12	>999	240	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.03	8	n/a	n/a	
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.08	10-12	>999	240	Weight: 209 lb FT = 20%

**LUMBER**

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x6 SP No.2
- WEBS 2x4 SP No.3
- WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

**BRACING**

- TOP CHORD Structural wood sheathing directly applied.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

- (size) 2=0-3-8, 8=0-3-8, 13=0-3-8
- Max Horiz 2=-368 (LC 10)
- Max Uplift 2=-305 (LC 12), 8=-343 (LC 13),  
13=-42 (LC 12)
- Max Grav 2=1203 (LC 19), 8=1387 (LC 20),  
13=240 (LC 19)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

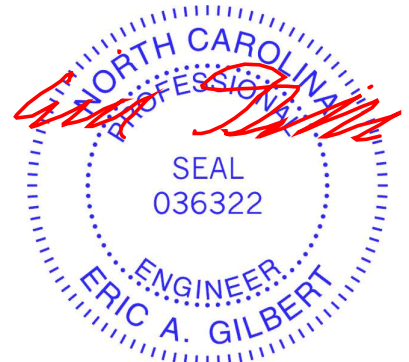
- TOP CHORD 1-2=0/31, 2-3=-1752/446, 3-5=-1612/547,  
5-7=-1736/575, 7-8=-1875/455, 8-9=0/31
- BOT CHORD 2-13=-457/1604, 12-13=-419/1604,  
10-12=-98/1064, 8-10=-233/1453
- WEBS 3-12=-543/450, 5-12=-307/769,  
5-10=-335/972, 7-10=-555/452

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust)  
Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft;  
Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 15-7-12, Exterior (2) 15-7-12 to 18-7-12, Interior (1) 18-7-12 to 32-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 305 lb uplift at joint 2, 343 lb uplift at joint 8 and 42 lb uplift at joint 13.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



February 26, 2024

**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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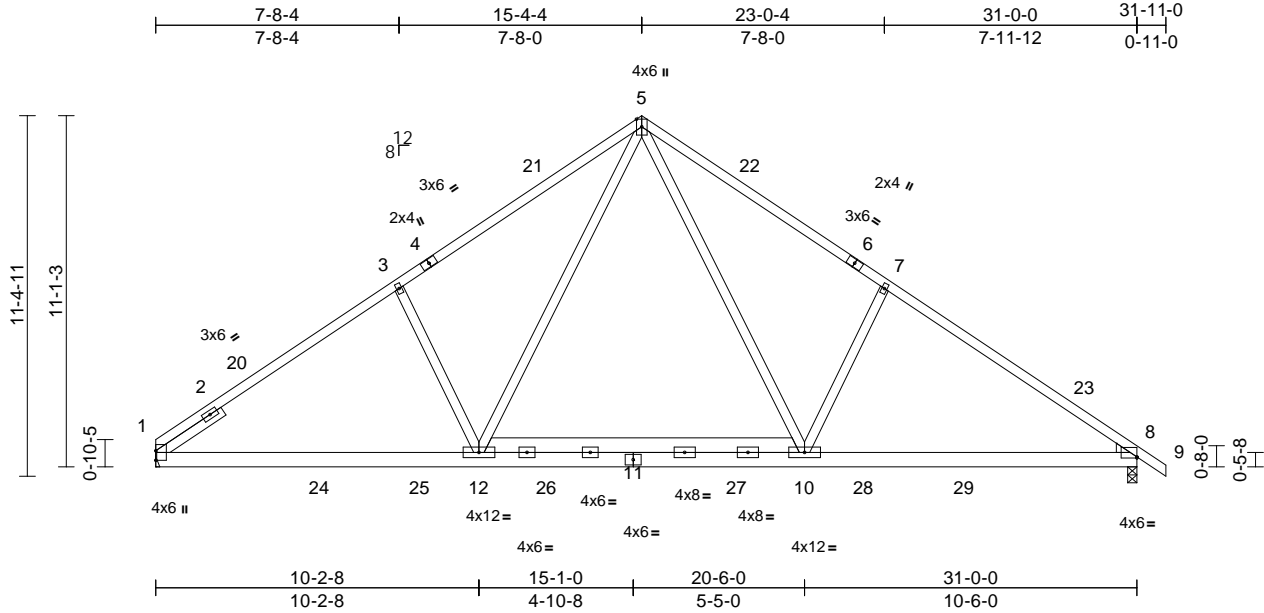
818 Soundside Road  
Edenton, NC 27932

Job 3894016	Truss A08	Truss Type Common	Qty 8	Ply 1	Furr, Mayview B Job Reference (optional)	163825346
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:33  
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.10	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.17	10-12	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.08	10-19	>999	240	Weight: 209 lb	FT = 20%

- LUMBER**
- TOP CHORD 2x4 SP No.2
  - BOT CHORD 2x6 SP No.2
  - WEBS 2x4 SP No.3
  - WEDGE Right: 2x4 SP No.3
  - SLIDER Left 2x4 SP No.2 -- 2-6-0
- BRACING**
- TOP CHORD Structural wood sheathing directly applied.
  - BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- REACTIONS** (size) 1= Mechanical, 8=0-3-8
- Max Horiz 1=-361 (LC 8)
  - Max Uplift 1=-306 (LC 12), 8=-339 (LC 13)
  - Max Grav 1=1345 (LC 19), 8=1400 (LC 20)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-3=-1774/457, 3-5=-1716/562, 5-7=-1755/568, 7-8=-1894/452, 8-9=0/31
  - BOT CHORD 1-12=-429/1685, 10-12=-106/1104, 8-10=-232/1479
  - WEBS 3-12=-520/434, 5-12=-327/882, 5-10=-336/950, 7-10=-554/452

- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Bearings are assumed to be: , Joint 8 SP No.2 crushing capacity of 565 psi.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 306 lb uplift at joint 1 and 339 lb uplift at joint 8.
  - 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-3-8 to 3-3-8, Interior (1) 3-3-8 to 15-7-12, Exterior (2) 15-7-12 to 18-7-12, Interior (1) 18-7-12 to 32-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



February 26, 2024

**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

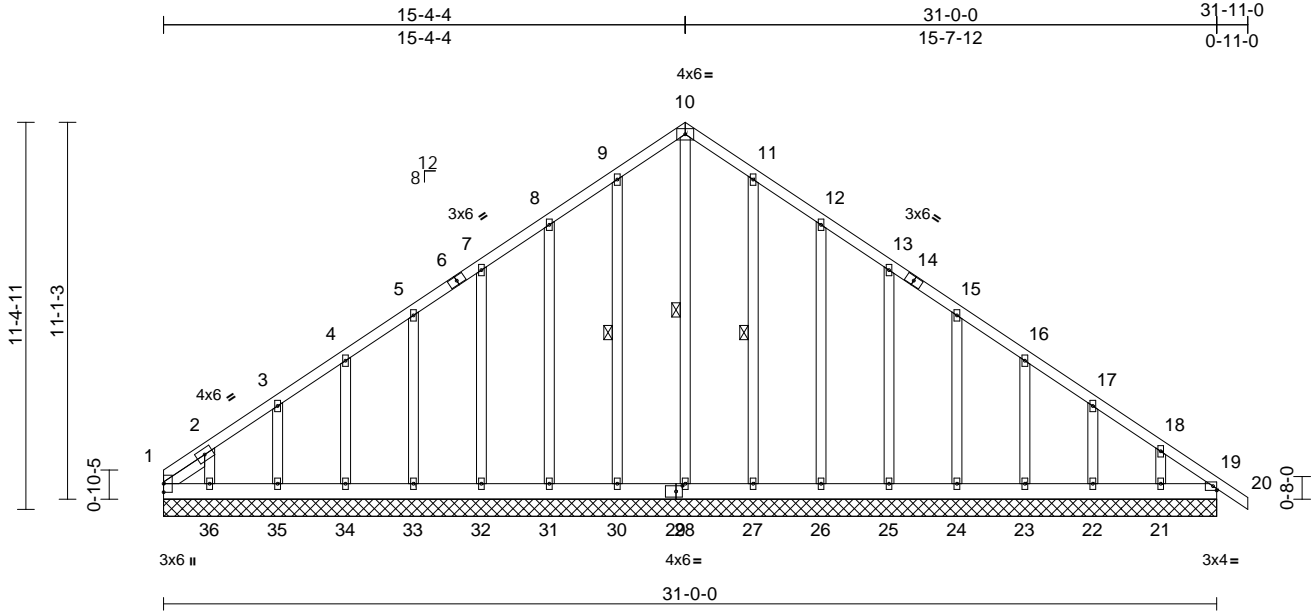
818 Soundside Road  
Edenton, NC 27932

Job 3894016	Truss A09	Truss Type Common Supported Gable	Qty 1	Ply 1	Furr, Mayview B Job Reference (optional)	163825347
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:34  
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Page: 1



Scale = 1:67.8

Plate Offsets (X, Y): [29:0-2:4:0-2:0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.01	19	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 253 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
OTHERS 2x4 SP No.3  
SLIDER Left 2x4 SP No.2 -- 1-5-12

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

**WEBS** 1 Row at midpt 10-28, 9-30, 11-27

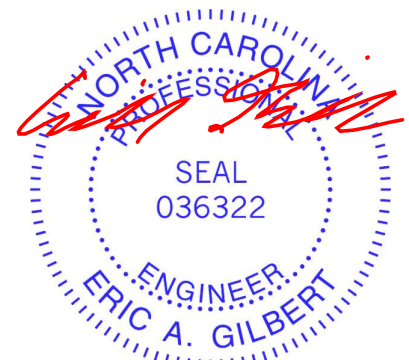
**REACTIONS** (size)  
1=31-0-0, 19=31-0-0, 21=31-0-0, 22=31-0-0, 23=31-0-0, 24=31-0-0, 25=31-0-0, 26=31-0-0, 27=31-0-0, 28=31-0-0, 30=31-0-0, 31=31-0-0, 32=31-0-0, 33=31-0-0, 34=31-0-0, 35=31-0-0, 36=31-0-0, 37=31-0-0  
Max Horiz 1=-361 (LC 8), 37=-361 (LC 8)  
Max Uplift 1=-250 (LC 10), 22=-225 (LC 13), 23=-71 (LC 13), 24=-111 (LC 13), 25=-99 (LC 13), 26=-112 (LC 13), 27=-86 (LC 13), 28=-13 (LC 11), 30=-94 (LC 12), 31=-109 (LC 12), 32=-102 (LC 12), 33=-102 (LC 12), 34=-104 (LC 12), 35=-97 (LC 12), 36=-208 (LC 12), 37=-250 (LC 10)  
Max Grav 1=291 (LC 9), 21=315 (LC 1), 22=160 (LC 11), 23=191 (LC 20), 24=178 (LC 20), 25=181 (LC 20), 26=180 (LC 20), 27=187 (LC 20), 28=367 (LC 13), 30=196 (LC 19), 31=177 (LC 19), 32=181 (LC 19), 33=180 (LC 19), 34=181 (LC 19), 35=178 (LC 19), 36=256 (LC 19), 37=291 (LC 9)

