

RE: Belhaven DEF
 Belhaven DEF

Trenco
 818 Soundside Rd
 Edenton, NC 27932

Site Information:

Customer: Project Name: Belhaven DEF
 Lot/Block: Model:
 Address: Subdivision:
 City: State:

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

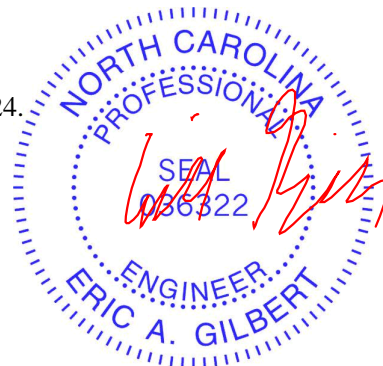
Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.7
 Wind Code: ASCE 7-10 Wind Speed: 130 mph
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 21 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I61952849	A01	11/14/2023	21	I61952869	V7	11/14/2023
2	I61952850	A01E	11/14/2023				
3	I61952851	A01M	11/14/2023				
4	I61952852	A02	11/14/2023				
5	I61952853	A02E	11/14/2023				
6	I61952854	A02M	11/14/2023				
7	I61952855	A03M	11/14/2023				
8	I61952856	B01	11/14/2023				
9	I61952857	B01E	11/14/2023				
10	I61952858	B01G	11/14/2023				
11	I61952859	M1	11/14/2023				
12	I61952860	M1G	11/14/2023				
13	I61952861	M2	11/14/2023				
14	I61952862	V1	11/14/2023				
15	I61952863	V1E	11/14/2023				
16	I61952864	V2	11/14/2023				
17	I61952865	V3	11/14/2023				
18	I61952866	V4	11/14/2023				
19	I61952867	V5	11/14/2023				
20	I61952868	V6	11/14/2023				

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.
 Truss Design Engineer's Name: Gilbert, Eric
 My license renewal date for the state of North Carolina is December 31, 2024.
 North Carolina COA: C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.



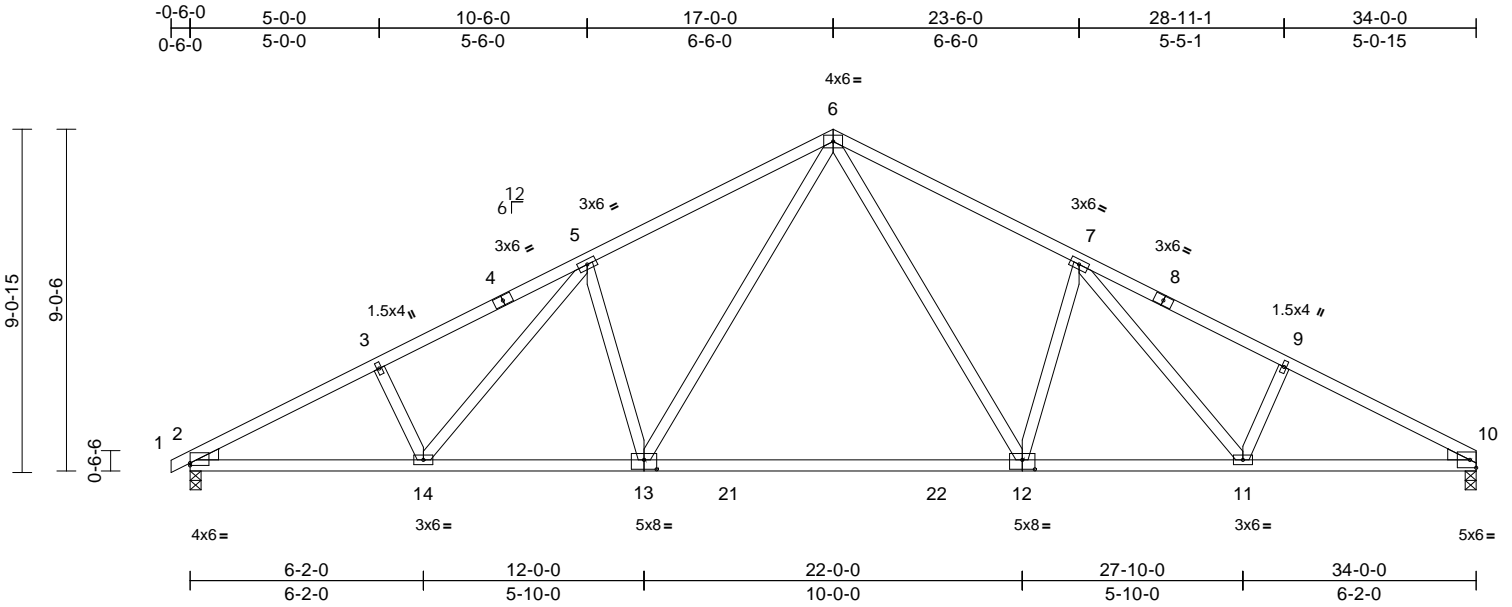
November 14, 2023

Job Belhaven DEF	Truss A01	Truss Type Common	Qty 6	Ply 1	Belhaven DEF Job Reference (optional)	I61952849
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.72 S Oct 5 2023 Print: 8.720 S Oct 5 2023 MiTek Industries, Inc. Fri Nov 10 10:51:35
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Page: 1



Scale = 1:60.9

Plate Offsets (X, Y): [2:Edge,0-0-12], [12:0-4-0,0-3-0], [13:0-4-0,0-3-0]

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	0.60	Vert(LL)	-0.36	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.66	12-13	>623	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 183 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 *Except*
14-3,5-13,7-12,11-9:2x4 SP No.3
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-2-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-1-5 oc bracing.

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=150 (LC 12)
Max Uplift 2=-170 (LC 12), 10=-159 (LC 13)
Max Grav 2=1390 (LC 1), 10=1360 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/13, 2-3=-2467/607, 3-5=-2346/643,
5-6=-2011/636, 6-7=-2010/636,
7-9=-2353/648, 9-10=-2453/607
BOT CHORD 2-14=-474/2134, 11-14=-335/1849,
10-11=-471/2134
WEBS 6-13=-214/810, 6-12=-213/809,
3-14=-225/170, 5-14=-110/337,
5-13=-524/298, 7-12=-525/300,
7-11=-116/348, 9-11=-223/165

- * 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.1 .
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 170 lb uplift at joint 2 and 159 lb uplift at joint 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



November 14, 2023

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

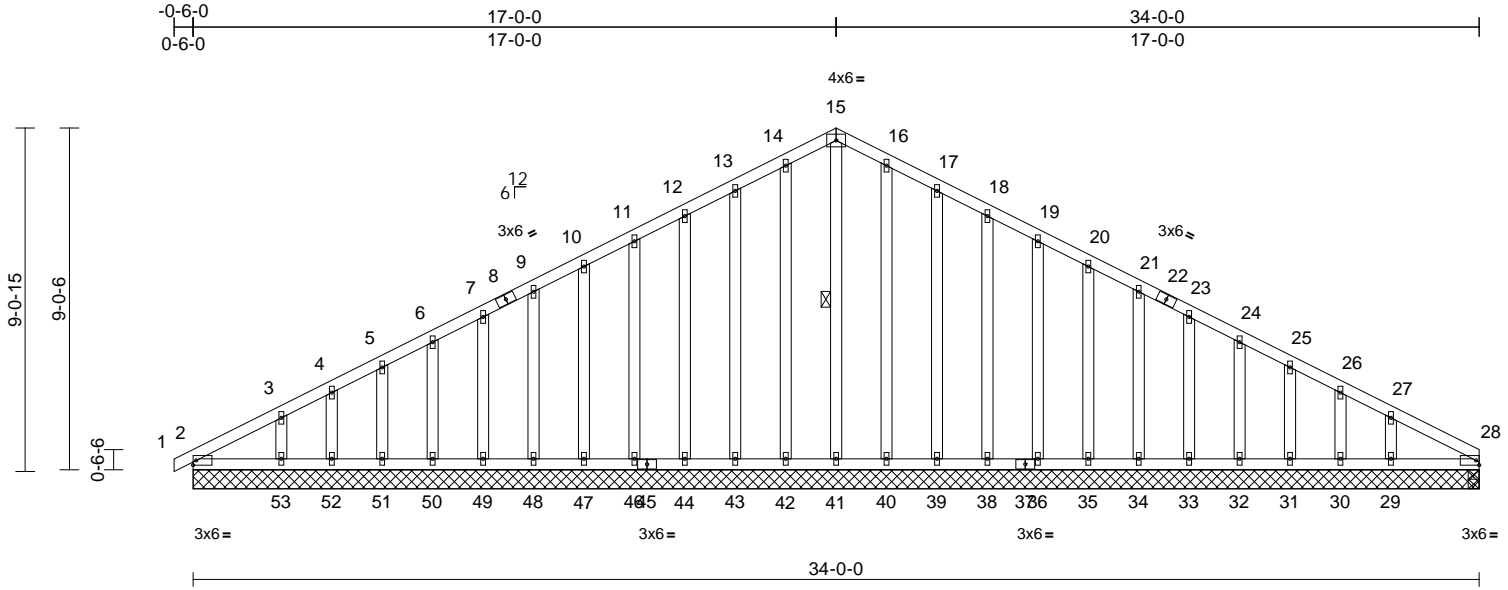
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job Belhaven DEF	Truss A01E	Truss Type Common Supported Gable	Qty 1	Ply 1	Belhaven DEF Job Reference (optional)	161952850
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.72 E Sep 21 2023 Print: 8.720 E Sep 21 2023 MiTek Industries, Inc. Tue Nov 14 09:40:16
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Page: 1



Scale = 1:60.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	53-56	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	29-59	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	28	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 268 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except*
41-15,42-14,43-13,44-12,40-16,39-17,38-18:
2x4 SP No.2

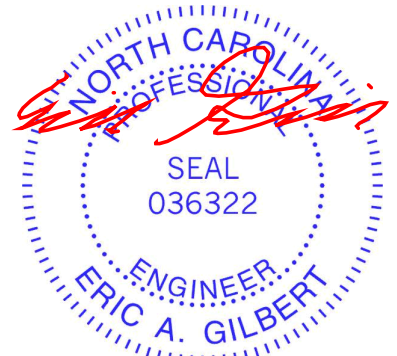
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 15-41

REACTIONS All bearings 34-0-0.
(lb) - Max Horiz 2=150 (LC 12), 54=150 (LC 12)
Max Uplift All uplift 100 (lb) or less at joint(s)
2, 29, 30, 31, 32, 33, 34, 35, 36, 38,
39, 40, 42, 43, 44, 46, 47, 48, 49,
50, 51, 52, 53, 54
Max Grav All reactions 250 (lb) or less at joint
(s) 2, 28, 29, 30, 31, 32, 33, 34, 35,
36, 38, 39, 40, 41, 42, 43, 44, 46,
47, 48, 49, 50, 51, 52, 53, 54, 57

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 14-15=104/258, 15-16=104/258

- 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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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 1.5x4 MT20 unless otherwise indicated.

