

RE: 2411-0122-B - Stonehaven Rev 2-ELEV. 1-Roof

Site Information:

Project Customer: DRB Raleigh Project Name: DRB Raleigh Model Track

Lot/Block: Subdivision:

Model:

Address:

City:

State: NC

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

Design Code: IRC2021/TPI2014

Design Program: MiTek 20/20 8.8

Wind Code: ASCE 7-16

Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16

Wind Speed: 120 mph

Floor Load: N/A psf

Roof Load: 40.0 psf

Mean Roof Height (feet): 25

Exposure Category: B

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I72531917	G1A	4/9/25	35	I72531951	A2G	4/9/25
2	I72531918	G1	4/9/25	36	I72531952	A2B	4/9/25
3	I72531919	G1G	4/9/25	37	I72531953	A2	4/9/25
4		D1	4/9/25	38	I72531954	A2SG	4/9/25
5	I72531921	D1G	4/9/25	39	I72531955	A2A	4/9/25
6	I72531922	P1G	4/9/25	40	I72531956	B2A	4/9/25
7	I72531923	P1	4/9/25	41	I72531957	B2B	4/9/25
8	I72531924	P1A	4/9/25		I72531958	M1	4/9/25
9	I72531925	A1	4/9/25	43	I72531959	A3	4/9/25
10	I72531926	A1G	4/9/25	44	I72531960	A3G	4/9/25
11	I72531927	A1A	4/9/25	45	I72531961	H1	4/9/25
12	I72531928	V1	4/9/25	46	I72531962	B2GR	4/9/25
13	I72531929	B2	4/9/25	47	I72531963	B1GR	4/9/25
14	I72531930	B1A	4/9/25	48	I72531964	A1GR	4/9/25
	I72531931	B1	4/9/25	49	I72531965	A2GR	4/9/25
16	I72531932	B1G	4/9/25	50	I72531966	A3GR	4/9/25
17	I72531933	A1SG	4/9/25				
18	I72531934	V2	4/9/25				
19	I72531935	V3	4/9/25				
20	I72531936	PB1	4/9/25				
21	I72531937	PB1G	4/9/25				
22	I72531938	G3G	4/9/25				
23	I72531939	G3	4/9/25				
	I72531940	MR1G	4/9/25				
25	I72531941	MR1	4/9/25				
26	I72531942	MR2	4/9/25				
27	I72531943	C1G	4/9/25				
28	I72531944	C1	4/9/25				
29	I72531945	VC4	4/9/25				
30	I72531946	VC3	4/9/25				
31	I72531947	VC2	4/9/25				
32	I72531948	VC1	4/9/25				
	I72531949	B2G	4/9/25				
34	I72531950	PB2	4/9/25				

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

Truss Design Engineer's Name: Gilbert, Eric

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

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



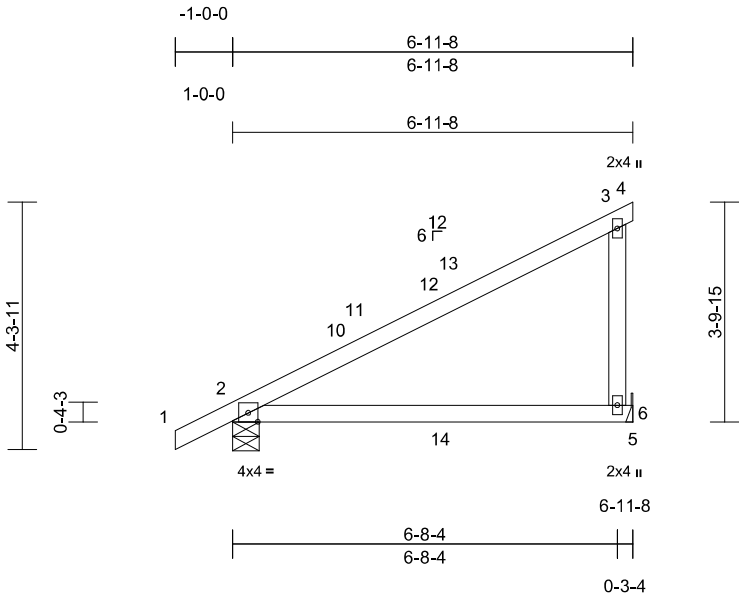
April 9, 2025

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	172531917
	G1A	Monopitch	20	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Mar 20 2025 Print: 8.830 S Mar 20 2025 MiTek Industries, Inc. Fri Apr 04 09:53:40
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Page: 1



Scale = 1:39

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.19	6-9	>419	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.29	6-9	>280	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.07	6-9	>999	240		
BCDL	10.0										Weight: 28 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=0-5-8, 6= Mechanical
Max Horiz 2=92 (LC 15)
Max Grav 2=408 (LC 40), 6=396 (LC 42)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-159/109, 3-4=-10/0, 3-6=-324/159
BOT CHORD 2-6=-72/138, 5-6=0/0

- NOTES**
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 6-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
 - 5) Plates checked for a plus or minus 5 degree rotation about its center.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 8) Bearings are assumed to be: Joint 2 SP SS .
 - 9) Refer to girder(s) for truss to truss connections.
 - 10) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
 - 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- LOAD CASE(S)** Standard



April 9,2025

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

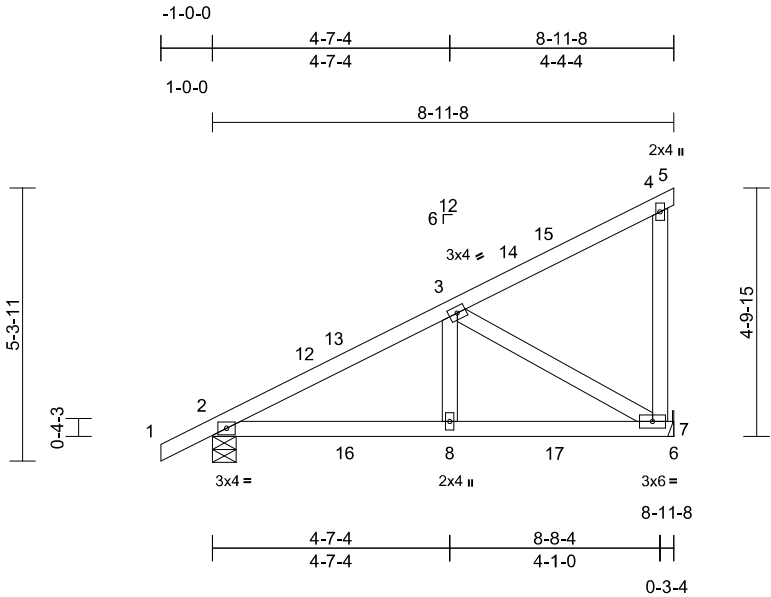
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531918
	G1	Monopitch	20	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.06	7-8	>999	360	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.07	7-8	>999	240	
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	7	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.01	8-11	>999	240	
BCDL	10.0										
Weight: 46 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, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=0-5-8, 7= Mechanical
Max Horiz 2=117 (LC 15)
Max Grav 2=448 (LC 40), 7=437 (LC 43)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-496/88, 3-4=-111/82, 4-5=-10/0, 4-7=-289/106
BOT CHORD 2-8=-181/460, 7-8=-181/460, 6-7=0/0
WEBS 3-7=-487/157, 3-8=0/352

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) Bearings are assumed to be: Joint 2 SP No.2 .
- 9) Refer to girder(s) for truss to truss connections.
- 10) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 8-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.00; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
 - 5) Plates checked for a plus or minus 5 degree rotation about its center.



April 9,2025

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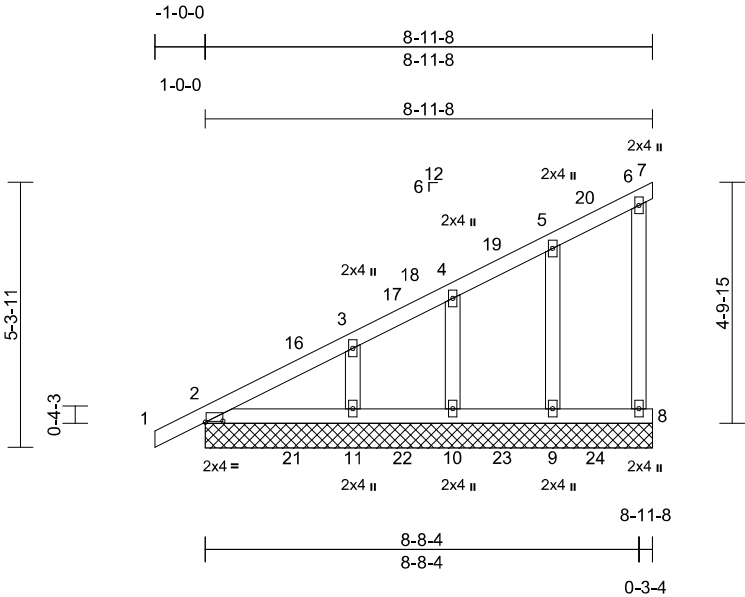
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof
	G1G	Monopitch Supported Gable	4	1	Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:44.9

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

Loading	(psf)	Spacing		CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	2-0-0	TC	0.34	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 46 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
REACTIONS	(size) 2=8-11-8, 7=8-11-8, 8=8-11-8, 9=8-11-8, 10=8-11-8, 11=8-11-8
	Max Horiz 2=117 (LC 13)
	Max Uplift 7=-76 (LC 44), 8=-11 (LC 43), 9=-5 (LC 16), 10=-6 (LC 16), 11=-8 (LC 16)
	Max Grav 2=326 (LC 53), 7=104 (LC 45), 8=285 (LC 63), 9=338 (LC 62), 10=320 (LC 61), 11=368 (LC 60)
FORCES	
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/36, 2-3=-282/164, 3-4=-207/129, 4-5=-149/115, 5-6=-85/87, 6-7=-36/46, 6-8=-213/65
BOT CHORD	2-11=-65/87, 10-11=-65/87, 9-10=-65/87, 8-9=-65/87
WEBS	5-9=-283/120, 4-10=-280/107, 3-11=-307/140

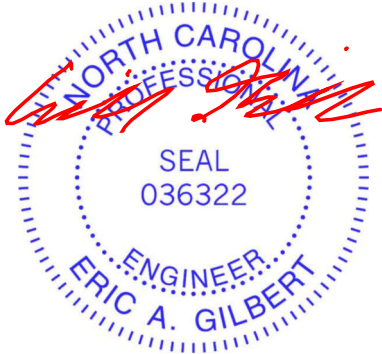
NOTES

1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 8-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 5 degree rotation about its center.
- 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 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 7.
- N/A
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.

15) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



April 9,2025

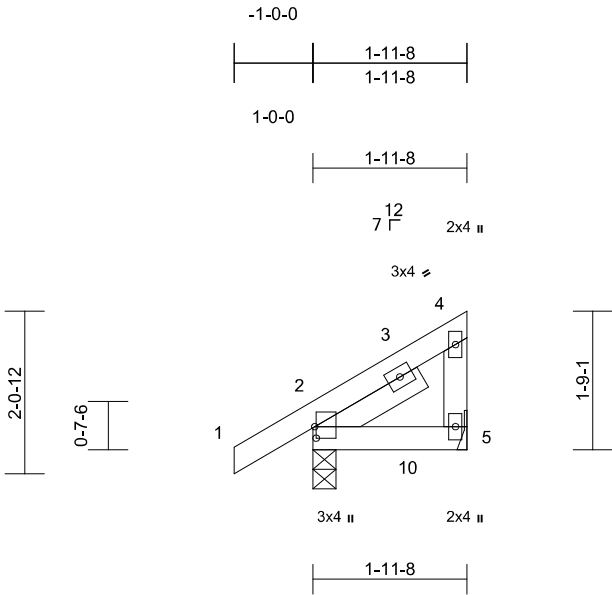
Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof
	D1	Monopitch	20	1	Job Reference (optional)

172531920

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:28.5

Plate Offsets (X, Y): [2:0-1-12,0-0-3]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	0.00	5-8	>999	360	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	0.00	5-8	>999	240	
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP		Wind(LL)	0.00	8	>999	240	
BCDL	10.0										
										Weight: 12 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

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 5= Mechanical
Max Horiz 2=38 (LC 15)
Max Uplift 5=5 (LC 13)
Max Grav 2=315 (LC 40), 5=283 (LC 42)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/42, 2-4=-174/66, 4-5=-267/47
BOT CHORD 2-5=-20/22

NOTES

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust)
Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Plates checked for a plus or minus 5 degree rotation about its center.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) Bearings are assumed to be: Joint 2 SP No.2 .
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 5.
- 11) 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.
- 12) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.

LOAD CASE(S) Standard



April 9,2025

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

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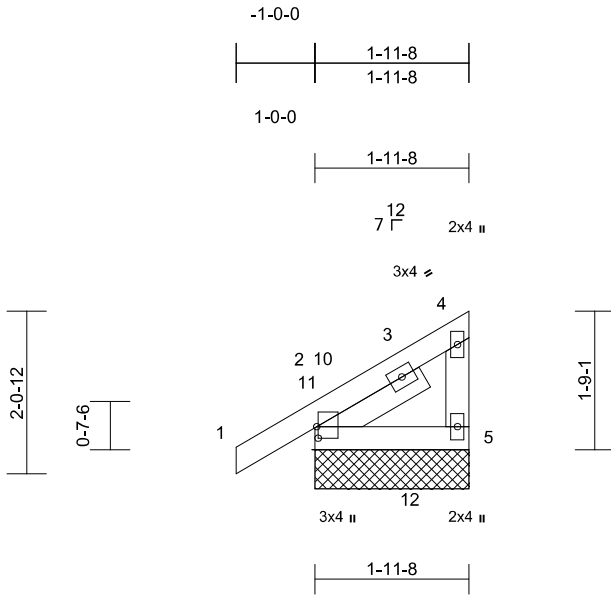
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof
	D1G	Monopitch Supported Gable	5	1	Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Mar 20 2025 Print: 8.830 S Mar 20 2025 MiTek Industries, Inc. Fri Apr 04 09:53:40
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Page: 1



Scale = 1:28.5												
Plate Offsets (X, Y): [2:0-1-12,0-0-3]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 12 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

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=1-11-8, 5=1-11-8
Max Horiz 2=38 (LC 15)
Max Uplift 5=5 (LC 13)
Max Grav 2=315 (LC 43), 5=284 (LC 42)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-4=-190/67, 4-5=-267/73
BOT CHORD 2-5=-20/27

NOTES
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.

- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.
11) All bearings are assumed to be SP No.2 .
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 5.
13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.

LOAD CASE(S) Standard



April 9,2025

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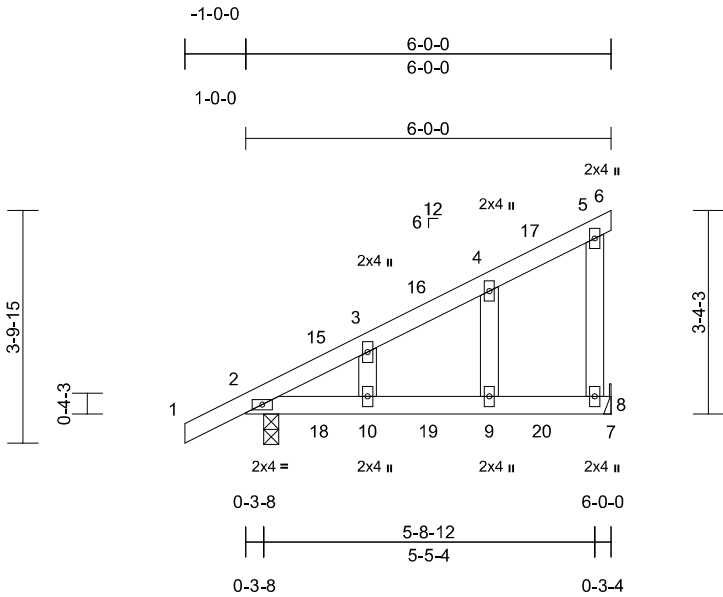
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531922
	P1G		4	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Mar 20 2025 Print: 8.830 S Mar 20 2025 MiTek Industries, Inc. Fri Apr 04 09:53:44
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Page: 1



Scale = 1:36.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	-0.10	9-10	>719	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.79	-0.14	9-10	>486	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	2	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.07	9-10	>950		
BCDL	10.0									Weight: 29 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 8= Mechanical
Max Horiz 2=80 (LC 15)
Max Uplift 2=-5 (LC 12), 8=-34 (LC 13)
Max Grav 2=420 (LC 40), 8=366 (LC 44)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-146/95, 3-4=-123/77, 4-5=-94/90, 5-6=-10/0, 5-8=-307/126
BOT CHORD 2-10=-86/190, 9-10=-43/46, 8-9=-43/46, 7-8=0/0
WEBS 4-9=-132/119, 3-10=-134/116

NOTES

1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 6-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) Plates checked for a plus or minus 5 degree rotation about its center.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Bearings are assumed to be: Joint 2 SP No.2 .
- 11) Refer to girder(s) for truss to truss connections.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 8.
- 13) 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.
- 14) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 15) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord.

LOAD CASE(S) Standard



April 9,2025

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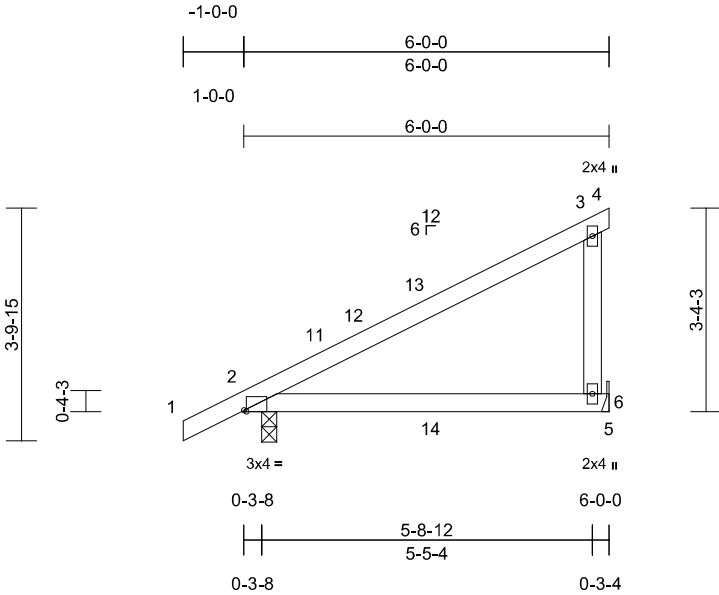
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof
	P1		52	1	Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Mar 20 2025 Print: 8.830 S Mar 20 2025 MiTek Industries, Inc. Fri Apr 04 09:53:43
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Page: 1



Scale = 1:36.8		Plate Offsets (X, Y): [2:0-0-8,Edge]	
Loading	(psf)	Spacing	2-0-0
TCLL (roof)	20.0	Plate Grip DOL	1.15
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15
TCDL	10.0	Rep Stress Incr	YES
BCLL	0.0*	Code	IRC2021/TPI2014
BCDL	10.0		
CS		DEFL	in (loc) l/defl L/d
TC	0.71	Vert(LL)	-0.11 6-10 >644 360
BC	0.64	Vert(CT)	-0.14 6-10 >482 240
WB	0.00	Horz(CT)	0.00 2 n/a n/a
Matrix-AS		Wind(LL)	0.05 6-10 >999 240
PLATES		GRIP	
MT20		244/190	
Weight: 25 lb		FT = 20%	

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 6= Mechanical
Max Horiz 2=80 (LC 15)
Max Uplift 2=-5 (LC 12), 6=-34 (LC 13)
Max Grav 2=420 (LC 40), 6=366 (LC 42)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-126/120, 3-4=-10/0, 3-6=-309/153
BOT CHORD 2-6=-86/190, 5-6=0/0

- NOTES**
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 6-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
 - 5) Plates checked for a plus or minus 5 degree rotation about its center.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) Bearings are assumed to be: Joint 2 SP SS .
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 6.
- 11) 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.
- 12) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 13) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord.

LOAD CASE(S) Standard



April 9,2025

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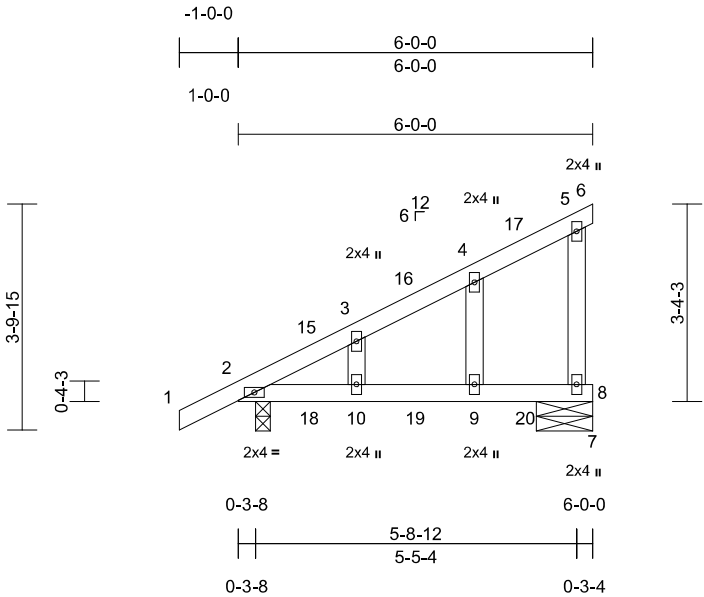
Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof
	P1A		4	1	Job Reference (optional)

I72531924

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:37.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	-0.10	9-10	>719	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.79	-0.14	9-10	>486	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	2	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.07	9-10	>950	240	
BCDL	10.0										

Weight: 29 lb FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 8=0-11-8

Max Horiz 2=80 (LC 15)
Max Uplift 2=-5 (LC 12), 8=-34 (LC 13)
Max Grav 2=420 (LC 40), 8=366 (LC 44)

FORCES (lb) - Maximum Compression/Maximum Tension

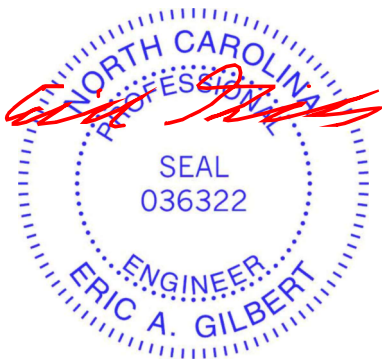
TOP CHORD 1-2=0/36, 2-3=-146/95, 3-4=-123/77, 4-5=-94/90, 5-6=-10/0, 5-8=-307/126
BOT CHORD 2-10=-86/190, 9-10=-43/46, 8-9=-43/46, 7-8=0/0
WEBS 4-9=-132/119, 3-10=-134/116

NOTES

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 6-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) Plates checked for a plus or minus 5 degree rotation about its center.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) All bearings are assumed to be SP No.2 .
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 8.
- 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.
- 13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 14) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord.