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

**TOP CHORD** 1-2=-144/144, 2-3=-303/306, 3-4=-255/274, 4-5=-209/253, 5-7=-185/256, 7-8=-202/302, 8-9=-271/354, 9-10=-330/390, 10-11=-330/380, 11-12=-271/311, 12-13=-202/227, 13-15=-137/149, 15-16=-71/105, 16-17=-49/116, 17-18=-144/136, 18-19=-202/185, 19-20=0/31  
**BOT CHORD** 1-36=-188/230, 35-36=-188/230, 34-35=-188/230, 33-34=-188/230, 32-33=-188/230, 31-32=-188/230, 30-31=-188/230, 28-30=-188/230, 27-28=-188/230, 26-27=-188/230, 25-26=-188/230, 24-25=-188/230, 23-24=-188/230, 22-23=-188/230, 21-22=-188/230, 19-21=-188/230  
**WEBS** 10-28=-343/223, 9-30=-156/118, 8-31=-165/133, 7-32=-157/125, 5-33=-159/127, 4-34=-157/126, 3-35=-162/130, 2-36=-178/179, 11-27=-148/110, 12-26=-165/136, 13-25=-157/125, 15-24=-159/128, 16-23=-157/121, 17-22=-175/150, 18-21=-142/93

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) 0-0-0 to 3-0-0, Exterior (2) 3-0-0 to 15-4-4, Corner (3) 15-4-4 to 18-4-4, Exterior (2) 18-4-4 to 31-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.



February 26, 2024

Continued on page 2

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818 Soundside Road  
Edenton, NC 27932

Job 3894016	Truss A09	Truss Type Common Supported Gable	Qty 1	Ply 1	Furr, Mayview B Job Reference (optional)	I63825347
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:34  
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Page: 2

- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 250 lb uplift at joint 1, 13 lb uplift at joint 28, 94 lb uplift at joint 30, 109 lb uplift at joint 31, 102 lb uplift at joint 32, 102 lb uplift at joint 33, 104 lb uplift at joint 34, 97 lb uplift at joint 35, 208 lb uplift at joint 36, 86 lb uplift at joint 27, 112 lb uplift at joint 26, 99 lb uplift at joint 25, 111 lb uplift at joint 24, 71 lb uplift at joint 23, 225 lb uplift at joint 22 and 250 lb uplift at joint 1.
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

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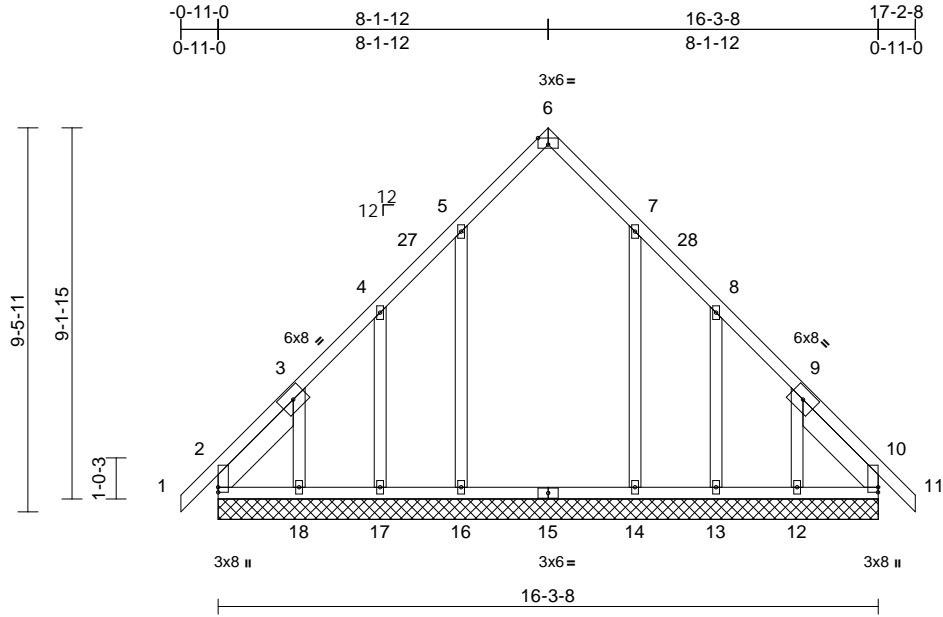
818 Soundside Road  
Edenton, NC 27932

Job 3894016	Truss B01	Truss Type Common Supported Gable	Qty 1	Ply 1	Furr, Mayview B Job Reference (optional)	163825348
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:35  
ID:G23FkdCW0aln\_3mVxRrCPAzPn?b-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWvCDoi7J4zJC?f

Page: 1



Scale = 1:56.9

Plate Offsets (X, Y): [2:Edge,0-0-0], [6:0-3-0,Edge], [10:Edge,0-0-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.18	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								
											Weight: 116 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.3
SLIDER	Left 2x6 SP No.2 -- 2-10-2, Right 2x6 SP No.2 -- 2-10-2

WEBS	
5-16	--217/200, 7-14--217/200,
4-17	--203/181, 3-18--244/253,
8-13	--203/181, 9-12--249/237

12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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

LOAD CASE(S) Standard

REACTIONS	(size)
Max Horiz	2--302 (LC 10), 19--302 (LC 10)
Max Uplift	2--166 (LC 8), 6--53 (LC 11), 10--68 (LC 9), 12--235 (LC 13), 13--160 (LC 13), 14--156 (LC 13), 16--157 (LC 12), 17--159 (LC 12), 18--254 (LC 12), 19--166 (LC 8), 23--68 (LC 9)
Max Grav	2--251 (LC 20), 6--373 (LC 13), 10--172 (LC 19), 12--242 (LC 20), 13--147 (LC 20), 14--334 (LC 20), 16--335 (LC 19), 17--145 (LC 19), 18--264 (LC 19), 19--251 (LC 20), 23--172 (LC 19)

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-0-0, Interior (1) 2-0-0 to 8-1-12, Exterior (2) 8-1-12 to 11-1-12, Interior (1) 11-1-12 to 17-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 166 lb uplift at joint 2, 68 lb uplift at joint 10, 53 lb uplift at joint 6, 157 lb uplift at joint 16, 156 lb uplift at joint 14, 159 lb uplift at joint 17, 254 lb uplift at joint 18, 160 lb uplift at joint 13, 235 lb uplift at joint 12, 166 lb uplift at joint 2 and 68 lb uplift at joint 10.
- 11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 10, 23.

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/39, 2-3=-87/63, 3-4=-192/191, 4-5=-166/243, 5-6=-291/329, 6-7=-291/313, 7-8=-166/190, 8-9=-87/89, 9-10=-83/61, 10-11=0/39
BOT CHORD	2-18=-128/207, 17-18=-128/207, 16-17=-128/207, 14-16=-128/207, 13-14=-128/207, 12-13=-128/207, 10-12=-128/207



February 26, 2024

**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

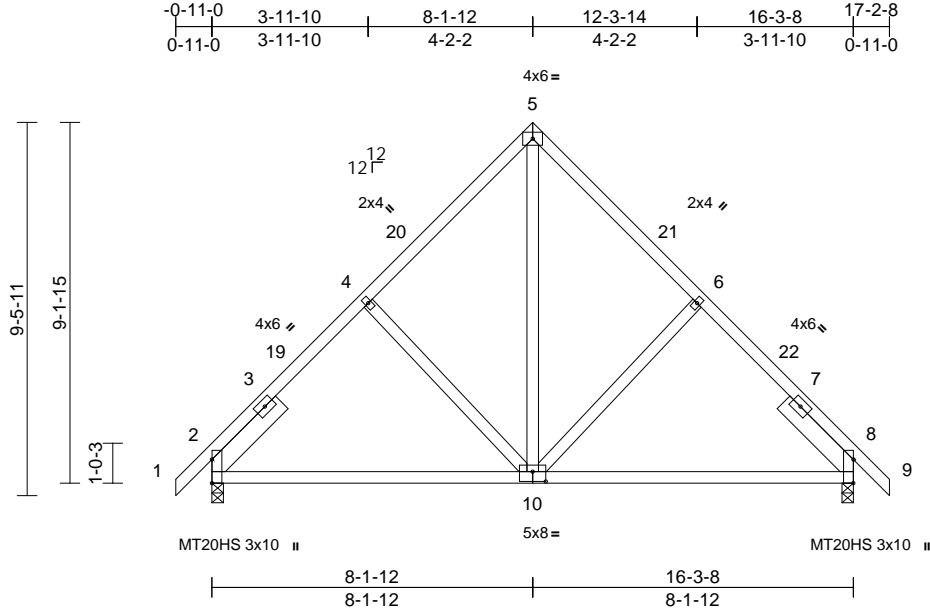


Job 3894016	Truss B02	Truss Type Common	Qty 2	Ply 1	Furr, Mayview B Job Reference (optional)	I63825349
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:35  
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Page: 1



Scale = 1:58.5

Plate Offsets (X, Y): [2:Edge,0-0-0], [8:Edge,0-0-0], [10:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.06	10-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.12	10-13	>999	240	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.02	10-13	>999	240		Weight: 105 lb FT = 20%

**LUMBER**

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x4 SP No.2
- WEBS 2x4 SP No.3
- SLIDER Left 2x6 SP No.2 -- 2-6-0, Right 2x6 SP No.2 -- 2-6-0

**BRACING**

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

**REACTIONS**

- (size) 2=0-3-8, 8=0-3-8
- Max Horiz 2=302 (LC 11)
- Max Uplift 2=-160 (LC 12), 8=-160 (LC 13)
- Max Grav 2=707 (LC 1), 8=707 (LC 1)

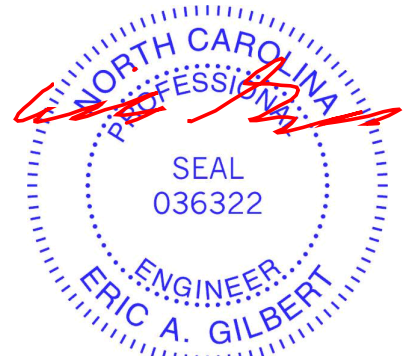
**FORCES**

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/39, 2-4=-652/237, 4-5=-633/279, 5-6=-633/279, 6-8=-652/237, 8-9=0/39
- BOT CHORD 2-8=-238/556
- WEBS 5-10=-222/605, 6-10=-305/289, 4-10=-305/289