- 5) Gable studs spaced at 1-4-0 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) N/A
 - 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



November 14, 2023

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

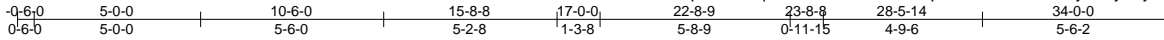
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Belhaven DEF
Belhaven DEF	A01M	Common	1	1	Job Reference (optional)
84 Lumber, Mansfield, Ohio					I61952851

ID: 8JvKQH7rvPqunSFBPqhT9Wz6ltQ-zkO?DCUpnZoa?xMTTVARSy1ePyHcyV5PFcWPhWyJlth
 8.720 s Sep 6 2023 MiTek Industries, Inc. Tue Nov 14 09:43:14 2023 Page 1



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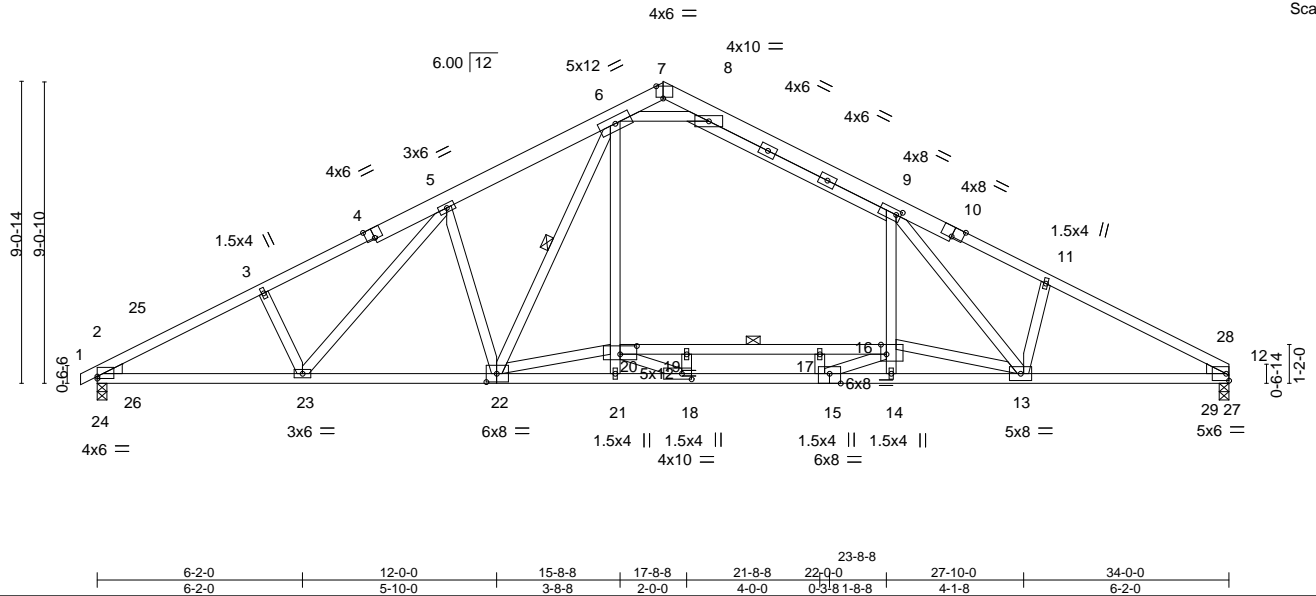


Plate Offsets (X, Y)--	[2:Edge,0-0-12], [4:0-3-0,Edge], [7:0-2-8,Edge], [9:0-1-12,0-1-12], [10:0-4-0,Edge], [15:0-4-0,Edge], [16:0-2-0,Edge], [18:0-3-8,0-2-0], [20:0-6-0,0-3-0], [22:0-3-12,0-3-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.66	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.97	Vert(LL) -0.26 16-17 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.94	Vert(CT) -0.63 16-17 >651 180		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Horz(CT) 0.09 12 n/a n/a		
			Attic -0.12 16-20 863 360	Weight: 236 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP DSS *Except* 8-9,1-4: 2x4 SP No.2, 10-12: 2x4 SP DSS	TOP CHORD Structural wood sheathing directly applied or 2-9-12 oc purlins.
BOT CHORD 2x4 SP DSS *Except* 16-20,15-22: 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 15-18. 6-0-0 oc bracing: 16-20
WEBS 2x4 SP No.3 *Except* 6-22,5-23,9-13,6-21: 2x4 SP No.2	WEBS 1 Row at midpt 6-22
OTHERS 2x4 SP No.3	
WEDGE Left: 2x4 SP No.3, Right: 2x4 SP No.3	

REACTIONS. (lb/size) 2=1581/0-3-8 (min. 0-2-8), 12=1615/0-3-8 (min. 0-2-9)
 Max Horz 2=150(LC 12)
 Max Uplift 2=-35(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-25=-788/8, 3-25=-2853/329, 3-4=-2716/349, 4-5=-2601/365, 5-6=-2422/335,
 6-7=-51/799, 7-8=-70/485, 8-9=-2172/240, 9-10=-2802/293, 10-11=-2901/285,
 11-28=-2957/235, 12-28=-1186/60
 BOT CHORD 24-26=-189/537, 23-26=-230/2473, 22-23=-85/2228, 21-22=-30/600, 18-21=-38/590,
 15-18=0/2452, 14-15=-246/3140, 13-14=-231/3062, 13-29=-137/2580, 27-29=-82/926,
 19-20=-559/9, 17-19=-559/9, 16-17=-595/44
 WEBS 6-22=-264/434, 5-23=-113/299, 5-22=-532/260, 9-13=-269/899, 11-13=-396/196,
 6-20=0/1092, 9-16=-354/319, 18-19=-515/0, 18-20=0/2276, 15-16=-1035/410,
 13-16=-1336/406, 6-8=-2727/343, 20-22=-16/1608, 2-24=-570/18, 24-25=-848/90,
 2-26=0/399, 12-27=-885/67, 27-28=-1108/73, 12-29=-57/1038

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Ceiling dead load (5.0 psf) on member(s). 8-9, 6-8; Wall dead load (5.0psf) on member(s).6-20, 9-16
 - Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 19-20, 17-19, 16-17
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 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.
 - ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



LOAD CASE(S) Standard
 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)

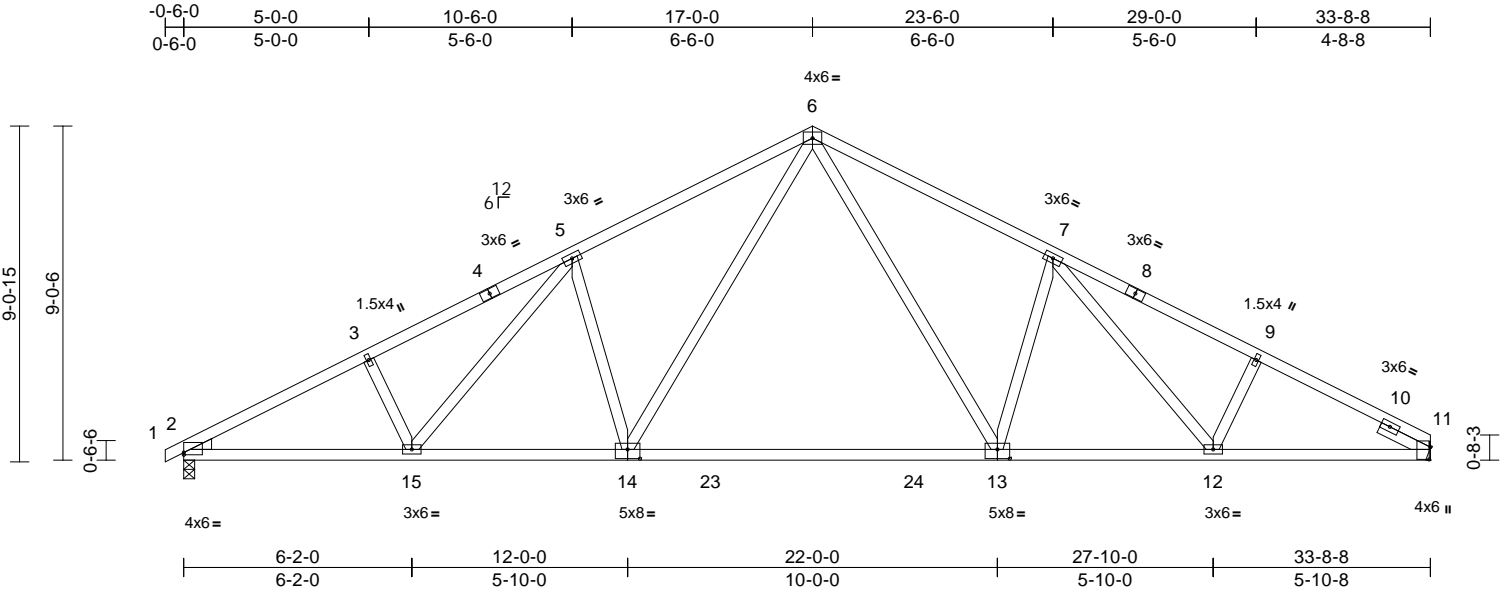


Job Belhaven DEF	Truss A02	Truss Type Common	Qty 5	Ply 1	Belhaven DEF Job Reference (optional)	I61952852
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84 Components (Dunn, NC), Dunn, NC - 28334,

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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	0.73	Vert(LL)	-0.36	13-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.65	13-14	>622	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.09	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								Weight: 184 lb FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 *Except*
15-3,14-5,13-7,12-9:2x4 SP No.3
WEDGE Left: 2x4 SP No.3
SLIDER Right 2x4 SP No.3 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-6-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-1-1 oc bracing.

REACTIONS (size) 2=0-3-8, 11= Mechanical
Max Horiz 2=153 (LC 12)
Max Uplift 2=-169 (LC 12), 11=-156 (LC 13)
Max Grav 2=1379 (LC 1), 11=1348 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/13, 2-3=-2443/602, 3-5=-2323/637,
5-6=-1986/630, 6-7=-1968/626,
7-9=-2200/612, 9-11=-2304/577
BOT CHORD 2-15=-475/2113, 12-15=-336/1826,
11-12=-445/1993
WEBS 6-14=-214/810, 6-13=-206/782,
3-15=-225/170, 5-15=-111/339,
5-14=-525/299, 7-13=-494/292,
7-12=-90/245, 9-12=-168/149

- 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 2 SP No.1 .
 - 6) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 169 lb uplift at joint 2 and 156 lb uplift at joint 11.
 - 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



November 14, 2023

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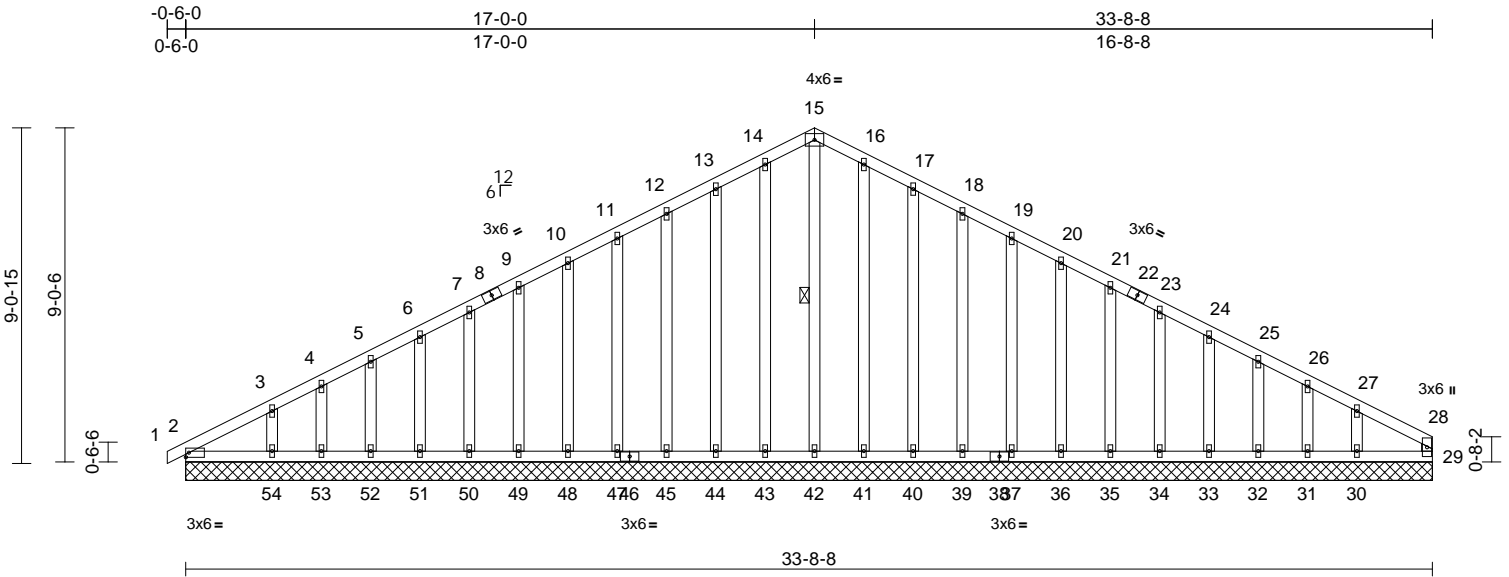
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job Belhaven DEF	Truss A02E	Truss Type Common Supported Gable	Qty 1	Ply 1	Belhaven DEF Job Reference (optional)	I61952853
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.72 S Oct 5 2023 Print: 8.720 S Oct 5 2023 MiTek Industries, Inc. Fri Nov 10 10:51:38
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Page: 1



