

RE: 3822895 - Furr, Mayview - Elev. C, 4 Shady Grove

Trenco
 818 Soundside Rd
 Edenton, NC 27932

Site Information:

Project Customer: Furr Construction Project Name:
 Lot/Block: 4 Subdivision: SHADY GROVE
 Address:
 City: State: NC

Name Address and License # of Structural Engineer of Record, If there is one, for the building.

Name: License #:
 Address:
 City, County: State:

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

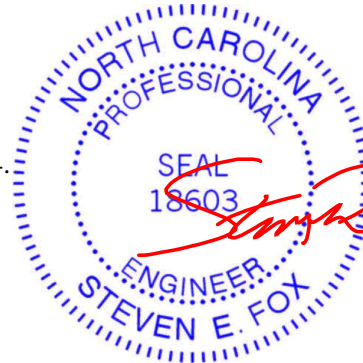
Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.6
 Wind Code: ASCE 7-10 Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-10
 Wind Speed: 130 mph
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 20 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Job ID#	Truss Name	Date
1	163088190	3822895	A01	1/17/24
2	163088191	3822895	A02	1/17/24
3	163088192	3822895	A03	1/17/24
4	163088193	3822895	A04	1/17/24
5	163088194	3822895		1/17/24
6	163088195	3822895	A06	1/17/24
7	163088196	3822895	A07	1/17/24
8	163088197	3822895	D01	1/17/24
9	163088198	3822895		1/17/24
10	163088199	3822895	D03	1/17/24
11	163088200	3822895	D04	1/17/24
12	163088201	3822895		1/17/24
13		3822895	E02	1/17/24
14	163088203	3822895	E03	1/17/24
	163088204	3822895	G01	1/17/24
16	163088205	3822895	G02	1/17/24
17	163088206	3822895	G03	1/17/24
18	163088207	3822895	PB01	1/17/24
19	163088208	3822895	V01	1/17/24
20	163088209	3822895	V02	1/17/24

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource-Sumter,SC.

Truss Design Engineer's Name: Fox, Steve
 My license renewal date for the state of North Carolina is December 31, 2024.



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

January 17, 2024

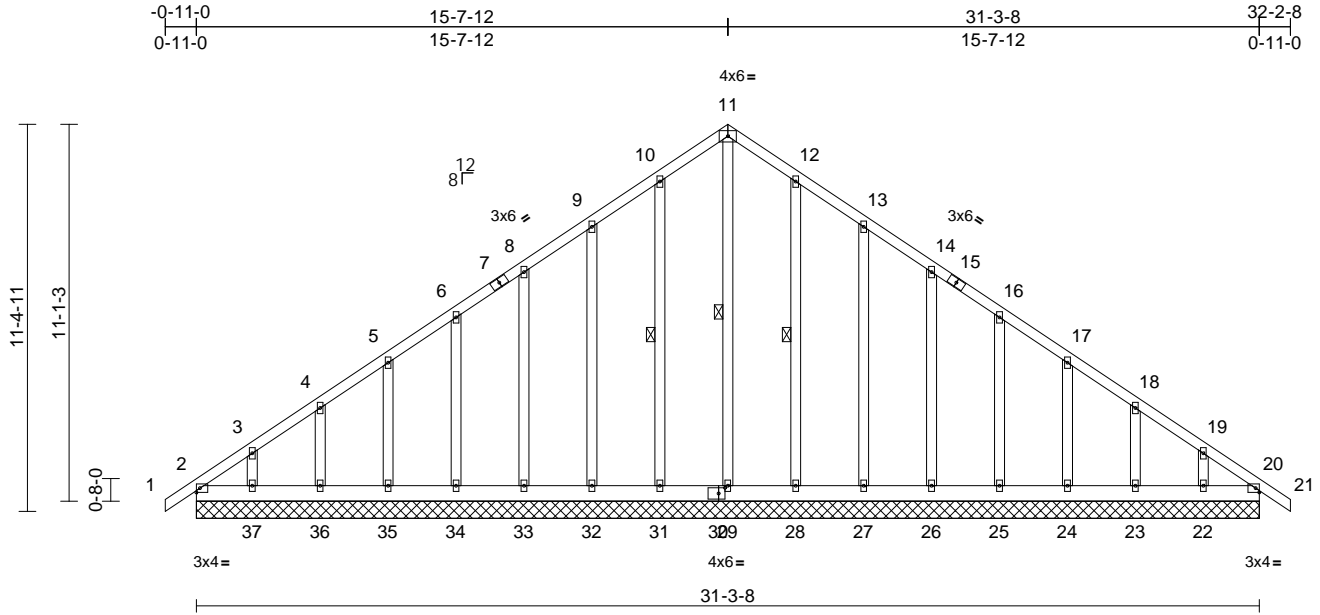
Fox, Steve

Job 3822895	Truss A01	Truss Type Common Supported Gable	Qty 1	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088190
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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Page: 1

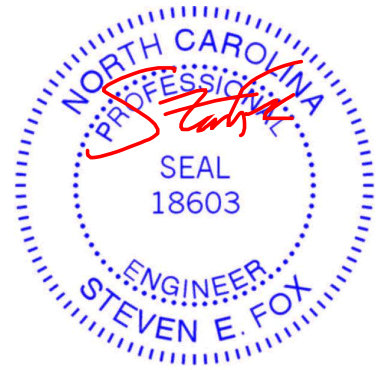


Scale = 1:67.8

Plate Offsets (X, Y): [15:0-0-0,0-0-0], [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	2-2=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	3)
TOP CHORD	2x4 SP No.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.
BOT CHORD	2x6 SP No.2			4) All plates are 2x4 MT20 unless otherwise indicated.
OTHERS	2x4 SP No.3			5) Gable requires continuous bottom chord bearing.
BRACING				6) Gable studs spaced at 2-0-0 oc.
TOP CHORD	Structural wood sheathing directly applied or 10-0-0 oc purlins.			7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.			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.
WEBS	1 Row at midpt 11-29, 10-31, 12-28			9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
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				
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) -0-11-0 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			



January 17, 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)



818 Soundside Road
Edenton, NC 27932

Job 3822895	Truss A01	Truss Type Common Supported Gable	Qty 1	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove I63088190 Job Reference (optional)
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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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

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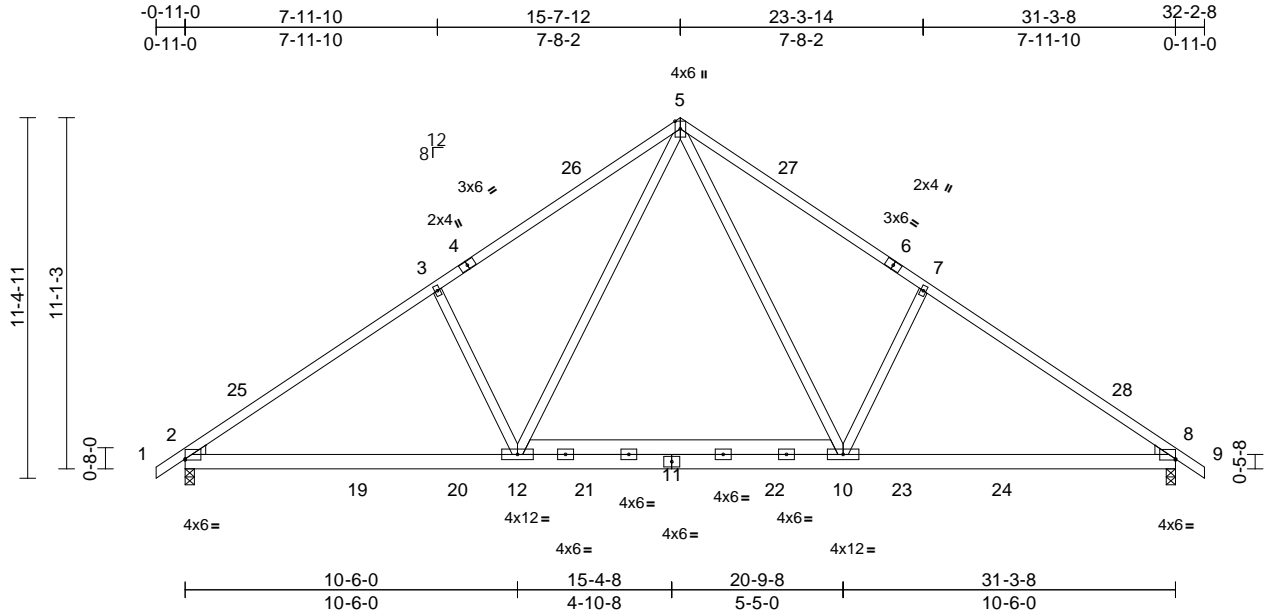
818 Soundside Road
Edenton, NC 27932

