

RE: Belhaven D,E.F
 Belhaven D.E.F

Trenco
 818 Soundside Rd
 Edenton, NC 27932

Site Information:

Customer: Project Name: Belhaven D,E.F
 Lot/Block: Model:
 Address: Subdivision:
 City: State:

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

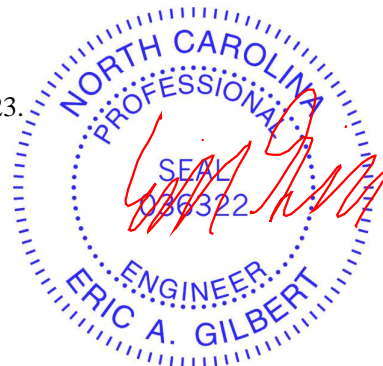
Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.6
 Wind Code: ASCE 7-10 Wind Speed: 130 mph
 Roof Load: 40.0 psf Floor Load: N/A psf

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

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I58903646	A01	6/13/2023	21	I58903666	V7	6/13/2023
2	I58903647	A01E	6/13/2023				
3	I58903648	A01M	6/13/2023				
4	I58903649	A02	6/13/2023				
5	I58903650	A02E	6/13/2023				
6	I58903651	A02M	6/13/2023				
7	I58903652	A03M	6/13/2023				
8	I58903653	B01	6/13/2023				
9	I58903654	B01E	6/13/2023				
10	I58903655	B01G	6/13/2023				
11	I58903656	M1	6/13/2023				
12	I58903657	M1G	6/13/2023				
13	I58903658	M2	6/13/2023				
14	I58903659	V1	6/13/2023				
15	I58903660	V1E	6/13/2023				
16	I58903661	V2	6/13/2023				
17	I58903662	V3	6/13/2023				
18	I58903663	V4	6/13/2023				
19	I58903664	V5	6/13/2023				
20	I58903665	V6	6/13/2023				

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, 2023.
 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.

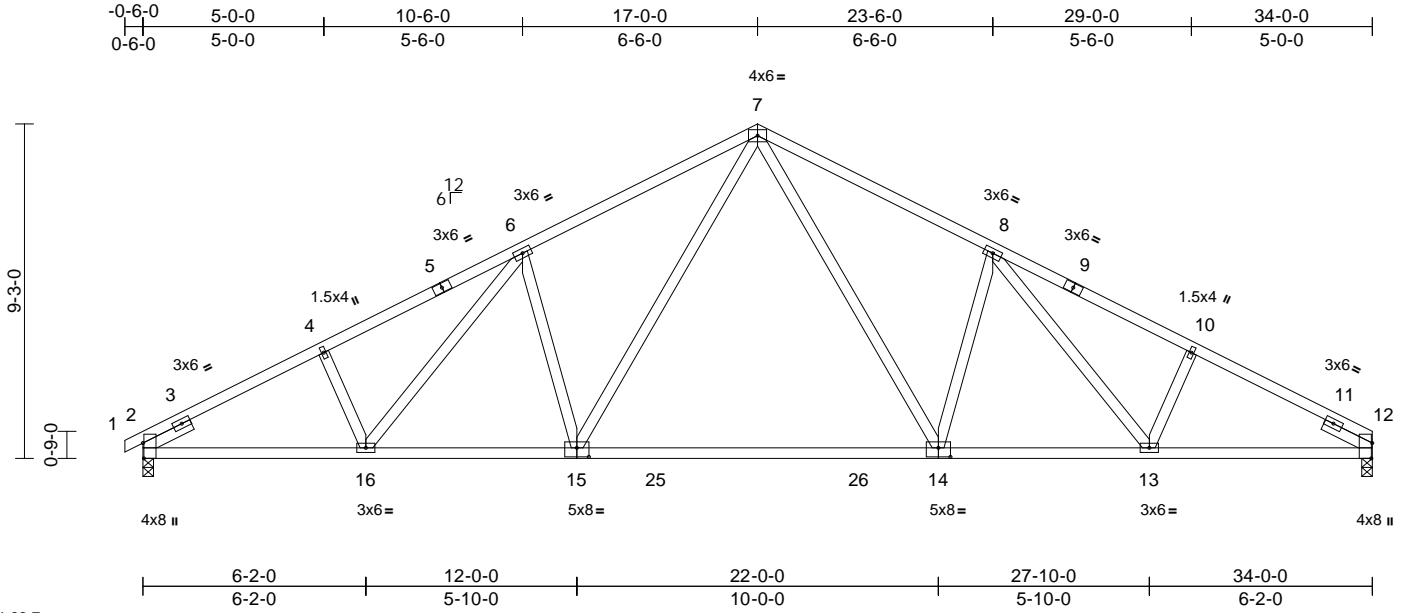


Job Belhaven D,E,F	Truss A01	Truss Type Common	Qty 6	Ply 1	Belhaven D.E.F Job Reference (optional)	158903646
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jun 13 08:12:36
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Page: 1



Scale = 1:63.7
Plate Offsets (X, Y): [2:0-5-1,Edge], [12:0-5-1,Edge], [14:0-4-0,0-3-0], [15:0-4-0,0-3-0]

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	0.92	Vert(LL)	-0.37	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.66	14-15	>620	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.09	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								Weight: 188 lb FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 *Except*
16-4,6-15,8-14,13-10:2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

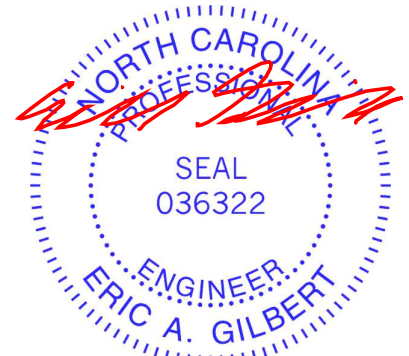
BRACING
TOP CHORD Structural wood sheathing directly applied or 1-11-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-5-11 oc bracing.

REACTIONS (size) 2=0-3-8, 12=0-3-8
Max Horiz 2=150 (LC 12)
Max Uplift 2=-169 (LC 12), 12=-158 (LC 13)
Max Grav 2=1390 (LC 1), 12=1360 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/13, 2-4=-2269/570, 4-6=-2161/610, 6-7=-1951/628, 7-8=-1951/628, 8-10=-2163/610, 10-12=-2271/570
BOT CHORD 2-16=-434/1953, 13-16=-323/1781, 12-13=-434/1955
WEBS 7-15=-209/783, 7-14=-209/784, 4-16=-163/152, 6-16=-93/232, 6-15=-497/294, 8-14=-497/294, 8-13=-93/234, 10-13=-164/152

- 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.1 crushing capacity of 565 psi.
 - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 12. 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.
- 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=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
 - All plates are 3x6 MT20 unless otherwise indicated.



June 13, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

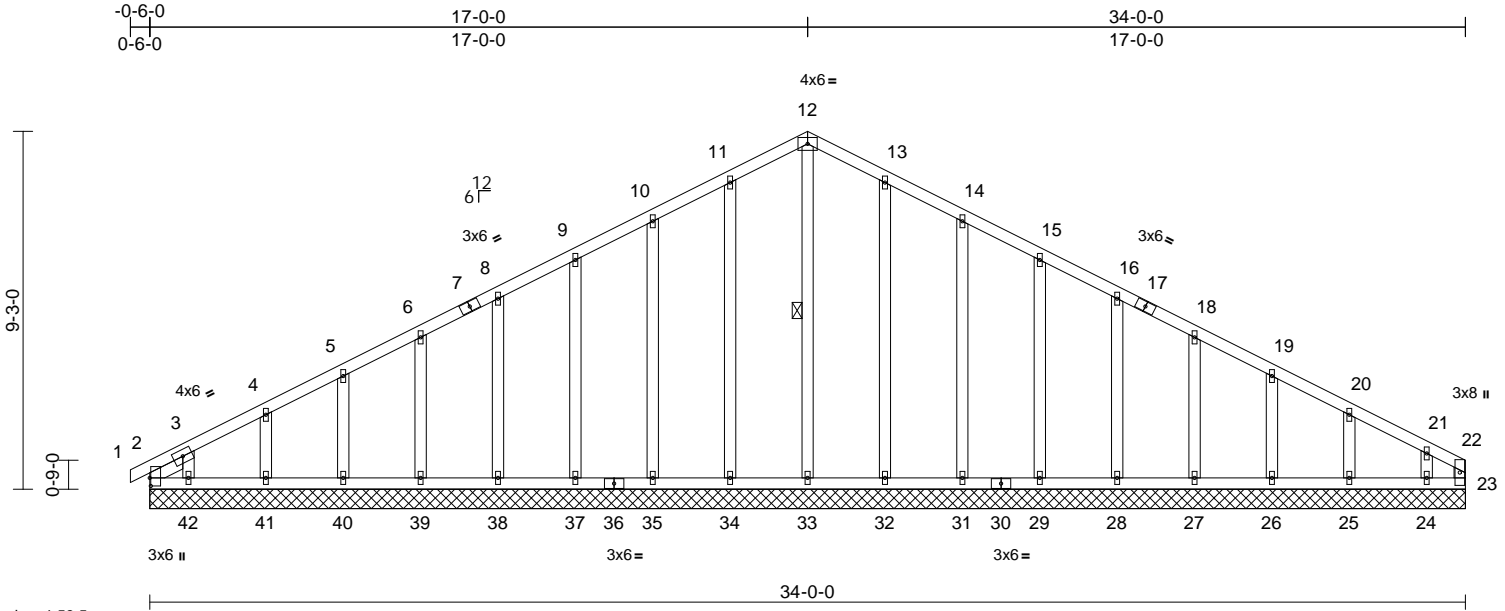
Job Belhaven D,E,F	Truss A01E	Truss Type Common Supported Gable	Qty 1	Ply 1	Belhaven D.E.F Job Reference (optional)	158903647
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jun 13 08:12:38

Page: 1

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Scale = 1:59.5

Plate Offsets (X, Y): [2:0-2-8,0-0-5]

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	0.08	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	0.14	Horz(CT)	0.01	23	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 223 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2	Max Grav	2=155 (LC 12), 23=130 (LC 13), 24=129 (LC 24), 25=166 (LC 1), 26=159 (LC 24), 27=160 (LC 1), 28=160 (LC 24), 29=160 (LC 1), 31=159 (LC 1), 32=168 (LC 24), 33=195 (LC 22), 34=168 (LC 23), 35=159 (LC 1), 37=160 (LC 1), 38=160 (LC 23), 39=160 (LC 1), 40=159 (LC 23), 41=165 (LC 1), 42=130 (LC 19), 43=155 (LC 12)
BOT CHORD	2x4 SP No.2		
WEBS	2x4 SP No.3		
OTHERS	2x4 SP No.3 *Except*		
SLIDER	33-12,34-11,35-10,32-13,31-14:2x4 SP No.2		
BRACING	Left 2x4 SP No.3 -- 1-0-3		
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 12-33		
REACTIONS (size)	2=34-0-0, 23=34-0-0, 24=34-0-0, 25=34-0-0, 26=34-0-0, 27=34-0-0, 28=34-0-0, 29=34-0-0, 31=34-0-0, 32=34-0-0, 33=34-0-0, 34=34-0-0, 35=34-0-0, 37=34-0-0, 38=34-0-0, 39=34-0-0, 40=34-0-0, 41=34-0-0, 42=34-0-0, 43=34-0-0		
Max Horiz	2=152 (LC 12), 43=152 (LC 12)		
Max Uplift	2=-41 (LC 17), 23=-6 (LC 11), 24=-123 (LC 13), 25=-44 (LC 13), 26=-50 (LC 13), 27=-48 (LC 13), 28=-49 (LC 13), 29=-48 (LC 13), 31=-52 (LC 13), 32=-43 (LC 13), 34=-46 (LC 12), 35=-51 (LC 12), 37=-48 (LC 12), 38=-49 (LC 12), 39=-49 (LC 12), 40=-49 (LC 12), 41=-48 (LC 12), 42=-125 (LC 12), 43=-41 (LC 17)		