Scale = 1:62.3

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	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	29	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								
											Weight: 267 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2	Max Grav	2=133 (LC 21), 29=91 (LC 22), 30=152 (LC 24), 31=93 (LC 1), 32=110 (LC 24), 33=106 (LC 1), 34=107 (LC 24), 35=107 (LC 1), 36=107 (LC 24), 37=106 (LC 1), 39=107 (LC 1), 40=107 (LC 24), 41=109 (LC 24), 42=167 (LC 13), 43=109 (LC 23), 44=107 (LC 23), 45=107 (LC 1), 47=106 (LC 1), 48=107 (LC 23), 49=107 (LC 1), 50=107 (LC 23), 51=105 (LC 1), 52=113 (LC 23), 53=79 (LC 1), 54=181 (LC 23), 55=133 (LC 21)
BOT CHORD	2x4 SP No.2	WEBS	15-42=170/36, 14-43=82/34, 13-44=81/64, 12-45=80/55, 11-47=80/55, 10-48=80/55, 9-49=80/55, 7-50=80/55, 6-51=80/55, 5-52=83/57, 4-53=65/43, 3-54=125/90, 16-41=82/29, 17-40=81/64, 18-39=80/55, 19-37=80/55, 20-36=80/55, 21-35=80/55, 23-34=80/55, 24-33=80/55, 25-32=82/57, 26-31=71/43, 27-30=111/95
WEBS	2x4 SP No.3	OTHERS	2x4 SP No.3 *Except* 42-15,43-14,44-13,45-12,41-16,40-17,39-18: 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.
WEBS	1 Row at midpt 15-42

REACTIONS (size)

2=33-8-8, 29=33-8-8, 30=33-8-8, 31=33-8-8, 32=33-8-8, 33=33-8-8, 34=33-8-8, 35=33-8-8, 36=33-8-8, 37=33-8-8, 39=33-8-8, 40=33-8-8, 41=33-8-8, 42=33-8-8, 43=33-8-8, 44=33-8-8, 45=33-8-8, 47=33-8-8, 48=33-8-8, 49=33-8-8, 50=33-8-8, 51=33-8-8, 52=33-8-8, 53=33-8-8, 54=33-8-8, 55=33-8-8	Max Horiz	2=155 (LC 12), 55=155 (LC 12)
	Max Uplift	2=-24 (LC 13), 30=-92 (LC 13), 31=-12 (LC 13), 32=-37 (LC 13), 33=-32 (LC 13), 34=-33 (LC 13), 35=-32 (LC 13), 36=-33 (LC 13), 37=-32 (LC 13), 39=-32 (LC 13), 40=-40 (LC 13), 41=-11 (LC 13), 43=-18 (LC 12), 44=-38 (LC 12), 45=-32 (LC 12), 47=-32 (LC 12), 48=-33 (LC 12), 49=-32 (LC 12), 50=-33 (LC 12), 51=-31 (LC 12), 52=-37 (LC 12), 53=-9 (LC 12), 54=-90 (LC 12), 55=-24 (LC 13)

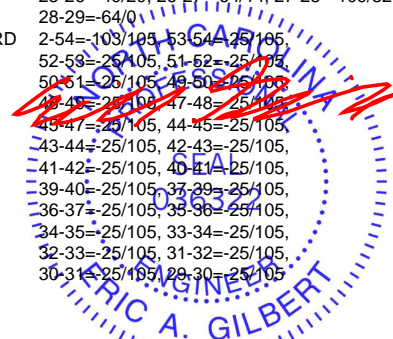
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/13, 2-3=-180/78, 3-4=-130/79, 4-5=-111/91, 5-6=-90/105, 6-7=-71/122, 7-9=-60/138, 9-10=-55/155, 10-11=-66/171, 11-12=-77/187, 12-13=-88/215, 13-14=-101/250, 14-15=-108/271, 15-16=-108/271, 16-17=-101/250, 17-18=-88/215, 18-19=-77/183, 19-20=-66/152, 20-21=-55/120, 21-23=-44/88, 23-24=-34/56, 24-25=-35/35, 25-26=-49/20, 26-27=-64/14, 27-28=-109/32, 28-29=-64/0
BOT CHORD	2-54=-103/105, 53-54=-25/105, 52-53=-25/105, 51-52=-25/105, 50-51=-25/105, 49-50=-25/105, 48-49=-25/105, 47-48=-25/105, 46-47=-25/105, 44-45=-25/105, 43-44=-25/105, 42-43=-25/105, 41-42=-25/105, 40-41=-25/105, 39-40=-25/105, 37-39=-25/105, 36-37=-25/105, 35-36=-25/105, 34-35=-25/105, 33-34=-25/105, 32-33=-25/105, 31-32=-25/105, 30-31=-25/105, 29-30=-25/105

WEBS

15-42=170/36, 14-43=82/34, 13-44=81/64, 12-45=80/55, 11-47=80/55, 10-48=80/55, 9-49=80/55, 7-50=80/55, 6-51=80/55, 5-52=83/57, 4-53=65/43, 3-54=125/90, 16-41=82/29, 17-40=81/64, 18-39=80/55, 19-37=80/55, 20-36=80/55, 21-35=80/55, 23-34=80/55, 24-33=80/55, 25-32=82/57, 26-31=71/43, 27-30=111/95
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- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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 1.5x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-4-0 oc.



November 14, 2023

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.

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818 Soundside Road
Edenton, NC 27932

Job Belhaven DEF	Truss A02E	Truss Type Common Supported Gable	Qty 1	Ply 1	Belhaven DEF Job Reference (optional)	I61952853
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.72 S Oct 5 2023 Print: 8.720 S Oct 5 2023 MiTek Industries, Inc. Fri Nov 10 10:51:38

Page: 2

ID:zUJThhHmADvdFHgcDPiVbTz6mBt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

- 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.
- 9) All bearings are assumed to be SP No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 2, 18 lb uplift at joint 43, 38 lb uplift at joint 44, 32 lb uplift at joint 45, 32 lb uplift at joint 47, 33 lb uplift at joint 48, 32 lb uplift at joint 49, 33 lb uplift at joint 50, 31 lb uplift at joint 51, 37 lb uplift at joint 52, 9 lb uplift at joint 53, 90 lb uplift at joint 54, 11 lb uplift at joint 41, 40 lb uplift at joint 40, 32 lb uplift at joint 39, 32 lb uplift at joint 37, 33 lb uplift at joint 36, 32 lb uplift at joint 35, 33 lb uplift at joint 34, 32 lb uplift at joint 33, 37 lb uplift at joint 32, 12 lb uplift at joint 31, 92 lb uplift at joint 30 and 24 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	Truss	Truss Type	Qty	Ply	Belhaven DEF
Belhaven DEF	A02M	Common	1	1	Job Reference (optional)

84 Lumber, Mansfield, Ohio

8.720 s Sep 6 2023 MiTek Industries, Inc. Tue Nov 14 09:44:12 2023 Page 2
 ID:n7hJUJ4Dfnqroc056pjCu4z6m?E-GuvwO1BB6N6MzrodthD1oBQZ5K4hYpLybeZUk9yJlSn

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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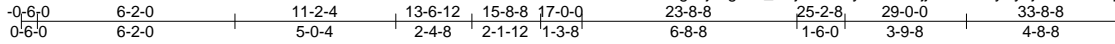


818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Belhaven DEF	
Belhaven DEF	A03M	Roof Special	3	1		I61952855

84 Lumber, Mansfield, Ohio

8.720 s Sep 6 2023 MiTek Industries, Inc. Tue Nov 14 10:11:44 2023 Page 1
 ID:sgNrtjngsL3_8wjTVkZmyz6m4t-ujjS6wAQ3yEy9j47edsRlZrpdGvActr6TfkviPyJISz



Scale = 1:71.9

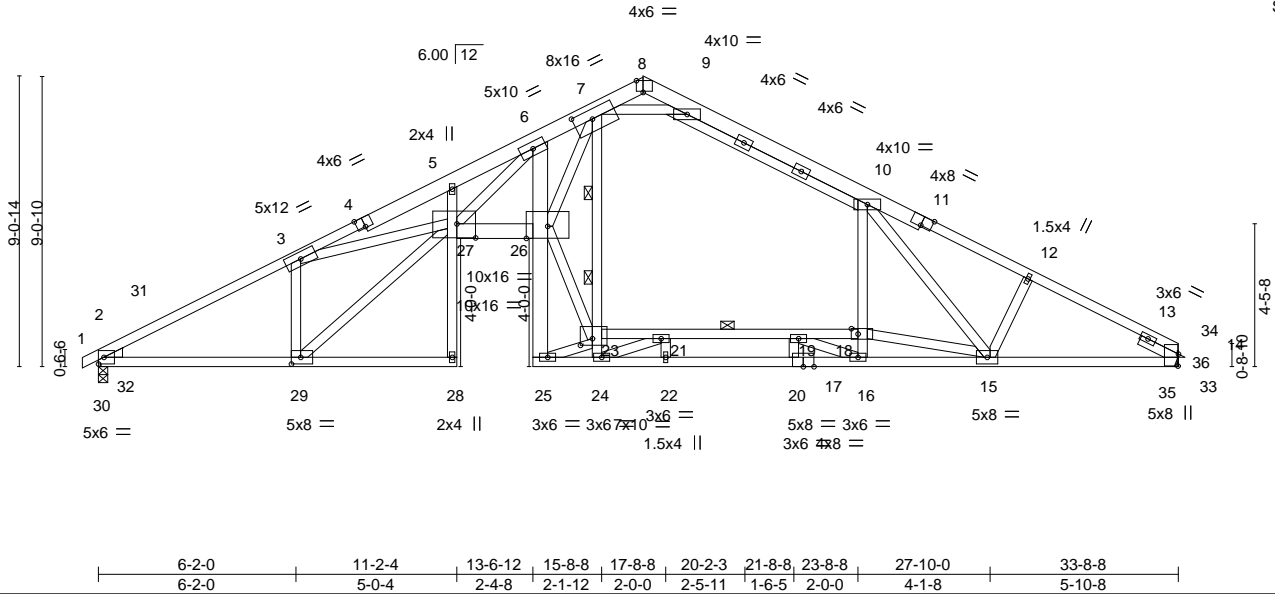


Plate Offsets (X,Y)--	[4:0-3-0,Edge], [7:0-7-1,0-3-8], [8:0-2-8,Edge], [11:0-4-0,Edge], [14:0-4-8,0-0-3], [18:0-2-8,0-2-0], [23:0-4-8,0-2-8], [26:0-8-0,0-4-8], [27:0-7-0,0-5-4], [29:0-3-8,0-2-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.93	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.94	Vert(LL) -0.43 19 >942 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.92	Vert(CT) -1.05 19 >386 180		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Horz(CT) 0.69 14 n/a n/a		
			Attic -0.09 18-23 1100 360	Weight: 262 lb	FT = 20%

LUMBER-
 TOP CHORD 2x6 SP DSS *Except*
 9-10: 2x4 SP No.2, 1-4: 2x4 SP DSS, 11-14: 2x4 SP No.1
 BOT CHORD 2x4 SP No.2 *Except*
 26-27: 2x6 SP DSS, 6-25: 2x6 SP No.2, 17-25: 2x4 SP No.1
 14-17,18-23: 2x4 SP DSS
 WEBS 2x4 SP No.3 *Except*
 27-29,6-27: 2x4 SP No.2, 3-27,23-26,7-26: 2x4 SP No.1
 WEDGE Left: 2x4 SP No.3
 SLIDER Right 2x4 SP No.2 1-6-0