LOAD CASE(S) Standard



April 9, 2025

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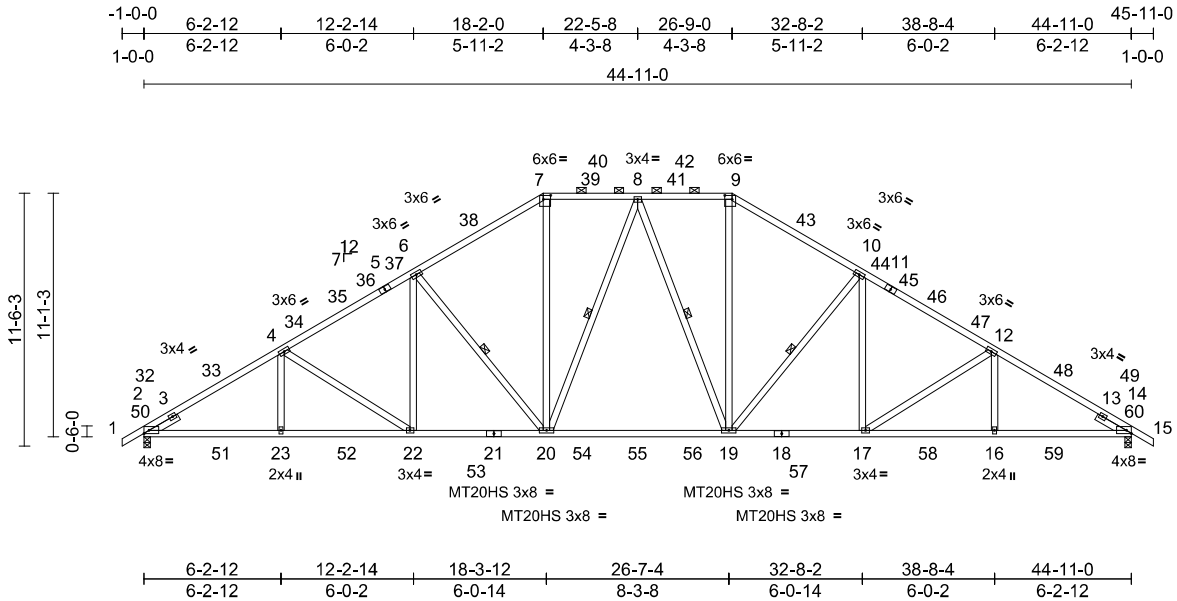
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531925
	A1	Piggyback Base	12	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:101.9

Plate Offsets (X, Y): [2:Edge,0-1-12], [7:0-4-0,0-2-4], [9:0-4-0,0-2-4], [14:Edge,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.33	19-20	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.56	19-20	>959	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.16	14	n/a	n/a		
BCLL	0.0 *	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.07	20	>999	240		
BCDL	10.0											
Weight: 294 lb FT = 20%												

LUMBER

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP SS

WEBS 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, except

2-0-0 oc purlins (3-8-6 max.): 7-9.

BOT CHORD Rigid ceiling directly applied.

WEBS 1 Row at midpt 6-20, 8-20, 8-19, 10-19

REACTIONS (size) 2=0-3-8, 14=0-3-8

Max Horiz 2=-179 (LC 14)

Max Grav 2=2163 (LC 57), 14=2163 (LC 59)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/47, 2-4=-3807/0, 4-6=-3448/0, 6-7=-2863/65, 7-8=-2391/89, 8-9=-2391/89, 9-10=-2863/65, 10-12=-3448/0, 12-14=-3807/0, 14-15=0/47

BOT CHORD 2-23=0/3207, 22-23=0/3207, 20-22=0/2868, 19-20=0/2319, 17-19=0/2868, 16-17=0/3209, 14-16=0/3209

WEBS 6-20=-913/55, 7-20=0/1070, 8-20=-300/116, 8-19=-300/116, 9-19=0/1070, 10-19=-913/55, 4-23=0/334, 4-22=-413/47, 6-22=0/460, 10-17=0/460, 12-17=-414/47, 12-16=0/334

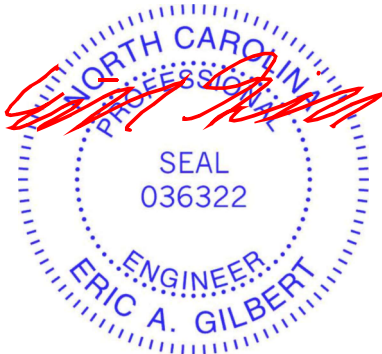
NOTES

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

- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 3-5-14, Interior (1) 3-5-14 to 18-2-0, Exterior(2R) 18-2-0 to 24-6-4, Interior (1) 24-6-4 to 26-9-0, Exterior(2R) 26-9-0 to 33-1-4, Interior (1) 33-1-4 to 45-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are MT20 plates unless otherwise indicated.
- 8) Plates checked for a plus or minus 5 degree rotation about its center.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * 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.
- 11) All bearings are assumed to be SP SS .
- 12) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 13) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

14) 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



April 9,2025

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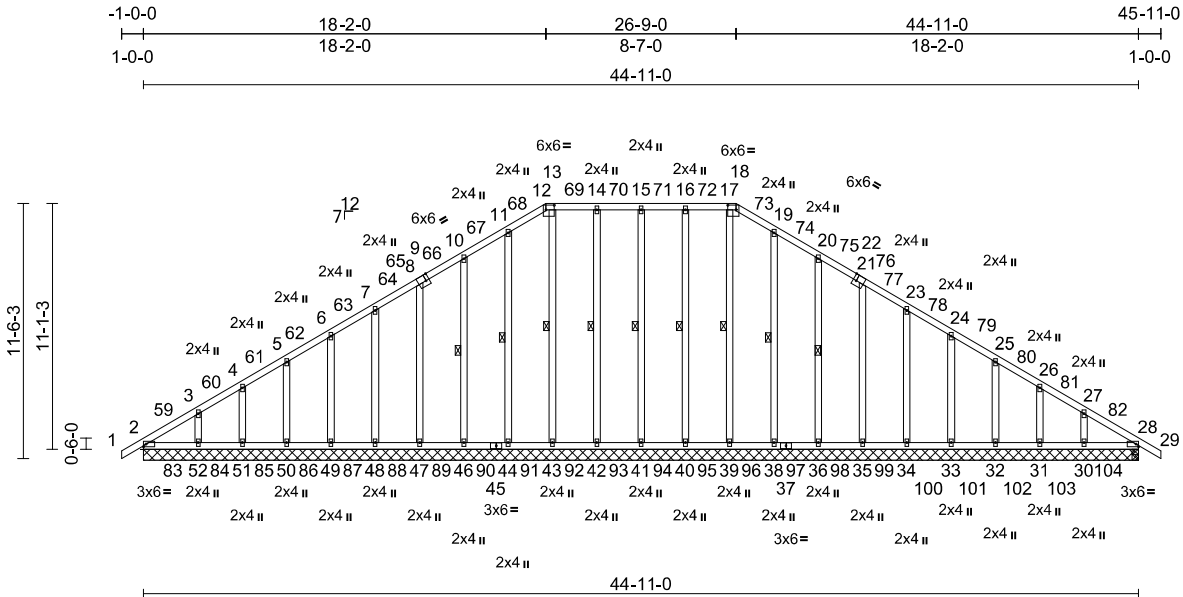
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531926
	A1G	Piggyback Base Supported Gable	2	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 E Feb 1 2025 Print: 8.830 E Feb 1 2025 MiTek Industries, Inc. Tue Apr 08 08:35:00
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Page: 1

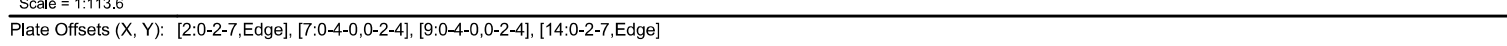


Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof
	A1G	Piggyback Base Supported Gable	2	1	172531926
Job Reference (optional)					

- 14) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 15) 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

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Mar 20 2025 Print: 8.830 S Mar 20 2025 MiTek Industries, Inc. Fri Apr 04 09:53:16 Page: 1
ID:K B5K?ICC5M6K094aNfhT2zvaxj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoI7J4zJC?I




LUMBER		2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDDL=6.0psf; BCDDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 3-5-14, Interior (1) 3-5-14 to 18-2-0, Exterior(2R) 18-2-0 to 24-6-4, Interior (1) 24-6-4 to 26-9-0, Exterior(2R) 26-9-0 to 33-1-4, Interior (1) 33-1-4 to 45-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60	14) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
TOP CHORD	2x4 SP No.2 "Except" 1-5,11-15:2x4 SP SS		
BOT CHORD	2x4 SP No.2 "Except" 23-21:2x4 SP No.2		
WEBS	2x4 SP No.3 "Except" 7-24,9-19,28-29:2x4 SP No.2		
SLIDER	Left 2x4 SP No.3 -- 2-0-0, Right 2x4 SP No.3 -- 2-0-0		15) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
BRACING			16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-1-10 max.): 7-9. Rigid ceiling directly applied.	3) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cn=1.00; Ct=1.10, Lu=50-0-0	17) Attic room checked for L/360 deflection.
BOT CHORD			
WEBS	1 Row at midpt 6-24, 10-19	4) Unbalanced snow loads have been considered for this design.	LOAD CASE(S) Standard
REACTIONS	(size) 2=0-3-8, 14=0-3-8 Max Horiz 2=179 (LC 15) Max Grav 2=2617 (LC 58), 14=2629 (LC 60)	5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.	
FORCES	(lb) - Maximum Compression/Maximum Tension	6) 250.0lb AC unit load placed on the bottom chord, 22-5-8 from left end, supported at two points, 5-0-0 apart.	
TOP CHORD	1-2=0/47, 2-4=-4637/0, 4-6=-4297/0, 6-7=-3749/0, 7-8=-3235/0, 8-9=-3293/0, 9-10=-3770/0, 10-12=-4321/0, 12-14=-4658/0, 14-15=0/47	7) Provide adequate drainage to prevent water ponding.	
BOT CHORD	2-27=0/3916, 26-27=0/3916, 24-26=0/3616, 20-24=0/4116, 19-20=0/4116, 17-19=0/3637, 16-17=0/3935, 14-16=0/3935, 22-23=-117/410, 21-22=-117/389	8) All plates are MT20 plates unless otherwise indicated.	
WEBS	23-24=0/1309, 23-28=0/1455, 7-28=0/1521, 19-21=0/1311, 21-29=0/1496, 9-29=0/1544, 28-29=-58/613, 20-22=0/331, 8-28=-589/161, 8-29=-589/161, 22-24=-1556/0, 19-22=-1467/0, 6-24=-895/73, 10-19=-904/79, 4-27=0/327, 4-26=-365/73, 6-26=0/441, 10-17=0/445, 12-17=-360/73, 12-16=0/327	9) Plates checked for a plus or minus 5 degree rotation about its center.	
		10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	
		11) * 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 BCDDL = 10.0psf.	
		12) Bottom chord live load (20.0 psf) and additional bottom chord dead load (20.0 psf) applied only to room. 22-23, 21-22	
		13) All bearings are assumed to be SP SS .	