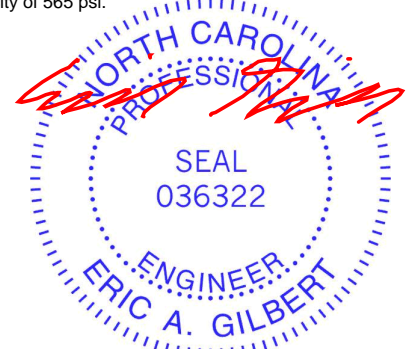
FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/13, 2-3=-82/45, 3-4=-162/80, 4-5=-119/92, 5-6=-87/109, 6-8=-65/134, 8-9=-55/158, 9-10=-71/183, 10-11=-89/222, 11-12=-105/267, 12-13=-105/267, 13-14=-89/222, 14-15=-71/173, 15-16=-55/125, 16-18=-38/78, 18-19=-37/38, 19-20=-57/25, 20-21=-90/30, 21-22=-139/46, 22-23=-87/21
BOT CHORD	2-42=-32/112, 41-42=-32/112, 40-41=-32/112, 39-40=-32/112, 38-39=-32/112, 37-38=-32/112, 35-37=-32/112, 34-35=-32/112, 33-34=-32/112, 32-33=-32/112, 31-32=-32/112, 29-31=-32/112, 28-29=-32/112, 27-28=-32/112, 26-27=-32/112, 25-26=-32/112, 24-25=-32/112, 23-24=-32/112
WEBS	12-33=-166/17, 11-34=-128/75, 10-35=-119/87, 9-37=-120/82, 8-38=-120/83, 6-39=-120/83, 5-40=-119/82, 4-41=-124/85, 3-42=-90/127, 13-32=-128/75, 14-31=-119/87, 15-29=-120/82, 16-28=-120/83, 18-27=-120/83, 19-26=-119/83, 20-25=-124/83, 21-24=-98/104

- 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 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.

NOTES



June 13, 2023

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Belhaven D.E.F	I58903647
Belhaven D,E.F	A01E	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jun 13 08:12:38
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Page: 2

- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 2, 6 lb uplift at joint 23, 46 lb uplift at joint 34, 51 lb uplift at joint 35, 48 lb uplift at joint 37, 49 lb uplift at joint 38, 49 lb uplift at joint 39, 49 lb uplift at joint 40, 48 lb uplift at joint 41, 125 lb uplift at joint 42, 43 lb uplift at joint 32, 52 lb uplift at joint 31, 48 lb uplift at joint 29, 49 lb uplift at joint 28, 48 lb uplift at joint 27, 50 lb uplift at joint 26, 44 lb uplift at joint 25, 123 lb uplift at joint 24 and 41 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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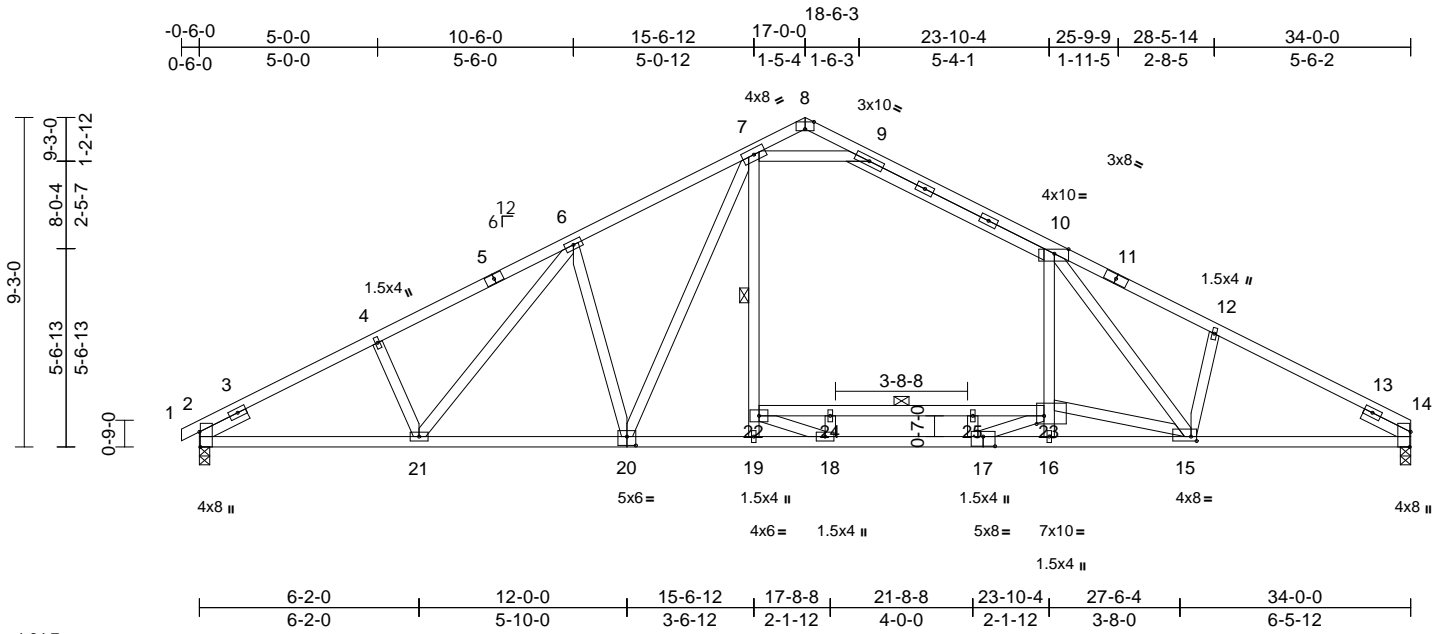
818 Soundside Road
 Edenton, NC 27932

Job Belhaven D.E.F	Truss A01M	Truss Type Common	Qty 1	Ply 1	Belhaven D.E.F Job Reference (optional)	158903648
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84 Components (Dunn, NC), Dunn, NC - 28334,

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Page: 1



Scale = 1:64.7

Plate Offsets (X, Y): [2:0-5-1,Edge], [8:0-3-0,Edge], [10:0-4-12,Edge], [14:0-5-1,Edge], [15:0-1-15,0-1-8], [17:0-4-0,0-3-4], [20:0-3-0,0-3-0], [23:0-2-8,0-2-12]

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	0.94	Vert(LL)	0.36	16-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.67	16-17	>608	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.10	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								Weight: 221 lb FT = 20%

LUMBER
 TOP CHORD 2x4 SP No.2 *Except* 5-8,8-11:2x4 SP DSS
 BOT CHORD 2x4 SP No.1
 WEBS 2x4 SP No.3 *Except*
 20-7,6-21,15-10,7-19,22-23:2x4 SP No.2
 SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3
 -- 1-6-0

BRACING
 TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc
 bracing.
 WEBS 1 Row at midpt 7-19, 22-23

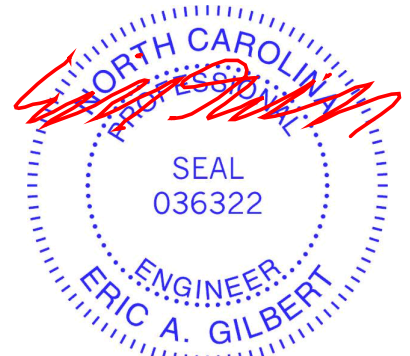
REACTIONS (size) 2=0-3-8, 14=0-3-8
 Max Horiz 2=150 (LC 12)
 Max Uplift 2=-169 (LC 12), 14=-158 (LC 13)
 Max Grav 2=1390 (LC 1), 14=1360 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
 Tension
 TOP CHORD 1-2=0/13, 2-4=-2279/569, 4-6=-2170/609,
 6-7=-1924/616, 7-8=-97/387, 8-9=-88/250,
 9-10=-1566/499, 10-12=-2223/631,
 12-14=-2284/568
 BOT CHORD 2-21=-434/1961, 19-21=-322/1763,
 18-19=-162/1342, 16-18=-926/3208,
 15-16=-889/3107, 14-15=-429/1972
 WEBS 7-20=-200/654, 4-21=-166/164,
 6-21=-83/265, 6-20=-498/251,
 10-15=-352/957, 12-15=-287/196,
 19-22=-21/56, 7-22=-32/377, 16-23=-20/178,
 10-23=-591/342, 22-24=-1143/301,
 24-25=-1143/301, 23-25=-1230/334,
 18-24=-234/92, 18-22=-349/1326,
 17-25=-102/274, 17-23=-1027/538,
 15-23=-2077/797, 7-9=-1774/638

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) All plates are 3x6 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.
- 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) All bearings are assumed to be SP No.1 crushing
 capacity of 565 psi.
- 7) One H2.5A Simpson Strong-Tie connectors
 recommended to connect truss to bearing walls due to
 UPLIFT at jt(s) 2 and 14. 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.
- 9) ATTIC SPACE SHOWN IS DESIGNED AS
 UNINHABITABLE.

LOAD CASE(S) Standard



June 13, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



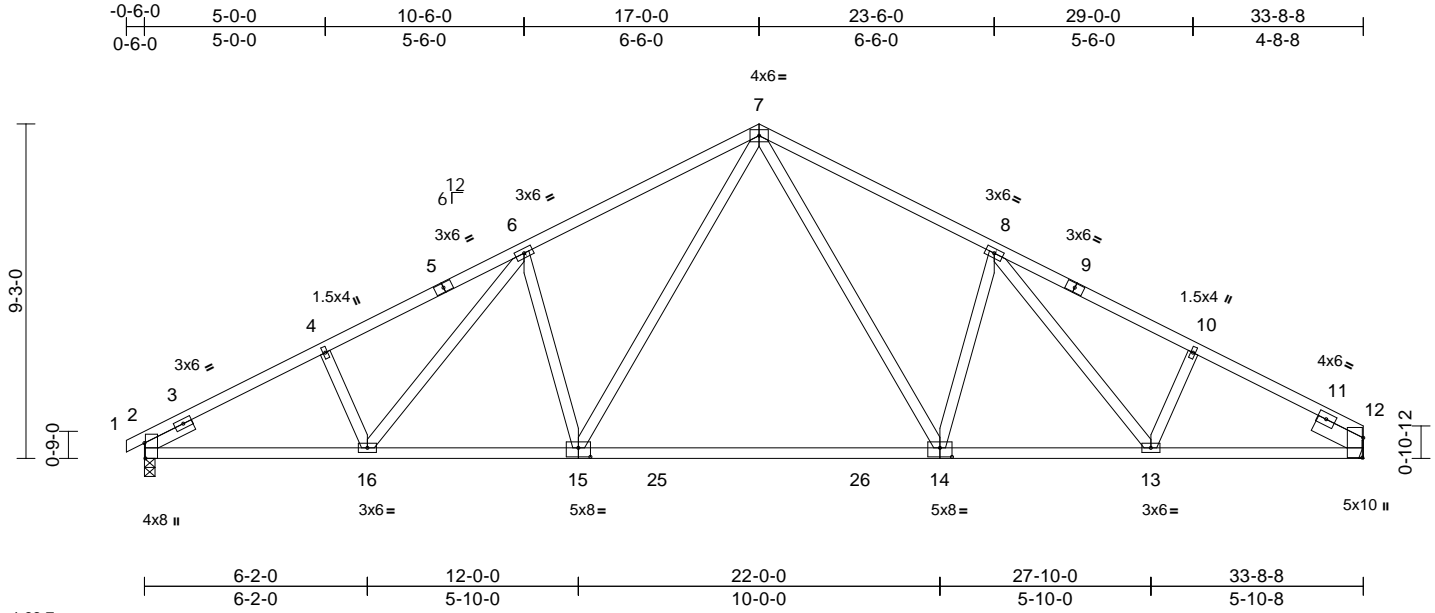
818 Soundside Road
 Edenton, NC 27932

Job Belhaven D,E,F	Truss A02	Truss Type Common	Qty 5	Ply 1	Belhaven D.E.F Job Reference (optional)	158903649
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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	0.91	Vert(LL)	-0.37	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.65	14-15	>619	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.10	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 189 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 9-12:2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 *Except*
16-4,15-6,14-8,13-10:2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x6 SP No.2 -- 1-6-0