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 1-7-8 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 6-0-0 oc bracing: 25-26,24-25
 2-2-0 oc bracing: 20-22.
 5-1-0 oc bracing: 18-23
 WEBS 2 Rows at 1/3 pts 7-23

REACTIONS. (lb/size) 2=1567/0-3-8 (min. 0-2-7), 14=1604/Mechanical
 Max Horz 2=153(LC 12)
 Max Uplift 2=-36(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-31=-1210/98, 3-31=-2803/308, 3-4=-8034/394, 4-5=-7918/416, 5-6=-7771/455,
 6-7=-4821/237, 7-8=-56/727, 8-9=-149/459, 9-10=-2191/235, 10-11=-2579/259,
 11-12=-2685/245, 12-13=-2786/233, 13-34=-863/2, 14-34=-1183/0
 BOT CHORD 30-32=-104/888, 29-32=-200/2433, 26-27=0/4648, 25-26=-287/27, 6-26=-1540/183,
 24-25=-747/73, 22-24=0/2159, 20-22=0/2159, 17-20=0/2159, 16-17=0/2159,
 15-16=-267/3050, 15-35=-145/2417, 33-35=-106/780, 21-23=0/2748, 19-21=-335/187,
 18-19=-1429/483
 WEBS 3-29=-1904/224, 27-29=-260/3072, 3-27=0/4746, 6-27=-308/3503, 10-15=-246/627,
 23-24=0/1089, 7-23=-2803/11, 16-18=-290/201, 10-18=-343/315, 12-15=-260/176,
 21-22=-2/317, 21-24=-3058/0, 7-9=-2576/339, 15-18=-1304/431, 23-25=-60/929,
 16-19=-458/1332, 23-26=0/4106, 7-26=-2/5530, 2-30=-915/131, 31-32=-289/157,
 30-31=-985/100, 2-32=-103/1021, 14-33=-1018/7, 35-36=0/352, 34-36=0/675,
 14-36=0/776, 33-36=-731/106, 13-36=-2087/229

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 5) Ceiling dead load (5.0 psf) on member(s). 9-10, 7-9; Wall dead load (5.0psf) on member(s).7-23, 10-18
 - 6) Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 21-23, 19-21, 18-19



November 14, 2023

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 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Belhaven DEF
Belhaven DEF	A03M	Roof Special	3	1	Job Reference (optional)

84 Lumber, Mansfield, Ohio

8.720 s Sep 6 2023 MiTek Industries, Inc. Tue Nov 14 10:11:44 2023 Page 2
 ID:sgNrtjngsL3_8wjTVkZmyz6m4t-ujjS6wAQ3yEy9j47edsRIZrpdGvActr6TfkviPyJISz

NOTES-

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 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.
- 10) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard

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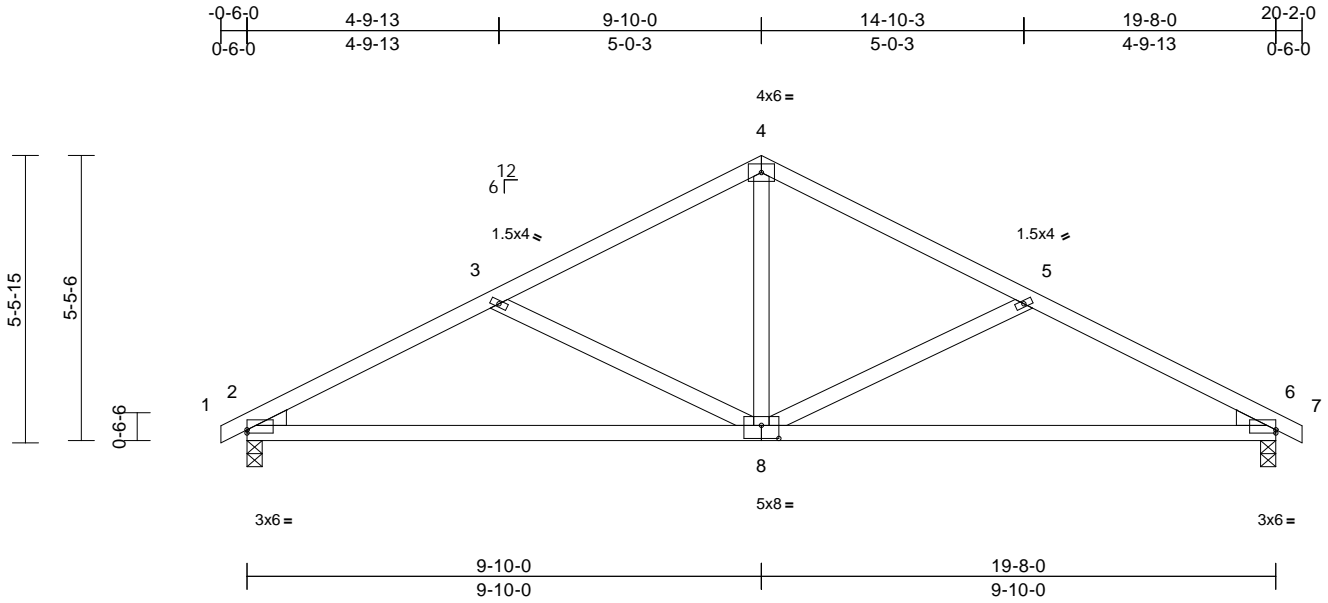
818 Soundside Road
 Edenton, NC 27932

Job Belhaven DEF	Truss B01	Truss Type Common	Qty 1	Ply 1	Belhaven DEF Job Reference (optional)	I61952856
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.72 S Oct 5 2023 Print: 8.720 S Oct 5 2023 MiTek Industries, Inc. Fri Nov 10 10:51:40
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Page: 1



Scale = 1:44
Plate Offsets (X, Y): [2:Edge,0-0-12], [6:Edge,0-0-12], [8:0-4-0,0-3-0]

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	0.31	Vert(LL)	-0.14	8-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.29	8-14	>807	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 89 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 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 5-0-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=-86 (LC 13)
Max Uplift 2=-102 (LC 12), 6=-102 (LC 13)
Max Grav 2=817 (LC 1), 6=817 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/13, 2-3=-1294/363, 3-4=-963/259, 4-5=-963/259, 5-6=-1294/363, 6-7=0/13
BOT CHORD 2-6=-250/1107
WEBS 4-8=-65/551, 3-8=-367/218, 5-8=-367/218

- 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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 102 lb uplift at joint 2 and 102 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



November 14, 2023

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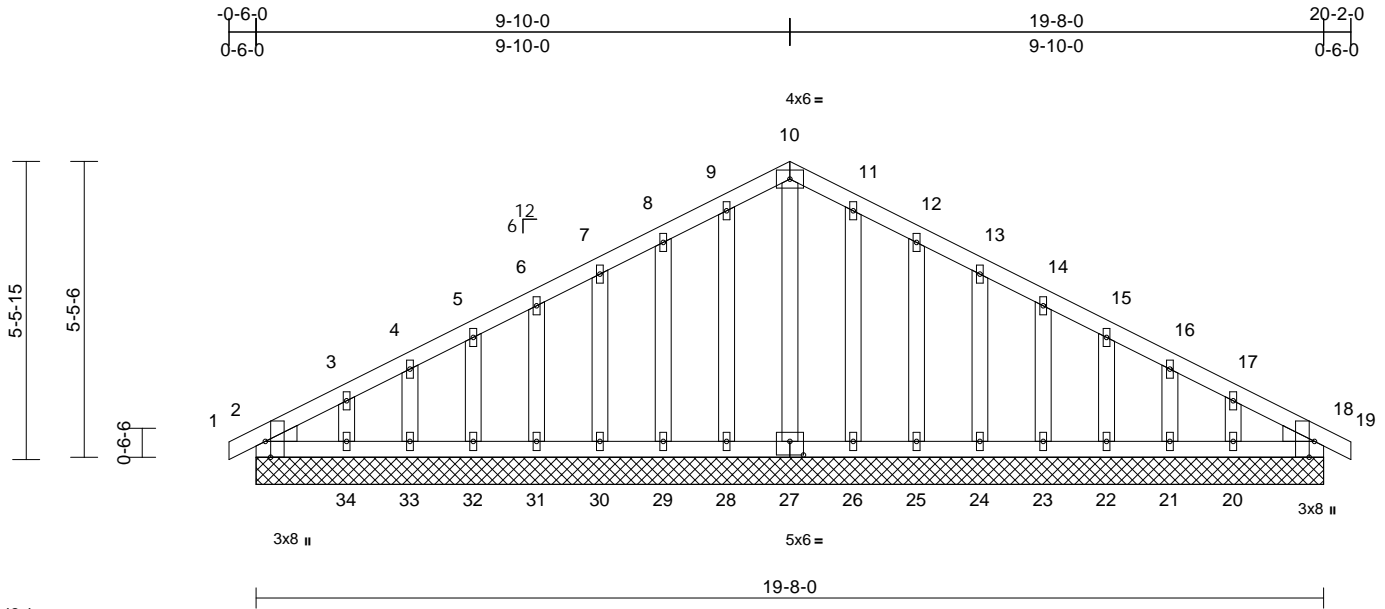
Job Belhaven DEF	Truss B01E	Truss Type Common Supported Gable	Qty 1	Ply 1	Belhaven DEF Job Reference (optional)	161952857
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.72 E Oct 5 2023 Print: 8.720 E Oct 5 2023 MiTek Industries, Inc. Tue Nov 14 10:13:34

Page: 1

ID:NNeKZ5kT1VCcVfbODU52uz6mJ1-gtM1CXVQ9I5LmDVG5kqEDmPqlcgCNRkmmOja1yJIRF



Scale = 1:42.4
Plate Offsets (X, Y): [2:0-3-8,Edge], [18:0-3-8,Edge], [27:0-3-0,0-3-0]

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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	18	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 126 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

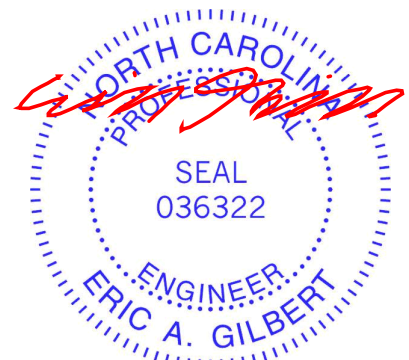
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS All bearings 19-8-0.
(lb) - Max Horiz 2=86 (LC 12)
Max Uplift All uplift 100 (lb) or less at joint(s) 2, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34
Max Grav All reactions 250 (lb) or less at joint (s) 2, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- 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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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 1.5x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-2-0 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 2, 28, 29, 30, 31, 32, 33, 34, 26, 25, 24, 23, 22, 21, 20.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 18.
 - 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



