

RE: 2501-0707-A - The Farm at Neills Creek Lot 00.0049 Roof

Trenco

818 Soundside Rd
 Edenton, NC 27932

Site Information:

Project Customer: DRB Raleigh Project Name: The Farm at Neills Creek Lot 00.0049

Lot/Block: 00.0049

Subdivision: The Farm at Neills Creek

Model: Middleton

Address: 580 Winding Creek Dr

City: Lillington

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

Exposure Category: B

Mean Roof Height (feet): 25

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1		VA1	1/22/25	35	I70910856	VG7	1/22/25
2	I70910823	P1G	1/22/25	36	I70910857	V7	1/22/25
3	I70910824	VC1	1/22/25	37	I70910858	M1A	1/22/25
4	I70910825	VG1	1/22/25	38	I70910859	M1AG	1/22/25
5	I70910826	V1	1/22/25	39	I70910860	VG8	1/22/25
6	I70910827	PB1G	1/22/25	40	I70910861	VGE1	1/22/25
7	I70910828	PB1	1/22/25	41	I70910862	A2SG	1/22/25
8	I70910829	P1	1/22/25		I70910863	A1C	1/22/25
9	I70910830	VA2	1/22/25	43	I70910864	A1G	1/22/25
10		VG2	1/22/25	44	I70910865	A1	1/22/25
11	I70910832	V2	1/22/25	45	I70910866	A1A	1/22/25
12	I70910833	G2G	1/22/25				
13	I70910834	VG3	1/22/25				
14	I70910835	V3	1/22/25				
	I70910836	C1G	1/22/25				
16	I70910837	C1	1/22/25				
17	I70910838	VG4	1/22/25				
18	I70910839	V4	1/22/25				
19		B2GR	1/22/25				
20	I70910841	B2	1/22/25				
21	I70910842	B1A	1/22/25				
22	I70910843	VG5	1/22/25				
23	I70910844	V5	1/22/25				
	I70910845	A2G	1/22/25				
25	I70910846	A2	1/22/25				
26	I70910847	A2A	1/22/25				
27	I70910848	VG6	1/22/25				
28	I70910849	M2	1/22/25				
29	I70910850	M2G	1/22/25				
30	I70910851	V6	1/22/25				
31	I70910852	G1G	1/22/25				
32	I70910853	G1	1/22/25				
	I70910854	B1G	1/22/25				
34	I70910855	B1	1/22/25				

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.



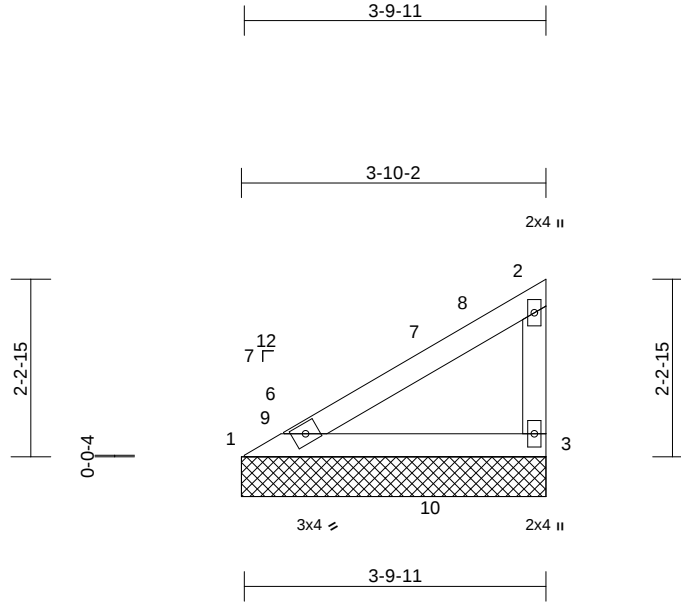
January 22, 2025

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	VA1	Valley	2	1	170910822
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.43	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.74	Vert(TL)	n/a	-	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP							
BCDL	10.0									Weight: 14 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-9-11 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)

1=3-10-2, 3=3-10-2
Max Horiz 1=48 (LC 13)
Max Uplift 3=-1 (LC 16)
Max Grav 1=327 (LC 42), 3=327 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension

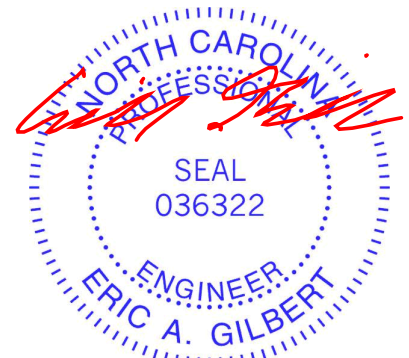
TOP CHORD	1-2=-451/77, 2-3=-289/63
BOT CHORD	1-3=-90/388

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) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 3-8-6 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) Plates checked for a plus or minus 5 degree rotation about its center.

- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 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.3 .
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 3.
- 12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.
- 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



January 22, 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.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

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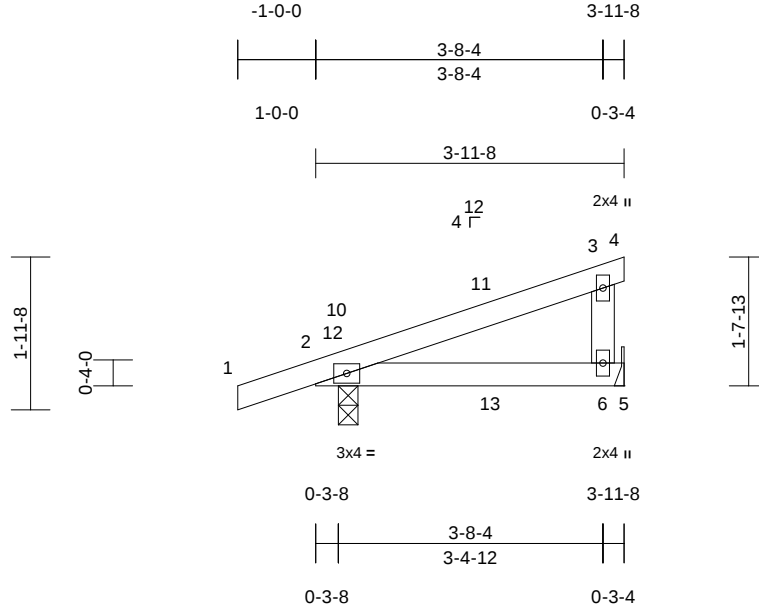
Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	P1G	Monopitch Structural Gable	5	1	170910823
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.03	6-9	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.04	6-9	>990	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-MP		Wind(LL)	0.01	6-9	>999	240		
BCDL	10.0											
											Weight: 15 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-11-8 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	2=0-3-0, 6= Mechanical
	Max Horiz	2=39 (LC 12)
	Max Uplift	2=-41 (LC 12), 6=-24 (LC 12)
	Max Grav	2=349 (LC 48), 6=335 (LC 44)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	1-2=0/26, 2-3=-176/46, 3-4=-6/0
BOT CHORD	2-6=-42/147, 5-6=0/0
WEBS	3-6=-294/86

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 3-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Bearings are assumed to be: Joint 2 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 24 lb uplift at joint 6.
- 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.

LOAD CASE(S) Standard



January 22,2025

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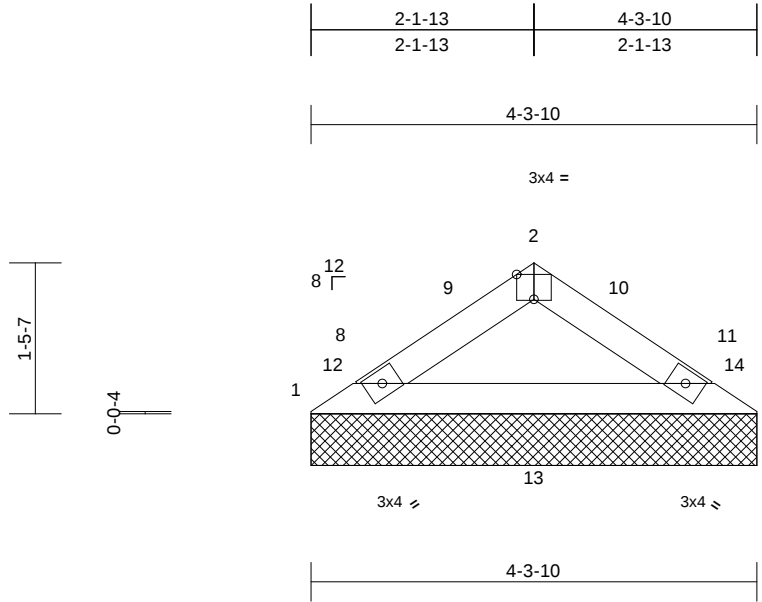
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Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	VC1	Valley	2	1	Job Reference (optional)
					I70910824

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:15.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.58	Vert(TL)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.01	3	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS							
BCDL	10.0										
										Weight: 13 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 1=4-3-10, 3=4-3-10
Max Horiz 1=20 (LC 15)
Max Grav 1=339 (LC 47), 3=339 (LC 51)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-466/81, 2-3=-466/81
BOT CHORD 1-3=-56/380

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) 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.

LOAD CASE(S) Standard



January 22,2025

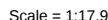
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

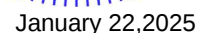
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LOAD CASE(S) Standard