Job 3822895	Truss A02	Truss Type Common	Qty 4	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088191
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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Page: 1



Scale = 1:72.8

Plate Offsets (X, Y): [2:Edge,0-0-6], [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	0.93	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	12-15	>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
Max Horiz	2=-368 (LC 10)
Max Uplift	2=-341 (LC 12), 8=-341 (LC 13)
Max Grav	2=1411 (LC 19), 8=1411 (LC 20)

FORCES

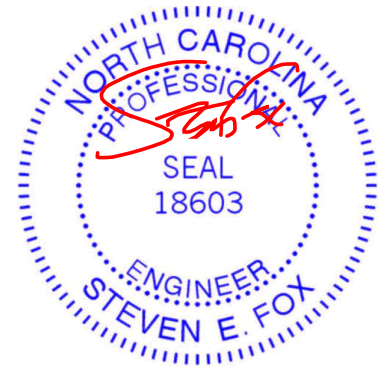
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/31, 2-3=-1913/456, 3-5=-1774/572, 5-7=-1773/571, 7-8=-1912/456, 8-9=0/31
BOT CHORD	2-12=-451/1745, 10-12=-109/1123, 8-10=-232/1495
WEBS	5-12=-337/942, 5-10=-336/941, 3-12=-556/452, 7-10=-555/452

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; 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
- All plates are 4x6 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, 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 341 lb uplift at joint 2 and 341 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



January 17, 2024

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ENGINEERING BY
TRENCO
A MiTek Affiliate

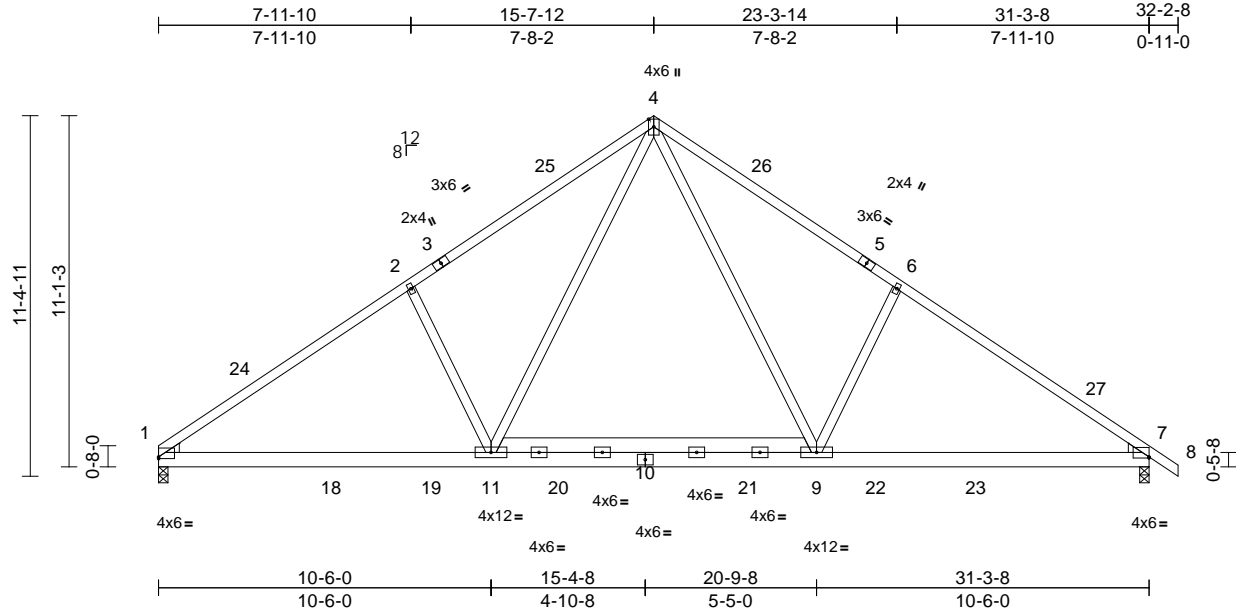
818 Soundside Road
Edenton, NC 27932

Job 3822895	Truss A03	Truss Type Common	Qty 3	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088192
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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

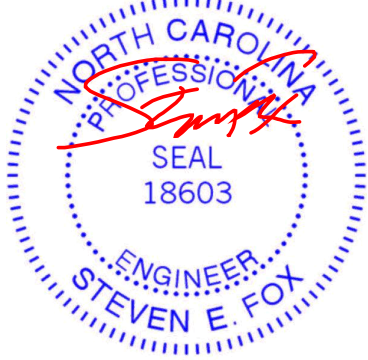
BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 7=0-3-8
Max Horiz 1=-362 (LC 8)
Max Uplift 1=-311 (LC 12), 7=-341 (LC 13)
Max Grav 1=1356 (LC 19), 7=1411 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1918/465, 2-4=-1779/575,
4-6=-1774/572, 6-7=-1913/457, 7-8=0/31
BOT CHORD 1-11=-446/1749, 9-11=-110/1125,
7-9=-232/1496
WEBS 4-11=-339/947, 4-9=-336/941,
2-11=-555/452, 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.



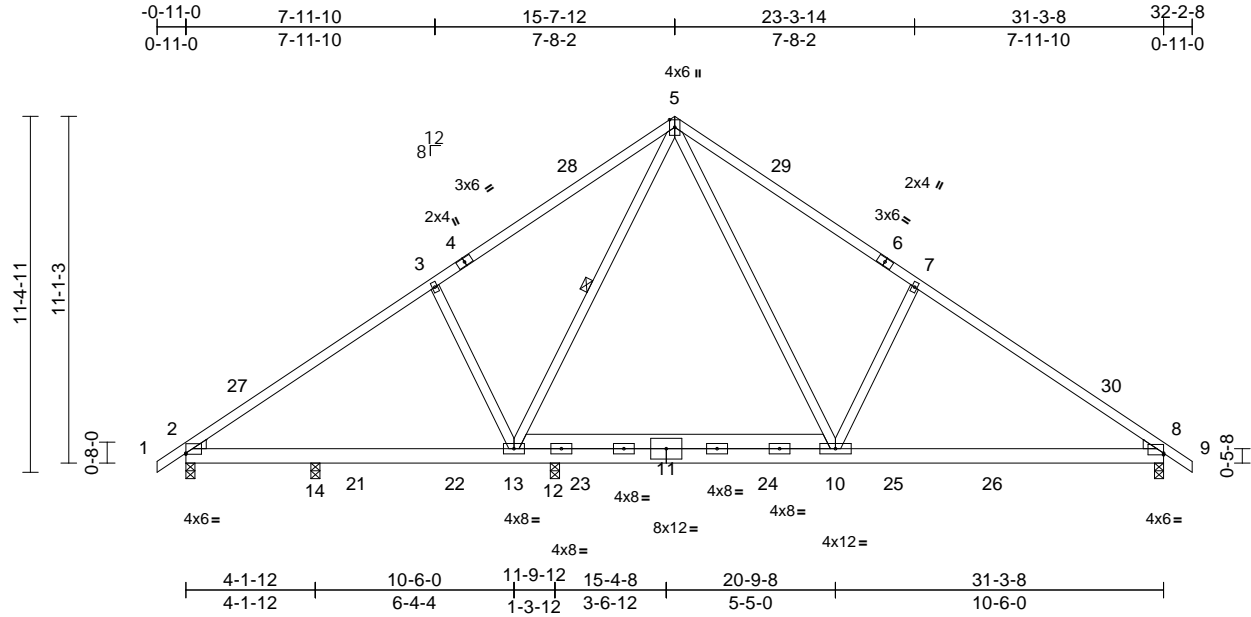
January 17, 2024

Job 3822895	Truss A04	Truss Type Common	Qty 2	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088193
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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	0.47	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 4-1-8 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 10)
 Max Uplift 2=-151 (LC 12), 8=-294 (LC 13), 12=-224 (LC 12), 14=-59 (LC 12)
 Max Grav 2=532 (LC 1), 8=1008 (LC 20), 12=1091 (LC 19), 14=321 (LC 19)