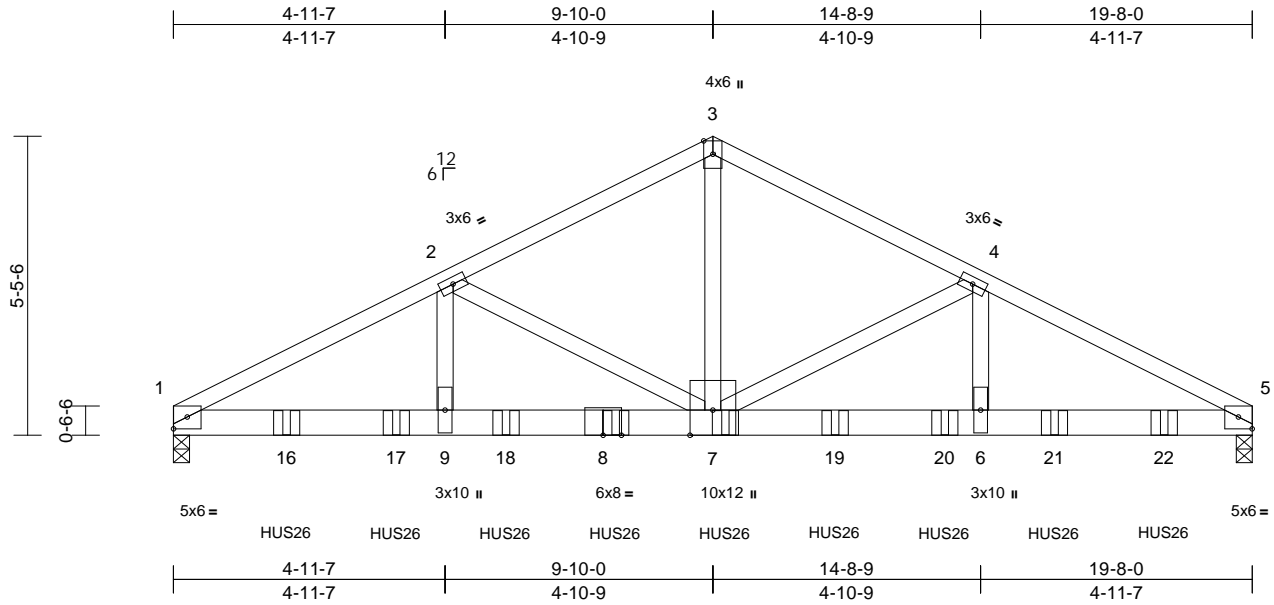
November 14, 2023

Job Belhaven DEF	Truss B01G	Truss Type Common Girder	Qty 1	Ply 3	Belhaven DEF Job Reference (optional)	I61952858
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.72 S Oct 5 2023 Print: 8.720 S Oct 5 2023 MiTek Industries, Inc. Fri Nov 10 10:51:40
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Page: 1



Scale = 1:42
Plate Offsets (X, Y): [1:Edge,0-2-9], [5:Edge,0-2-9]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.11	7-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.22	7-9	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.97	Horz(CT)	0.05	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 324 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP DSS
WEBS 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=0-3-8, 5=0-3-8
Max Horiz 1=-82 (LC 13)
Max Uplift 1=-837 (LC 12), 5=-864 (LC 13)
Max Grav 1=6655 (LC 1), 5=6871 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-11927/1675, 2-3=-8299/1217, 3-4=-8300/1217, 4-5=-11829/1662
BOT CHORD 1-9=-1431/10607, 7-9=-1431/10607, 6-7=-1421/10525, 5-6=-1421/10525
WEBS 3-7=-934/7050, 2-9=-334/3108, 2-7=-3677/583, 4-6=-322/3007, 4-7=-3584/571

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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 DSS .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 837 lb uplift at joint 1 and 864 lb uplift at joint 5.
- 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 HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 18-0-12 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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-5=-60, 10-13=-20
Concentrated Loads (lb)
Vert: 8=-1328 (B), 7=-1328 (B), 16=-1328 (B), 17=-1328 (B), 18=-1328 (B), 19=-1328 (B), 20=-1328 (B), 21=-1328 (B), 22=-1328 (B)

- NOTES**
- 3-ply truss to be connected together with 10d (0.148"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 0-7-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 3-7 2x4 - 1 row at 0-8-0 oc.
 - 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.



November 14, 2023

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

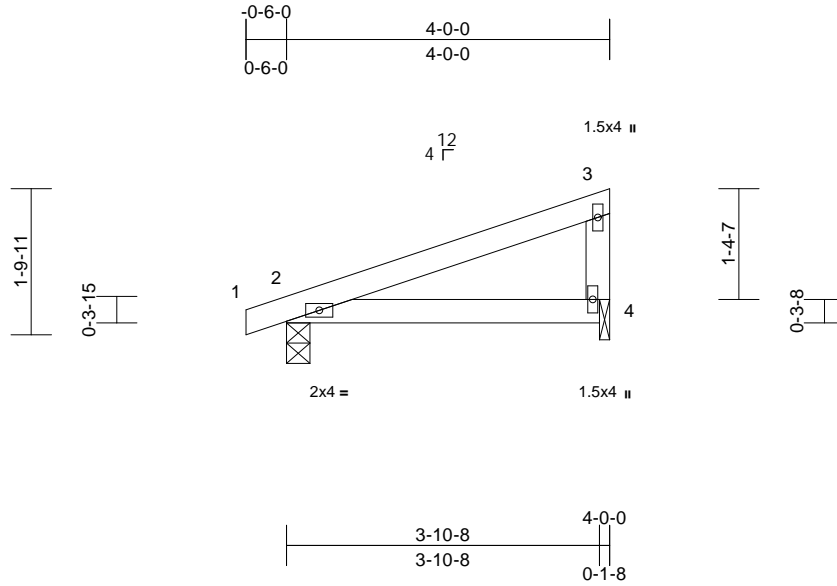
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job Belhaven DEF	Truss M1	Truss Type Monopitch	Qty 6	Ply 1	Belhaven DEF Job Reference (optional)	161952859
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84 Components (Dunn, NC), Dunn, NC - 28334,

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Page: 1



Scale = 1:28.5

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	0.19	Vert(LL)	0.01	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	4-7	>999	180		
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: 15 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 4-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 4=0-1-8

Max Horiz 2=58 (LC 8)
Max Uplift 2=-41 (LC 8), 4=-36 (LC 12)
Max Grav 2=186 (LC 1), 4=152 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

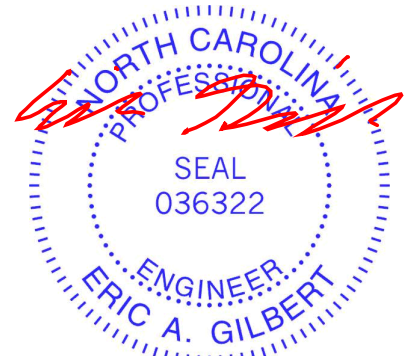
TOP CHORD 1-2=0/9, 2-3=-85/25, 3-4=-99/76
BOT CHORD 2-4=-45/72

NOTES

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust)
Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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) Bearings are assumed to be: Joint 2 SP No.2, Joint 4 SP No.3.
- 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
- 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



November 14, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/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)



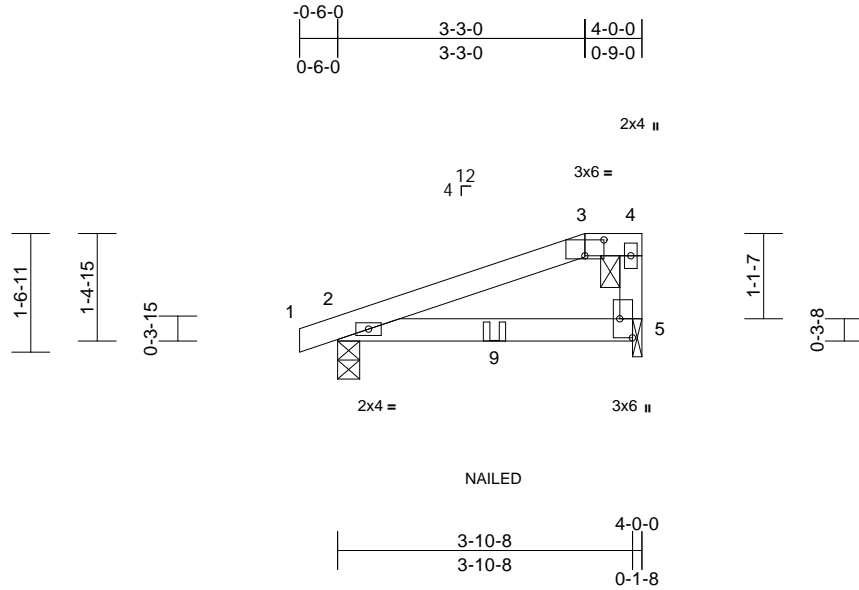
818 Soundside Road
Edenton, NC 27932

Job Belhaven DEF	Truss M1G	Truss Type Half Hip Girder	Qty 1	Ply 1	Belhaven DEF Job Reference (optional)	I61952860
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.72 S Oct 5 2023 Print: 8.720 S Oct 5 2023 MiTek Industries, Inc. Fri Nov 10 10:51:41
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Page: 1



Scale = 1:30.3
Plate Offsets (X, Y): [3:0-3-0,0-2-8], [5:Edge,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	Vert(LL)	0.01	5-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.01	5-8	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MR						Weight: 14 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 4-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 5=0-1-8
Max Horiz 2=51 (LC 8)
Max Uplift 2=-54 (LC 8), 5=-45 (LC 8)
Max Grav 2=209 (LC 1), 5=179 (LC 1)

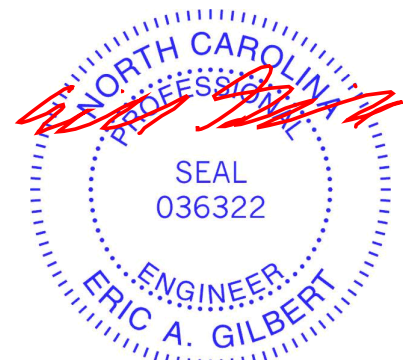
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/9, 2-3=-142/46, 3-4=-124/63, 4-5=-91/75
BOT CHORD 2-5=-63/124

- 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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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.
 - Bearings are assumed to be: Joint 2 SP No.2, Joint 5 SP No.3.

- Bearing at joint(s) 5 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) 5.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. This connection is for uplift only and does not consider lateral forces.
- 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.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-4=-60, 5-6=-20
Concentrated Loads (lb)
Vert: 9=-50 (F)



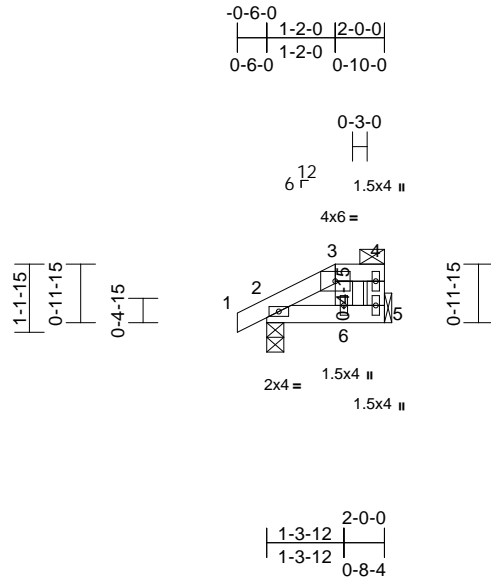
November 14, 2023

Job	Truss	Truss Type	Qty	Ply	Belhaven DEF	I61952861
Belhaven DEF	M2	Half Hip	1	1	Job Reference (optional)	

84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.72 S Oct 5 2023 Print: 8.720 S Oct 5 2023 MiTek Industries, Inc. Fri Nov 10 10:51:41
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Page: 1



Scale = 1:39.2

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	0.02	Vert(LL)	0.00	6-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	6-9	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	2	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
 WEBS 2x4 SP No.3

BRACING
 TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

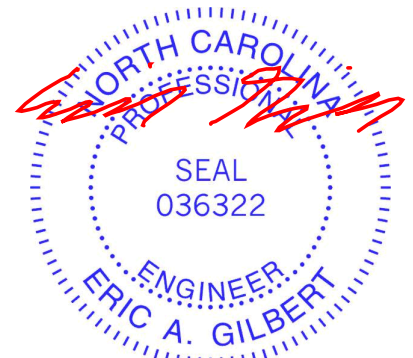
REACTIONS (size) 2=0-3-8, 5= Mechanical
 Max Horiz 2=31 (LC 12)
 Max Uplift 2=-18 (LC 12), 5=-11 (LC 9)
 Max Grav 2=108 (LC 1), 5=70 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/13, 2-3=-22/5, 3-4=0/0, 4-5=-21/17
 BOT CHORD 2-6=-14/17, 5-6=0/0
 WEBS 3-6=-54/44

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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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.
- 6) Bearings are assumed to be: Joint 2 SP No.2 .
- 7) Refer to girder(s) for truss to truss connections.