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 8-1-12, Exterior (2) 8-1-12 to 11-1-12, Interior (1) 11-1-12 to 17-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 160 lb uplift at joint 2 and 160 lb uplift at joint 8.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



February 26, 2024

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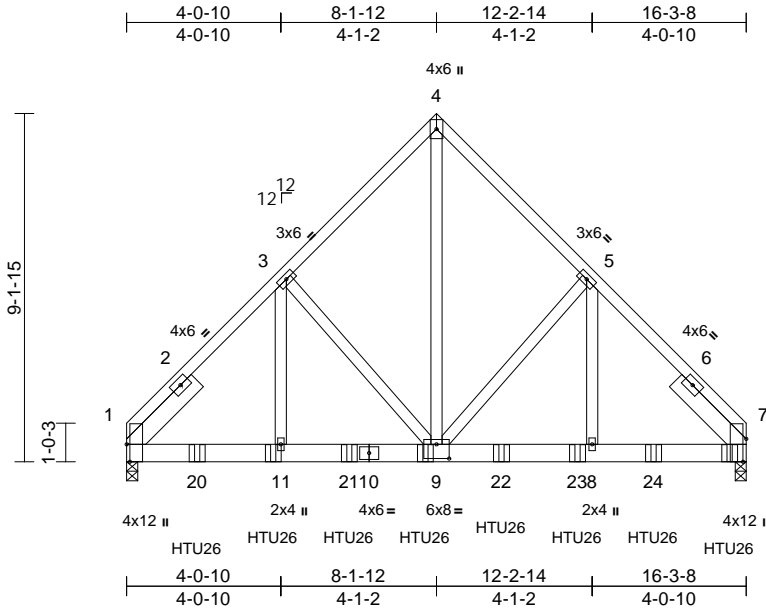
818 Soundside Road  
Edenton, NC 27932

Job 3894016	Truss B03	Truss Type Common Girder	Qty 1	Ply 3	Furr, Mayview B Job Reference (optional)	163825350
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:36  
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Page: 1



Scale = 1:60.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.05	8-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.09	8-9	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.43	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.05	8-9	>999	240	Weight: 382 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.2  
SLIDER Left 2x6 SP No.2 -- 2-6-0, Right 2x6 SP No.2 -- 2-6-0

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

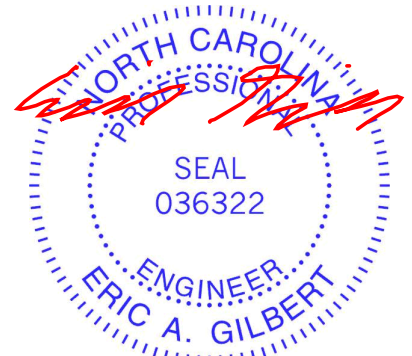
**REACTIONS** (size) 1=0-3-8, 7=0-3-8  
Max Horiz 1=-272 (LC 23)  
Max Uplift 1=-1296 (LC 9), 7=-1530 (LC 8)  
Max Grav 1=5394 (LC 16), 7=6390 (LC 15)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-3=-5783/1454, 3-4=-4240/1173, 4-5=-4242/1174, 5-7=-5903/1481  
BOT CHORD 1-11=-1045/4127, 9-11=-1045/4127, 8-9=-953/4093, 7-8=-953/4093  
WEBS 3-11=-513/2214, 3-9=-1633/608, 4-9=-1479/5591, 5-9=-1774/642, 5-8=-557/2395

**NOTES**  
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.  
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1296 lb uplift at joint 1 and 1530 lb uplift at joint 7.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-10-4 from the left end to 15-10-4 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-4=-60, 4-7=-60, 12-16=-20  
Concentrated Loads (lb)  
Vert: 11=-1219 (B), 9=-1219 (B), 18=-1225 (B), 20=-1219 (B), 21=-1219 (B), 22=-1219 (B), 23=-1219 (B), 24=-1219 (B)



February 26, 2024

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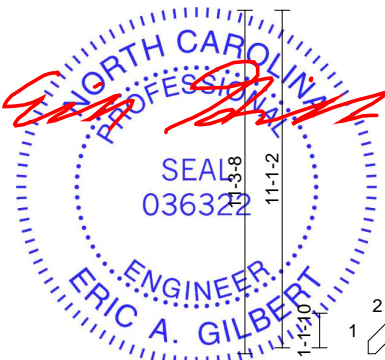
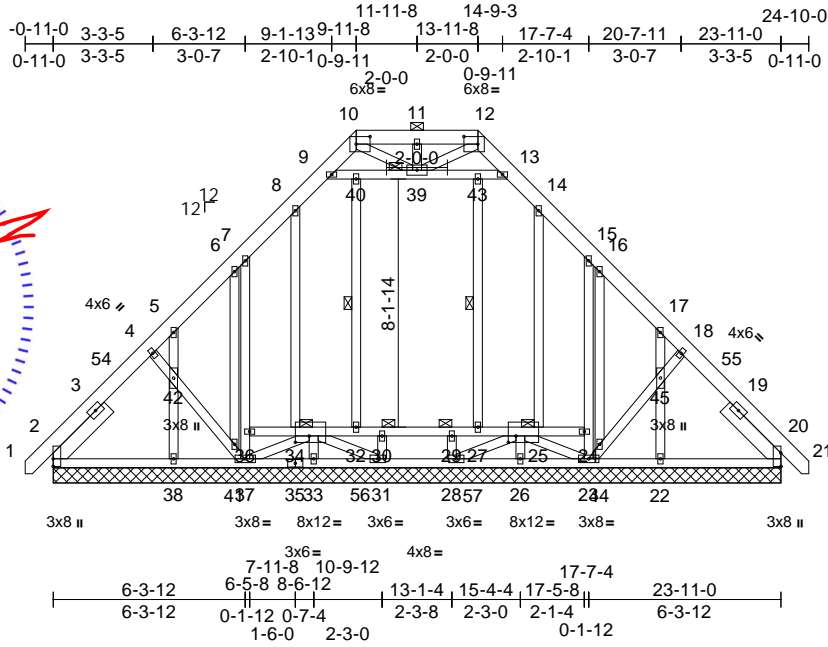
Job 3894016	Truss D01	Truss Type Attic	Qty 1	Ply 1	Furr, Mayview B Job Reference (optional)	163825351
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:38

Page: 1

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Plate Offsets (X, Y): [2:Edge,0-0-0], [10:0-5-8,0-3-0], [12:0-5-8,0-3-0], [20:Edge,0-0-0], [25:0-3-0,0-2-8], [34:0-5-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.01	20	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								Weight: 289 lb FT = 20%

LUMBER	TOP CHORD	1-2=0/34, 2-4=-293/180, 4-5=-231/177, 5-6=-254/202, 6-7=-194/199, 7-8=-252/237, 8-9=-277/239, 9-10=-227/131, 10-11=-210/159, 11-12=-210/159, 12-13=-227/131, 13-14=-277/241, 14-15=-252/228, 15-16=-147/134, 16-17=-211/138, 17-18=-176/106, 18-20=-245/108, 20-21=0/34	2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-9-10 to 2-2-6, Interior (1) 2-2-6 to 9-11-8, Exterior (2) 9-11-8 to 17-11-11, Interior (1) 17-11-11 to 24-8-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
TOP CHORD	2x6 SP No.2		3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
BOT CHORD	2x4 SP No.1		4) Provide adequate drainage to prevent water ponding.
WEBS	2x4 SP No.3 *Except* 7-37,15-23,9-13:2x4 SP No.2		5) All plates are 2x4 MT20 unless otherwise indicated.
OTHERS	2x4 SP No.3		6) Gable requires continuous bottom chord bearing.
SLIDER	Left 2x6 SP No.2 -- 2-6-0, Right 2x6 SP No.2 -- 2-6-0		7) Gable studs spaced at 2-0-0 oc.
BRACING			8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 10-12.		9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.		
WEBS	1 Row at midpt 32-40, 27-43		
JOINTS	1 Brace at Jt(s): 39, 30, 29, 34, 25		
REACTIONS	(size) 2=23-11-0, 20=23-11-0, 22=23-11-0, 23=23-11-0, 26=23-11-0, 28=23-11-0, 31=23-11-0, 33=23-11-0, 37=23-11-0, 38=23-11-0, 46=23-11-0, 50=23-11-0		
	Max Horiz 2=-362 (LC 10), 46=-362 (LC 10)		
	Max Uplift 2=-91 (LC 8), 20=-34 (LC 9), 22=-11 (LC 13), 23=-432 (LC 13), 33=-69 (LC 9), 37=-381 (LC 12), 38=-23 (LC 12), 46=-91 (LC 8), 50=-34 (LC 9)		
	Max Grav 2=360 (LC 1), 20=360 (LC 1), 22=181 (LC 1), 23=373 (LC 21), 26=242 (LC 25), 28=257 (LC 18), 31=257 (LC 18), 33=293 (LC 23), 37=316 (LC 20), 38=181 (LC 1), 46=360 (LC 1), 50=360 (LC 1)		
FORCES	(lb) - Maximum Compression/Maximum Tension		

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

February 26, 2024

Continued on page 2

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818 Soundside Road  
Edenton, NC 27932

Job 3894016	Truss D01	Truss Type Attic	Qty 1	Ply 1	Furr, Mayview B Job Reference (optional)	I63825351
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:38  
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Page: 2

- 10) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 91 lb uplift at joint 2, 34 lb uplift at joint 20, 381 lb uplift at joint 37, 432 lb uplift at joint 23, 69 lb uplift at joint 33, 23 lb uplift at joint 38, 11 lb uplift at joint 22, 91 lb uplift at joint 2 and 34 lb uplift at joint 20.
- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Attic room checked for L/360 deflection.