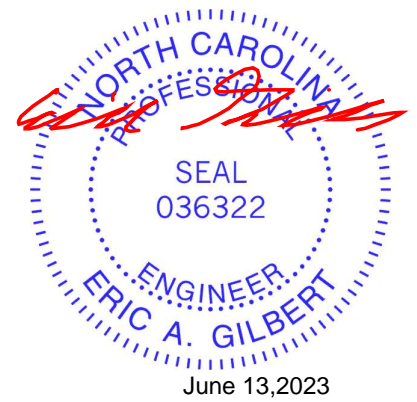
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-1-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS (size) 2=0-3-8, 12= Mechanical
Max Horiz 2=153 (LC 12)
Max Uplift 2=-168 (LC 12), 12=-156 (LC 13)
Max Grav 2=1379 (LC 1), 12=1348 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/13, 2-4=-2247/565, 4-6=-2139/605, 6-7=-1926/622, 7-8=-1909/617, 8-10=-2037/580, 10-12=-2144/541
BOT CHORD 2-16=-435/1934, 13-16=-324/1758, 12-13=-407/1823
WEBS 7-15=-209/783, 7-14=-201/756, 4-16=-164/152, 6-16=-93/234, 6-15=-498/294, 8-14=-467/286, 8-13=-81/146, 10-13=-112/136

- * 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.
 - Bearings are assumed to be: Joint 2 SP No.1 crushing capacity of 565 psi.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 156 lb uplift at joint 12.
 - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. 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.
- 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=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.



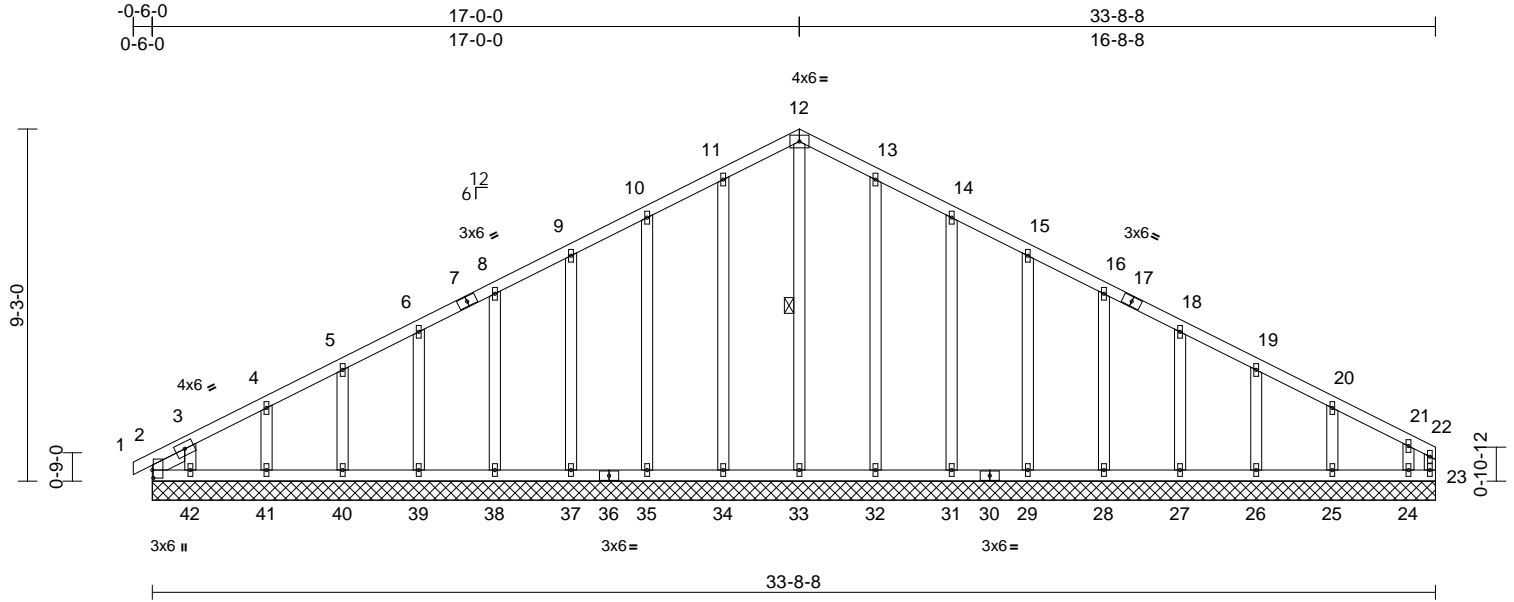
Job Belhaven D,E,F	Truss A02E	Truss Type Common Supported Gable	Qty 1	Ply 1	Belhaven D.E.F Job Reference (optional)	158903650
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jun 13 08:12:40

Page: 1

ID:UJThhHmAdvdFHgDPiVbTz6mBtRfC?PsB70Hq3NSgPqL8w3ulTXbGKWRCdoi7J4zJC?f



Scale = 1:60.5

Plate Offsets (X, Y): [2:0-2-8,0-0-5]

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	0.10	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	0.14	Horz(CT)	0.01	23	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 222 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2	Max Grav	2=154 (LC 12), 23=186 (LC 13), 24=126 (LC 24), 25=166 (LC 1), 26=159 (LC 24), 27=160 (LC 1), 28=160 (LC 24), 29=160 (LC 1), 31=159 (LC 1), 32=168 (LC 24), 33=197 (LC 22), 34=168 (LC 23), 35=159 (LC 1), 37=160 (LC 1), 38=160 (LC 23), 39=160 (LC 1), 40=159 (LC 23), 41=165 (LC 1), 42=131 (LC 19), 43=154 (LC 12)
BOT CHORD	2x4 SP No.2	TOP CHORD	1-2=0/13, 2-3=-82/45, 3-4=-162/83, 4-5=-118/95, 5-6=-88/113, 6-8=-65/138, 8-9=-56/162, 9-10=-72/186, 10-11=-89/225, 11-12=-106/270, 12-13=-106/270, 13-14=-89/225, 14-15=-72/176, 15-16=-56/128, 16-18=-39/81, 18-19=-37/38, 19-20=-55/25, 20-21=-87/29, 21-22=-144/48, 22-23=-116/37
WEBS	2x4 SP No.3	BOT CHORD	2-42=-29/103, 41-42=-29/103, 40-41=-29/103, 39-40=-29/103, 38-39=-29/103, 37-38=-29/103, 35-37=-29/103, 34-35=-29/103, 33-34=-29/103, 32-33=-29/103, 31-32=-29/103, 29-31=-29/103, 28-29=-29/103, 27-28=-29/103, 26-27=-29/103, 25-26=-29/103, 24-25=-29/103, 23-24=-29/103
OTHERS	2x4 SP No.3 *Except*	WEBS	12-33=168/18, 11-34=-128/75, 10-35=-119/87, 9-37=-120/82, 8-38=-120/83, 6-39=-120/83, 5-40=-119/82, 4-41=-124/85, 3-42=-91/127, 13-32=-128/75, 14-31=-119/87, 15-29=-120/82, 16-28=-120/83, 18-27=-120/83, 19-26=-119/82, 20-25=-124/85, 21-24=-96/123
SLIDER	Left 2x4 SP No.3 -- 1-0-3	REACTIONS (size)	2=33-8-8, 23=33-8-8, 24=33-8-8, 25=33-8-8, 26=33-8-8, 27=33-8-8, 28=33-8-8, 29=33-8-8, 31=33-8-8, 32=33-8-8, 33=33-8-8, 34=33-8-8, 35=33-8-8, 37=33-8-8, 38=33-8-8, 39=33-8-8, 40=33-8-8, 41=33-8-8, 42=33-8-8, 43=33-8-8
BRACING		Max Horiz	2=155 (LC 12), 43=155 (LC 12)
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	Max Uplift	2=-43 (LC 17), 23=-23 (LC 11), 24=-175 (LC 13), 25=-46 (LC 13), 26=-49 (LC 13), 27=-48 (LC 13), 28=-49 (LC 13), 29=-48 (LC 13), 31=-52 (LC 13), 32=-43 (LC 13), 34=-46 (LC 12), 35=-51 (LC 12), 37=-48 (LC 12), 38=-49 (LC 12), 39=-49 (LC 12), 40=-49 (LC 12), 41=-48 (LC 12), 42=-125 (LC 12), 43=-43 (LC 17)
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.		

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD

BOT CHORD

WEBS

- 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 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.

NOTES



June 13, 2023

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Belhaven D.E.F	I58903650
Belhaven D,E.F	A02E	Common Supported Gable	1	1	Job Reference (optional)	

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

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Page: 2

- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 2, 23 lb uplift at joint 23, 46 lb uplift at joint 34, 51 lb uplift at joint 35, 48 lb uplift at joint 37, 49 lb uplift at joint 38, 49 lb uplift at joint 39, 49 lb uplift at joint 40, 48 lb uplift at joint 41, 125 lb uplift at joint 42, 43 lb uplift at joint 32, 52 lb uplift at joint 31, 48 lb uplift at joint 29, 49 lb uplift at joint 28, 48 lb uplift at joint 27, 49 lb uplift at joint 26, 46 lb uplift at joint 25, 175 lb uplift at joint 24 and 43 lb uplift at joint 2.
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Belhaven D.E.F	I58903651
Belhaven D.E.F	A02M	Common	1	1	Job Reference (optional)	