FORCES

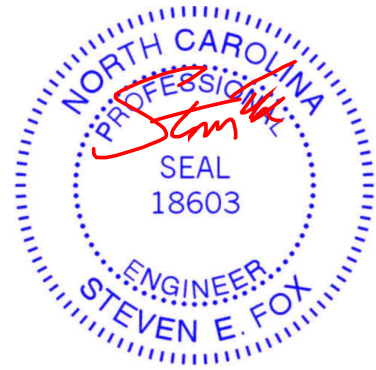
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/31, 2-3=-638/311, 3-5=-569/345, 5-7=-1093/488, 7-8=-1209/369, 8-9=0/31
 BOT CHORD 2-14=-418/573, 13-14=-208/573, 12-13=-27/642, 10-12=-15/506, 8-10=-218/886
 WEBS 5-10=-321/863, 5-13=-481/58, 7-10=-564/453, 3-13=-553/452

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 151 lb uplift at joint 2, 294 lb uplift at joint 8, 59 lb uplift at joint 14 and 224 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



January 17, 2024

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

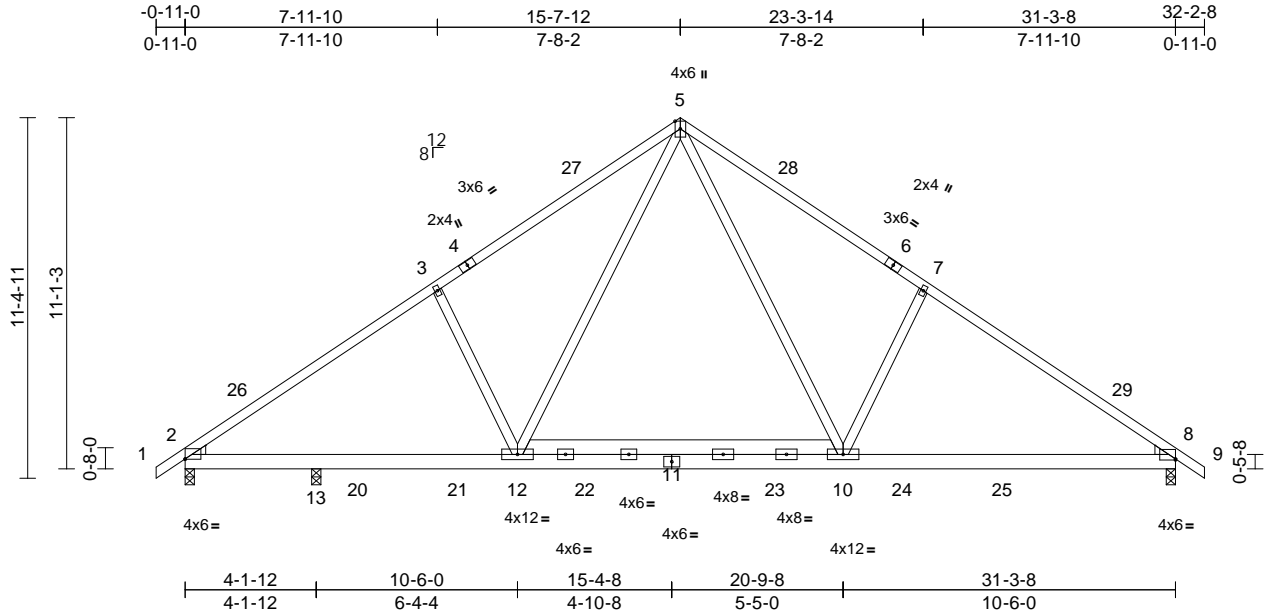


Job 3822895	Truss A05	Truss Type Common	Qty 2	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088194
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 10:38:31
ID:2nt_eQ9?gygAvkEINHstlzpN4p-RfC?PsB70Hq3NSgPqnl8w3uITXbGKwRCDoi7J4zJC?f

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	0.91	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=-41 (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=-1611/547,
5-7=-1736/574, 7-8=-1875/456, 8-9=0/31
BOT CHORD 2-13=-457/1605, 12-13=-420/1605,
10-12=-99/1064, 8-10=-232/1453
WEBS 5-12=-307/768, 5-10=-334/971,
7-10=-555/452, 3-12=-543/450

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.

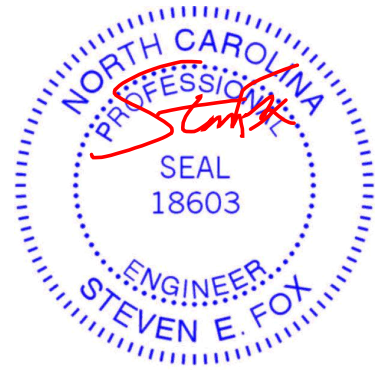
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 305 lb uplift at joint 2, 343 lb uplift at joint 8 and 41 lb uplift at joint 13.

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.

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; 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.



January 17, 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

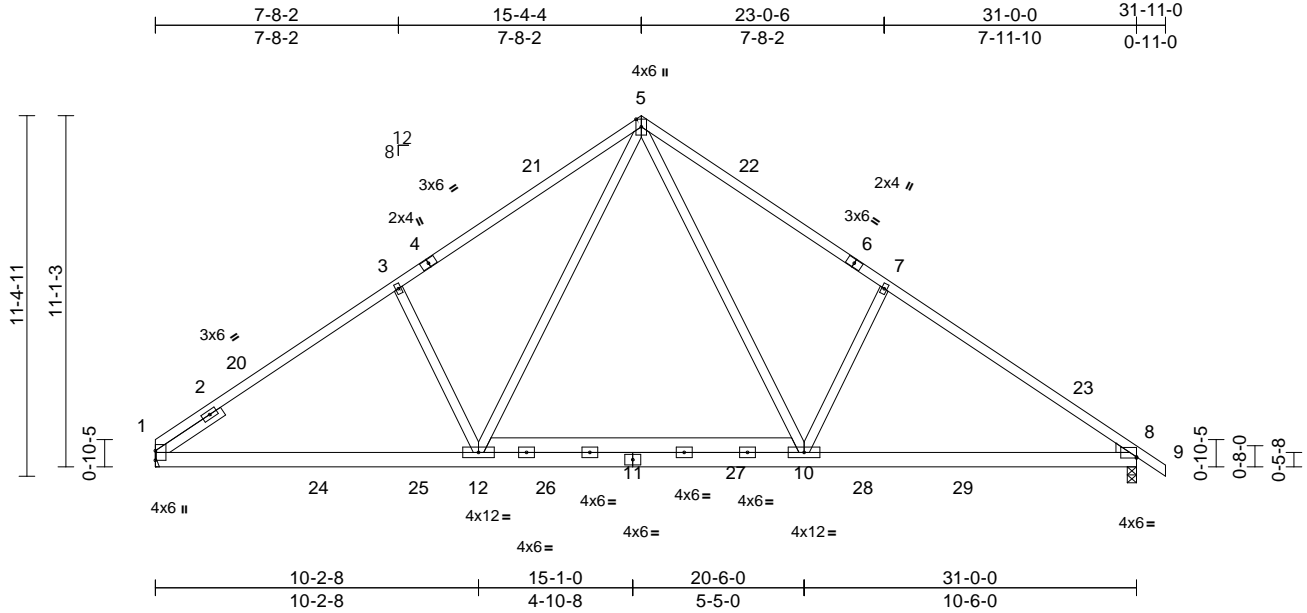
818 Soundside Road
Edenton, NC 27932

Job 3822895	Truss A06	Truss Type Common	Qty 8	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	I63088195
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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. Wed Jan 17 10:38:32
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Page: 1



Scale = 1:72.8
Plate Offsets (X, Y): [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	0.98	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	0.90	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

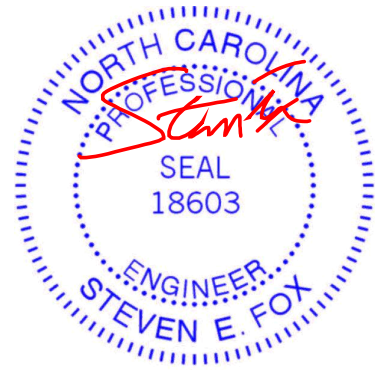
BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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=-232/1478
WEBS 5-12=-327/881, 5-10=-335/950,
7-10=-554/452, 3-12=-520/434

- 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) Bearings are assumed to be: , Joint 8 SP No.2 crushing capacity of 565 psi.
 - 7) Refer to girder(s) for truss to truss connections.
 - 8) 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.
 - 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

- 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) 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.