**LOAD CASE(S)** Standard

**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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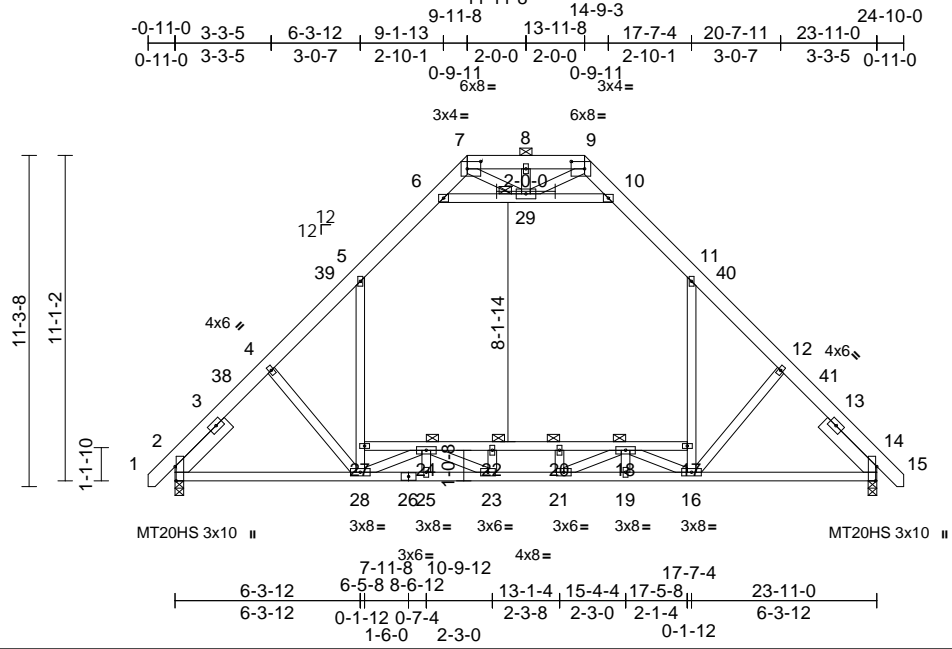
818 Soundside Road  
Edenton, NC 27932

Job 3894016	Truss D02	Truss Type Attic	Qty 4	Ply 1	Furr, Mayview B Job Reference (optional)	163825352
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:40  
ID:D3ORaXyUCVAcCyhVbdDqozPnIW-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCoDrJ4zJC7f

Page: 1



Scale = 1:78.5

Plate Offsets (X, Y): [2:0-5-13,Edge], [7:0-5-8,0-3-0], [9:0-5-8,0-3-0], [14:0-5-13,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.17	25-28	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.31	20-22	>932	240	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.05	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS	0.22	Wind(LL)	0.22	28-32	>999	240		Weight: 212 lb FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS \*Except\* 7-9:2x6 SP No.2  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3 \*Except\* 5-28,11-16,6-10:2x4 SP No.2  
SLIDER Left 2x6 SP No.2 -- 2-6-0, Right 2x6 SP No.2 -- 2-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-7-11 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 7-9.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
JOINTS 1 Brace at Jt(s): 29, 22, 20, 24, 18

**REACTIONS** (size) 2=0-3-8, 14=0-3-8  
Max Horiz 2=-362 (LC 10)  
Max Uplift 2=-22 (LC 12), 14=-22 (LC 13)  
Max Grav 2=1501 (LC 2), 14=1501 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/34, 2-4=-1724/115, 4-5=-1678/142, 5-6=-947/256, 6-7=-26/494, 7-8=0/623, 8-9=0/623, 9-10=-26/495, 10-11=-947/256, 11-12=-1678/142, 12-14=-1724/117, 14-15=0/34  
BOT CHORD 2-28=-153/1353, 25-28=0/2253, 23-25=0/2253, 21-23=0/2718, 19-21=0/2066, 16-19=0/2066, 14-16=-23/1125, 24-27=-153/149, 22-24=-1854/0, 20-22=-1854/0, 18-20=-1854/0, 17-18=-158/155

**WEBS**  
27-28=-179/77, 5-27=-1/956, 16-17=-21/800, 11-17=-1/956, 6-29=-1865/343, 10-29=-1867/345, 4-28=-385/345, 12-16=-387/347, 7-29=-229/325, 8-29=-163/77, 9-29=-229/325, 22-23=-248/0, 20-21=-248/0, 24-28=-1329/0, 24-25=-97/122, 23-24=-44/776, 16-18=-1329/0, 18-19=-105/131, 18-21=-57/787

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-9-10 to 2-2-6, Interior (1) 2-2-6 to 9-11-8, Exterior (2) 9-11-8 to 18-2-7, Interior (1) 18-2-7 to 24-8-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
3) Provide adequate drainage to prevent water ponding.  
4) All plates are MT20 plates unless otherwise indicated.  
5) All plates are 2x4 MT20 unless otherwise indicated.  
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.  
8) Ceiling dead load (5.0 psf) on member(s) 5-6, 10-11, 6-29, 10-29; Wall dead load (5.0psf) on member (s) 5-27, 11-17  
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 24-27, 22-24, 20-22, 18-20, 17-18  
10) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.

11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 2 and 22 lb uplift at joint 14.  
12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.  
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.  
14) Attic room checked for L/360 deflection.  
**LOAD CASE(S)** Standard



February 26, 2024

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

**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932



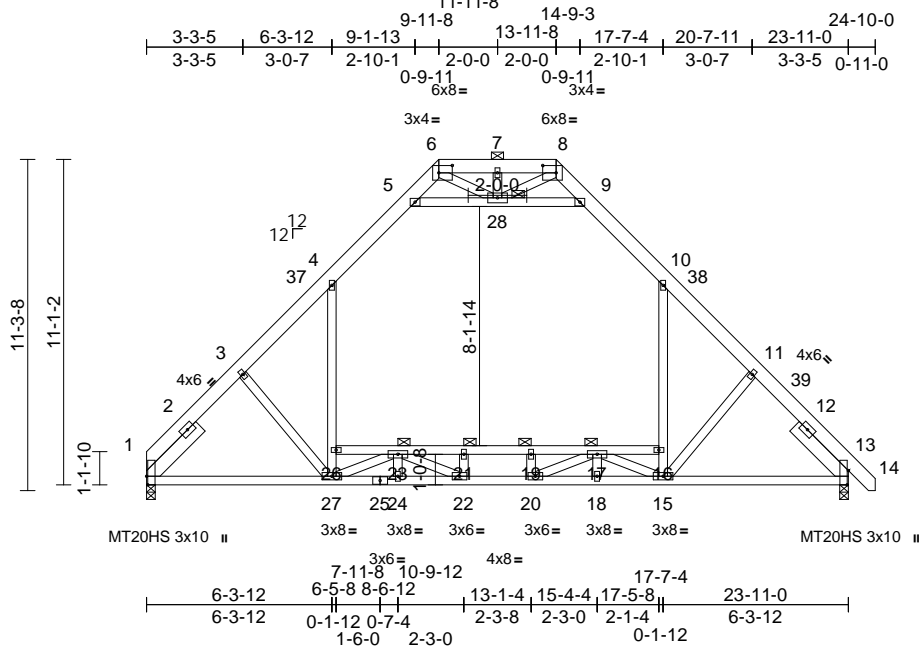
Job 3894016	Truss D03	Truss Type Attic	Qty 4	Ply 1	Furr, Mayview B Job Reference (optional)	163825353
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:41

Page: 1

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Scale = 1:78.5

Plate Offsets (X, Y): [1:0-3-8,Edge], [6:0-5-8,0-3-0], [8:0-5-8,0-3-0], [13:0-5-13,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.17	24-27	>999	360	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.31	19-21	>931	240	MT20	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.05	13	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS	0.22	Wind(LL)	0.22	27-31	>999	240	Weight: 210 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS \*Except\* 6-8:2x6 SP No.2  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3 \*Except\* 4-27,10-15,5-9:2x4 SP No.2  
SLIDER Left 2x6 SP No.2 -- 2-6-0, Right 2x6 SP No.2 -- 2-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-7-9 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 6-8.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
JOINTS 1 Brace at Jt(s): 28, 21, 19, 23, 17

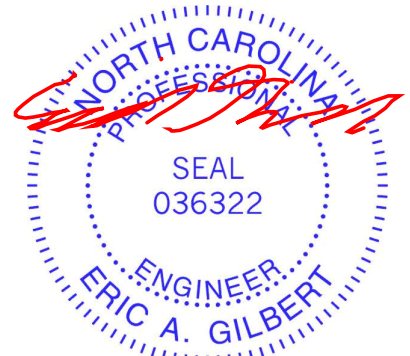
**REACTIONS** (size) 1=0-3-8, 13=0-3-8  
Max Horiz 1=-353 (LC 10)  
Max Uplift 13=-22 (LC 13)  
Max Grav 1=1460 (LC 2), 13=1502 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-3=-1727/113, 3-4=-1681/150, 4-5=-947/258, 5-6=-26/495, 6-7=0/624, 7-8=0/624, 8-9=-26/495, 9-10=-948/256, 10-11=-1679/142, 11-13=-1725/117, 13-14=0/34  
BOT CHORD 1-27=-145/1358, 24-27=0/2255, 22-24=0/2255, 20-22=0/2719, 18-20=0/2066, 15-18=0/2066, 13-15=-23/1125, 23-26=-154/149, 21-23=-1854/0, 19-21=-1854/0, 17-19=-1854/0, 16-17=-158/155

**WEBS**  
26-27=-19/801, 4-26=-1/958, 15-16=-21/800, 10-16=-1/956, 5-28=-1866/343, 9-28=-1870/345, 3-27=-391/346, 11-15=-387/347, 7-28=-163/78, 6-28=-229/324, 8-28=-229/326, 21-22=-248/0, 19-20=-248/0, 23-24=-97/122, 23-27=-1329/0, 22-23=-44/775, 17-18=-106/131, 15-17=-1329/0, 17-20=-57/788

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-0 to 3-1-9, Interior (1) 3-1-9 to 9-11-8, Exterior (2) 9-11-8 to 18-2-7, Interior (1) 18-2-7 to 24-8-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (5.0 psf) on member(s). 4-5, 9-10, 5-28, 9-28; Wall dead load (5.0psf) on member(s). 4-26, 10-16
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 23-26, 21-23, 19-21, 17-19, 16-17
  - All bearings are assumed to be SP No.1 crushing capacity of 565 psi.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 13.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Attic room checked for L/360 deflection.
- LOAD CASE(S)** Standard



February 26, 2024

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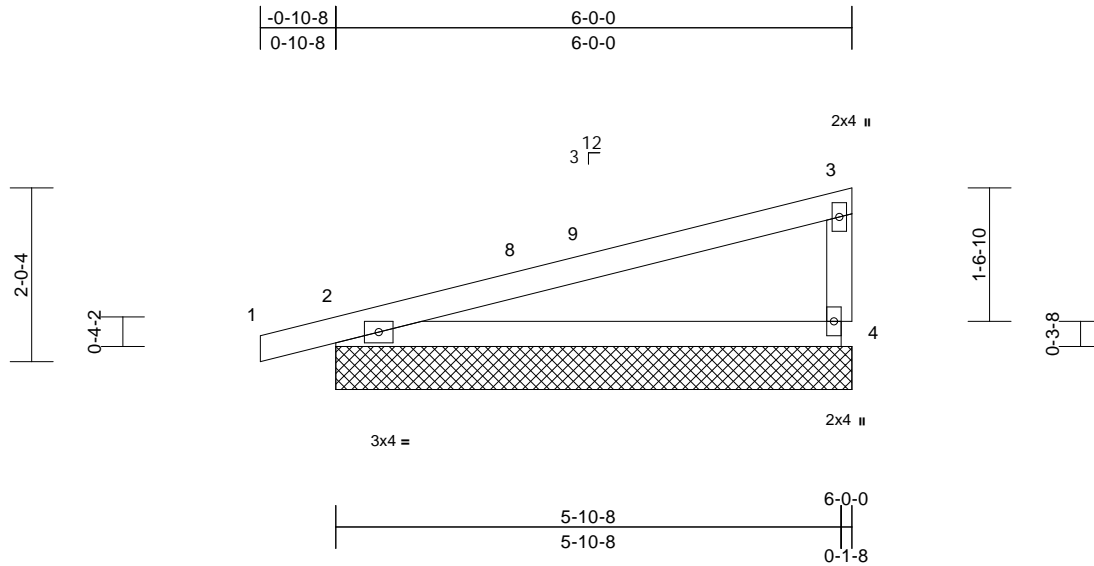
Job 3894016	Truss E01	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	Furr, Mayview B Job Reference (optional)	163825355
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:44