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

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Page: 1

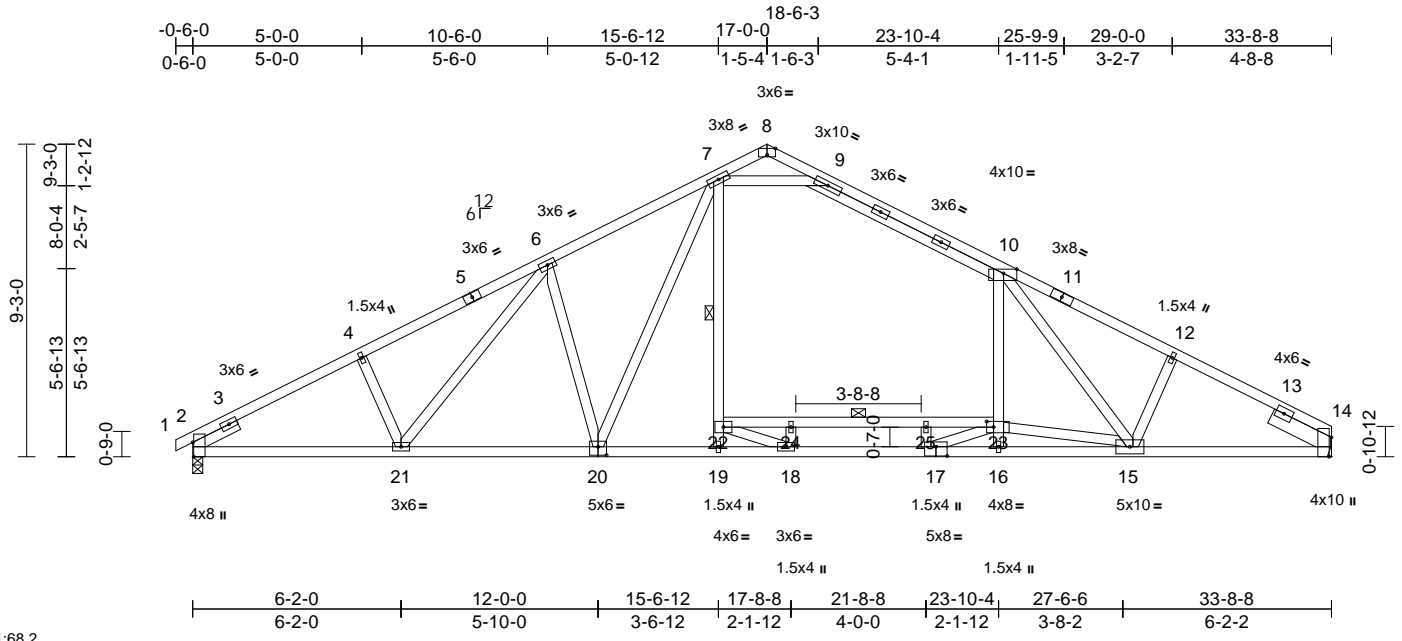


Plate Offsets (X, Y): [2:0-5-1,Edge], [8:0-3-0,Edge], [10:0-4-12,Edge], [14:0-6-13,Edge], [17:0-4-0,0-3-4], [20:0-3-0,0-3-0], [23:0-2-8,0-2-0]

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	0.95	Vert(LL)	0.35	16-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.64	16-17	>630	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.10	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 222 lb	FT = 20%

LUMBER
 TOP CHORD 2x4 SP DSS *Except* 9-10,1-5:2x4 SP No.2, 11-14:2x4 SP No.1
 BOT CHORD 2x4 SP No.1 *Except* 2-20:2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 20-7,6-21,15-10,7-19,10-16,22-23:2x4 SP No.2
 SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x6 SP No.2 -- 2-0-0

BRACING
 TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied or 1-4-12 oc bracing.
 WEBS 1 Row at midpt 7-19, 22-23

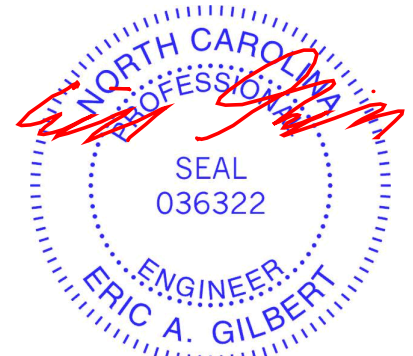
REACTIONS (size) 2=0-3-8, 14= Mechanical
 Max Horiz 2=153 (LC 12)
 Max Uplift 2=168 (LC 12), 14=156 (LC 13)
 Max Grav 2=1379 (LC 1), 14=1348 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/13, 2-4=-2257/564, 4-6=-2148/604, 6-7=-1901/611, 7-8=-98/382, 8-9=-86/240, 9-10=-1546/495, 10-12=-2068/579, 12-14=-2162/549
 BOT CHORD 2-21=-436/1940, 19-21=-324/1743, 18-19=-163/1321, 16-18=-926/3135, 15-16=-888/3018, 14-15=-417/1855
 WEBS 7-20=-201/658, 4-21=-163/163, 6-21=-84/266, 6-20=-501/253, 10-15=-314/802, 12-15=-196/163, 19-22=-21/56, 7-22=-33/367, 16-23=-21/180, 10-23=-566/343, 22-24=-1119/306, 24-25=-1119/306, 23-25=-1204/339, 18-24=-227/93, 17-25=-103/266, 7-9=-1741/632, 17-23=-1000/544, 15-23=-2020/805, 18-22=-353/1297

- 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
- All plates are 3x6 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.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 156 lb uplift at joint 14.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. 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.
- ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard

NOTES



June 13, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



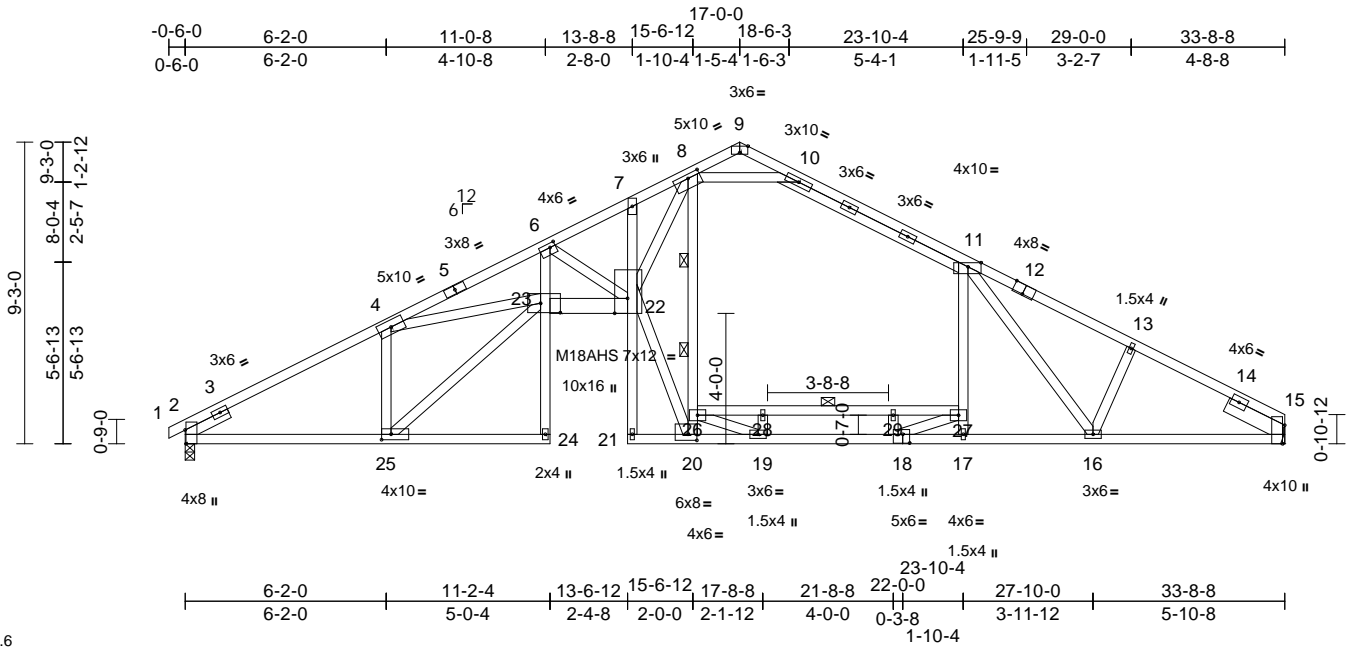
818 Soundside Road
 Edenton, NC 27932

Job Belhaven D.E.F	Truss A03M	Truss Type Roof Special	Qty 3	Ply 1	Belhaven D.E.F Job Reference (optional)	158903652
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84 Components (Dunn, NC), Dunn, NC - 28334,

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Page: 1



Scale = 1:70.6

Plate Offsets (X, Y): [2:0-5-1,Edge], [6:0-2-0,0-1-8], [8:0-4-7,0-1-8], [9:0-3-0,Edge], [11:0-4-12,Edge], [12:0-4-0,Edge], [15:0-6-13,Edge], [18:0-2-8,0-3-4], [20:0-3-4,0-2-4], [22:0-5-8,Edge], [23:0-7-4,0-3-8], [25:0-3-8,0-2-0]

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	0.93	Vert(LL)	0.68	17	>591	240
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-1.30	17-18	>312	180
BCLL	0.0*	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.63	15	n/a	n/a
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS						
									Weight: 240 lb	FT = 20%

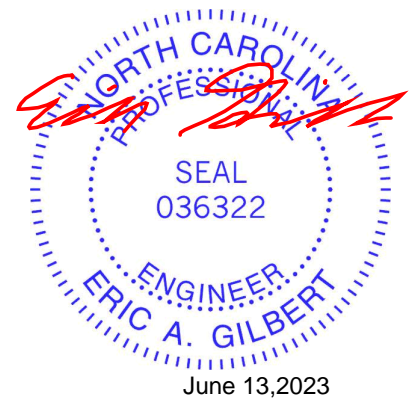
LUMBER
TOP CHORD 2x4 SP DSS *Except* 10-11:2x4 SP No.2, 1-5:2x4 SP No.1
BOT CHORD 2x4 SP No.2 *Except* 23-22:2x6 SP DSS, 21-18,18-15:2x4 SP No.1
WEBS 2x4 SP No.3 *Except* 25-23,20-22,16-11,26-27:2x4 SP No.2, 23-4,22-8,8-20:2x4 SP No.1, 11-17:2x4 SP DSS
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x6 SP No.2 -- 2-0-0

WEBS
4-25=-1622/435, 23-25=-537/2491, 4-23=-660/4147, 6-22=-3148/670, 20-22=-478/3371, 8-22=-685/4642, 11-16=-190/483, 20-26=-2780/369, 8-26=-2634/366, 17-27=-142/112, 11-27=-170/183, 13-16=-268/191, 26-28=-443/32, 28-29=-443/32, 27-29=-492/61, 19-28=-223/87, 19-26=-131/718, 18-29=-91/250, 18-27=-345/266, 8-10=-1988/752

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) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.
LOAD CASE(S) Standard

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 26-27
WEBS 2 Rows at 1/3 pts 8-20
REACTIONS (size) 2=0-3-8, 15= Mechanical
Max Horiz 2=153 (LC 12)
Max Uplift 2=-168 (LC 12), 15=-156 (LC 13)
Max Grav 2=1379 (LC 1), 15=1348 (LC 1)
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/13, 2-4=-2247/552, 4-6=-6800/1403, 6-7=-3816/852, 7-8=-3683/840, 8-9=-169/541, 9-10=-221/553, 10-11=-1596/515, 11-13=-2130/602, 13-15=-2200/564
BOT CHORD 2-25=-411/1929, 24-25=-10/68, 23-24=0/102, 6-23=-509/2923, 22-23=-1045/5986, 21-22=-175/77, 7-22=-212/268, 20-21=-4/42, 19-20=-127/1236, 17-19=-499/2144, 16-17=-256/1569, 15-16=-431/1890

- 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
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 156 lb uplift at joint 15.
 - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.