January 17, 2024

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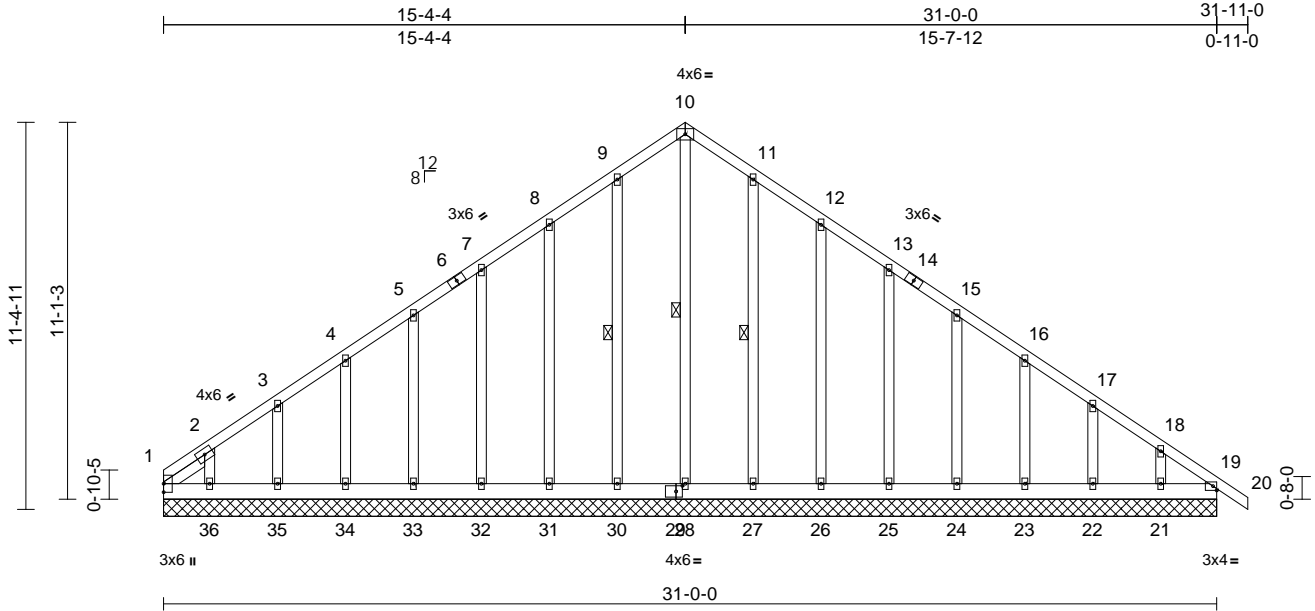
818 Soundside Road
Edenton, NC 27932

Job 3822895	Truss A07	Truss Type Common Supported Gable	Qty 1	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088196
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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. Wed Jan 17 10:38:32
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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

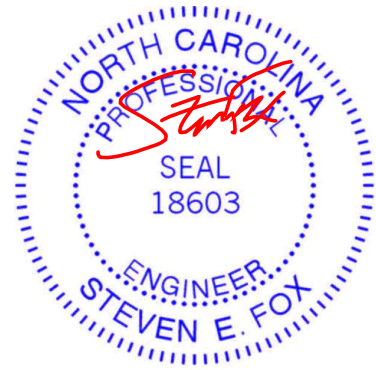
Max Horiz 1=-361 (LC 8), 37=-361 (LC 8)
Max Uplift 1=-250 (LC 10), 22=-225 (LC 13),
23=-71 (LC 13), 24=-111 (LC 13),
25=-99 (LC 13), 26=-112 (LC 13),
27=-86 (LC 13), 28=-13 (LC 11),
30=-94 (LC 12), 31=-109 (LC 12),
32=-102 (LC 12), 33=-102 (LC 12),
34=-104 (LC 12), 35=-97 (LC 12),
36=-208 (LC 12), 37=-250 (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.



January 17, 2024

Continued on page 2

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818 Soundside Road
Edenton, NC 27932

Job 3822895	Truss A07	Truss Type Common Supported Gable	Qty 1	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove I63088196 Job Reference (optional)
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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. Wed Jan 17 10:38:32
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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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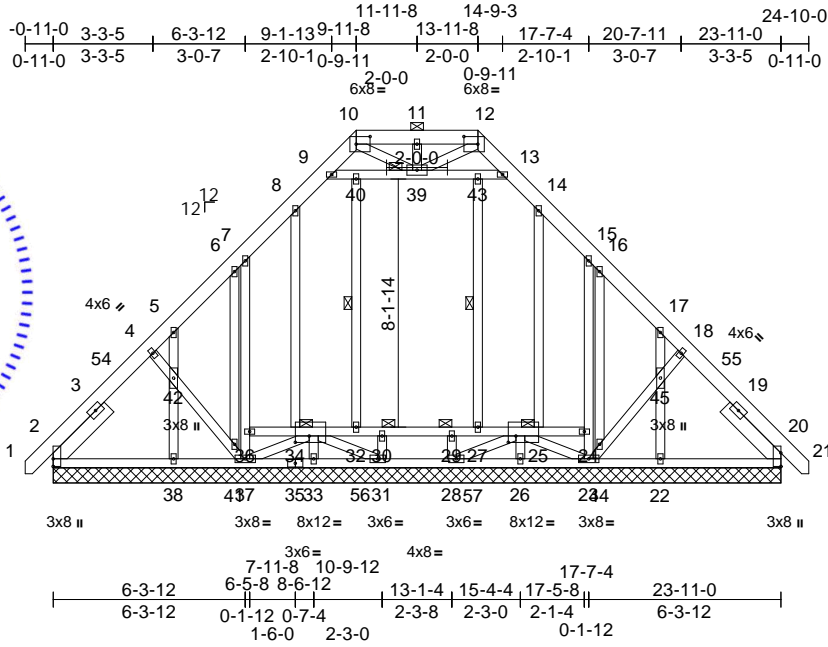
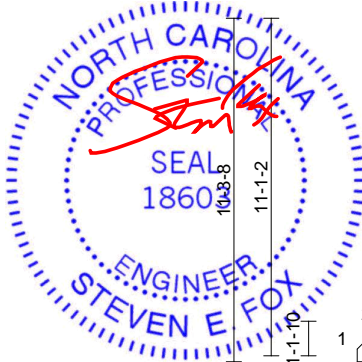
818 Soundside Road
Edenton, NC 27932

Job 3822895	Truss D01	Truss Type Attic	Qty 1	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088197
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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. Wed Jan 17 10:38:32
ID:D3ORaXyUCVAcCyhVbdDqozPnIW-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC7f

Page: 1



Scale = 1:75.7
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	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	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	2-38=-190/284, 37-38=-190/284, 33-37=-113/252, 31-33=-81/139, 28-31=-110/190, 26-28=-81/142, 23-26=-54/219, 22-23=-55/216, 20-22=-55/216, 34-36=-3/3, 32-34=-55/130, 30-32=-55/130, 29-30=-55/130, 27-29=-55/130, 25-27=-55/130, 24-25=-3/5	4) Provide adequate drainage to prevent water ponding.
WEBS	2x4 SP No.3 *Except* 7-37,15-23,9-13:2x4 SP No.2	36-37=-183/154, 7-36=-173/159, 23-24=-183/159, 15-24=-173/163, 9-40=-173/210, 39-40=-173/210, 39-43=-173/177, 13-43=-173/177, 4-42=-227/246, 41-42=-210/230, 37-41=-253/269, 23-44=-253/271, 44-45=-209/232, 18-45=-227/246, 10-39=-94/88, 11-39=-111/76, 12-39=-81/88, 30-31=-144/0, 28-29=-138/0, 34-37=-119/104, 33-34=-287/111, 31-34=-31/55, 23-25=-125/146, 25-26=-226/0, 25-28=-31/52, 32-40=-42/25, 8-34=-171/110, 6-41=-58/51, 5-42=-99/26, 38-42=-113/45, 27-43=-38/12, 14-25=-154/73, 16-44=-58/52, 17-45=-99/32, 22-45=-113/42	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.