- 8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5 and 2. This connection is for uplift only and does not consider lateral forces.
 - 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.
 - 10) 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



November 14, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/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)



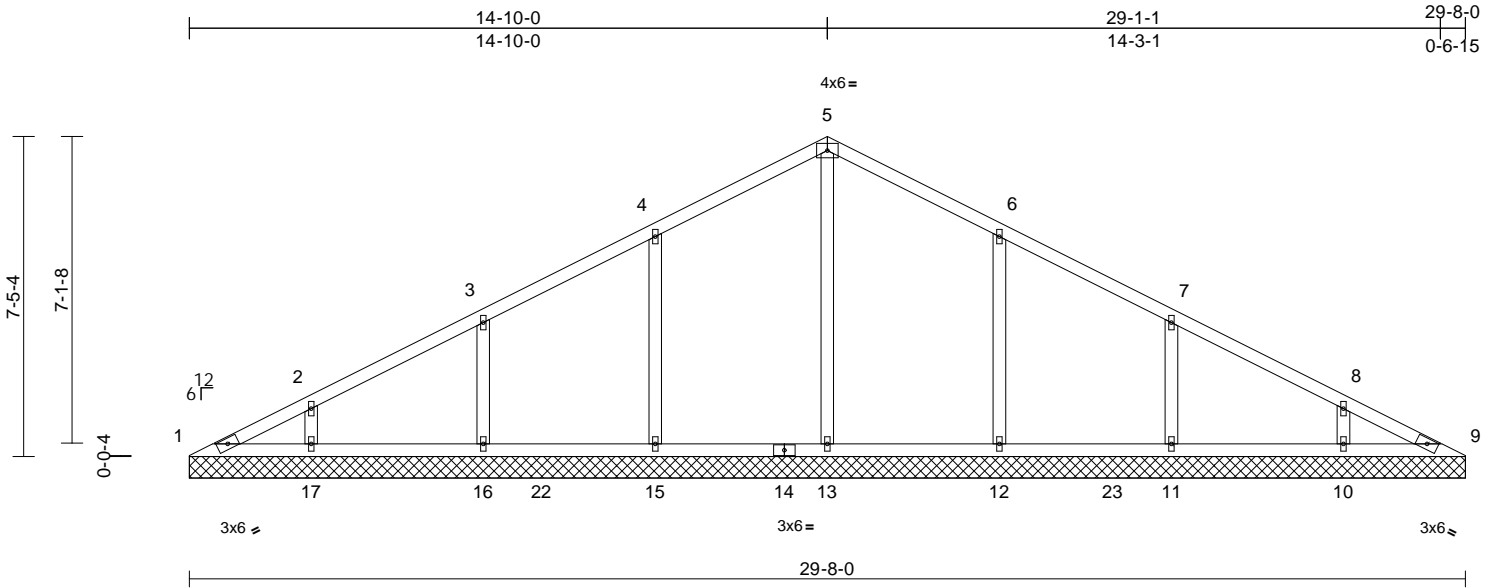
818 Soundside Road
 Edenton, NC 27932

Job Belhaven DEF	Truss V1	Truss Type Valley	Qty 1	Ply 1	Belhaven DEF Job Reference (optional)	I61952862
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.72 S Oct 5 2023 Print: 8.720 S Oct 5 2023 MiTek Industries, Inc. Fri Nov 10 10:51:41
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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	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 127 lb	FT = 20%

LUMBER
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 OTHERS 2x4 SP No.3 *Except* 13-5:2x4 SP No.2

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.

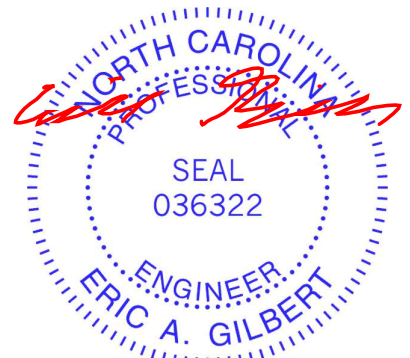
REACTIONS (size) 1=29-8-0, 9=29-8-0, 10=29-8-0, 11=29-8-0, 12=29-8-0, 13=29-8-0, 15=29-8-0, 16=29-8-0, 17=29-8-0
 Max Horiz 1=-121 (LC 17)
 Max Uplift 1=-15 (LC 13), 10=-77 (LC 13), 11=-99 (LC 13), 12=-107 (LC 13), 15=-107 (LC 12), 16=-98 (LC 12), 17=-79 (LC 12)
 Max Grav 1=91 (LC 21), 9=83 (LC 1), 10=304 (LC 1), 11=321 (LC 1), 12=416 (LC 26), 13=399 (LC 22), 15=416 (LC 25), 16=321 (LC 1), 17=304 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-151/73, 2-3=-105/95, 3-4=-69/133, 4-5=-88/205, 5-6=-88/205, 6-7=-61/106, 7-8=-65/55, 8-9=-113/45
 BOT CHORD 1-17=-33/128, 16-17=-33/106, 15-16=-33/106, 13-15=-33/106, 12-13=-33/106, 11-12=-33/106, 10-11=-33/106, 9-10=-33/106
 WEBS 5-13=-210/0, 4-15=-259/173, 3-16=-241/169, 2-17=-220/140, 6-12=-259/173, 7-11=-241/169, 8-10=-220/140

NOTES
 1) 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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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 1.5x4 MT20 unless otherwise indicated.
- 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 BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1, 107 lb uplift at joint 15, 98 lb uplift at joint 16, 79 lb uplift at joint 17, 107 lb uplift at joint 12, 99 lb uplift at joint 11 and 77 lb uplift at joint 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



November 14, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/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)



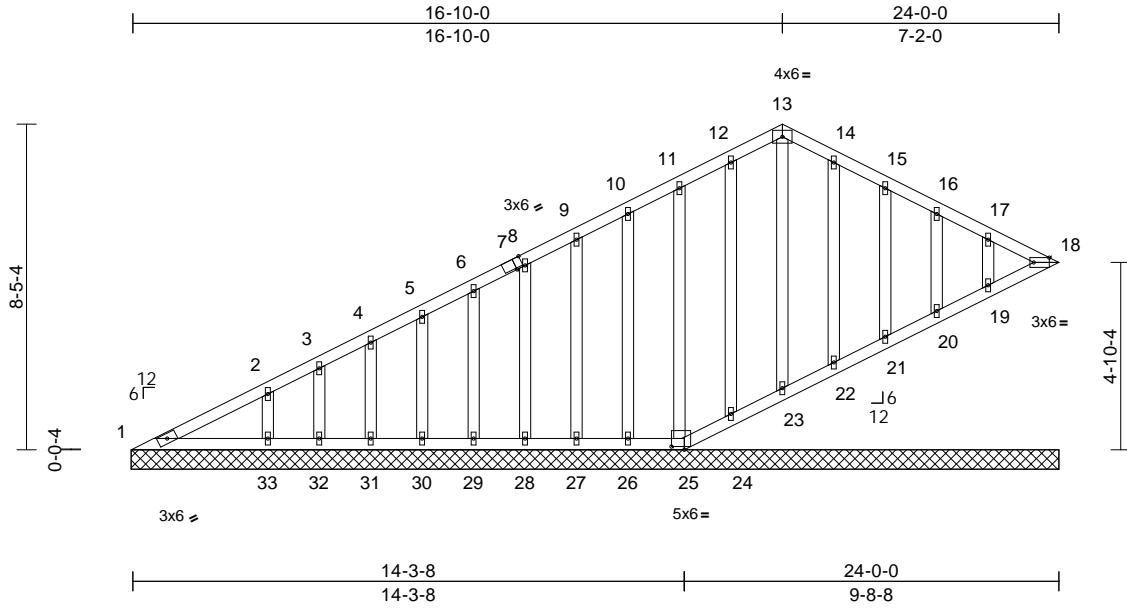
818 Soundside Road
 Edenton, NC 27932

Job Belhaven DEF	Truss V1E	Truss Type Roof Special	Qty 1	Ply 1	Belhaven DEF Job Reference (optional)	161952863
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.72 S Oct 5 2023 Print: 8.720 S Oct 5 2023 MiTek Industries, Inc. Fri Nov 10 10:51:42
ID:bPPTn1oUy1wSU9seSv5L0xz6mLY-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7JzJC7f

Page: 1



Scale = 1:59.7
Plate Offsets (X, Y): [7:0-2-4,Edge], [18:0-4-13,Edge], [25:0-4-0,0-1-0]

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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	18	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 168 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except* 23-13,24-12,25-11:2x4 SP No.2

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.

REACTIONS (size)
1=24-0-8, 18=24-0-8, 19=24-0-8, 20=24-0-8, 21=24-0-8, 22=24-0-8, 23=24-0-8, 24=24-0-8, 25=24-0-8, 26=24-0-8, 27=24-0-8, 28=24-0-8, 29=24-0-8, 30=24-0-8, 31=24-0-8, 32=24-0-8, 33=24-0-8

Max Horiz 1=241 (LC 12)
Max Uplift 18=13 (LC 12), 19=35 (LC 13), 20=31 (LC 13), 21=36 (LC 13), 22=25 (LC 13), 24=26 (LC 12), 25=30 (LC 12), 26=29 (LC 12), 27=33 (LC 12), 28=32 (LC 12), 29=33 (LC 12), 30=32 (LC 12), 31=35 (LC 12), 32=19 (LC 12), 33=65 (LC 12)
Max Grav 1=116 (LC 21), 18=51 (LC 24), 19=147 (LC 24), 20=95 (LC 1), 21=109 (LC 24), 22=111 (LC 1), 23=124 (LC 22), 24=112 (LC 23), 25=114 (LC 23), 26=110 (LC 1), 27=106 (LC 1), 28=107 (LC 23), 29=108 (LC 1), 30=102 (LC 23), 31=127 (LC 1), 32=18 (LC 23), 33=291 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-216/103, 2-3=-169/62, 3-4=-145/65, 4-5=-115/53, 5-6=-86/54, 6-8=-57/55, 8-9=-29/61, 9-10=-8/67, 10-11=-15/78, 11-12=-26/108, 12-13=-36/135, 13-14=-36/135, 14-15=-26/108, 15-16=-14/74, 16-17=-7/58, 17-18=-40/57
BOT CHORD 1-33=-82/136, 32-33=-29/35, 31-32=-29/35, 30-31=-29/35, 29-30=-29/35, 28-29=-29/35, 27-28=-29/35, 26-27=-29/35, 25-26=-30/35, 24-25=-39/44, 23-24=-40/44, 22-23=-40/43, 21-22=-40/43, 20-21=-40/44, 19-20=-38/43, 18-19=-46/44
WEBS 13-23=-97/0, 12-24=-86/44, 11-25=-79/60, 10-26=-80/54, 9-27=-80/55, 8-28=-80/55, 6-29=-80/55, 5-30=-79/55, 4-31=-88/58, 3-32=-37/42, 2-33=-177/91, 14-22=-85/44, 15-21=-81/60, 16-20=-76/54, 17-19=-97/58

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; BCCL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 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.