Page: 1

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Scale = 1:26.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 21 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2

#### 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) 2=6-0-0, 4=6-0-0, 5=6-0-0  
Max Horiz 2=92 (LC 8), 5=92 (LC 8)  
Max Uplift 2=-126 (LC 8), 4=-90 (LC 12), 5=-126 (LC 8)  
Max Grav 2=291 (LC 1), 4=230 (LC 1), 5=291 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/13, 2-3=-149/62, 3-4=-151/235  
BOT CHORD 2-4=-135/151

#### NOTES

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -0-10-8 to 2-1-8, Exterior (2) 2-1-8 to 5-10-4 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 126 lb uplift at joint 2, 90 lb uplift at joint 4 and 126 lb uplift at joint 2.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



February 26, 2024

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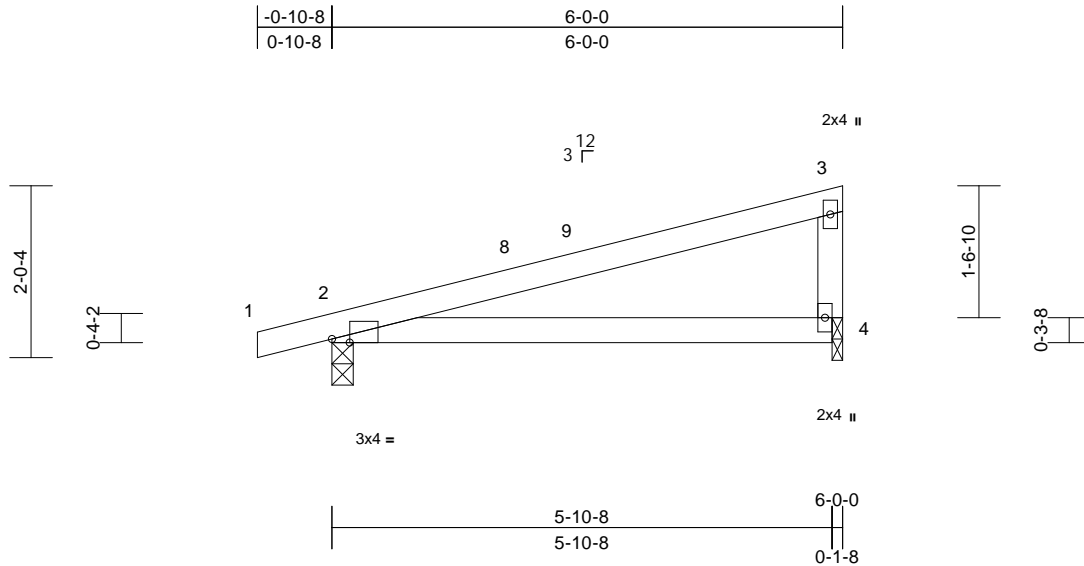
818 Soundside Road  
Edenton, NC 27932

Job 3894016	Truss E02	Truss Type Monopitch	Qty 5	Ply 1	Furr, Mayview B Job Reference (optional)	163825356
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:45  
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Page: 1



Scale = 1:27.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	0.16	4-7	>428	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.12	4-7	>572	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 21 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2

**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) 2=0-3-0, 4=0-1-8  
Max Horiz 2=92 (LC 8)  
Max Uplift 2=-199 (LC 8), 4=-161 (LC 8)  
Max Grav 2=291 (LC 1), 4=230 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/13, 2-3=-149/189, 3-4=-151/182  
BOT CHORD 2-4=-216/136

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust)  
Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft;  
Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 5-10-4 zone; cantilever left and right exposed; end vertical left exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 5) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 199 lb uplift at joint 2 and 161 lb uplift at joint 4.
- 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



February 26, 2024

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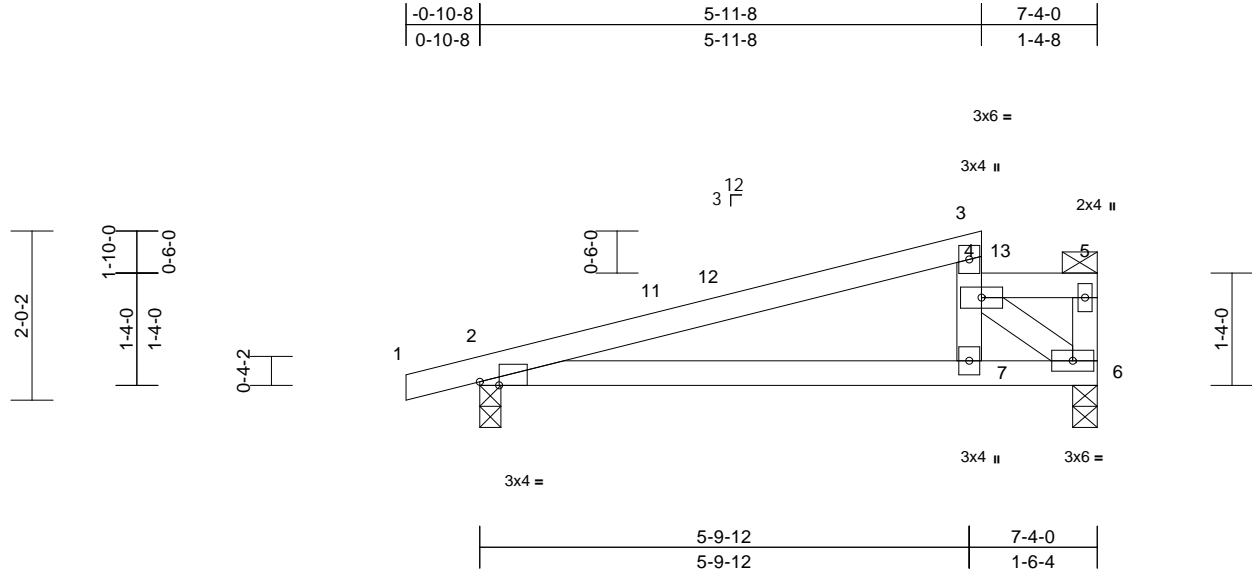
818 Soundside Road  
Edenton, NC 27932

Job 3894016	Truss E03	Truss Type Half Hip	Qty 2	Ply 1	Furr, Mayview B Job Reference (optional)	163825357
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:45  
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Page: 1



Scale = 1:27.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	0.09	7-10	>970	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.08	7-10	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.18	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 28 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 6-4:2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5, 4-7.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 2=0-3-0, 6=0-3-8  
Max Horiz 2=109 (LC 12)  
Max Uplift 2=-169 (LC 8)  
Max Grav 2=420 (LC 1), 6=760 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/13, 2-3=-678/226, 4-5=-57/0, 5-6=-247/0, 4-7=-341/185, 3-4=-17/139  
BOT CHORD 2-7=-287/637, 6-7=-145/751  
WEBS 4-6=-870/210

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 7-2-4 zone; cantilever left and right exposed; end vertical left exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 169 lb uplift at joint 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-3=-60, 4-5=-60, 6-8=-20  
Concentrated Loads (lb)  
Vert: 13=-552



February 26, 2024

**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

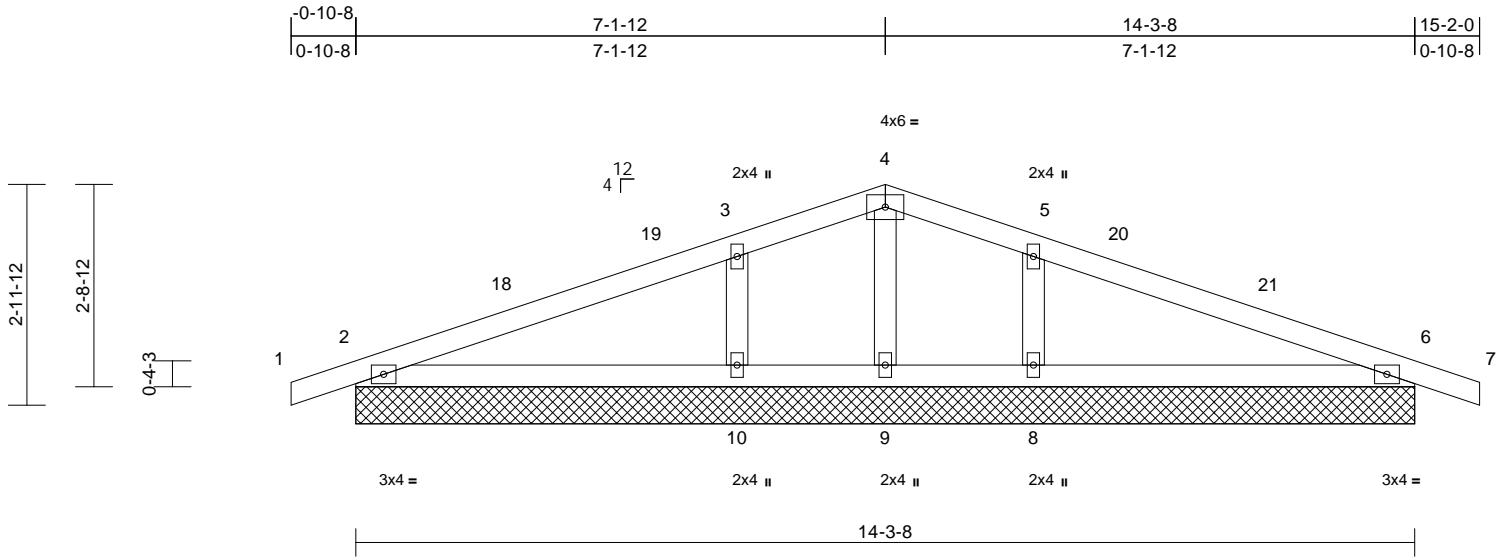


Job 3894016	Truss G01	Truss Type Common Supported Gable	Qty 1	Ply 1	Furr, Mayview B Job Reference (optional)	163825358
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:45  
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Page: 1