NOTES

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



April 9, 2025

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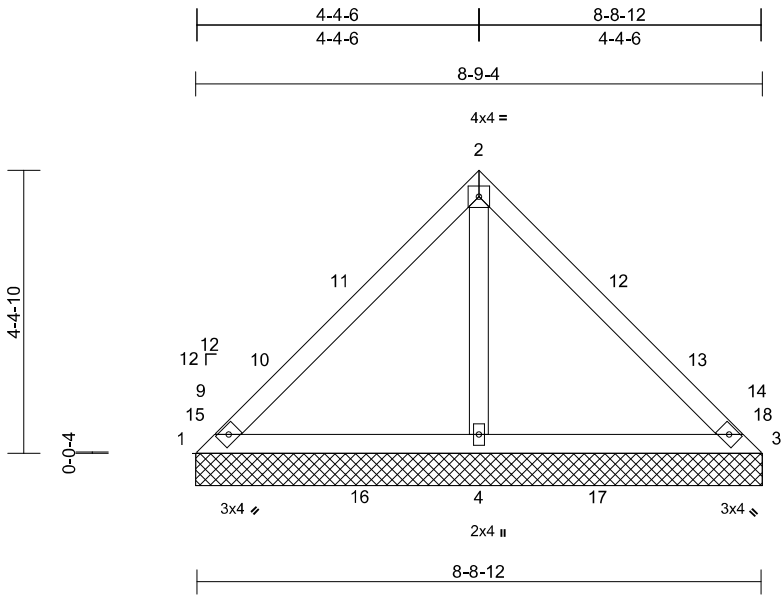
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531928
	V1	Valley	4	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



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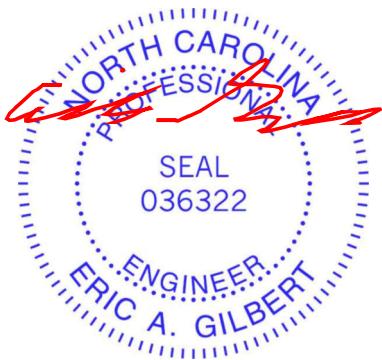
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.79	Vert(TL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	4	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP							
BCDL	10.0										
										Weight: 36 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.3
OTHERS	2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 8-8-12 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
REACTIONS	
(size)	1=8-9-4, 3=8-9-4, 4=8-9-4
Max Horiz	1=-67 (LC 12)
Max Uplift	1=-77 (LC 45), 3=-77 (LC 44), 4=-14 (LC 16)
Max Grav	1=261 (LC 47), 3=261 (LC 51), 4=671 (LC 2)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-193/316, 2-3=-193/316
BOT CHORD	1-4=-230/211, 3-4=-230/211
WEBS	2-4=-593/286

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 4-4-10, Exterior(2R) 4-4-10 to 7-4-10, Interior (1) 7-4-10 to 8-9-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 5 degree rotation about its center.
- 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.3 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 1, 77 lb uplift at joint 3 and 14 lb uplift at joint 4.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.

LOAD CASE(S) Standard



April 9,2025

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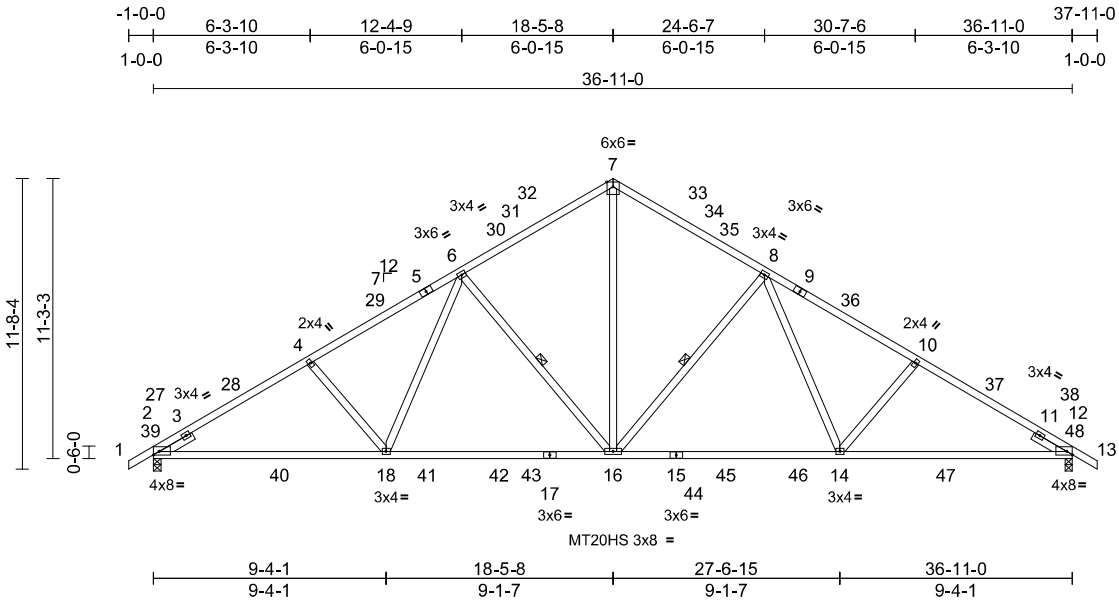
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531930
	B1A	Common	14	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Mar 20 2025 Print: 8.830 S Mar 20 2025 MiTek Industries, Inc. Fri Apr 04 09:53:35
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Page: 1



Scale = 1:90									
Plate Offsets (X, Y): [2:Edge,0-1-12], [12:Edge,0-1-12]									
Loading		(psf)	Spacing		2-0-0	CSI		DEFL	
TCLL (roof)		20.0	Plate Grip DOL		1.15	TC	0.78	in (loc)	L/d
Snow (Pf/Pg)		15.4/20.0	Lumber DOL		1.15	BC	0.68	Vert(LL)	16-18
TCDL		10.0	Rep Stress Incr		YES	WB	0.57	Vert(CT)	>999
BCLL		0.0*	Code		IRC2021/TPI2014	Matrix-AS		Horz(CT)	240
BCDL		10.0						Wind(LL)	n/a
									240
								PLATES	GRIP
								MT20	244/190
								MT20HS	187/143
								Weight: 207 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP SS
WEBS	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.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 8-16, 6-16
REACTIONS	
(size)	2=0-3-8, 12=0-3-8
Max Horiz	2=182 (LC 15)
Max Grav	2=1741 (LC 34), 12=1741 (LC 35)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/47, 2-4=-2950/81, 4-6=-2778/102, 6-7=-2004/151, 7-8=-2004/151, 8-10=-2778/102, 10-12=-2950/81, 12-13=0/47
BOT CHORD	2-18=0/2469, 16-18=0/2040, 14-16=0/2040, 12-14=0/2472
WEBS	7-16=-47/1581, 8-16=-771/106, 8-14=0/625, 10-14=-306/101, 6-16=-771/106, 6-18=0/625, 4-18=-306/101

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-8-5, Interior (1) 2-8-5 to 18-5-8, Exterior(2R) 18-5-8 to 22-1-13, Interior (1) 22-1-13 to 37-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- All plates are MT20 plates unless otherwise indicated.
- Plates checked for a plus or minus 5 degree rotation about its center.
- 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 SS .
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



April 9,2025

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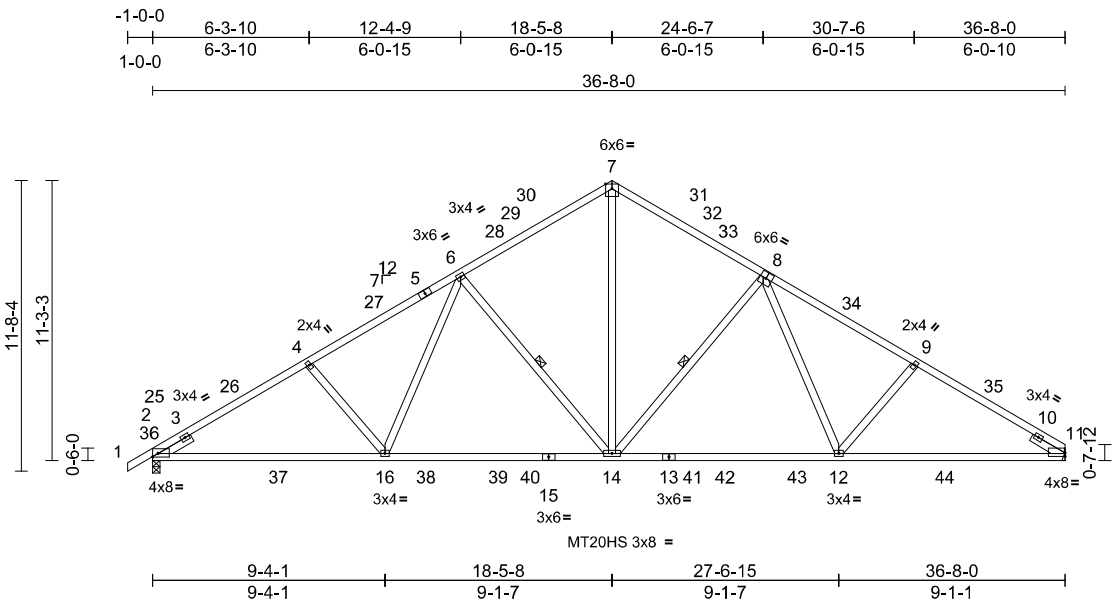
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531931
	B1	Common	16	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Mar 20 2025 Print: 8.830 S Mar 20 2025 MiTek Industries, Inc. Fri Apr 04 09:53:34
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Page: 1



Scale = 1:90									
Plate Offsets (X, Y): [2:Edge,0-1-12], [11:Edge,0-1-11]									
Loading		(psf)	Spacing		2-0-0	CSI		DEFL	
TCLL (roof)		20.0	Plate Grip DOL		1.15	TC	0.78	in (loc)	I/defl L/d
Snow (Pf/Pg)		15.4/20.0	Lumber DOL		1.15	BC	0.69	Vert(LL)	-0.41 12-14 >999 360
TCDL		10.0	Rep Stress Incr		YES	WB	0.56	Vert(CT)	-0.59 12-14 >739 240
BCLL		0.0*	Code		IRC2021/TPI2014	Matrix-AS		Horz(CT)	0.09 11 n/a n/a
BCDL		10.0						Wind(LL)	0.05 12-14 >999 240
									PLATES
									MT20
									MT20HS
									Weight: 205 lb FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP SS
WEBS 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.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 8-14, 6-14