9) All bearings are assumed to be SP No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 18, 26 lb uplift at joint 24, 30 lb uplift at joint 25, 29 lb uplift at joint 26, 33 lb uplift at joint 27, 32 lb uplift at joint 28, 33 lb uplift at joint 29, 32 lb uplift at joint 30, 35 lb uplift at joint 31, 19 lb uplift at joint 32, 65 lb uplift at joint 33, 25 lb uplift at joint 22, 36 lb uplift at joint 21, 31 lb uplift at joint 20 and 35 lb uplift at joint 19.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 18, 23, 24, 22, 21, 20, 19.
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



November 14, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/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)



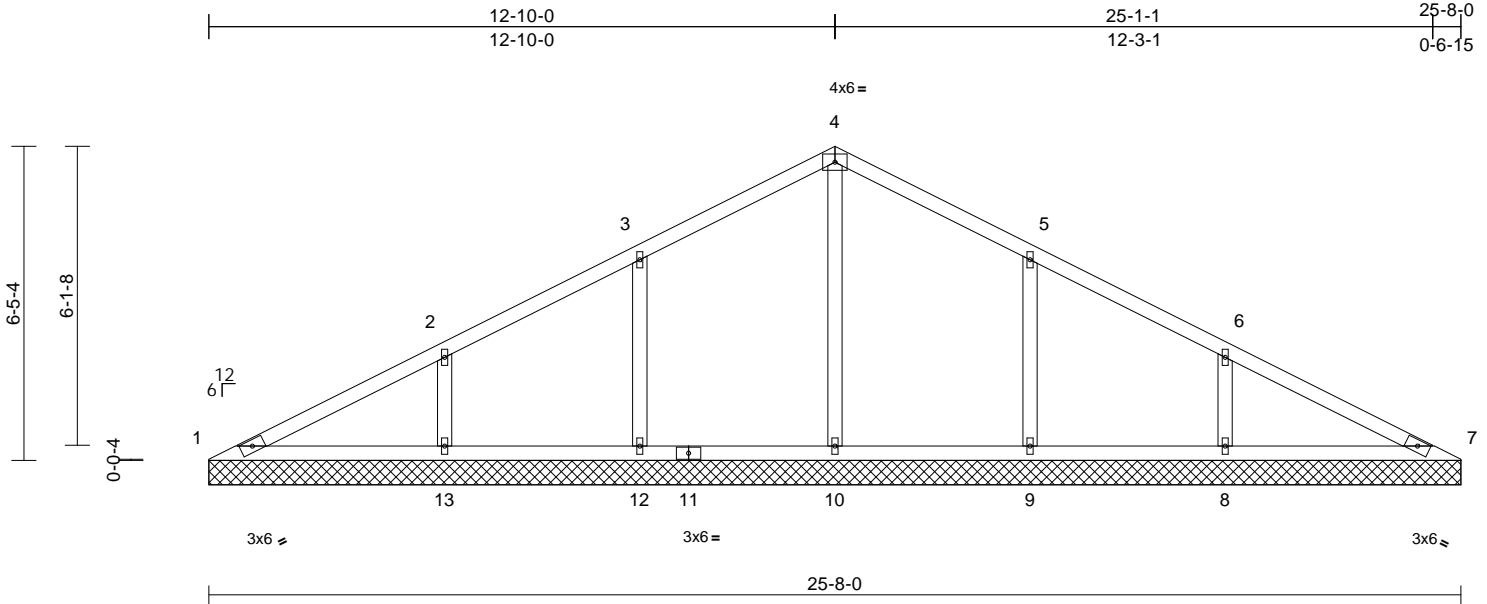
818 Soundside Road
Edenton, NC 27932

Job Belhaven DEF	Truss V2	Truss Type Valley	Qty 1	Ply 1	Belhaven DEF Job Reference (optional)	I61952864
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.72 S Oct 5 2023 Print: 8.720 S Oct 5 2023 MiTek Industries, Inc. Fri Nov 10 10:51:42
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Page: 1



Scale = 1:47.2

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)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 105 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 10-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=25-8-0, 7=25-8-0, 8=25-8-0, 9=25-8-0, 10=25-8-0, 12=25-8-0, 13=25-8-0
Max Horiz 1=-105 (LC 13)
Max Uplift 1=-9 (LC 13), 7=-1 (LC 13), 8=-112 (LC 13), 9=-103 (LC 13), 12=-103 (LC 12), 13=-113 (LC 12)
Max Grav 1=125 (LC 23), 7=125 (LC 24), 8=400 (LC 24), 9=331 (LC 26), 10=498 (LC 19), 12=331 (LC 25), 13=400 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-185/181, 2-3=-32/178, 3-4=0/194, 4-5=0/183, 5-6=0/162, 6-7=-185/176
BOT CHORD 1-13=-103/164, 12-13=-103/115, 10-12=-103/115, 9-10=-103/115, 8-9=-103/115, 7-8=-103/160
WEBS 4-10=-319/0, 3-12=-249/172, 2-13=-272/170, 5-9=-249/172, 6-8=-272/170

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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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 1.5x4 MT20 unless otherwise indicated.
- 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 BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 1, 1 lb uplift at joint 7, 103 lb uplift at joint 12, 113 lb uplift at joint 13, 103 lb uplift at joint 9 and 112 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



November 14, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/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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TRENCO
A MiTek Affiliate

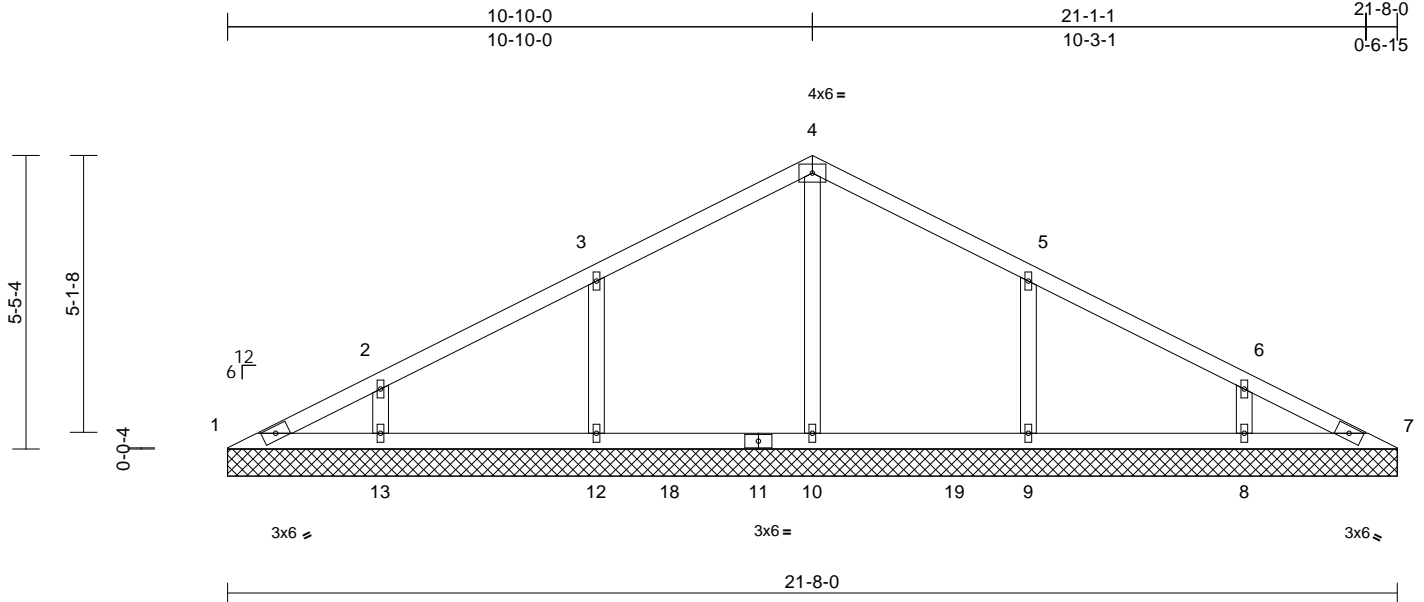
818 Soundside Road
Edenton, NC 27932

Job Belhaven DEF	Truss V3	Truss Type Valley	Qty 1	Ply 1	Belhaven DEF Job Reference (optional)	161952865
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.72 S Oct 5 2023 Print: 8.720 S Oct 5 2023 MiTek Industries, Inc. Fri Nov 10 10:51:42
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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	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 85 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.

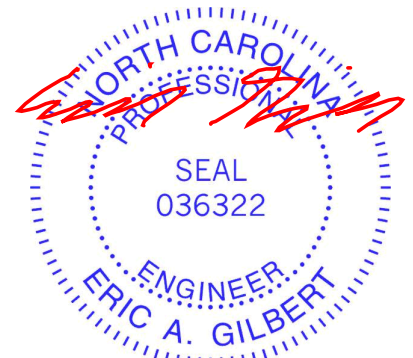
REACTIONS (size) 1=21-8-0, 7=21-8-0, 8=21-8-0, 9=21-8-0, 10=21-8-0, 12=21-8-0, 13=21-8-0
 Max Horiz 1=-88 (LC 17)
 Max Uplift 1=-12 (LC 13), 8=-78 (LC 13), 9=-112 (LC 13), 12=-112 (LC 12), 13=-79 (LC 12)
 Max Grav 1=83 (LC 1), 7=83 (LC 1), 8=298 (LC 1), 9=346 (LC 24), 10=384 (LC 19), 12=346 (LC 23), 13=298 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-124/66, 2-3=-70/91, 3-4=-63/141, 4-5=-63/141, 5-6=-54/63, 6-7=-108/45
 BOT CHORD 1-13=-26/111, 12-13=-26/76, 10-12=-26/76, 9-10=-26/76, 8-9=-26/76, 7-8=-26/88
 WEBS 4-10=-211/0, 3-12=-266/180, 2-13=-213/138, 5-9=-266/180, 6-8=-213/138

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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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 1.5x4 MT20 unless otherwise indicated.
- 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 BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1, 112 lb uplift at joint 12, 79 lb uplift at joint 13, 112 lb uplift at joint 9 and 78 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



November 14, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/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)



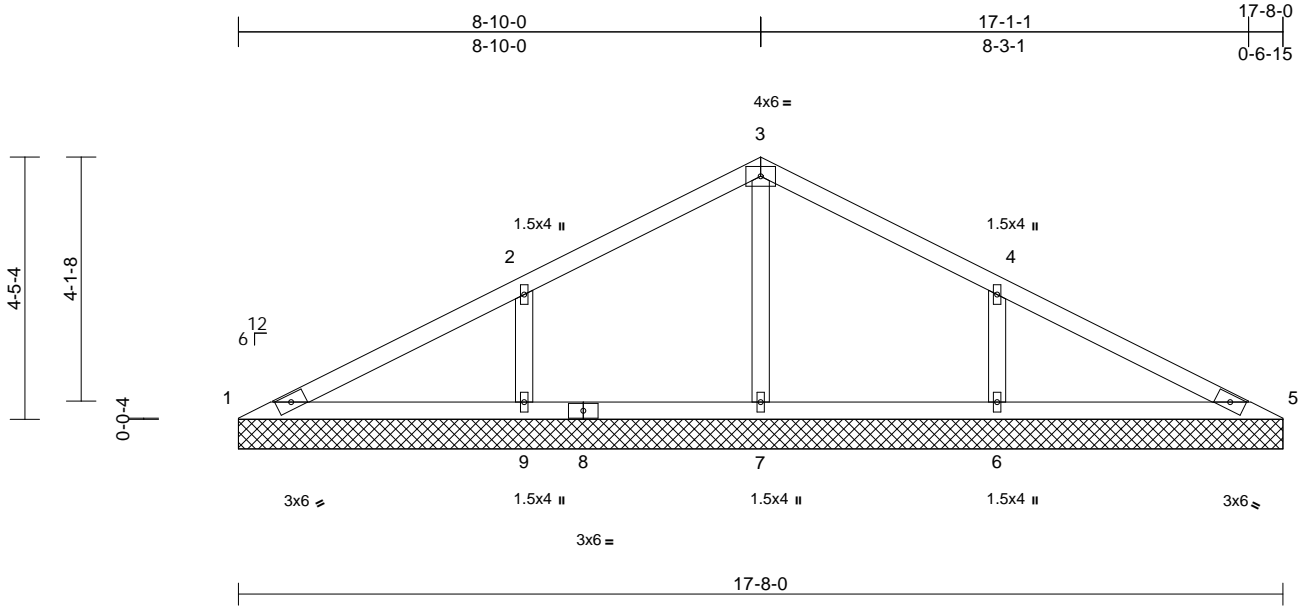
818 Soundside Road
 Edenton, NC 27932

Job Belhaven DEF	Truss V4	Truss Type Valley	Qty 1	Ply 1	Belhaven DEF Job Reference (optional)	I61952866
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.72 S Oct 5 2023 Print: 8.720 S Oct 5 2023 MiTek Industries, Inc. Fri Nov 10 10:51:42
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Page: 1