Scale = 1:31.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 54 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

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

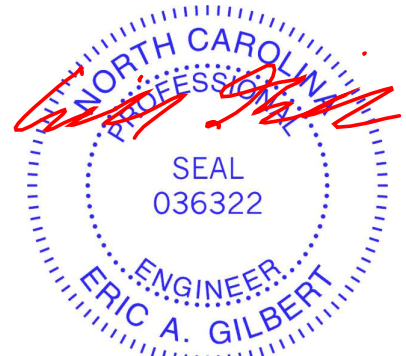
**REACTIONS** (size) 2=14-3-8, 6=14-3-8, 8=14-3-8, 9=14-3-8, 10=14-3-8, 11=14-3-8, 15=14-3-8  
 Max Horiz 2=-60 (LC 13), 11=-60 (LC 13)  
 Max Uplift 2=-112 (LC 8), 6=-120 (LC 9), 8=-180 (LC 13), 9=-112 (LC 1), 10=-181 (LC 12), 11=-112 (LC 8), 15=-120 (LC 9)  
 Max Grav 2=241 (LC 1), 6=241 (LC 1), 8=439 (LC 1), 9=87 (LC 9), 10=439 (LC 1), 11=241 (LC 1), 15=241 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/17, 2-3=-80/81, 3-4=-95/169, 4-5=-95/172, 5-6=-80/84, 6-7=0/17  
 BOT CHORD 2-10=-25/70, 9-10=0/60, 8-9=0/60, 6-8=-14/73  
 WEBS 4-9=-72/67, 3-10=-287/322, 5-8=-287/322

**NOTES**  
 1) Unbalanced roof live loads have been considered for this design.  
 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -0-10-8 to 2-1-8, Exterior (2) 2-1-8 to 7-1-12, Corner (3) 7-1-12 to 10-1-12, Exterior (2) 10-1-12 to 15-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2'-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 112 lb uplift at joint 2, 120 lb uplift at joint 6, 112 lb uplift at joint 9, 181 lb uplift at joint 10, 180 lb uplift at joint 8, 112 lb uplift at joint 2 and 120 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



February 26, 2024

**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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**TRENCO**  
 A MITek Affiliate

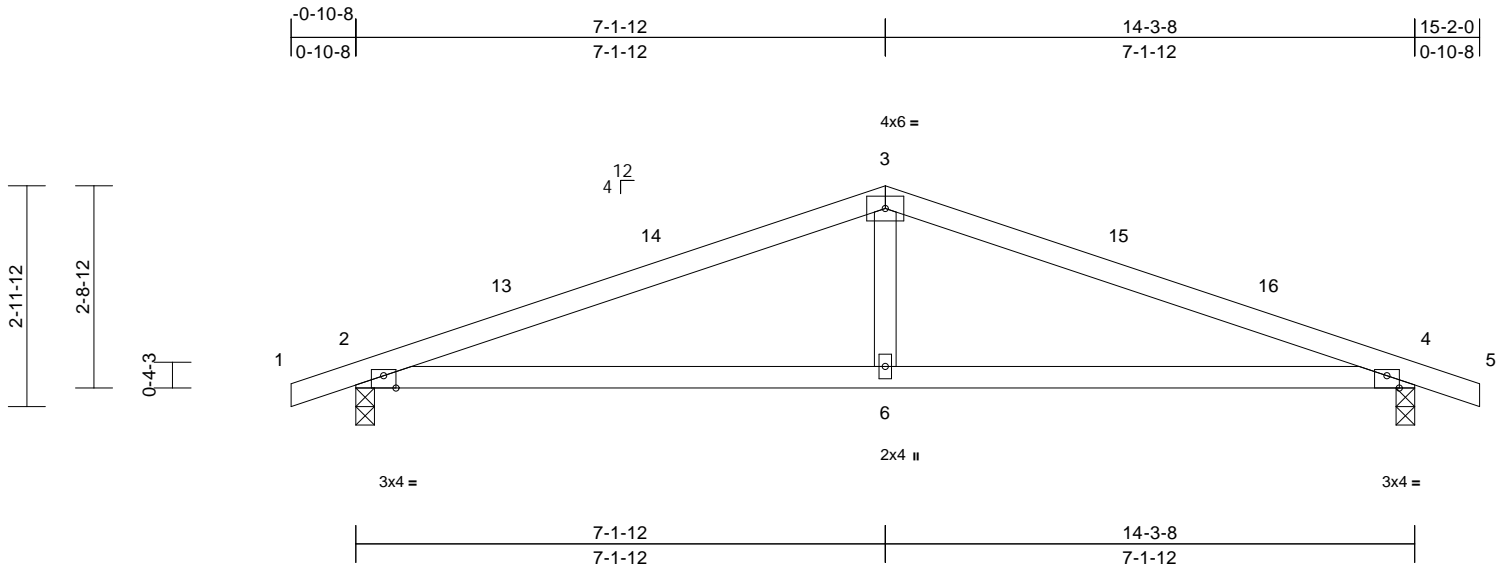
818 Soundside Road  
 Edenton, NC 27932

Job 3894016	Truss G02	Truss Type Common	Qty 3	Ply 1	Furr, Mayview B Job Reference (optional)	163825359
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:46  
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Page: 1



Scale = 1:31.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	0.19	6-12	>919	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.18	6-12	>961	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 50 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-1-9 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 5-1-2 oc bracing.

**REACTIONS**

(size) 2=0-3-0, 4=0-3-0  
Max Horiz 2=-60 (LC 13)  
Max Uplift 2=-397 (LC 8), 4=-397 (LC 9)  
Max Grav 2=624 (LC 1), 4=624 (LC 1)

**FORCES**

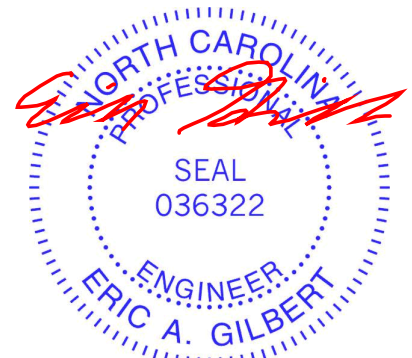
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/17, 2-3=-1079/1228, 3-4=-1079/1228, 4-5=0/17  
BOT CHORD 2-6=-1079/971, 4-6=-1079/971  
WEBS 3-6=-476/331

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 7-1-12, Exterior (2) 7-1-12 to 10-1-12, Interior (1) 10-1-12 to 15-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 397 lb uplift at joint 2 and 397 lb uplift at joint 4.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



February 26, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



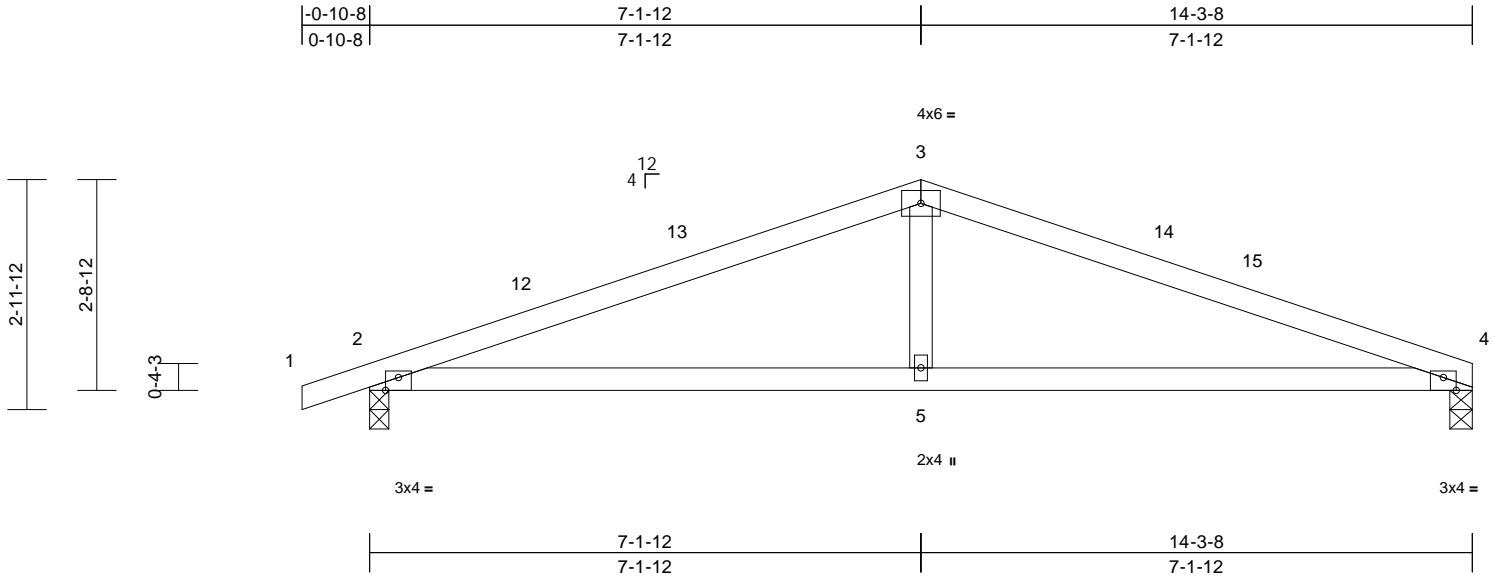
818 Soundside Road  
Edenton, NC 27932

Job 3894016	Truss G03	Truss Type Common	Qty 2	Ply 1	Furr, Mayview B Job Reference (optional)	163825360
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:46  
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Page: 1



Scale = 1:29.9  
Plate Offsets (X, Y): [2:0-2-0,Edge], [4:0-2-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	0.19	5-8	>897	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.19	5-8	>926	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 48 lb	FT = 20%

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

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-0-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 4-11-15 oc bracing.