REACTIONS (size) 2=0-3-8, 11= Mechanical
Max Horiz 2=178 (LC 13)
Max Grav 2=1737 (LC 34), 11=1673 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/47, 2-4=-2942/81, 4-6=-2770/102, 6-7=-1996/151, 7-9=-2745/151, 9-11=-2912/84
BOT CHORD 2-16=-15/2460, 14-16=0/2028, 12-14=0/2036, 11-12=-83/2425
WEBS 7-14=-45/1567, 8-14=-762/105, 8-12=0/585, 9-12=-286/100, 6-14=-769/106, 6-16=0/625, 4-16=-306/101

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-8-0, Interior (1) 2-8-0 to 18-5-8, Exterior(2R) 18-5-8 to 22-1-8, Interior (1) 22-1-8 to 36-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- All plates are MT20 plates unless otherwise indicated.
- Plates checked for a plus or minus 5 degree rotation about its center.
- 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.
- Bearings are assumed to be: Joint 2 SP SS .
- Refer to girder(s) for truss to truss connections.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

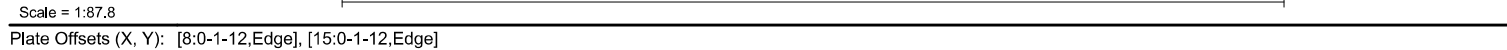


April 9,2025

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

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 E Feb 1 2025 Print: 8.830 E Feb 1 2025 MiTek Industries, Inc. Tue Apr 08 08:37:53 Page: 1
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LUMBER		3) Unbalanced roof live loads have been considered for this design.		12) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.	
TOP CHORD	2x4 SP No.2	2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -1-0-0 to 2-5-8, Exterior(2N) 2-5-8 to 18-5-8, Corner (3R) 18-5-8 to 22-1-13, Exterior(2N) 22-1-13 to 37-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60		13) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.	
BOT CHORD	2x4 SP No.2	3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.		LOAD CASE(S) Standard	
OTHERS	2x4 SP No.3	4) TCELL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10			
BRACING		5) Unbalanced snow loads have been considered for this design.			
TOP CHORD	Structural wood sheathing directly applied.	6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.			
BOT CHORD	Rigid ceiling directly applied.	7) Plates checked for a plus or minus 5 degree rotation about its center.			
WEBS	1 Row at midpt 12-33, 11-34, 10-36, 13-32, 14-30	8) Gable studs spaced at 2-0-0 oc.			
REACTIONS		9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.			
(lb) - Max Horiz 2=-182 (LC 14)		10) * 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.			
Max Uplift All uplift 100 (lb) or less at joint(s) 2, 24, 25, 26, 27, 28, 29, 30, 32, 34, 36, 37, 38, 39, 40, 41, 42		11) N/A			
Max Grav All reactions 250 (lb) or less at joint (s) except 2=323 (LC 81), 22=296 (LC 100), 24=350 (LC 119), 25=328 (LC 118), 26=335 (LC 117), 27=333 (LC 116), 28=334 (LC 115), 29=333 (LC 114), 30=333 (LC 113), 32=334 (LC 112), 33=324 (LC 111), 34=334 (LC 110), 36=333 (LC 109), 37=333 (LC 108), 38=334 (LC 107), 39=333 (LC 106), 40=335 (LC 105), 41=328 (LC 104), 42=350 (LC 103)					
FORCES					
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.					
11-34=-271/41, 10-36=-271/61, 8-37=-274/54, 7-38=-276/55, 6-39=-279/55, 5-40=-282/56, 4-41=-283/53, 3-42=-297/66, 13-32=-271/41, 14-30=-271/61, 16-29=-269/54, 17-28=-276/55, 18-27=-279/55, 19-26=-282/56, 20-25=-283/53, 21-24=-297/66					

NOTES

April 9, 2025



April 9, 2025

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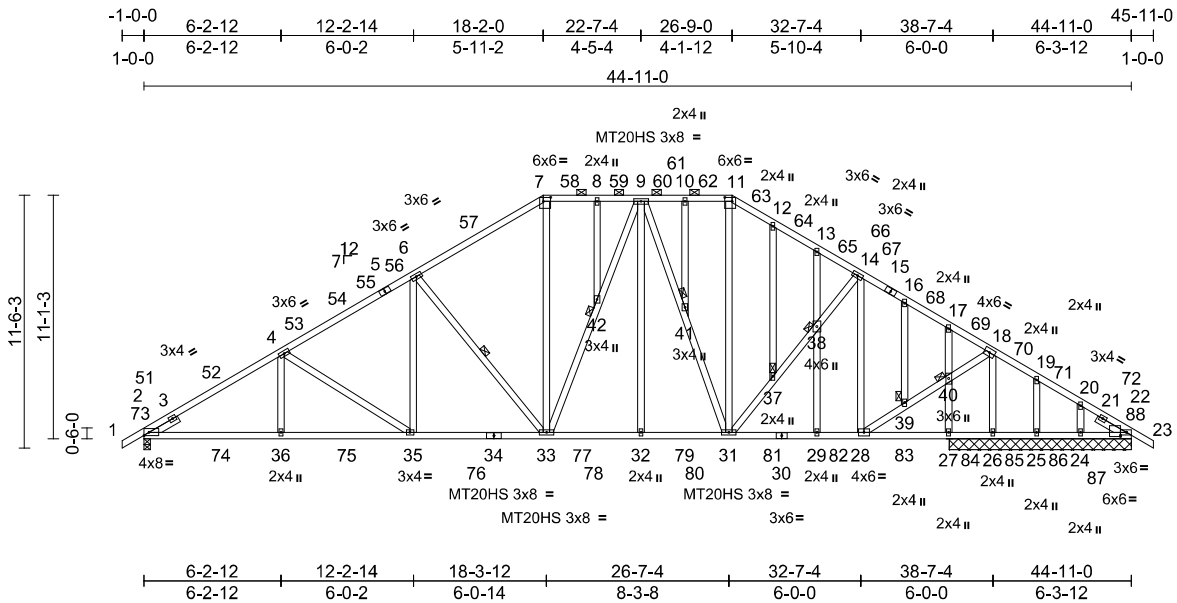
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	172531933
	A1SG	Piggyback Base Structural Gable	2	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Mar 20 2025 Print: 8.830 S Mar 20 2025 MiTek Industries, Inc. Fri Apr 04 09:53:19
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Page: 1



Scale = 1:101.9

Plate Offsets (X, Y): [2:Edge,0-1-12], [7:0-4-0,0-2-4], [11:0-4-0,0-2-4], [22:0-3-5,0-1-8], [22:0-3-5,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.15	33-35	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.26	33-35	>999	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.08	27	n/a	n/a		
BCLL	0.0 *	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.04	35	>999	240		
BCDL	10.0										Weight: 367 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP SS *Except* 34-30:2x4 SP No.2

WEBS 2x4 SP No.3 *Except* 35-4,18-28:2x4 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

BRACING

TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-4-13 max.): 7-11.

BOT CHORD Rigid ceiling directly applied.

WEBS 1 Row at midpt 6-33

JOINTS 1 Brace at Jt(s): 37, 38, 39, 40, 41, 42

REACTIONS (size) 2=0-3-8, 22=8-3-8, 24=8-3-8, 25=8-3-8, 26=8-3-8, 27=8-3-8

Max Horiz 2=180 (LC 15)

Max Uplift 22=-284 (LC 57), 24=-12 (LC 17)

Max Grav 2=1784 (LC 57), 22=150 (LC 133), 24=361 (LC 131), 25=361 (LC 130), 26=1766 (LC 51), 27=560 (LC 59)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/47, 2-4=-3030/0, 4-6=-2643/17, 6-7=-2029/86, 7-8=-1667/107, 8-9=-1667/107, 9-10=-1345/117, 10-11=-1345/117, 11-12=-1521/109, 12-13=-1573/89, 13-14=-1596/60, 14-16=-1190/59, 16-17=-1253/44, 17-18=-1141/19, 18-19=0/738, 19-20=0/784, 20-22=-26/817, 22-23=0/41

NOTES

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

2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 3-5-14, Interior (1) 3-5-14 to 18-2-0, Exterior(2R) 18-2-0 to 24-7-4, Interior (1) 24-7-4 to 26-9-0, Exterior(2R) 26-9-0 to 33-1-4, Interior (1) 33-1-4 to 45-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0

5) Unbalanced snow loads have been considered for this design.

6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

7) Provide adequate drainage to prevent water ponding.

8) All plates are MT20 plates unless otherwise indicated.

9) Plates checked for a plus or minus 5 degree rotation about its center.

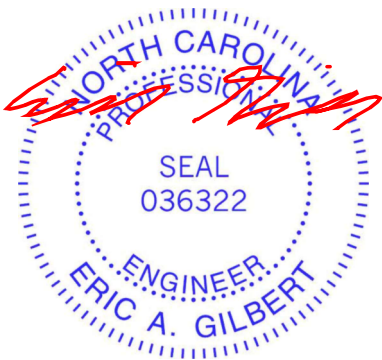
10) Gable studs spaced at 2-0-0 oc.

11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

12) * 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.

13) All bearings are assumed to be SP SS .

14) N/A



April 9,2025

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof
	A1SG	Piggyback Base Structural Gable	2	1	172531933
Job Reference (optional)					

- 15) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 16) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 17) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

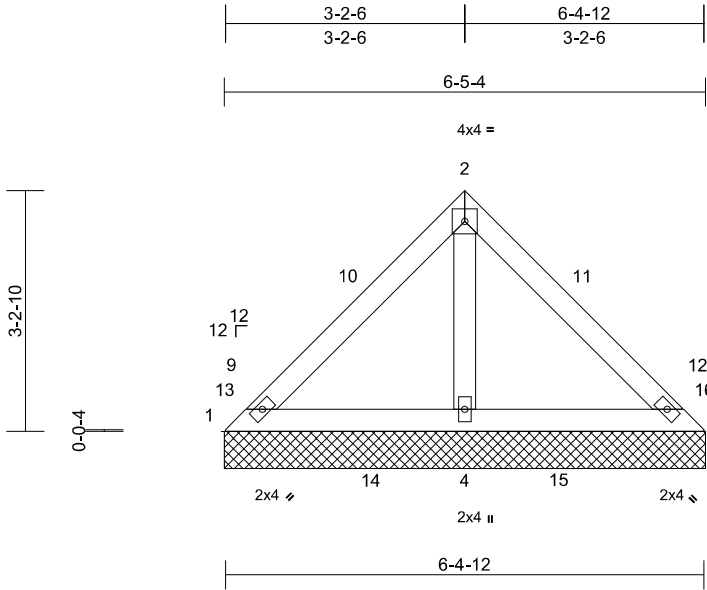
LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531934
	V2	Valley	4	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:30

Loading	(psf)	Spacing	2-0-0	CSI	0.38	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.50	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 25 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
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=6-5-4, 3=6-5-4, 4=6-5-4
Max Horiz 1=48 (LC 14)
Max Uplift 1=-37 (LC 45), 3=-37 (LC 44)
Max Grav 1=274 (LC 47), 3=274 (LC 51), 4=486 (LC 45)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-210/222, 2-3=-210/222
BOT CHORD 1-4=-130/134, 3-4=-130/134
WEBS 2-4=-348/191

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 5 degree rotation about its center.
- 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.3 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 1 and 37 lb uplift at joint 3.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.