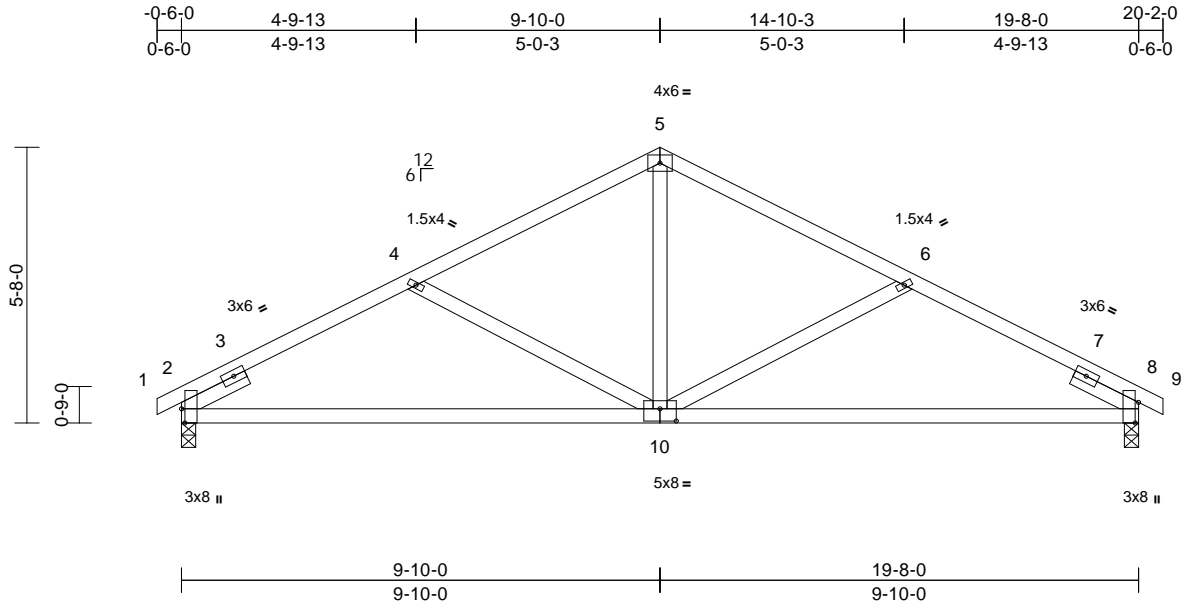


Job Belhaven D,E,F	Truss B01	Truss Type Common	Qty 1	Ply 1	Belhaven D.E.F Job Reference (optional)	158903653
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jun 13 08:12:42
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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	0.34	Vert(LL)	-0.12	10-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.25	10-17	>957	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 93 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

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

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

LOAD CASE(S) Standard

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=86 (LC 12)
Max Uplift 2=-101 (LC 12), 8=-101 (LC 13)
Max Grav 2=817 (LC 1), 8=817 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/13, 2-4=-1181/342, 4-5=-920/257, 5-6=-920/257, 6-8=-1181/342, 8-9=0/13
BOT CHORD 2-8=-226/1013
WEBS 5-10=-59/511, 4-10=-316/195, 6-10=-316/195

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=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) 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.



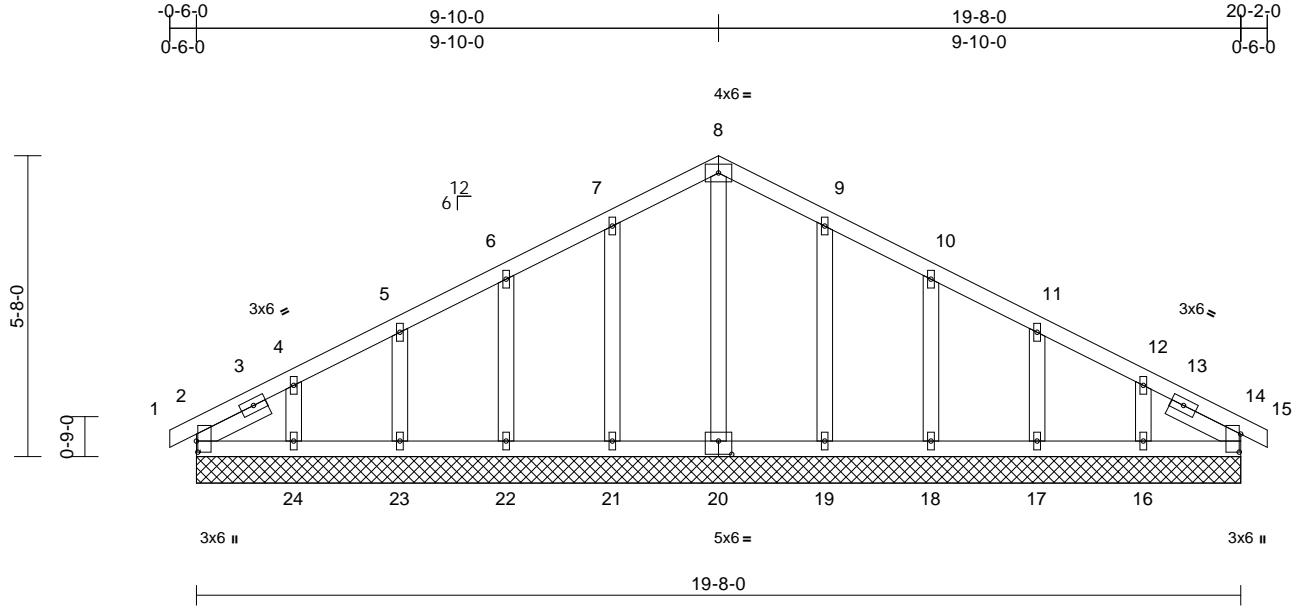
June 13, 2023

Job Belhaven D,E,F	Truss B01E	Truss Type Common Supported Gable	Qty 1	Ply 1	Belhaven D.E.F Job Reference (optional)	158903654
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jun 13 08:12:42
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Page: 1



Scale = 1:43.4

Plate Offsets (X, Y): [2:0-2-8,0,0-5], [14:0-4-1,0,0-5], [20:0-3-0,0,3-0]

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	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 107 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

WEBS 8-20=-106/0, 7-21=-129/82, 6-22=-118/84, 5-23=-122/81, 4-24=-116/92, 9-19=-129/82, 10-18=-118/84, 11-17=-122/81, 12-16=-116/93

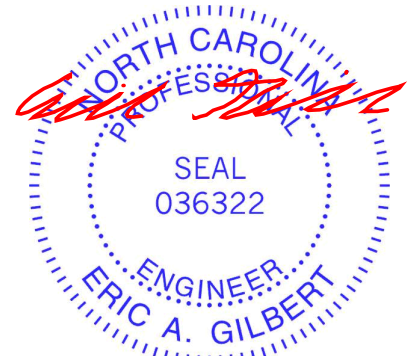
LOAD CASE(S) Standard

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=19-8-0, 14=19-8-0, 16=19-8-0, 17=19-8-0, 18=19-8-0, 19=19-8-0, 20=19-8-0, 21=19-8-0, 22=19-8-0, 23=19-8-0, 24=19-8-0, 25=19-8-0, 29=19-8-0
Max Horiz 2=86 (LC 12), 25=86 (LC 12)
Max Uplift 2=-16 (LC 13), 16=-74 (LC 13), 17=-44 (LC 13), 18=-51 (LC 13), 19=50 (LC 13), 21=50 (LC 12), 22=-51 (LC 12), 23=-42 (LC 12), 24=-84 (LC 12), 25=-16 (LC 13)
Max Grav 2=106 (LC 1), 14=106 (LC 1), 16=161 (LC 24), 17=160 (LC 1), 18=159 (LC 1), 19=169 (LC 24), 20=146 (LC 22), 21=169 (LC 23), 22=159 (LC 1), 23=160 (LC 1), 24=161 (LC 23), 25=106 (LC 1), 29=106 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/13, 2-4=-97/47, 4-5=-71/56, 5-6=-54/81, 6-7=-53/109, 7-8=-70/157, 8-9=-70/157, 9-10=-53/109, 10-11=-46/61, 11-12=-46/24, 12-14=-61/19, 14-15=0/13
BOT CHORD 2-24=-14/75, 23-24=-14/75, 22-23=-14/75, 21-22=-14/75, 19-21=-14/75, 18-19=-14/75, 17-18=-14/75, 16-17=-14/75, 14-16=-14/75

- 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; 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
 - 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 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 16 lb uplift at joint 2, 50 lb uplift at joint 21, 51 lb uplift at joint 22, 42 lb uplift at joint 23, 84 lb uplift at joint 24, 50 lb uplift at joint 19, 51 lb uplift at joint 18, 44 lb uplift at joint 17, 74 lb uplift at joint 16 and 16 lb uplift at joint 2.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 14, 29.
 - 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.



June 13, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



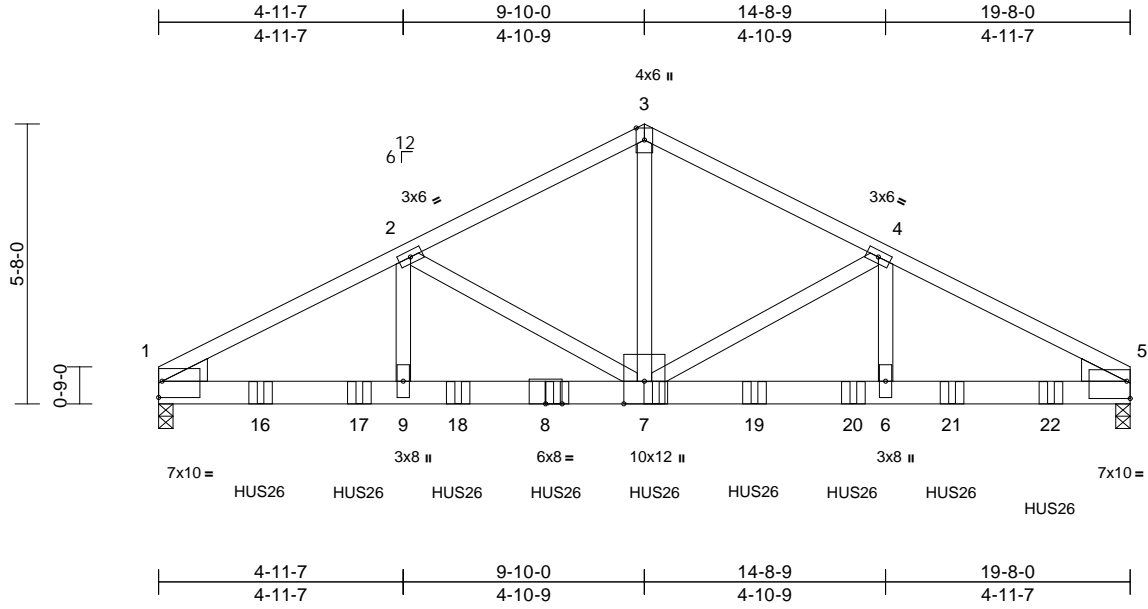
818 Soundside Road
Edenton, NC 27932

Job Belhaven D,E,F	Truss B01G	Truss Type Common Girder	Qty 1	Ply 3	Belhaven D.E.F Job Reference (optional)	158903655
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jun 13 08:12:42
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Page: 1



Scale = 1:46.6

Plate Offsets (X, Y): [1:Edge,0-3-15], [5:Edge,0-4-3]

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	0.47	Vert(LL)	-0.11	7-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.21	7-9	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.93	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 341 lb	FT = 20%