January 17, 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)



818 Soundside Road
Edenton, NC 27932

Job 3822895	Truss D01	Truss Type Attic	Qty 1	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove I63088197 Job Reference (optional)
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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. Wed Jan 17 10:38:32
ID:D3ORaXYuCVAcCyhIVbdDqozPnIW-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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.

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



818 Soundside Road
Edenton, NC 27932

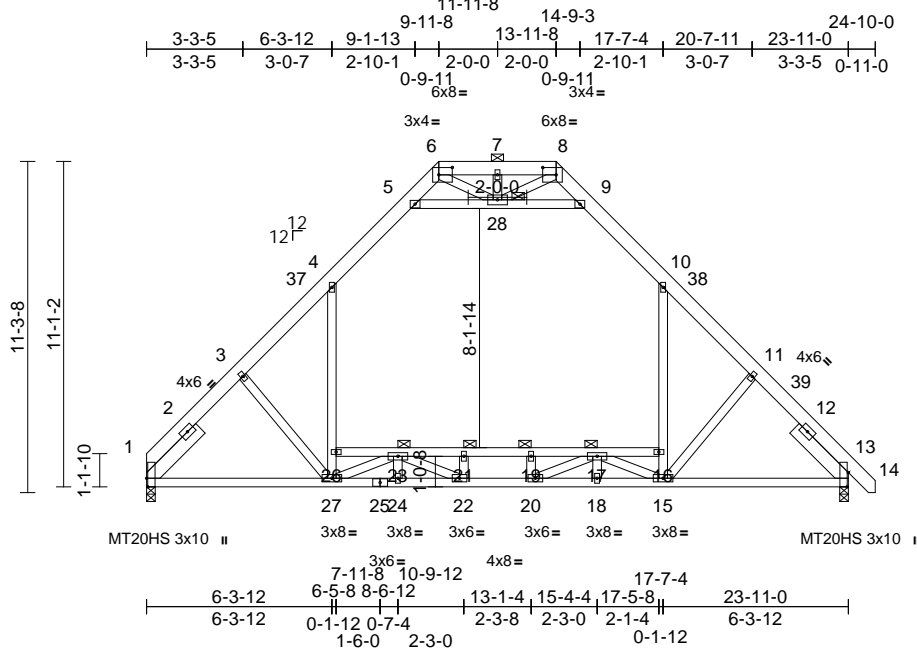
Job 3822895	Truss D03	Truss Type Attic	Qty 4	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088199
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 10:38:34

Page: 1

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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		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)

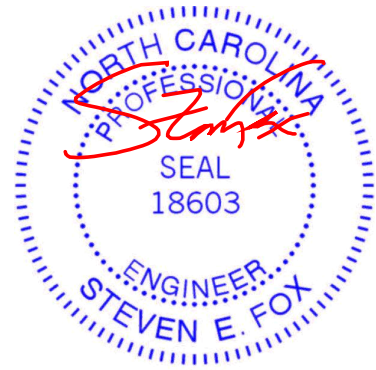
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-1727/113, 3-4=-1681/150, 4-5=-947/258, 5-6=-26/495, 6-7=0/624, 7-8=0/624, 8-9=-26/495, 9-10=-948/256, 10-11=-1679/142, 11-13=-1725/117, 13-14=0/34
BOT CHORD 1-27=-145/1358, 24-27=0/2255, 22-24=0/2255, 20-22=0/2719, 18-20=0/2066, 15-18=0/2066, 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
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) 0-0-0 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
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). 4-5, 9-10, 5-28, 9-28; Wall dead load (5.0psf) on member(s).4-26, 10-16
9) 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
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 13.
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



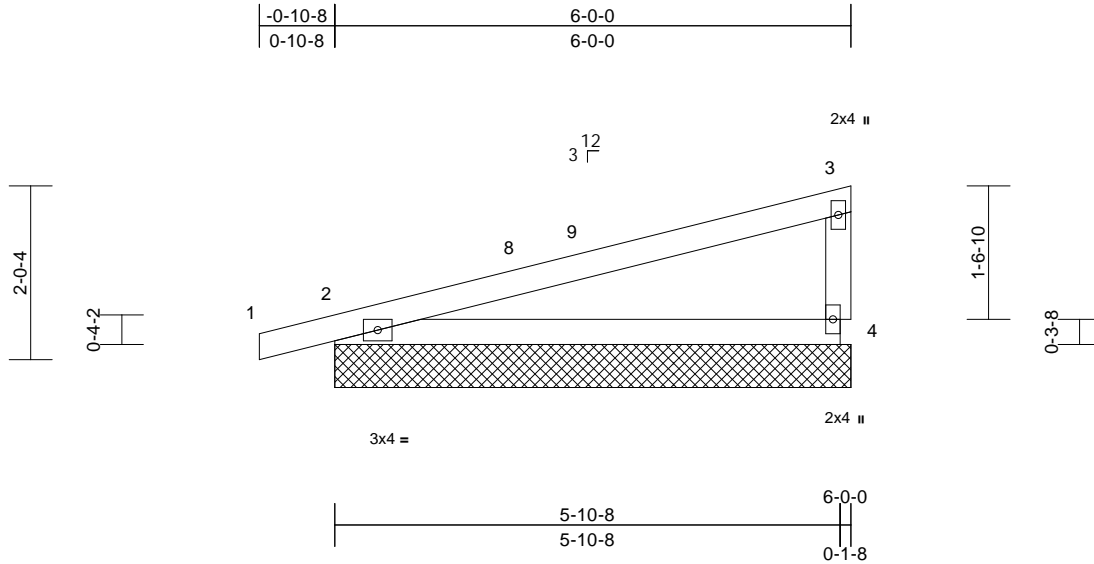
January 17, 2024

Job 3822895	Truss E01	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088201
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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. Wed Jan 17 10:38:35
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Page: 1



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

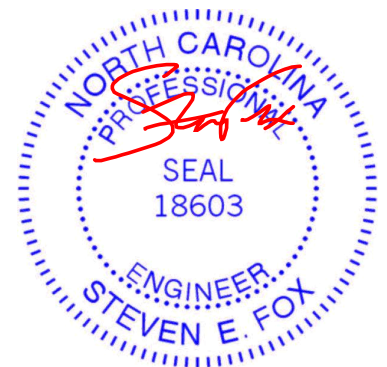
TOP CHORD 1-2=0/13, 2-3=-149/62, 3-4=-151/235
BOT CHORD 2-4=-135/151

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



January 17, 2024

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

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

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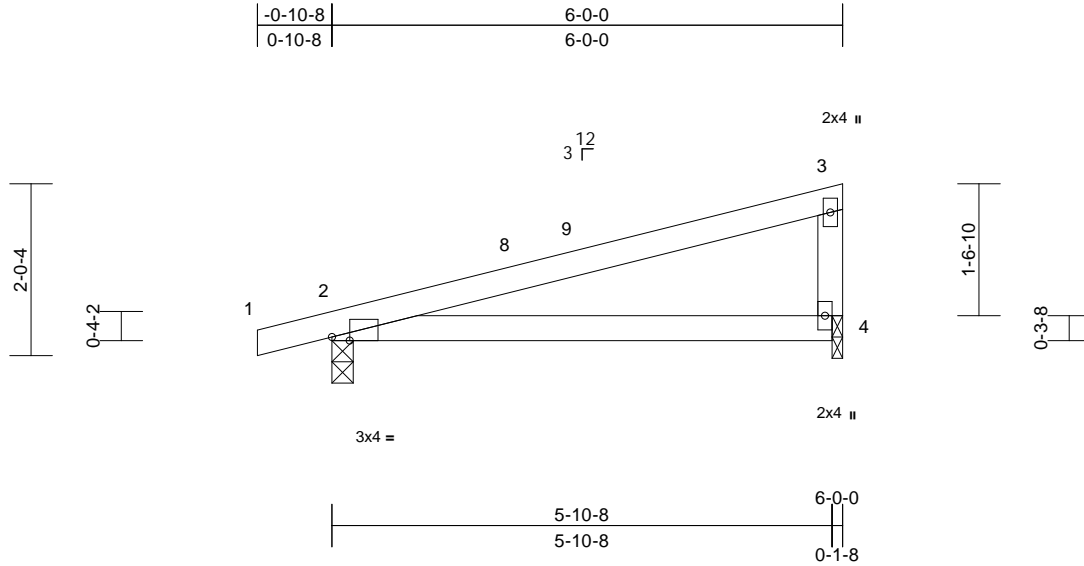
818 Soundside Road
Edenton, NC 27932