LOAD CASE(S) Standard



April 9,2025

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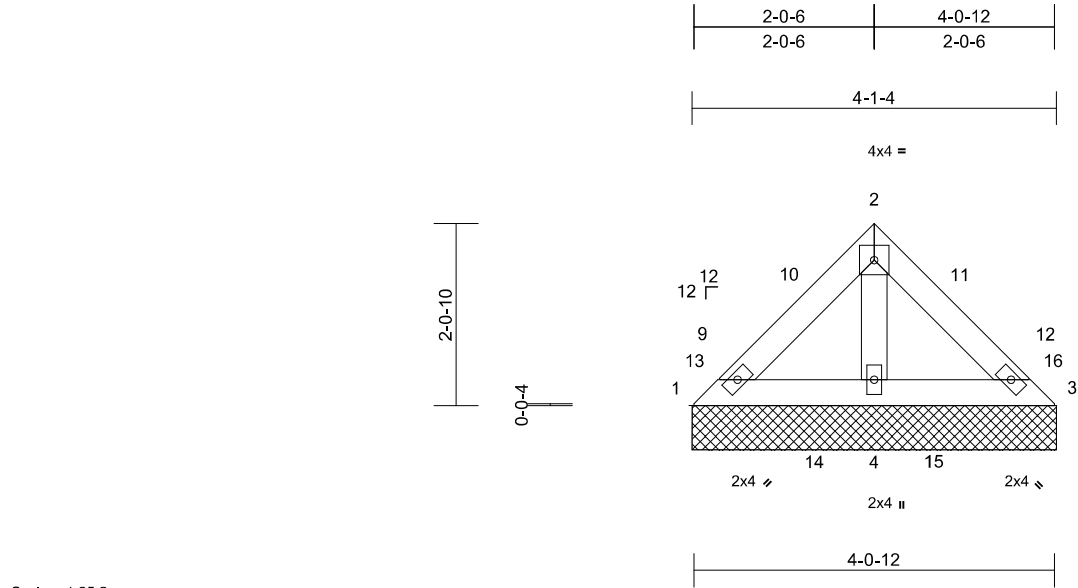
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531935
	V3	Valley	4	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Mar 20 2025 Print: 8.830 S Mar 20 2025 MiTek Industries, Inc. Fri Apr 04 09:53:45
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Page: 1



Scale = 1:25.2											
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 0.20		Vert(LL) n/a - n/a 999		MT20		244/190	
Snow (Pf/Pg) 15.4/20.0		Lumber DOL 1.15		BC 0.25		Vert(TL) n/a - n/a 999					
TCDL 10.0		Rep Stress Incr YES		WB 0.05		Horiz(TL) 0.00 4 n/a n/a					
BCLL 0.0*		Code IRC2021/TPI2014		Matrix-MP							
BCDL 10.0								Weight: 15 lb		FT = 20%	

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=4-1-4, 3=4-1-4, 4=4-1-4
Max Horiz 1=30 (LC 12)
Max Uplift 1=23 (LC 50), 3=23 (LC 48)
Max Grav 1=276 (LC 47), 3=276 (LC 51), 4=371 (LC 57)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-202/143, 2-3=-202/143
BOT CHORD 1-4=-56/129, 3-4=-56/129
WEBS 2-4=-242/79

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- 5) Unbalanced snow loads have been considered for this design.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.
11) All bearings are assumed to be SP No.3 .
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1 and 23 lb uplift at joint 3.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
14) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.

LOAD CASE(S) Standard



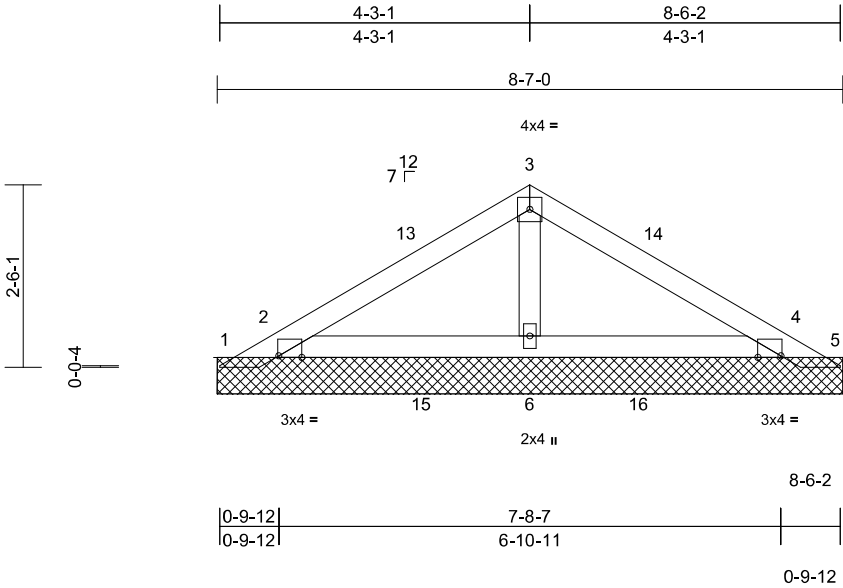
April 9,2025

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531936
	PB1		26	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:30.7									
Plate Offsets (X, Y): [2:0-3-13,Edge], [4:0-3-13,Edge]									
Loading (psf)		Spacing		CSI		DEFL		PLATES	
TCLL (roof)	20.0	Plate Grip DOL	2-0-0	TC	0.33	in (loc)	l/defl	L/d	GRIP
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.52	n/a	-	n/a	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	n/a	-	999	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		0.00	10	n/a	
BCDL	10.0								
								Weight: 28 lb	FT = 20%

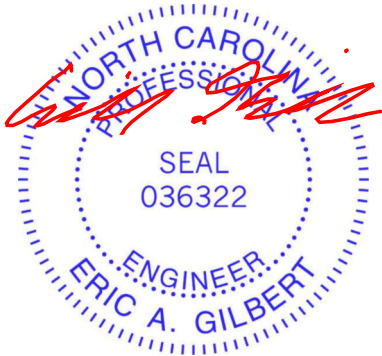
LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.3
OTHERS	2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
REACTIONS	
(size)	1=8-7-0, 2=8-7-0, 4=8-7-0, 5=8-7-0, 6=8-7-0
Max Horiz	1=37 (LC 13)
Max Uplift	1=-287 (LC 46), 2=-19 (LC 16), 4=-21 (LC 17), 5=-284 (LC 47)
Max Grav	1=190 (LC 44), 2=556 (LC 46), 4=543 (LC 47), 5=193 (LC 56), 6=366 (LC 63)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-42/156, 2-3=-139/135, 3-4=-139/133, 4-5=-30/155
BOT CHORD	2-6=-125/47, 4-6=-125/47
WEBS	3-6=-250/21

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-11 to 3-3-11, Interior (1) 3-3-11 to 4-3-8, Exterior(2R) 4-3-8 to 7-3-4, Interior (1) 7-3-4 to 8-3-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 5 degree rotation about its center.
- 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.3 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 287 lb uplift at joint 1 and 284 lb uplift at joint 5.
- N/A

- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



April 9,2025

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

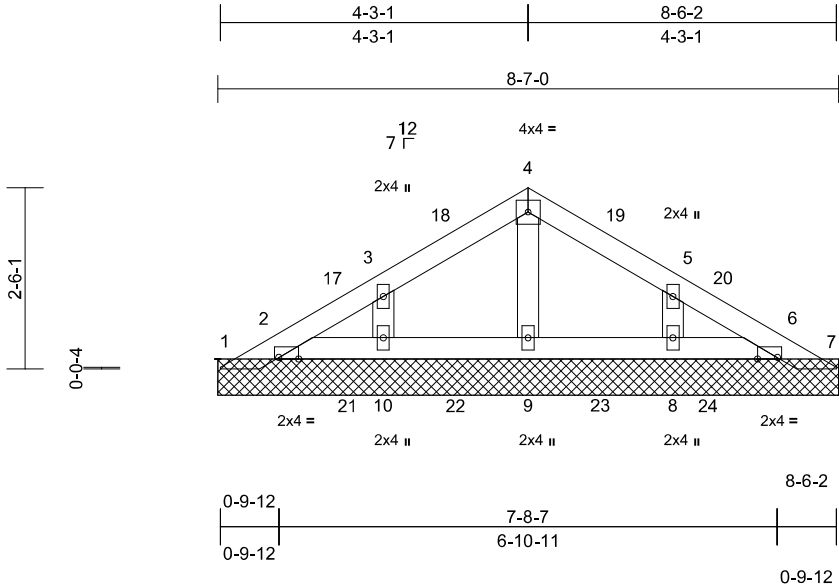
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	172531937
	PB1G		4	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Mar 20 2025 Print: 8.830 S Mar 20 2025 MiTek Industries, Inc. Fri Apr 04 09:53:44
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Page: 1



Scale = 1:31									
Plate Offsets (X, Y): [2:0-3-5,Edge], [6:0-3-5,Edge]									
Loading		(psf)	Spacing		2-0-0	CSI		DEFL	
TCLL (roof)		20.0	Plate Grip DOL		1.15	TC	0.21	in (loc)	I/defl L/d
Snow (Pf/Pg)		15.4/20.0	Lumber DOL		1.15	BC	0.31	n/a	n/a 999
TCDL		10.0	Rep Stress Incr		YES	WB	0.05	n/a	n/a 999
BCLL		0.0*	Code		IRC2021/TPI2014	Matrix-AS		7	n/a n/a
BCDL		10.0							
								PLATES	GRIP
								MT20	244/190
								Weight: 29 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=8-7-0, 2=8-7-0, 6=8-7-0, 7=8-7-0, 8=8-7-0, 9=8-7-0, 10=8-7-0

Max Horiz 1=37 (LC 13)
Max Uplift 1=47 (LC 68), 2=-18 (LC 63), 6=-29 (LC 64), 7=-45 (LC 66), 8=-15 (LC 17), 10=-14 (LC 16)
Max Grav 1=258 (LC 44), 2=304 (LC 61), 6=294 (LC 73), 7=260 (LC 60), 8=332 (LC 71), 9=322 (LC 70), 10=334 (LC 69)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-43/50, 2-3=-67/70, 3-4=-110/50, 4-5=-110/50, 5-6=-67/70, 6-7=-16/35
BOT CHORD 2-10=-14/37, 9-10=-14/37, 8-9=-14/37, 6-8=-14/37
WEBS 4-9=-240/0, 3-10=-290/86, 5-8=-289/86