**REACTIONS** (size) 2=0-3-0, 4=0-3-8  
Max Horiz 2=67 (LC 16)  
Max Uplift 2=-397 (LC 8), 4=-345 (LC 9)  
Max Grav 2=626 (LC 1), 4=570 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/17, 2-3=-1086/1237, 3-4=-1086/1249  
BOT CHORD 2-5=-1111/977, 4-5=-1111/977  
WEBS 3-5=-483/332

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 7-1-12, Exterior (2) 7-1-12 to 10-1-12, Interior (1) 10-1-12 to 14-3-8 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 345 lb uplift at joint 4 and 397 lb uplift at joint 2.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



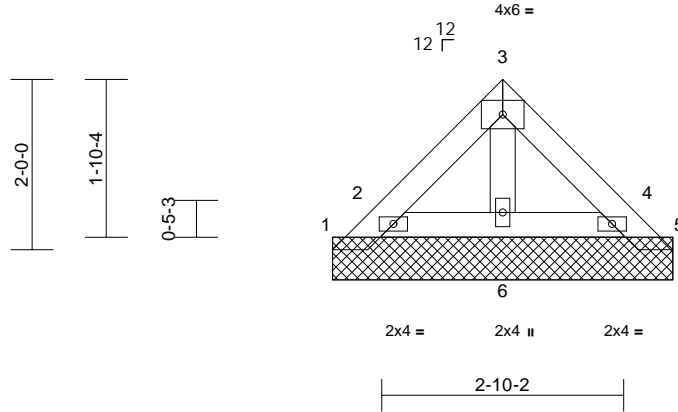
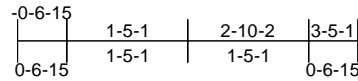
February 26, 2024

Job 3894016	Truss PB01	Truss Type Piggyback	Qty 11	Ply 1	Furr, Mayview B Job Reference (optional)	163825361
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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Page: 1



Scale = 1:27.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 14 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS**

(size) 1=4-0-0, 2=4-0-0, 4=4-0-0, 5=4-0-0, 6=4-0-0, 7=4-0-0  
Max Horiz 1=60 (LC 8)  
Max Uplift 1=-65 (LC 10), 2=-74 (LC 12), 5=-13 (LC 13), 6=-35 (LC 13), 7=-74 (LC 12)  
Max Grav 1=65 (LC 9), 2=136 (LC 19), 5=58 (LC 1), 6=161 (LC 1), 7=136 (LC 19)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

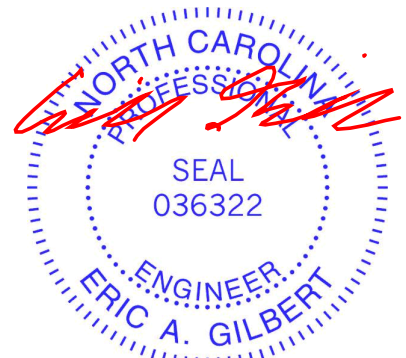
TOP CHORD 1-2=-87/101, 2-3=-31/36, 3-4=-23/40, 4-5=-40/22  
BOT CHORD 2-6=-58/64, 4-6=-58/64  
WEBS 3-6=-84/26

**NOTES**

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

- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 2, 65 lb uplift at joint 1, 13 lb uplift at joint 5, 35 lb uplift at joint 6 and 74 lb uplift at joint 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



February 26, 2024

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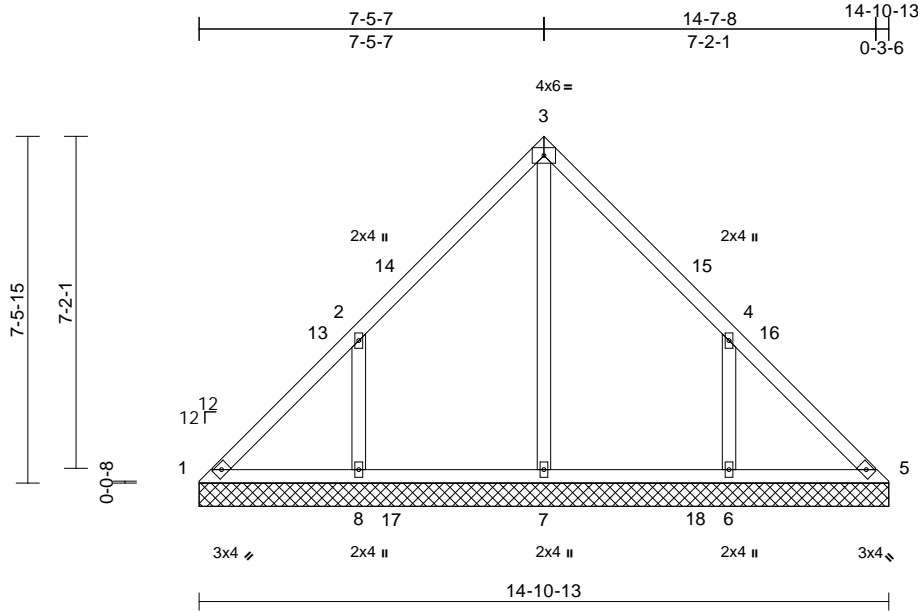
818 Soundside Road  
Edenton, NC 27932

Job 3894016	Truss V01	Truss Type Valley	Qty 1	Ply 1	Furr, Mayview B Job Reference (optional)	I63825362
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:48  
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 71 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

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

**REACTIONS** (size) 1=14-10-13, 5=14-10-13, 6=14-10-13, 7=14-10-13, 8=14-10-13  
Max Horiz 1=-243 (LC 8)  
Max Uplift 1=-67 (LC 8), 5=-11 (LC 9), 6=-333 (LC 13), 8=-340 (LC 12)  
Max Grav 1=168 (LC 20), 5=128 (LC 22), 6=462 (LC 20), 7=410 (LC 19), 8=469 (LC 19)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-236/218, 2-3=-144/182, 3-4=-139/153, 4-5=-187/154  
BOT CHORD 1-8=-148/204, 7-8=-148/204, 6-7=-148/204, 5-6=-148/204  
WEBS 3-7=-212/0, 2-8=-414/370, 4-6=-414/367

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-8 to 3-0-8, Interior (1) 3-0-8 to 7-5-15, Exterior (2) 7-5-15 to 10-5-15, Interior (1) 10-5-15 to 14-11-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BC DL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 1, 11 lb uplift at joint 5, 340 lb uplift at joint 8 and 333 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



February 26, 2024

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818 Soundside Road  
Edenton, NC 27932

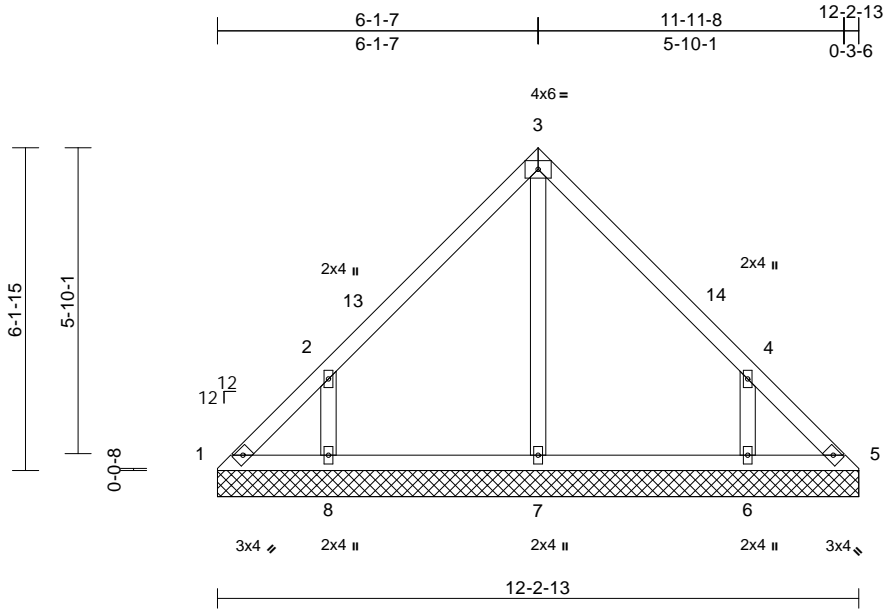


Job 3894016	Truss V02	Truss Type Valley	Qty 1	Ply 1	Furr, Mayview B Job Reference (optional)	163825363
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:48  
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Page: 1



Scale = 1:44

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 56 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**BRACING**

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

**REACTIONS**

(size) 1=12-2-13, 5=12-2-13, 6=12-2-13, 7=12-2-13, 8=12-2-13  
Max Horiz 1=199 (LC 9)  
Max Uplift 1=-75 (LC 8), 5=-27 (LC 9), 6=-285 (LC 13), 8=-292 (LC 12)  
Max Grav 1=141 (LC 20), 5=108 (LC 22), 6=365 (LC 20), 7=231 (LC 19), 8=374 (LC 19)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

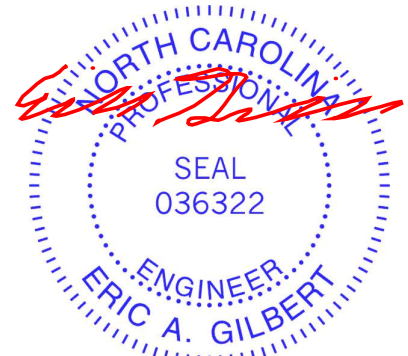
TOP CHORD 1-2=-215/176, 2-3=-177/171, 3-4=-175/156, 4-5=-177/119  
BOT CHORD 1-8=-78/142, 7-8=-71/142, 6-7=-71/142, 5-6=-71/142  
WEBS 3-7=-146/3, 2-8=-393/355, 4-6=-393/352

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-8 to 3-0-8, Interior (1) 3-0-8 to 6-1-15, Exterior (2) 6-1-15 to 9-1-15, Interior (1) 9-1-15 to 12-3-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 75 lb uplift at joint 1, 27 lb uplift at joint 5, 292 lb uplift at joint 8 and 285 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



February 26, 2024

**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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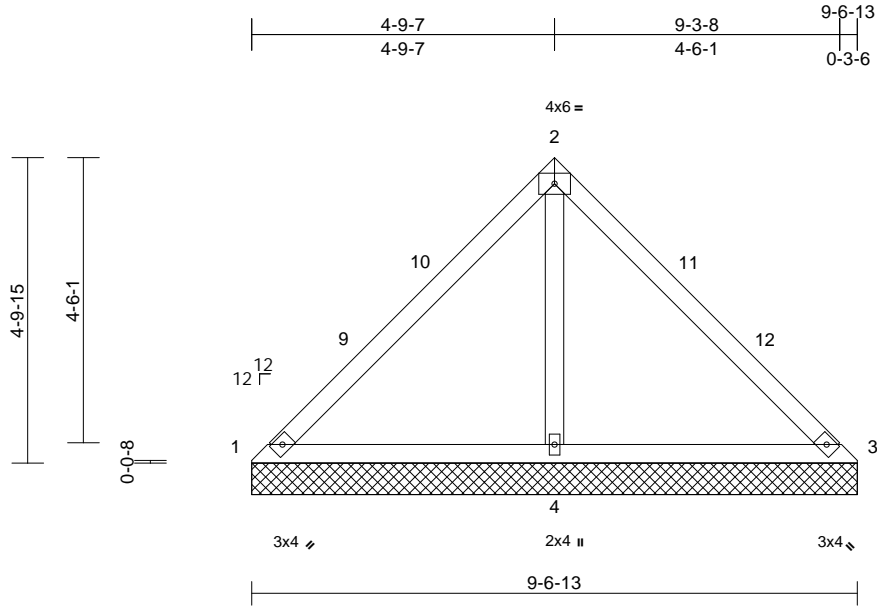
818 Soundside Road  
Edenton, NC 27932

Job 3894016	Truss V03	Truss Type Valley	Qty 1	Ply 1	Furr, Mayview B Job Reference (optional)	163825364
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:49  
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.24	Horiz(TL)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 39 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 9-6-13 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 1=9-6-13, 3=9-6-13, 4=9-6-13  
Max Horiz 1=-154 (LC 8)  
Max Uplift 1=-17 (LC 24), 3=-17 (LC 23), 4=-285 (LC 12)  
Max Grav 1=78 (LC 23), 3=78 (LC 24), 4=680 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-169/288, 2-3=-169/280  
BOT CHORD 1-4=-284/223, 3-4=-284/223  
WEBS 2-4=-623/344

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 1, 17 lb uplift at joint 3 and 285 lb uplift at joint 4.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-8 to 3-0-8, Interior (1) 3-0-8 to 4-9-15, Exterior (2) 4-9-15 to 7-9-15, Interior (1) 7-9-15 to 9-7-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.