LUMBER

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

REACTIONS

(size) 1=0-3-8, 5=0-3-8
 Max Horiz 1=82 (LC 32)
 Max Uplift 1=-832 (LC 12), 5=-859 (LC 13)
 Max Grav 1=6655 (LC 1), 5=6871 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-10859/1526, 2-3=-7995/1175,
 3-4=-7998/1175, 4-5=-10777/1518
 BOT CHORD 1-9=-1293/9622, 7-9=-1293/9622,
 6-7=-1286/9566, 5-6=-1286/9566
 WEBS 3-7=-892/6750, 2-9=-278/2585,
 2-7=-2925/477, 4-6=-268/2493,
 4-7=-2860/469

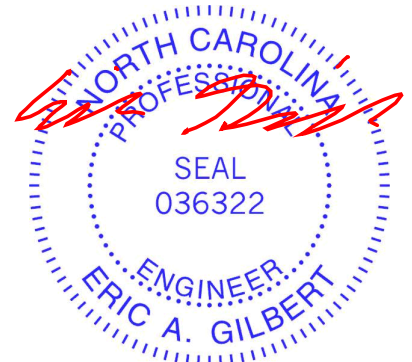
NOTES

- 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.
- 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
- 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 crushing capacity of 660 psi.
- Two H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 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.
- 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)



June 13, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



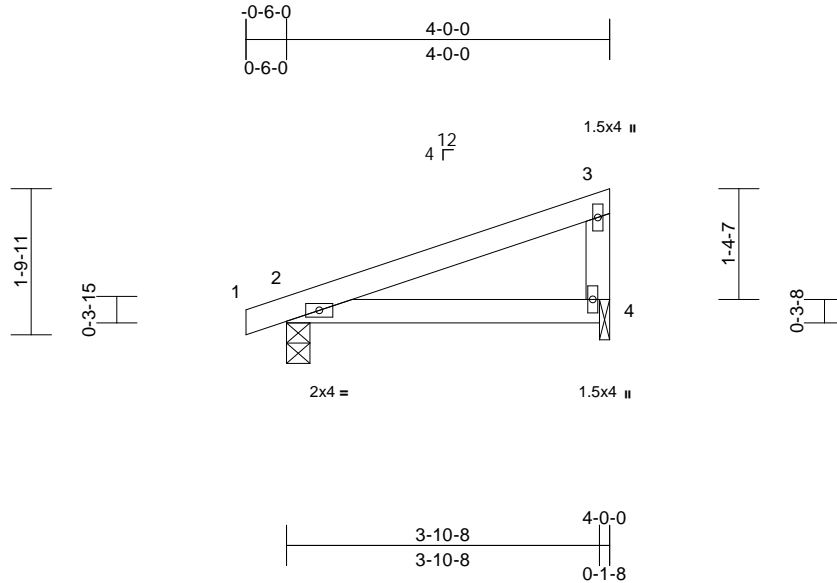
818 Soundside Road
 Edenton, NC 27932

Job Belhaven D,E,F	Truss M1	Truss Type Monopitch	Qty 6	Ply 1	Belhaven D.E.F Job Reference (optional)	158903656
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jun 13 08:12:43
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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	Vert(LL)	0.01	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.02	4-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	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; 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; 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 crushing capacity of 565 psi, Joint 4 SP No.3 crushing capacity of 565 psi.
- 5) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.

- 7) 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



June 13, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



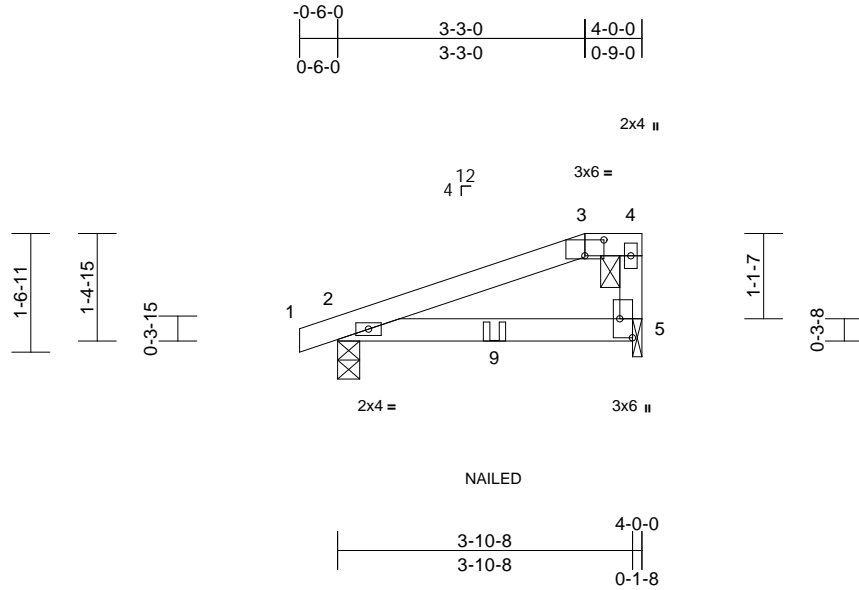
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Belhaven D.E.F	158903657
Belhaven D,E,F	M1G	Half Hip Girder	1	1	Job Reference (optional)	

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jun 13 08:12:43
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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	0.28	Vert(LL)	0.01	5-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.01	5-8	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	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; 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
 - 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 crushing capacity of 565 psi, Joint 5 SP No.3 crushing capacity of 565 psi.

- 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 RT7A MiTek 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)



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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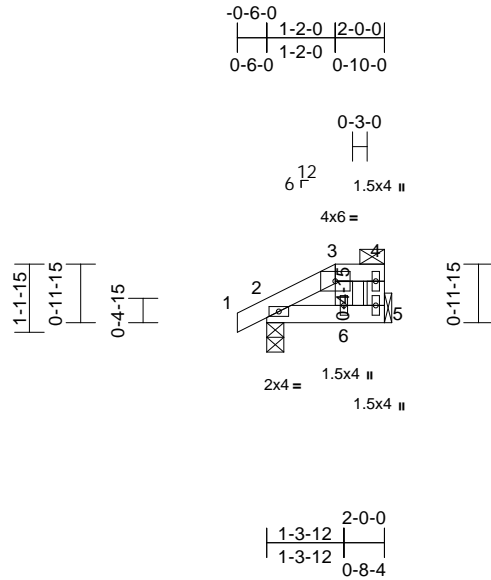


Job	Truss	Truss Type	Qty	Ply	Belhaven D.E.F	158903658
Belhaven D,E.F	M2	Half Hip	1	1	Job Reference (optional)	

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jun 13 08:12:43
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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)

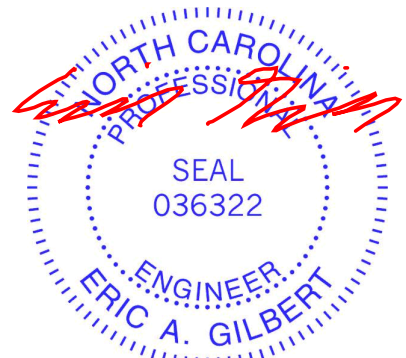
FORCES

- (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

- 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 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.

- 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.
 - 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.
- LOAD CASE(S)** Standard



June 13, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
 Edenton, NC 27932

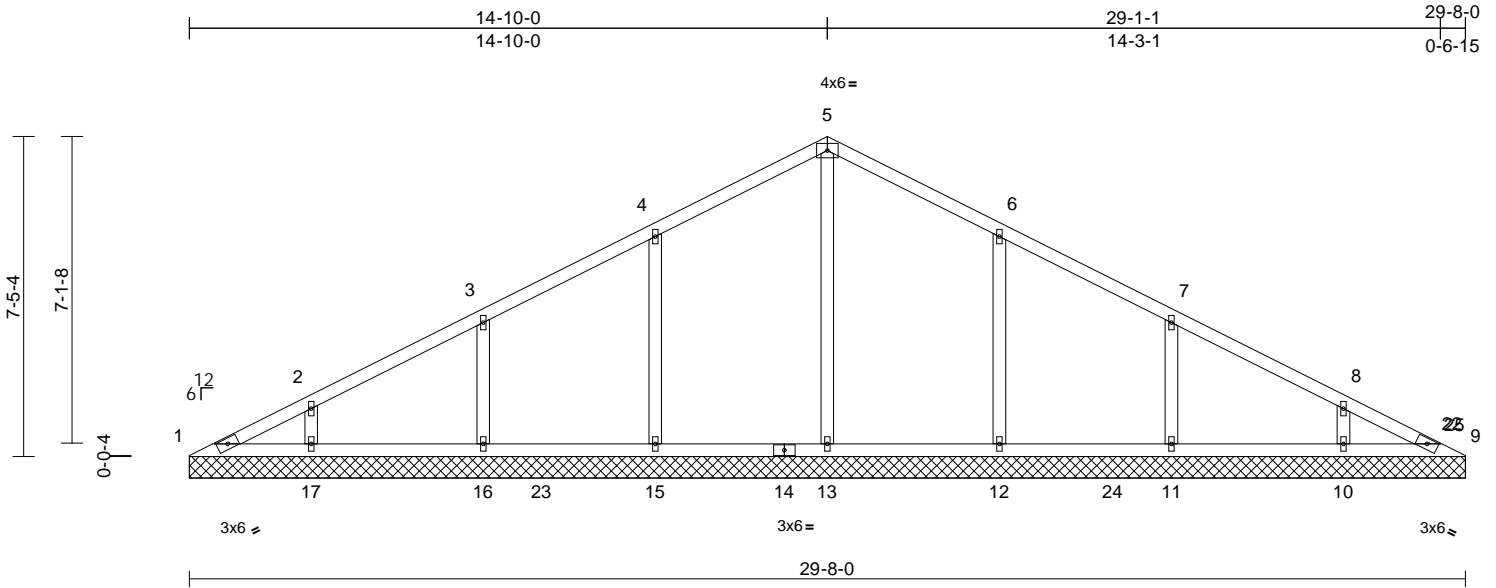
Job Belhaven D.E.F	Truss V1	Truss Type Valley	Qty 1	Ply 1	Belhaven D.E.F Job Reference (optional)	158903659
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jun 13 08:12:43

Page: 1

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	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)	0.00	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=126 (LC 12)
Max Uplift 1=14 (LC 13), 10=75 (LC 13), 11=99 (LC 13), 12=107 (LC 13), 15=107 (LC 12), 16=98 (LC 12), 17=80 (LC 12)
Max Grav 1=91 (LC 21), 9=58 (LC 22), 10=299 (LC 1), 11=322 (LC 1), 12=416 (LC 26), 13=397 (LC 22), 15=416 (LC 25), 16=321 (LC 1), 17=304 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-153/71, 2-3=-106/92, 3-4=-70/130, 4-5=-88/202, 5-6=-88/202, 6-7=-63/103, 7-8=-68/54, 8-9=-102/45
BOT CHORD 1-17=-30/126, 16-17=-30/100, 15-16=-30/100, 13-15=-30/100, 12-13=-30/100, 11-12=-30/100, 10-11=-30/100, 9-10=-30/100
WEBS 5-13=-208/0, 4-15=-259/173, 3-16=-241/169, 2-17=-220/141, 6-12=-259/173, 7-11=-242/169, 8-10=-218/139

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 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1, 107 lb uplift at joint 15, 98 lb uplift at joint 16, 80 lb uplift at joint 17, 107 lb uplift at joint 12, 99 lb uplift at joint 11 and 75 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