Job 3822895	Truss E02	Truss Type Monopitch	Qty 5	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088202
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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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

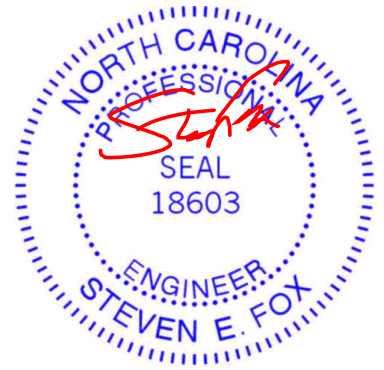
- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/13, 2-3=-149/189, 3-4=-151/182
- BOT CHORD 2-4=-216/136

NOTES

- 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
- 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.
- 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.

- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 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.
- 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



January 17, 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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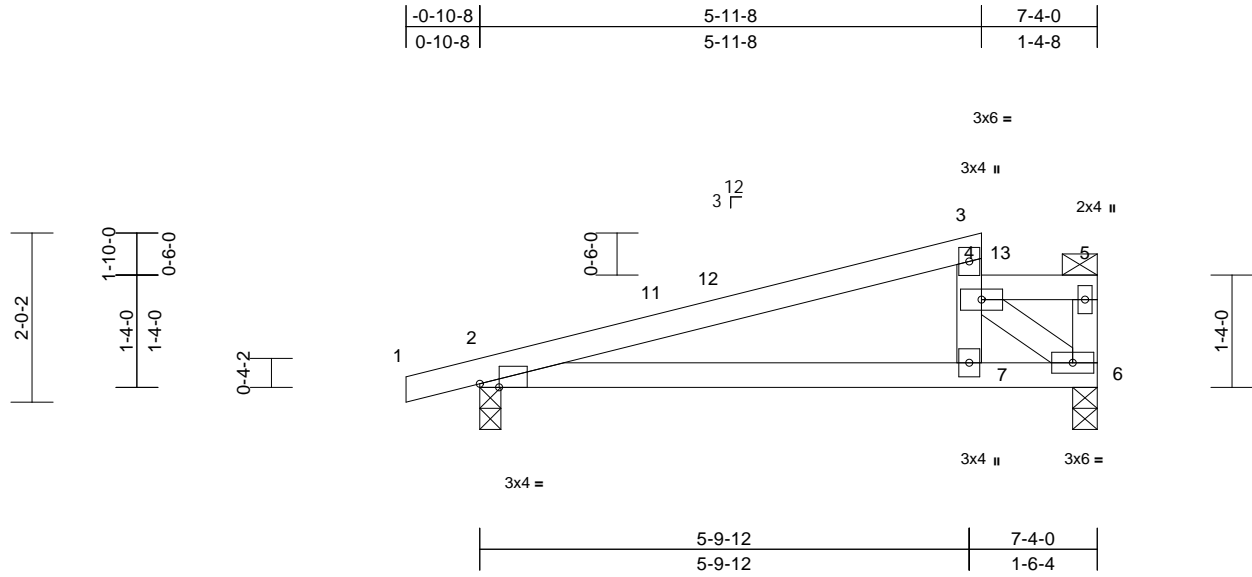
818 Soundside Road
Edenton, NC 27932

Job 3822895	Truss E03	Truss Type Monopitch	Qty 2	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088203
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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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	0.40	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	0.17	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

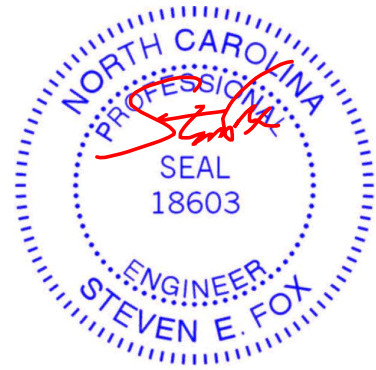
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-7, 4-5. Except: 6-0-0 oc bracing: 3-4
BOT CHORD Rigid ceiling directly applied or 9-8-9 oc bracing.

REACTIONS (size) 2=0-3-0, 6=0-3-8
Max Horiz 2=91 (LC 8)
Max Uplift 2=-176 (LC 8)
Max Grav 2=411 (LC 1), 6=706 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/13, 2-3=-645/276, 4-7=-338/188, 3-4=-24/128, 4-5=-52/0, 5-6=-227/0
BOT CHORD 2-7=-311/605, 6-7=-187/704
WEBS 4-6=-817/256

- * 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 176 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
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 6-8=-20, 4-5=-60
Concentrated Loads (lb)
Vert: 13=-490

- 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.



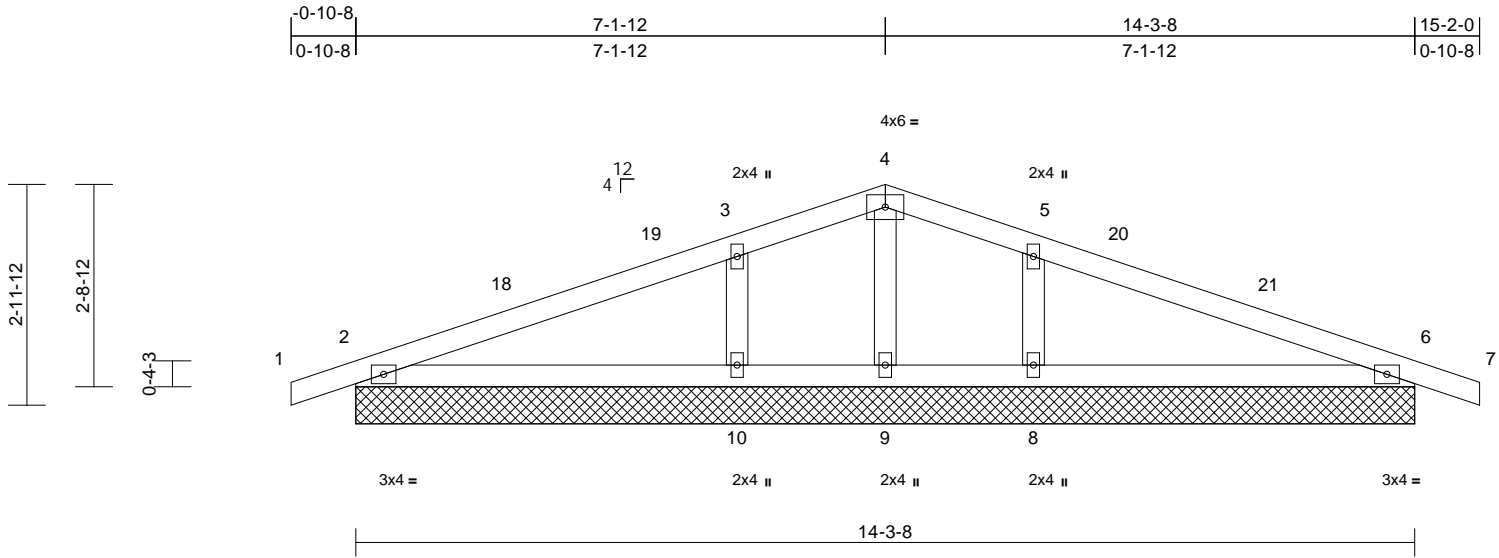
January 17, 2024

Job 3822895	Truss G01	Truss Type Common Supported Gable	Qty 1	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088204
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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. Wed Jan 17 10:38:36
ID:usz6tWmZwKI08sFbfMVpeozPnNP-RfC?PsB70Hq3NSgPqnL8w3uTXbGKwRCDoi7J4zJC?f

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.