February 26, 2024

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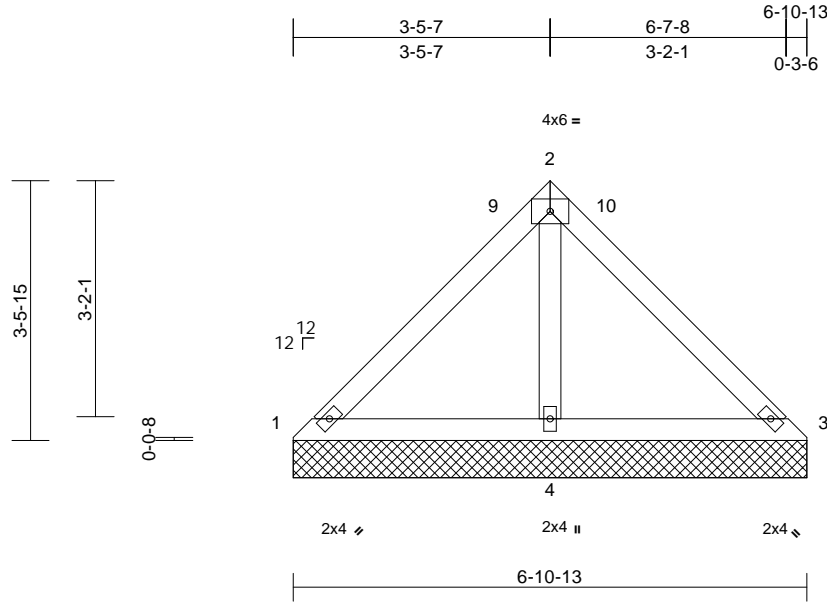
818 Soundside Road  
Edenton, NC 27932

Job 3894016	Truss V04	Truss Type Valley	Qty 1	Ply 1	Furr, Mayview B Job Reference (optional)	163825365
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Page: 1



Scale = 1:31

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 28 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-10-13 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS**

(size) 1=6-10-13, 3=6-10-13, 4=6-10-13  
Max Horiz 1=-110 (LC 8)  
Max Uplift 4=-184 (LC 12)  
Max Grav 1=71 (LC 23), 3=71 (LC 24), 4=455 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

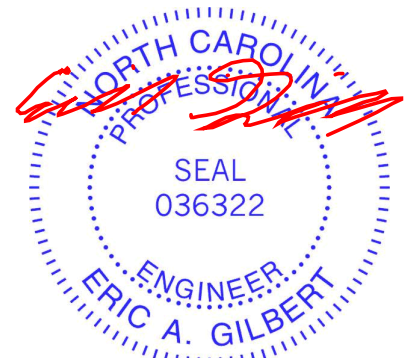
TOP CHORD 1-2=-97/173, 2-3=-97/162  
BOT CHORD 1-4=-195/172, 3-4=-195/172  
WEBS 2-4=-371/218

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-8 to 3-0-8, Interior (1) 3-0-8 to 3-5-15, Exterior (2) 3-5-15 to 6-3-6, Interior (1) 6-3-6 to 6-11-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 184 lb uplift at joint 4.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



February 26, 2024

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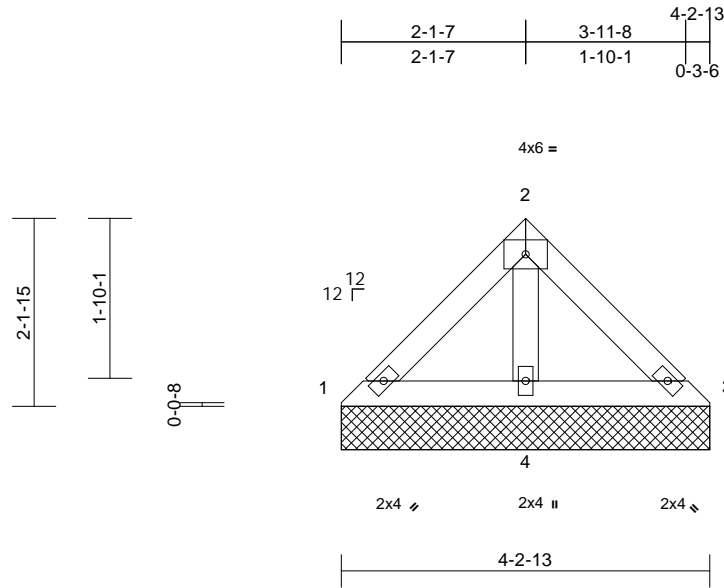
818 Soundside Road  
Edenton, NC 27932

Job 3894016	Truss V05	Truss Type Valley	Qty 1	Ply 1	Furr, Mayview B Job Reference (optional)	163825366
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 16 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-2-13 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 1=4-2-13, 3=4-2-13, 4=4-2-13  
Max Horiz 1=-65 (LC 8)  
Max Uplift 1=-7 (LC 13), 3=-10 (LC 13), 4=-79 (LC 12)  
Max Grav 1=59 (LC 23), 3=59 (LC 24), 4=236 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-50/73, 2-3=-50/59  
BOT CHORD 1-4=-83/81, 3-4=-83/81  
WEBS 2-4=-142/74

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 1, 10 lb uplift at joint 3 and 79 lb uplift at joint 4.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



February 26, 2024

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932





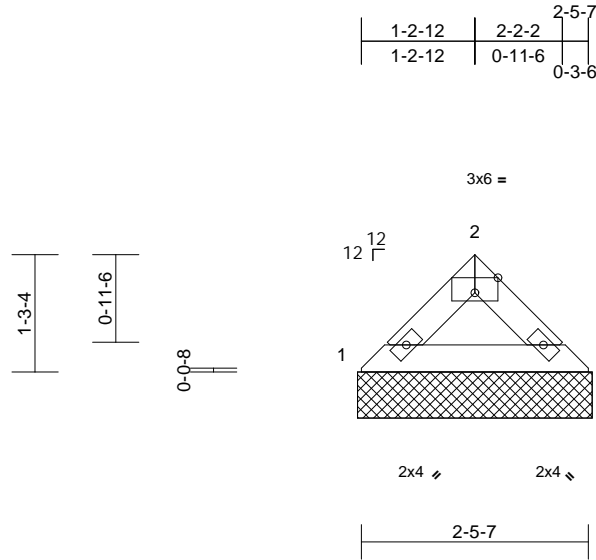
Job 3894016	Truss V07	Truss Type Valley	Qty 1	Ply 1	Furr, Mayview B Job Reference (optional)	163825368
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fri Feb 23 10:50:50

Page: 1

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Scale = 1:24.9

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 8 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 2-5-7 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=2-6-7, 3=2-6-7  
Max Horiz 1=-35 (LC 8)  
Max Uplift 1=-24 (LC 12), 3=-24 (LC 13)  
Max Grav 1=102 (LC 1), 3=102 (LC 1)

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

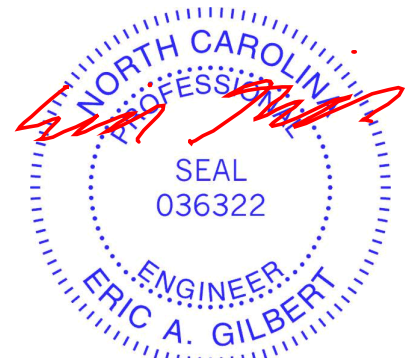
TOP CHORD 1-2=-120/47, 2-3=-120/47  
BOT CHORD 1-3=-29/97

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 1 and 24 lb uplift at joint 3.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



February 26, 2024

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

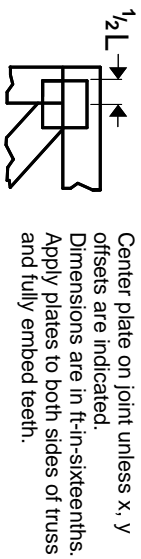
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute ([www.tpinst.org](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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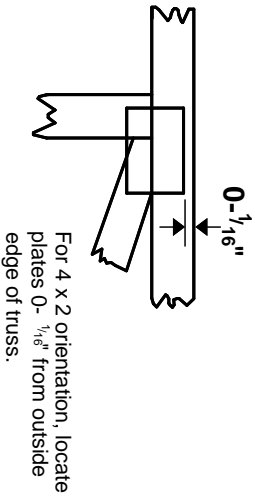
818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16\" from outside edge of truss.



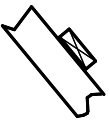
This symbol indicates the required direction of slots in connector plates.

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

## PLATE SIZE

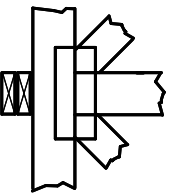
**4 X 4**  
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

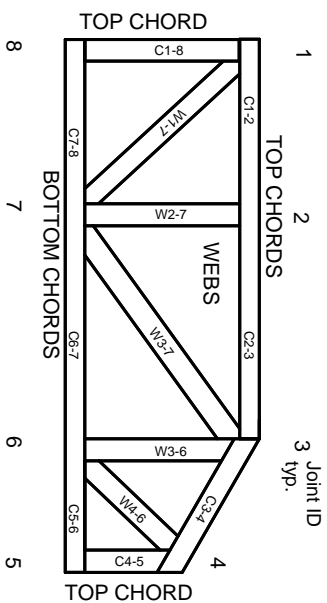


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-22: Design Standard for Bracing.  
BCSI: 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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MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023

# 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.