Scale = 1:39

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	0.19	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 65 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 10-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=17-8-0, 5=17-8-0, 6=17-8-0, 7=17-8-0, 9=17-8-0
1=-71 (LC 13)
Max Horiz 1=-5 (LC 13), 5=-10 (LC 13), 6=-127 (LC 13), 9=-128 (LC 12)
Max Uplift 1=109 (LC 23), 5=109 (LC 24), 6=421 (LC 24), 7=393 (LC 1), 9=421 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-150/223, 2-3=0/201, 3-4=0/201, 4-5=-150/223
BOT CHORD 1-9=-140/128, 7-9=-140/98, 6-7=-140/98, 5-6=-140/128
WEBS 3-7=-339/62, 2-9=-296/183, 4-6=-296/183

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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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 .
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 1, 10 lb uplift at joint 5, 128 lb uplift at joint 9 and 127 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



November 14, 2023

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
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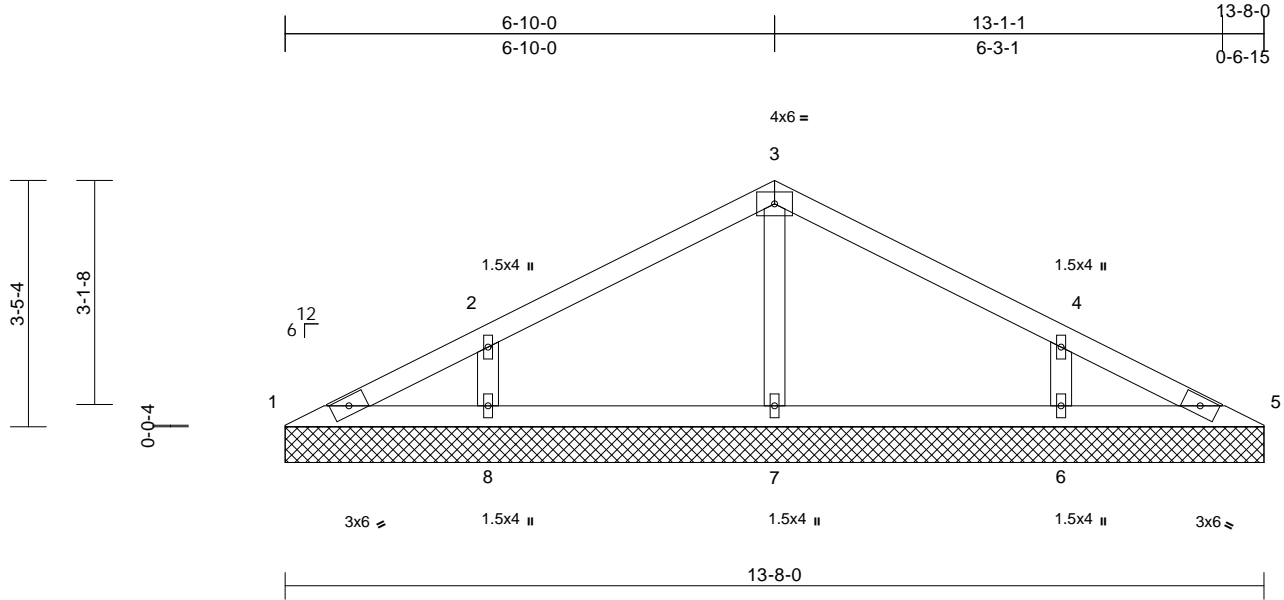
818 Soundside Road
Edenton, NC 27932

Job Belhaven DEF	Truss V5	Truss Type Valley	Qty 1	Ply 1	Belhaven DEF Job Reference (optional)	I61952867
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.72 S Oct 5 2023 Print: 8.720 S Oct 5 2023 MiTek Industries, Inc. Fri Nov 10 10:51:43
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Page: 1



Scale = 1:32.2

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	0.06	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 48 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=13-8-0, 5=13-8-0, 6=13-8-0,
7=13-8-0, 8=13-8-0
Max Horiz 1=-55 (LC 13)
Max Uplift 1=-8 (LC 13), 5=-1 (LC 13), 6=-107 (LC 13), 8=-108 (LC 12)
Max Grav 1=73 (LC 1), 5=73 (LC 1), 6=337 (LC 1), 7=274 (LC 1), 8=337 (LC 1)

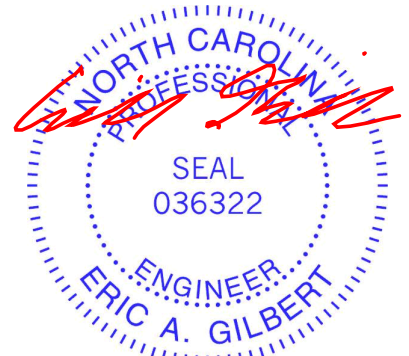
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-88/65, 2-3=-67/90, 3-4=-67/90,
4-5=-85/55
BOT CHORD 1-8=-18/79, 7-8=-18/41, 6-7=-18/41,
5-6=-18/70
WEBS 3-7=-190/35, 2-8=-264/193, 4-6=-264/193

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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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 .
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1, 1 lb uplift at joint 5, 108 lb uplift at joint 8 and 107 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



November 14, 2023

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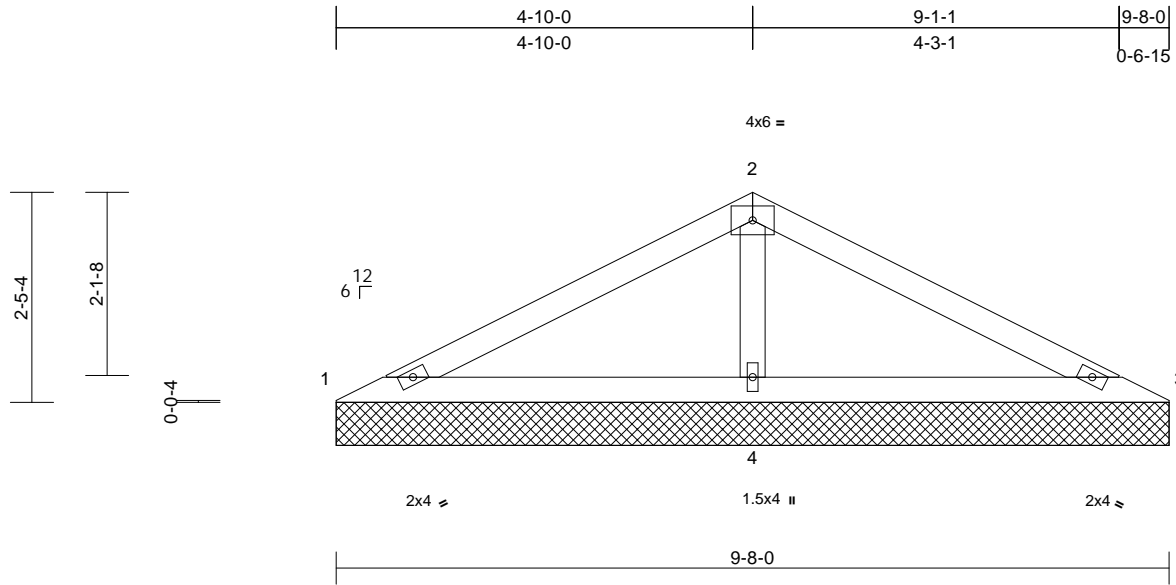
818 Soundside Road
Edenton, NC 27932

Job Belhaven DEF	Truss V6	Truss Type Valley	Qty 1	Ply 1	Belhaven DEF Job Reference (optional)	161952868
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84 Components (Dunn, NC), Dunn, NC - 28334,

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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	0.30	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	0.11	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 31 lb	FT = 20%

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

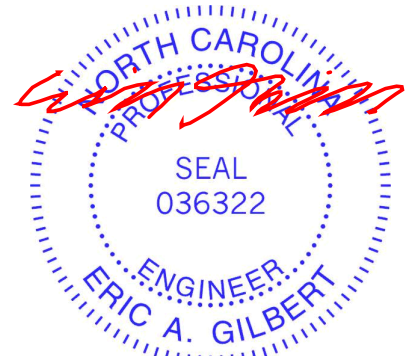
BRACING
TOP CHORD Structural wood sheathing directly applied or 9-8-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=9-8-0, 3=9-8-0, 4=9-8-0
Max Horiz 1=38 (LC 16)
Max Uplift 1=-19 (LC 24), 3=-19 (LC 23), 4=-78 (LC 12)
Max Grav 1=77 (LC 23), 3=77 (LC 24), 4=697 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-142/375, 2-3=-142/375
BOT CHORD 1-4=-303/192, 3-4=-303/192
WEBS 2-4=-511/241

- * 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 .
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 1, 19 lb uplift at joint 3 and 78 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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone;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.



November 14, 2023

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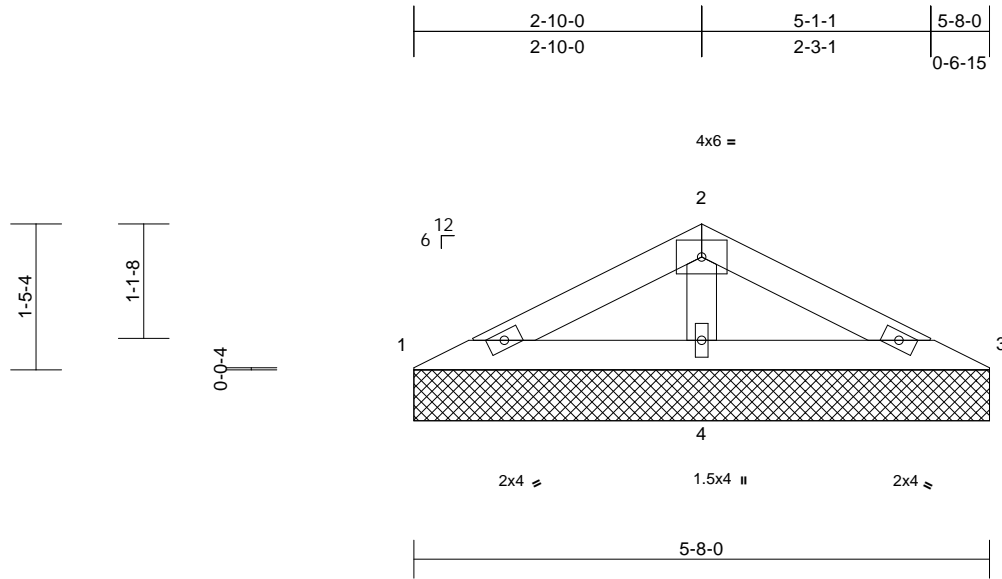
818 Soundside Road
Edenton, NC 27932

Job Belhaven DEF	Truss V7	Truss Type Valley	Qty 1	Ply 1	Belhaven DEF Job Reference (optional)	161952869
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84 Components (Dunn, NC), Dunn, NC - 28334,

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Page: 1



Scale = 1:22.7

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	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 17 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 5-8-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 1=5-8-0, 3=5-8-0, 4=5-8-0
Max Horiz 1=21 (LC 12)
Max Uplift 1=-12 (LC 12), 3=-16 (LC 13), 4=-31 (LC 12)
Max Grav 1=72 (LC 23), 3=72 (LC 24), 4=337 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-77/133, 2-3=-77/133
BOT CHORD 1-4=-102/83, 3-4=-102/83
WEBS 2-4=-207/103

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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1, 16 lb uplift at joint 3 and 31 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



November 14, 2023

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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.

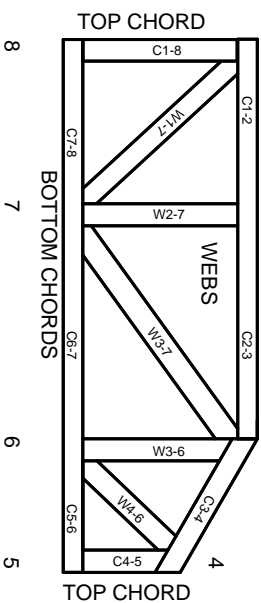
Industry Standards:

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



1 TOP CHORDS
2 JOINT ID TYP.



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.