June 13, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



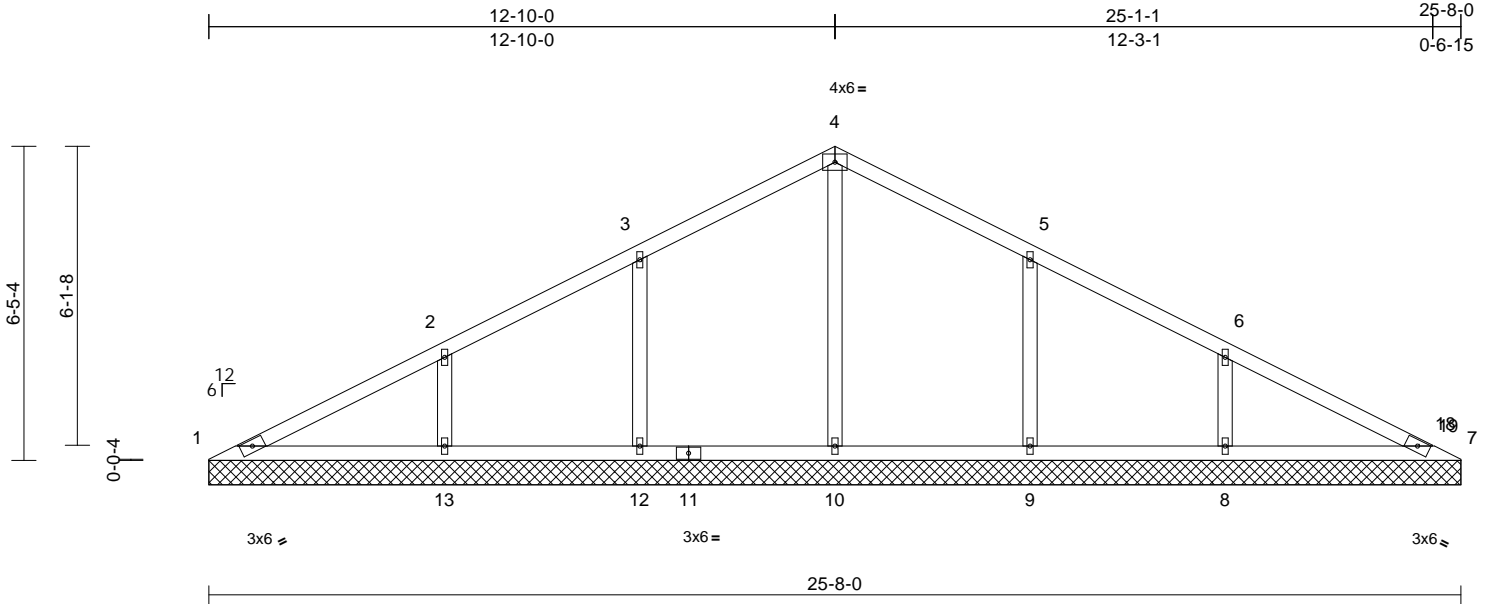
818 Soundside Road
Edenton, NC 27932

Job Belhaven D.E.F	Truss V2	Truss Type Valley	Qty 1	Ply 1	Belhaven D.E.F Job Reference (optional)	158903661
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jun 13 08:12:44
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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	0.26	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	7	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=110 (LC 12)
Max Uplift 1=8 (LC 13), 8=111 (LC 13), 9=103 (LC 13), 12=103 (LC 12), 13=113 (LC 12)
Max Grav 1=125 (LC 23), 7=94 (LC 24), 8=397 (LC 24), 9=332 (LC 26), 10=496 (LC 19), 12=331 (LC 25), 13=400 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-186/179, 2-3=-34/175, 3-4=0/191, 4-5=0/180, 5-6=0/159, 6-7=-161/173
BOT CHORD 1-13=-100/163, 12-13=-100/108, 10-12=-100/108, 9-10=-100/108, 8-9=-100/108, 7-8=-100/145
WEBS 4-10=-317/1, 3-12=-249/172, 2-13=-272/170, 5-9=-250/173, 6-8=-270/169

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 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1, 103 lb uplift at joint 12, 113 lb uplift at joint 13, 103 lb uplift at joint 9 and 111 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



June 13, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



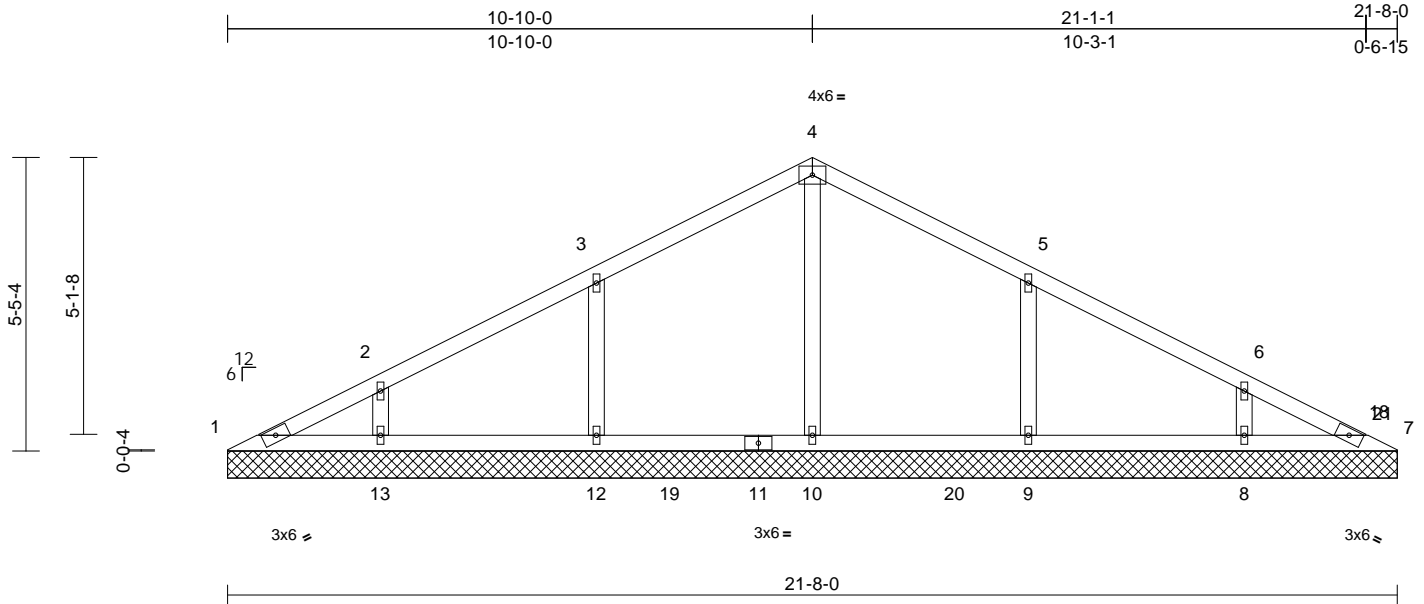
818 Soundside Road
Edenton, NC 27932

Job Belhaven D,E,F	Truss V3	Truss Type Valley	Qty 1	Ply 1	Belhaven D.E.F Job Reference (optional)	158903662
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jun 13 08:12:44
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	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.

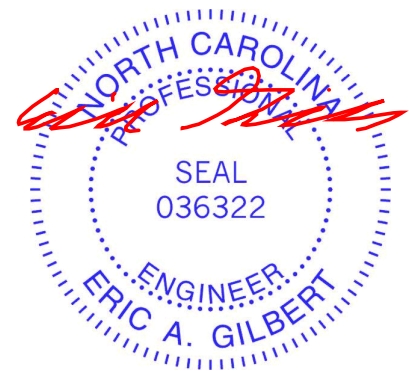
REACTIONS (size) 1=21-8-0, 7=21-8-0, 8=21-8-0, 9=21-8-0, 10=21-8-0, 12=21-8-0, 13=21-8-0
 Max Horiz 1=93 (LC 12)
 Max Uplift 1=-11 (LC 13), 8=-76 (LC 13), 9=-112 (LC 13), 12=-112 (LC 12), 13=-79 (LC 12)
 Max Grav 1=83 (LC 1), 7=53 (LC 1), 8=293 (LC 1), 9=347 (LC 24), 10=382 (LC 19), 12=346 (LC 23), 13=298 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-126/64, 2-3=-72/89, 3-4=-65/138, 4-5=-65/138, 5-6=-55/61, 6-7=-85/43
 BOT CHORD 1-13=-23/108, 12-13=-23/70, 10-12=-23/70, 9-10=-23/70, 8-9=-23/70, 7-8=-23/77
 WEBS 4-10=-209/0, 3-12=-266/180, 2-13=-213/138, 5-9=-266/180, 6-8=-211/137

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 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1, 112 lb uplift at joint 12, 79 lb uplift at joint 13, 112 lb uplift at joint 9 and 76 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

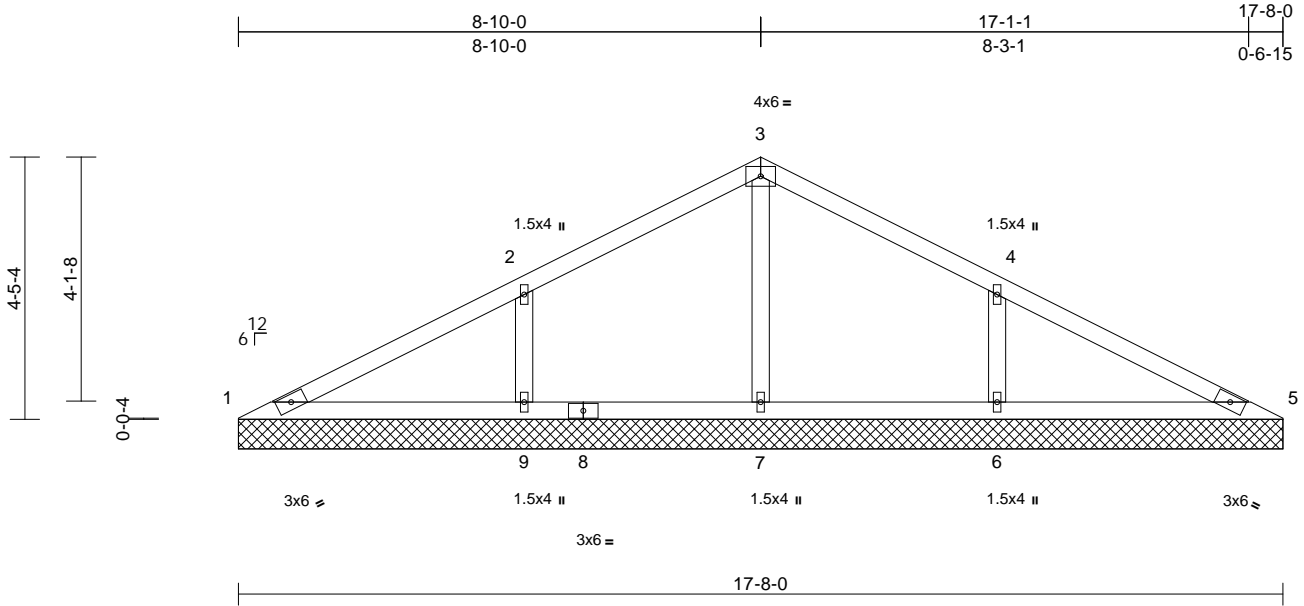


Job Belhaven D,E,F	Truss V4	Truss Type Valley	Qty 1	Ply 1	Belhaven D.E.F Job Reference (optional)	158903663
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jun 13 08:12:45
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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
Max Horiz 1=-71 (LC 13)
Max Uplift 1=-5 (LC 13), 5=-10 (LC 13),
6=-127 (LC 13), 9=-128 (LC 12)
Max Grav 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 crushing capacity of 565 psi.
 - 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