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-11 to 3-3-11, Interior (1) 3-3-11 to 4-3-8, Exterior(2R) 4-3-8 to 7-3-4, Interior (1) 7-3-4 to 8-3-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Plates checked for a plus or minus 5 degree rotation about its center.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * 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.
- 11) All bearings are assumed to be SP No.3 .
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 2, 29 lb uplift at joint 6, 47 lb uplift at joint 1, 45 lb uplift at joint 7, 14 lb uplift at joint 10, 15 lb uplift at joint 8, 18 lb uplift at joint 2 and 29 lb uplift at joint 6.
- 13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 14) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 15) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- LOAD CASE(S)** Standard



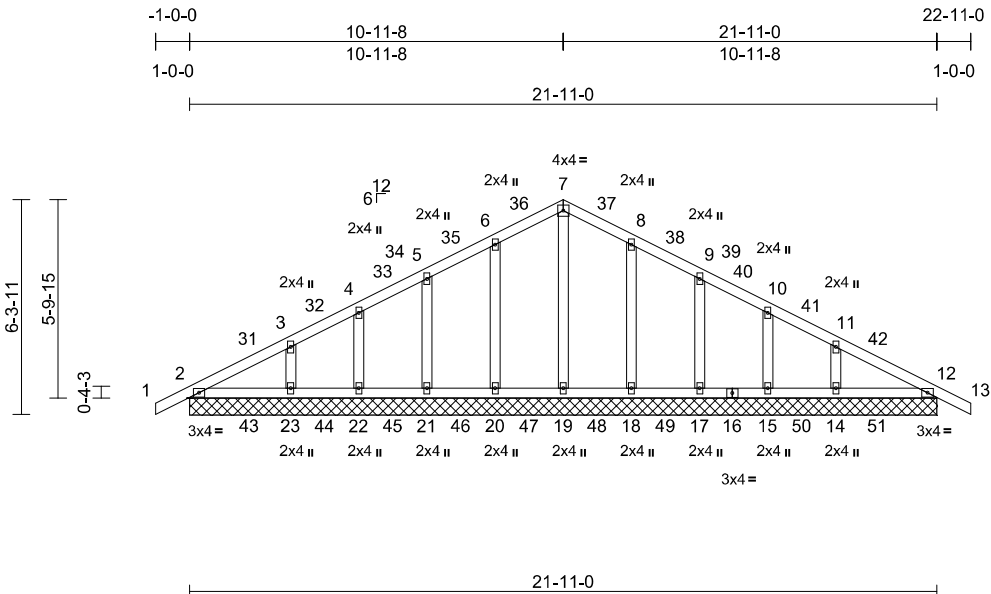
April 9,2025

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531938
	G3G	Common Supported Gable	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:65.8																		
Loading		(psf)	Spacing		2-0-0		CSI		DEFL		in (loc) l/defl L/d		PLATES		GRIP			
TCLL (roof)		20.0	Plate Grip DOL		1.15		TC		0.23		Vert(LL) n/a - n/a		999		MT20		244/190	
Snow (Pf/Pg)		15.4/20.0	Lumber DOL		1.15		BC		0.26		Vert(CT) n/a - n/a		999					
TCDL		10.0	Rep Stress Incr		YES		WB		0.15		Horz(CT) 0.00 12		n/a n/a					
BCLL		0.0 *	Code		IRC2021/TPI2014		Matrix-AS											
BCDL		10.0															Weight: 114 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.
BOT CHORD	Rigid ceiling directly applied.
REACTIONS	(size)
	2=21-11-0, 12=21-11-0, 14=21-11-0, 15=21-11-0, 17=21-11-0, 18=21-11-0, 19=21-11-0, 20=21-11-0, 21=21-11-0, 22=21-11-0, 23=21-11-0
	Max Horiz 2=52 (LC 15)
	Max Uplift 14=-8 (LC 17), 15=-6 (LC 17), 17=-7 (LC 17), 18=-5 (LC 17), 20=-6 (LC 16), 21=-7 (LC 16), 22=-6 (LC 16), 23=-8 (LC 16)
	Max Grav 2=329 (LC 69), 12=329 (LC 93), 14=368 (LC 91), 15=321 (LC 90), 17=336 (LC 89), 18=333 (LC 88), 19=326 (LC 87), 20=333 (LC 86), 21=336 (LC 85), 22=321 (LC 84), 23=368 (LC 83)
FORCES	
TOP CHORD	(lb) - Maximum Compression/Maximum Tension
	1-2=0/36, 2-3=-109/81, 3-4=-72/59, 4-5=-73/68, 5-6=-69/108, 6-7=-92/145, 7-8=-92/145, 8-9=-69/108, 9-10=-73/68, 10-11=-72/59, 11-12=-109/81, 12-13=0/36
	BOT CHORD
	2-23=-30/90, 22-23=-30/90, 21-22=-30/90, 20-21=-30/90, 19-20=-30/90, 18-19=-30/90, 17-18=-30/90, 15-17=-30/90, 14-15=-30/90, 12-14=-30/90
	WEBS
	7-19=-249/3, 6-20=-282/59, 5-21=-284/65, 4-22=-280/58, 3-23=-307/83, 8-18=-282/59, 9-17=-284/66, 10-15=-280/58, 11-14=-307/83

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 10-11-8, Corner(3R) 10-11-8 to 13-11-8, Exterior(2N) 13-11-8 to 22-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1. TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 5 degree rotation about its center.
- 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 .

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 20, 7 lb uplift at joint 21, 6 lb uplift at joint 22, 8 lb uplift at joint 23, 5 lb uplift at joint 18, 7 lb uplift at joint 17, 6 lb uplift at joint 15 and 8 lb uplift at joint 14.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 24.
 - This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- LOAD CASE(S)** Standard



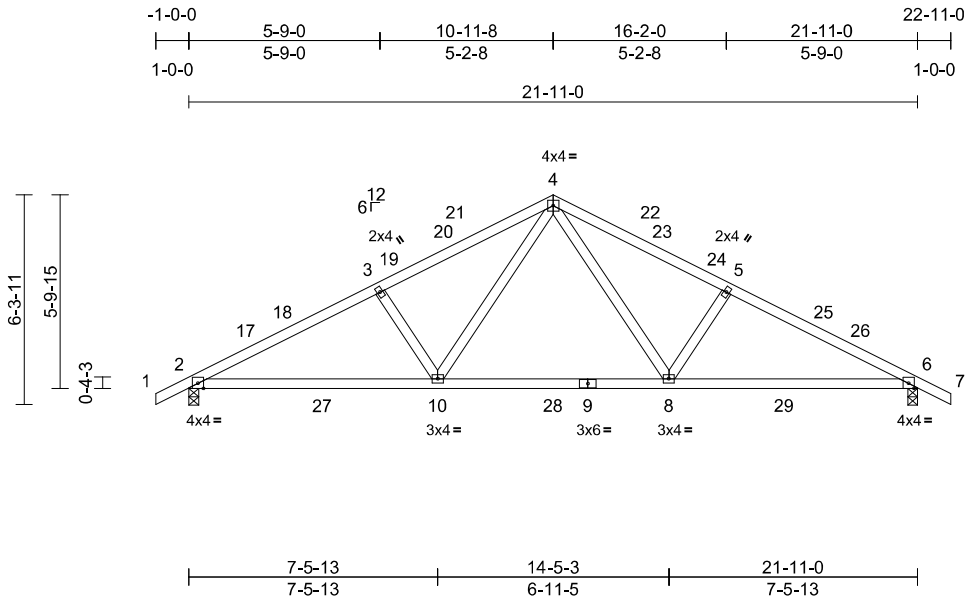
April 9,2025

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531939
	G3	Common	7	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

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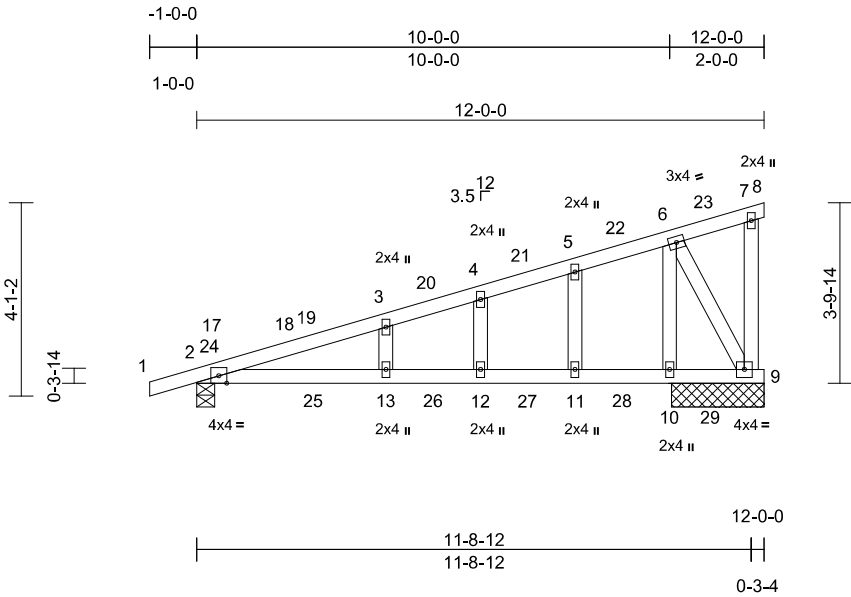


Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531943
	C1G	Monopitch Supported Gable	2	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1/47.4

Loading	(psf)	Spacing	2-0-0	CSI	0.41	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.25	12-13	>483	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.48	12-13	>252	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.24	12-13	>507	240		
BCDL	10.0										Weight: 58 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

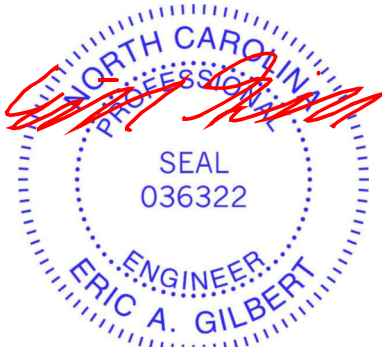
REACTIONS (size) 2=0-4-8, 8=1-11-8, 9=1-11-8, 10=1-11-8
Max Horiz 2=91 (LC 13)
Max Uplift 2=-72 (LC 12), 8=-45 (LC 12), 9=-434 (LC 51), 10=-120 (LC 12)
Max Grav 2=449 (LC 61), 8=194 (LC 46), 9=92 (LC 12), 10=848 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-328/90, 3-4=-144/53, 4-5=-130/64, 5-6=-116/76, 6-7=-96/71, 7-8=-32/54, 7-9=-216/407
BOT CHORD 2-13=-148/295, 12-13=-104/151, 11-12=-104/151, 10-11=-104/151, 9-10=-104/151
WEBS 6-10=-325/114, 5-11=-129/119, 4-12=-126/124, 3-13=-124/127, 6-9=-305/163

NOTES
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 12-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 5 degree rotation about its center.
- 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 SS.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 8.
- 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 has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