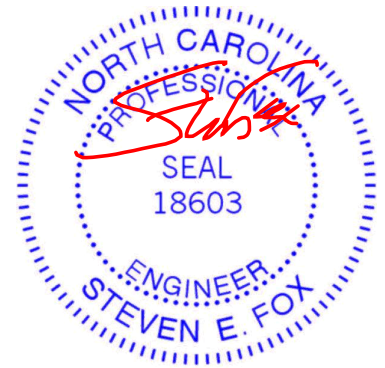
REACTIONS (size) 2=14-3-8, 6=14-3-8, 8=14-3-8, 9=14-3-8, 10=14-3-8, 11=14-3-8, 15=14-3-8
Max Horiz 2=-60 (LC 13), 11=-60 (LC 13)
Max Uplift 2=-112 (LC 8), 6=-120 (LC 9), 8=-180 (LC 13), 9=-112 (LC 1), 10=-181 (LC 12), 11=-112 (LC 8), 15=-120 (LC 9)
Max Grav 2=241 (LC 1), 6=241 (LC 1), 8=439 (LC 1), 9=87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



January 17, 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

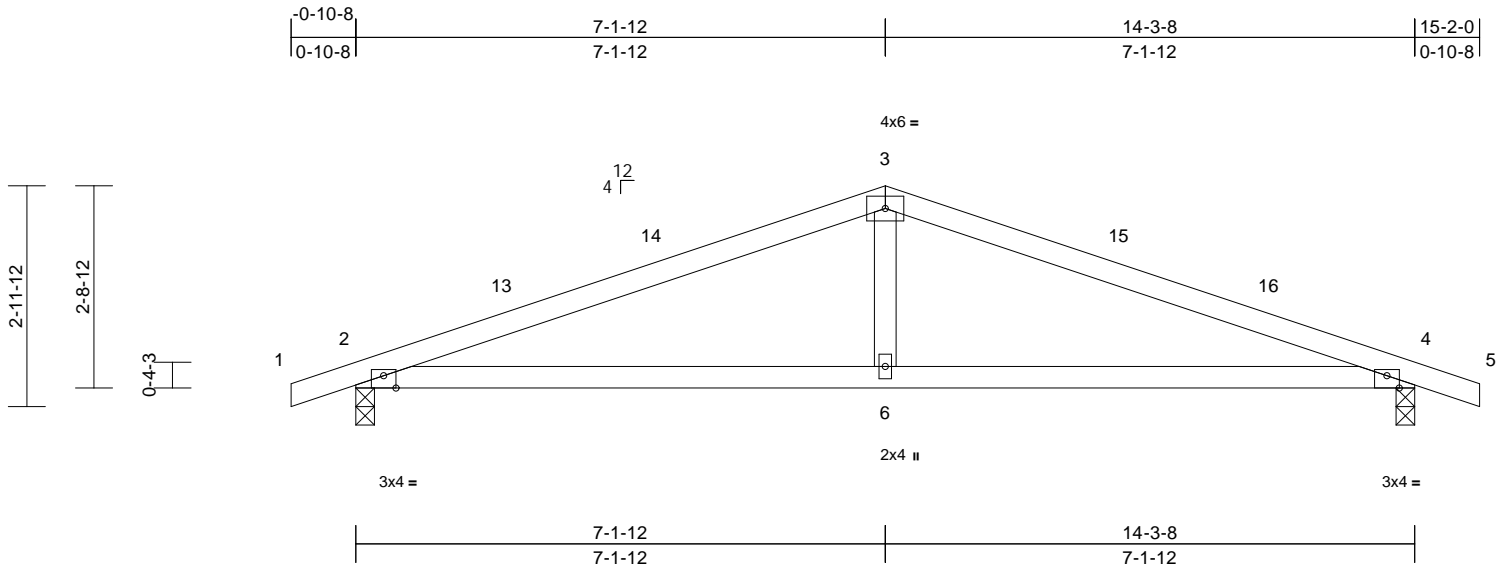
818 Soundside Road
Edenton, NC 27932

Job 3822895	Truss G02	Truss Type Common	Qty 3	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088205
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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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

- 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) -0-10-8 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
- 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.

- 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 397 lb uplift at joint 2 and 397 lb uplift at joint 4.
- 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.

LOAD CASE(S) Standard



January 17, 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)



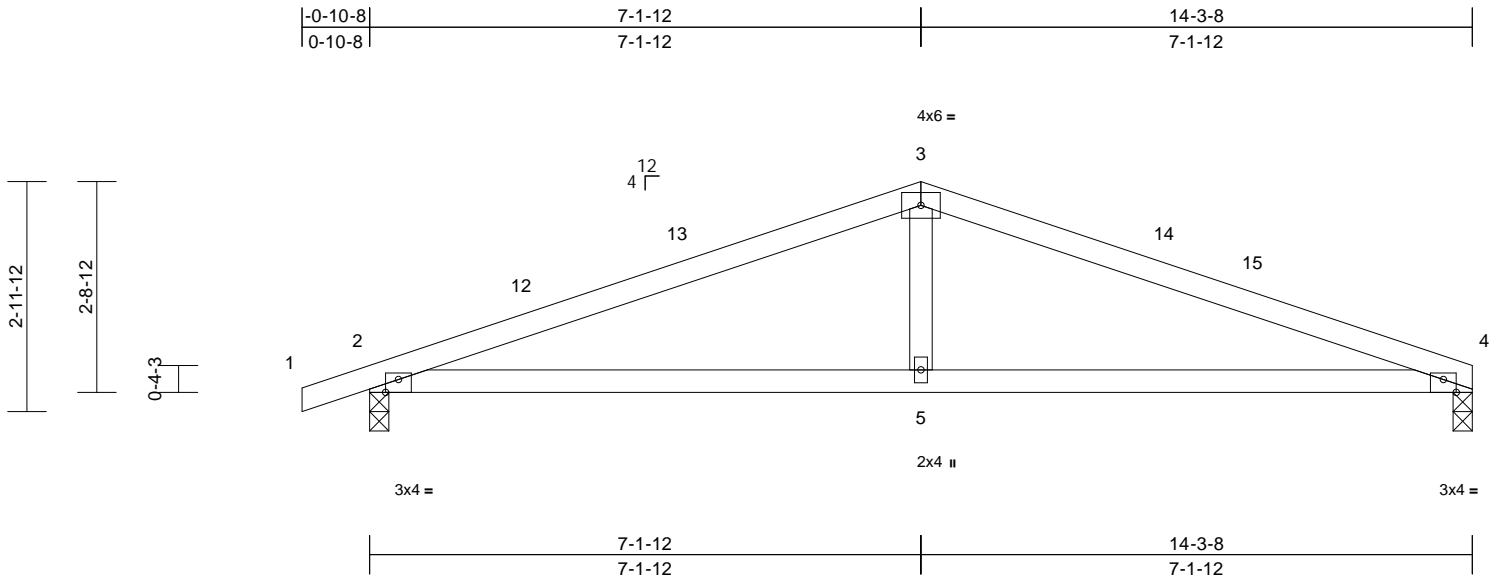
818 Soundside Road
Edenton, NC 27932

Job 3822895	Truss G03	Truss Type Common	Qty 2	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088206
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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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

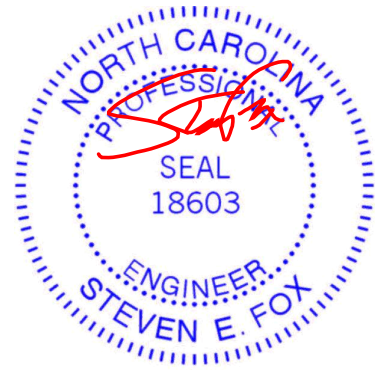
BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 4-11-15 oc bracing.