June 13, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

ENGINEERING BY
TRENCO
A MiTek Affiliate

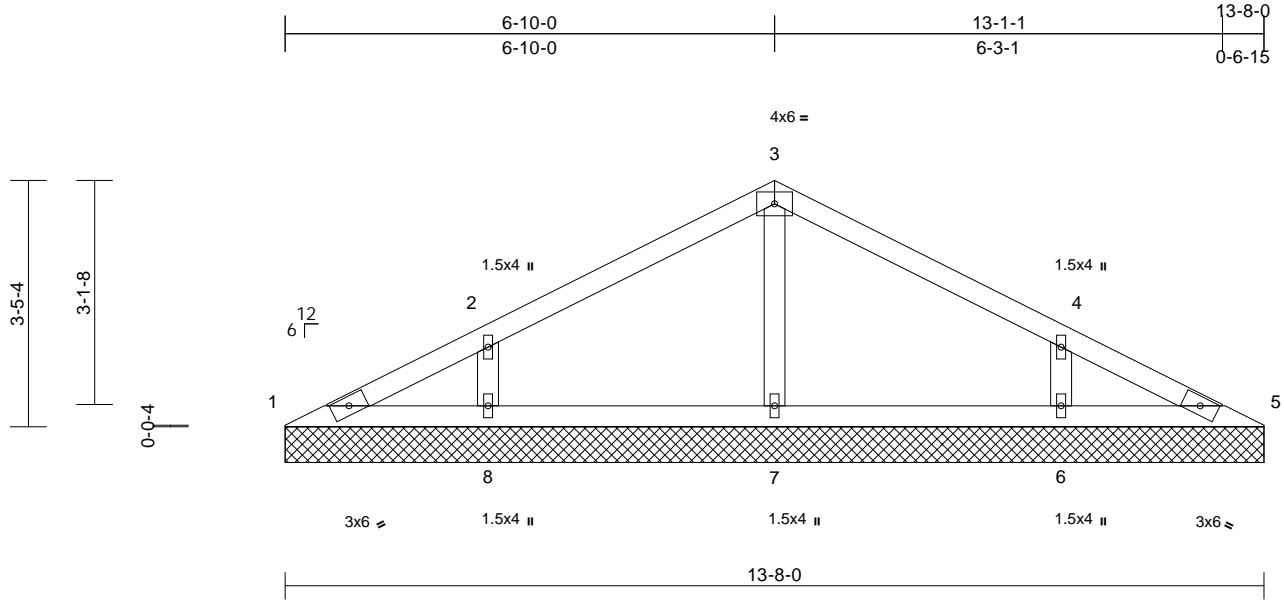
818 Soundside Road
Edenton, NC 27932

Job Belhaven D,E,F	Truss V5	Truss Type Valley	Qty 1	Ply 1	Belhaven D.E.F Job Reference (optional)	158903664
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84 Components (Dunn, NC), Dunn, NC - 28334,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jun 13 08:12:45
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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)

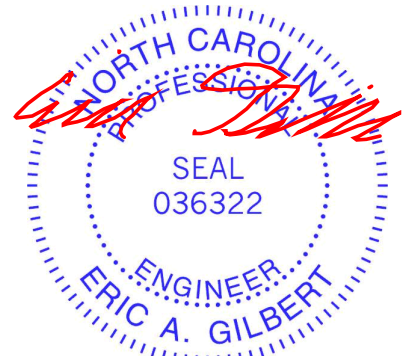
FORCES (lb) - Maximum Compression/Maximum Tension

- 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 crushing capacity of 565 psi.
 - 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



June 13, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



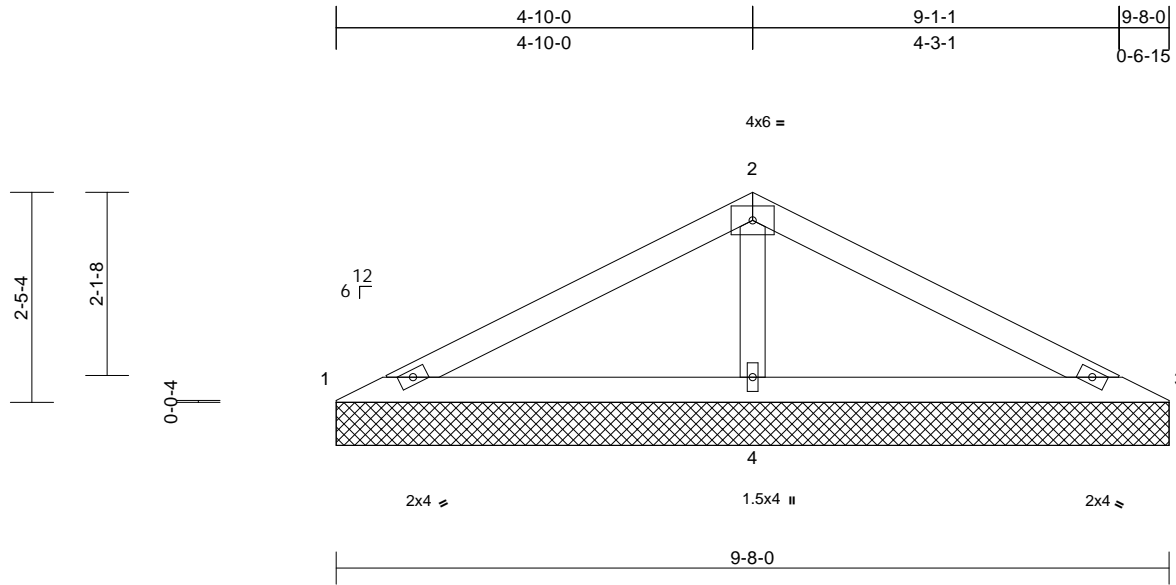
818 Soundside Road
Edenton, NC 27932

Job Belhaven D,E,F	Truss V6	Truss Type Valley	Qty 1	Ply 1	Belhaven D.E.F Job Reference (optional)	158903665
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84 Components (Dunn, NC), Dunn, NC - 28334,

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Page: 1



Scale = 1:26.7

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	0.30	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

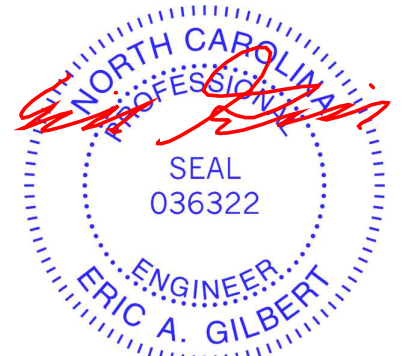
TOP CHORD 1-2=-142/375, 2-3=-142/375
BOT CHORD 1-4=-303/192, 3-4=-303/192
WEBS 2-4=-511/241

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 crushing capacity of 565 psi.
- 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



June 13, 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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
A MiTek Affiliate

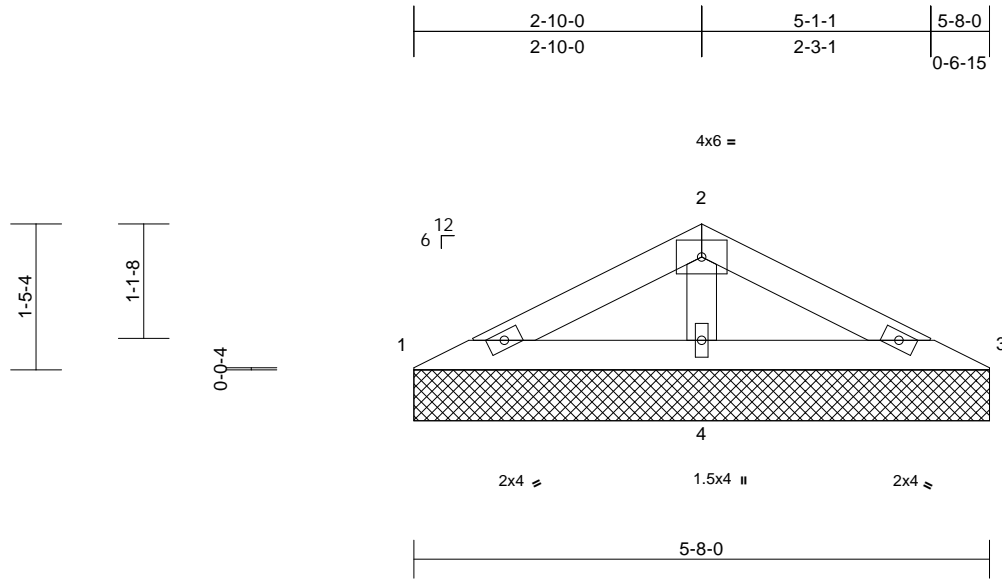
818 Soundside Road
Edenton, NC 27932

Job Belhaven D,E.F	Truss V7	Truss Type Valley	Qty 1	Ply 1	Belhaven D.E.F Job Reference (optional)	158903666
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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

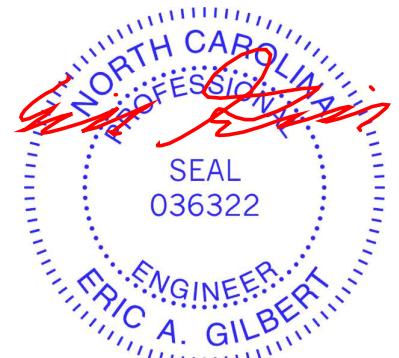
TOP CHORD 1-2=-77/133, 2-3=-77/133
BOT CHORD 1-4=-102/83, 3-4=-102/83
WEBS 2-4=-207/103

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 crushing capacity of 565 psi.
- 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



June 13, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

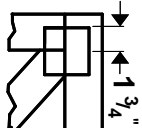
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



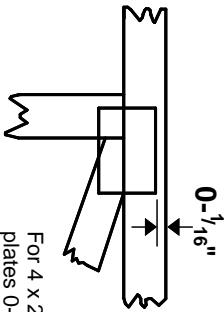
818 Soundside Road
Edenton, NC 27932

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.

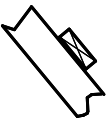
* Plate location details available in **MITek 20/20 software or upon request.**

PLATE SIZE

4 X 4

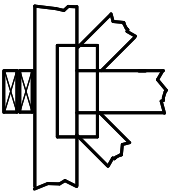
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



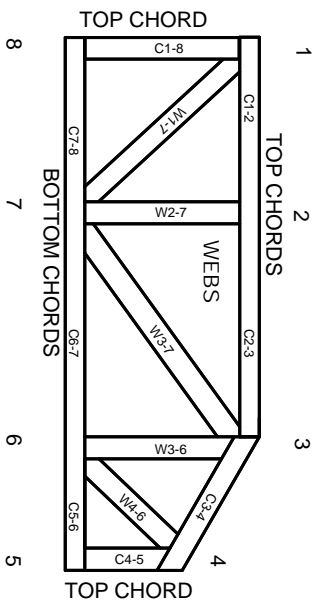
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TFP 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8
dimensions shown in ft-in-sixteenths
(Drawings not to scale)



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-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TFP 1 section 6.3 These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020



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/TFP 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TFP 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. Rewriting pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TFP 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.