April 9,2025

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

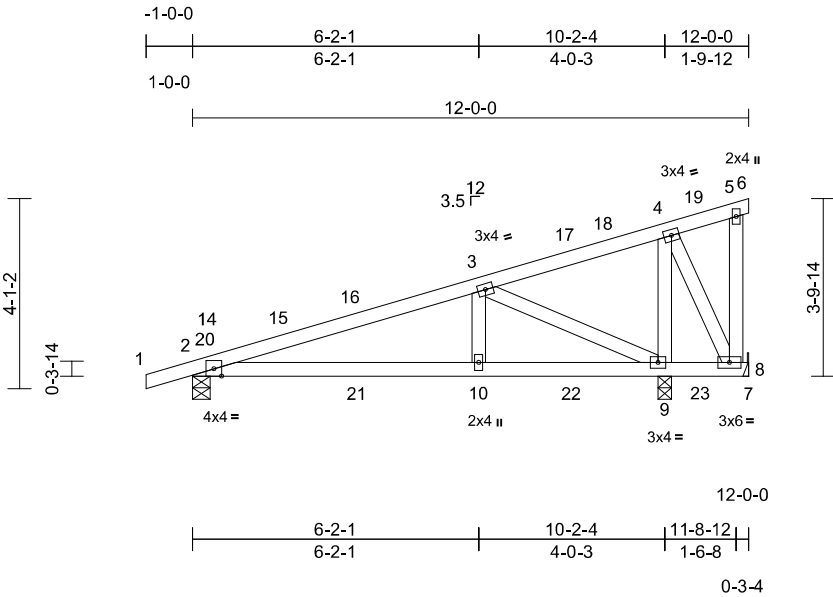
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531944
	C1	Monopitch	14	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:48.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.12	10-13	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.17	10-13	>721	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.01	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.05	10-13	>999	240		
BCDL	10.0										Weight: 60 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, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
REACTIONS (size) 2=0-4-8, 8= Mechanical, 9=0-3-8	
Max Horiz	2=91 (LC 15)
Max Uplift	2=-73 (LC 12), 8=-323 (LC 56), 9=-125 (LC 12)
Max Grav	2=451 (LC 54), 8=118 (LC 53), 9=880 (LC 23)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/23, 2-3=-541/221, 3-4=-142/202, 4-5=-52/49, 5-6=-6/0, 5-8=-262/72
BOT CHORD	2-10=-277/495, 9-10=-277/495, 8-9=-173/116, 7-8=0/0
WEBS	3-10=-73/364, 3-9=-713/324, 4-9=-532/213, 4-8=-128/367

- NOTES**
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 12-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 5 degree rotation about its center.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 2 SP No.2, Joint 9 SP No.2.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 323 lb uplift at joint 8.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. This connection is for uplift only and does not consider lateral forces.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



April 9,2025

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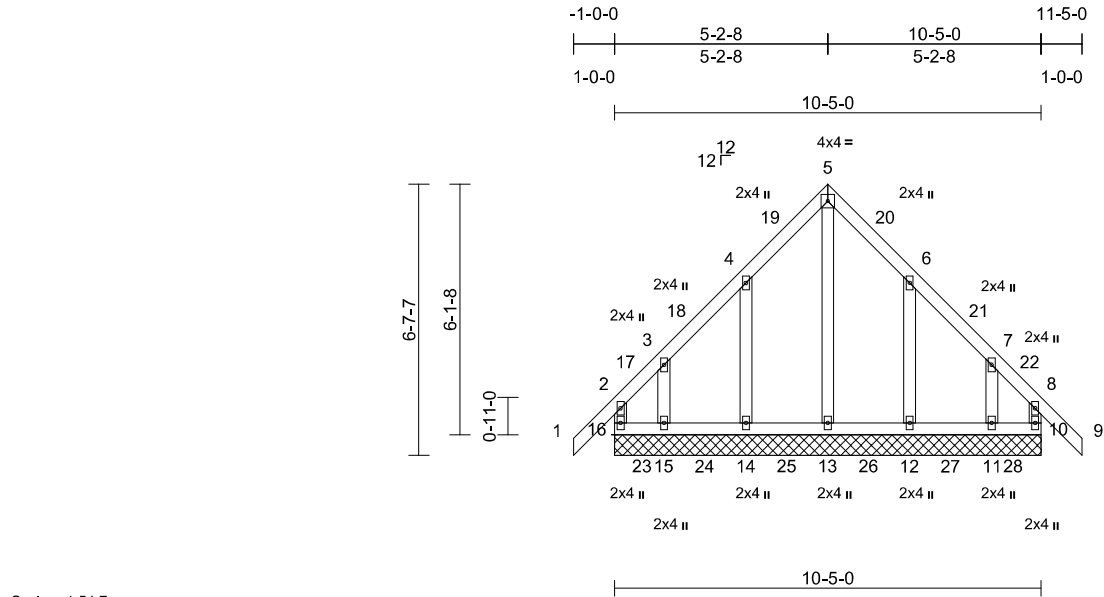
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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531949
	B2G	Common Supported Gable	4	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:54.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	10	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR							
BCDL	10.0										
Weight: 67 lb FT = 20%											

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

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

REACTIONS (size) 10=10-5-0, 11=10-5-0, 12=10-5-0, 13=10-5-0, 14=10-5-0, 15=10-5-0, 16=10-5-0
Max Horiz 16=116 (LC 15)
Max Uplift 10=-44 (LC 13), 11=-63 (LC 17), 12=-37 (LC 17), 14=-37 (LC 16), 15=-65 (LC 16), 16=-58 (LC 12)
Max Grav 10=298 (LC 69), 11=307 (LC 68), 12=339 (LC 67), 13=331 (LC 66), 14=339 (LC 65), 15=307 (LC 64), 16=298 (LC 63)

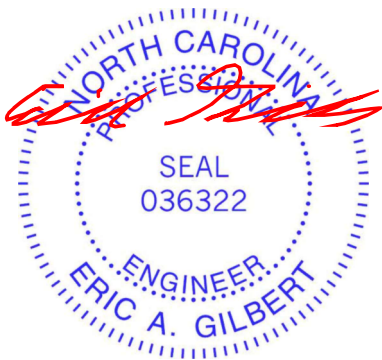
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-16=-286/61, 1-2=0/66, 2-3=-109/85, 3-4=-126/81, 4-5=-130/183, 5-6=-130/178, 6-7=-126/81, 7-8=-109/85, 8-9=0/66, 8-10=-286/57
BOT CHORD 15-16=-58/107, 14-15=-58/107, 13-14=-58/107, 12-13=-58/107, 11-12=-58/107, 10-11=-58/107
WEBS 5-13=-238/48, 4-14=-290/154, 3-15=-266/123, 6-12=-290/154, 7-11=-266/121

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

- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 5-2-8, Exterior(2R) 5-2-8 to 8-2-8, Interior (1) 8-2-8 to 11-5-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 5 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 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.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 16, 44 lb uplift at joint 10, 37 lb uplift at joint 14, 65 lb uplift at joint 15, 37 lb uplift at joint 12 and 63 lb uplift at joint 11.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.

LOAD CASE(S) Standard



April 9,2025

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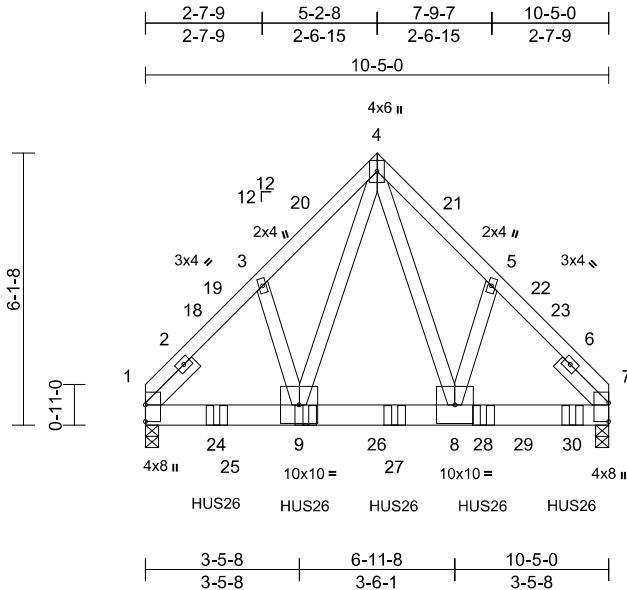
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Job	Truss	Truss Type	Qty	Ply	Stonehaven Rev 2-ELEV. 1-Roof	I72531962
	B2GR	Common Girder	2	2	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Mar 20 2025 Print: 8.830 S Mar 20 2025 MiTek Industries, Inc. Fri Apr 04 09:53:38
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Scale = 1:50.4

Loading	(psf)	Spacing	2-0-0	CSI	0.26	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.04	8-9	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.07	8-9	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.58	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS		Wind(LL)	0.00	8-9	>999	240		
BCDL	10.0										Weight: 153 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 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

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

REACTIONS (size) 1=0-3-8, 7=0-3-8
Max Horiz 1=83 (LC 65)
Max Grav 1=4217 (LC 26), 7=4800 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-4188/0, 3-4=-4073/0, 4-5=-4072/0, 5-7=-4177/0
BOT CHORD 1-9=0/2906, 8-9=0/2066, 7-8=0/2875
WEBS 3-9=-142/160, 4-9=0/2909, 4-8=0/2903, 5-8=-152/149

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

- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 5 degree rotation about its center.
- 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 .
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-7-4 from the left end to 9-7-4 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-51, 4-7=-51, 10-14=-20
Concentrated Loads (lb)
Vert: 9=-1272 (B), 24=-1272 (B), 27=-1272 (B), 28=-1272 (B), 30=-1274 (B)



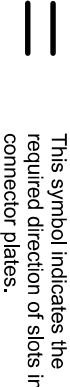
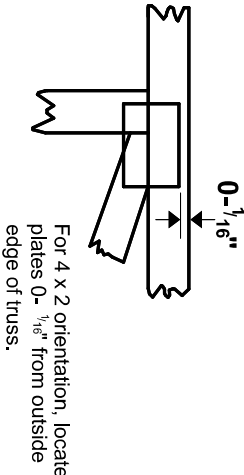
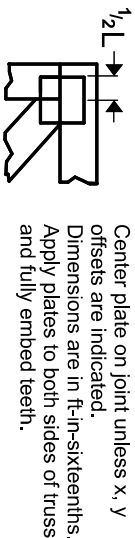
April 9,2025

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Symbols

PLATE LOCATION AND ORIENTATION



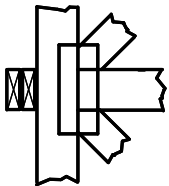
* Plate location details available in MITek software or upon request.

PLATE SIZE

4 X 4

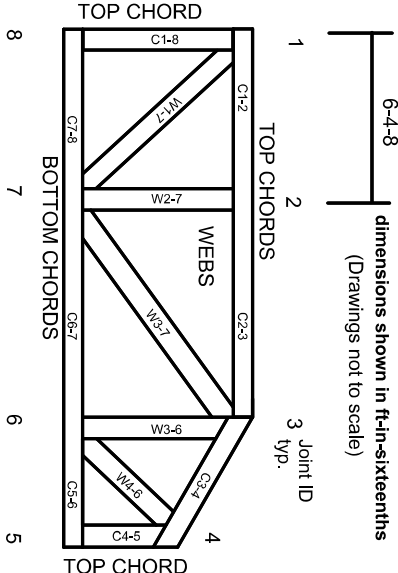
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Industry Standards:
ANSI/TP11: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling
Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:
ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.