REACTIONS (size) 2=0-3-0, 4=0-3-0
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**
- 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 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
 - 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 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



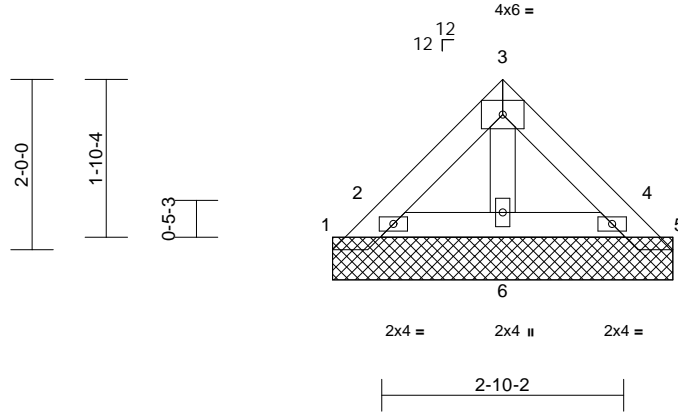
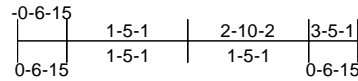
January 17, 2024

Job 3822895	Truss PB01	Truss Type Piggyback	Qty 11	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088207
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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

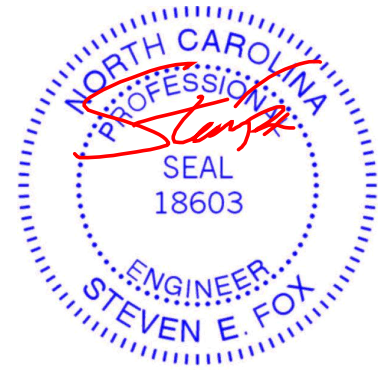
TOP CHORD 1-2=-87/101, 2-3=-31/36, 3-4=-23/40, 4-5=-40/22
BOT CHORD 2-6=-58/64, 4-6=-58/64
WEBS 3-6=-84/26

NOTES

- 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) 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 2-0-0 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 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.
- 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.
- 11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



January 17, 2024

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

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



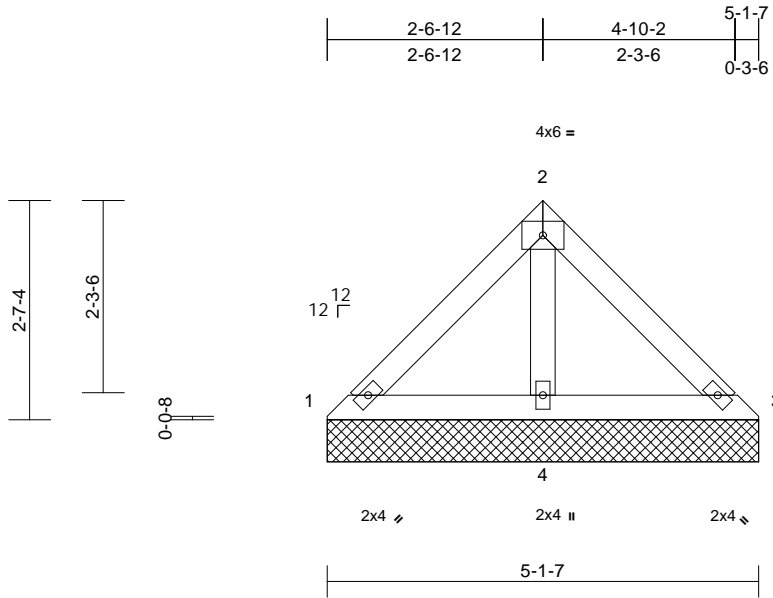
818 Soundside Road
Edenton, NC 27932

Job 3822895	Truss V01	Truss Type Valley	Qty 1	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088208
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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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 20 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 5-1-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

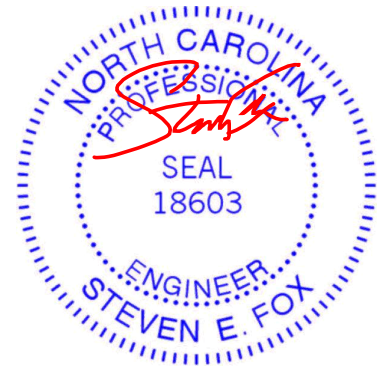
REACTIONS (size) 1=5-1-7, 3=5-1-7, 4=5-1-7
Max Horiz 1=80 (LC 9)
Max Uplift 1=-2 (LC 13), 3=-5 (LC 13), 4=-108 (LC 12)
Max Grav 1=65 (LC 23), 3=65 (LC 24), 4=302 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-53/102, 2-3=-53/86
BOT CHORD 1-4=-115/110, 3-4=-115/110
WEBS 2-4=-208/117

- 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 2 lb uplift at joint 1, 5 lb uplift at joint 3 and 108 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



January 17, 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)

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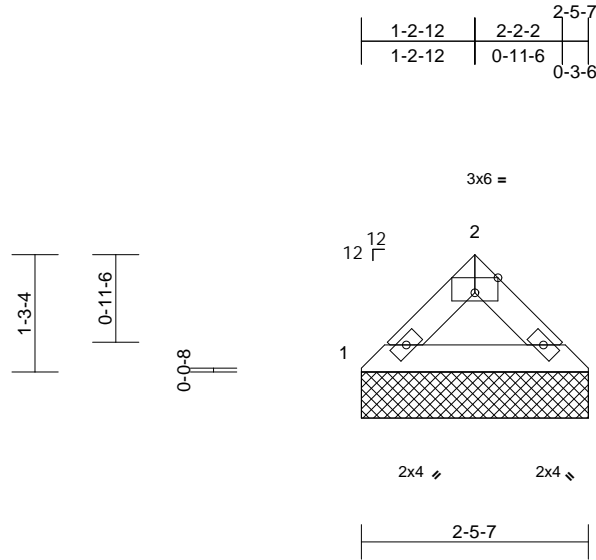
818 Soundside Road
Edenton, NC 27932

Job 3822895	Truss V02	Truss Type Valley	Qty 1	Ply 1	Furr, Mayview - Elev. C, 4 Shady Grove Job Reference (optional)	163088209
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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. Wed Jan 17 10:38:37
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Page: 1



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	0.04	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=2-5-7, 3=2-5-7

Max Horiz 1=-35 (LC 8)
Max Uplift 1=-22 (LC 12), 3=-22 (LC 13)
Max Grav 1=98 (LC 1), 3=98 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

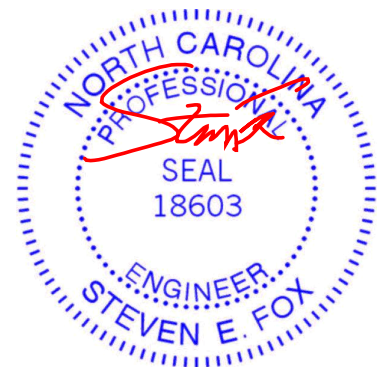
TOP CHORD 1-2=-113/44, 2-3=-113/44
BOT CHORD 1-3=-27/89

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 22 lb uplift at joint 1 and 22 lb uplift at joint 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



January 17, 2024

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

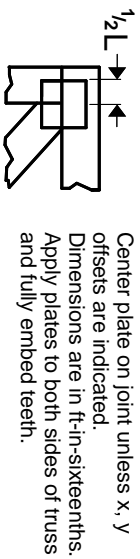
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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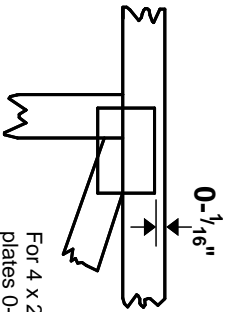
818 Soundside Road
Edenton, NC 27932

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

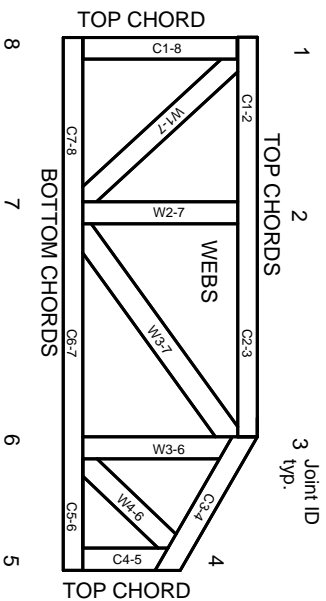


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.