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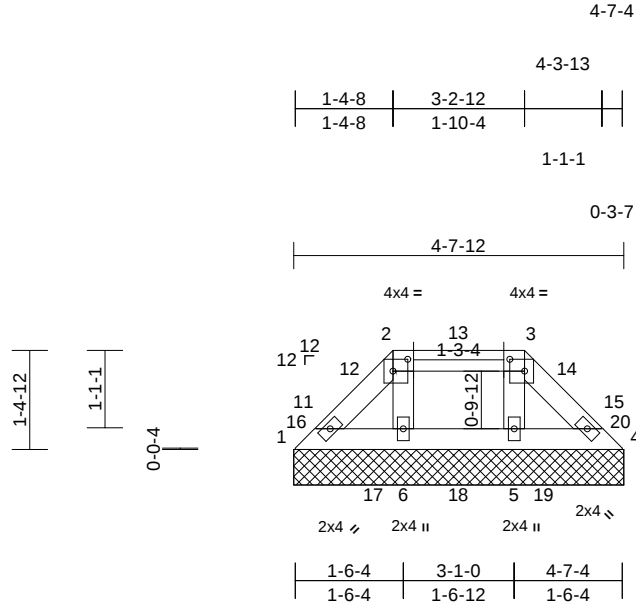
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Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	V1	Valley	3	1	170910826
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:20.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.23	Vert(TL)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	6	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP							
BCDL	10.0										
										Weight: 17 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-7-4 oc purlins, except 2-0-0 oc purlins: 2-3.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=4-7-12, 4=4-7-12, 5=4-7-12, 6=4-7-12
Max Horiz 1=-20 (LC 14)
Max Uplift 1=-5 (LC 76), 4=-5 (LC 73)
Max Grav 1=275 (LC 72), 4=275 (LC 77), 5=324 (LC 85), 6=324 (LC 84)

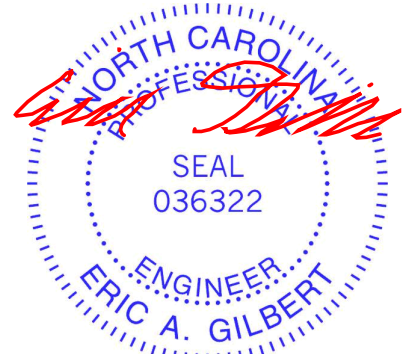
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-183/126, 2-3=-13/54, 3-4=-183/126
BOT CHORD 1-6=-44/117, 5-6=-54/26, 4-5=-44/117
WEBS 2-6=-255/22, 3-5=-255/22

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) 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=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
- Unbalanced snow loads have been considered for this design.

- Provide adequate drainage to prevent water ponding.
- Plates checked for a plus or minus 5 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- 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 5 lb uplift at joint 1 and 5 lb uplift at joint 4.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 4.
- 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.
- 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



January 22,2025

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.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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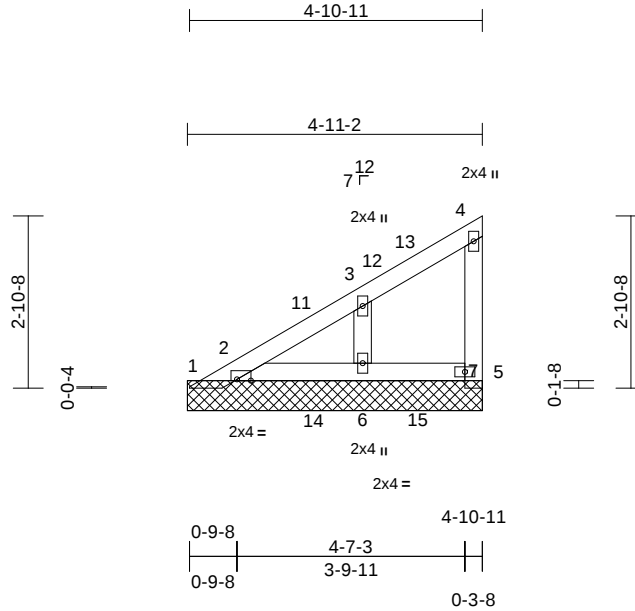
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	PB1G	Piggyback	3	1	170910827
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:59
ID:YB4nRKlqtXQQ4d8zieKejYzun1X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:32.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.35	Vert(TL)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	7	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS							
BCDL	10.0										
Weight: 19 lb FT = 20%											

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.3
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)	1=4-11-2, 2=4-11-2, 5=4-11-2, 6=4-11-2, 7=4-11-2
Max Horiz	1=65 (LC 15)
Max Uplift	1=-104 (LC 50), 5=-4 (LC 13), 6=-11 (LC 16)
Max Grav	1=244 (LC 40), 2=378 (LC 53), 5=281 (LC 55), 6=346 (LC 54)

FORCES

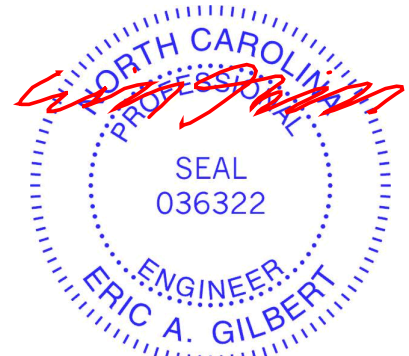
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-167/150, 2-3=-99/83, 3-4=-88/56, 5-7=0/0, 4-5=-266/40
BOT CHORD	2-6=-43/47, 5-6=-43/47
WEBS	3-6=-294/83

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) 0-3-11 to 3-3-11, Interior (1) 3-3-11 to 4-9-6 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 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.3.
- Bearing at joint(s) 2, 5, 1, 7, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 5, 104 lb uplift at joint 1 and 11 lb uplift at joint 6.
- 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



January 22,2025

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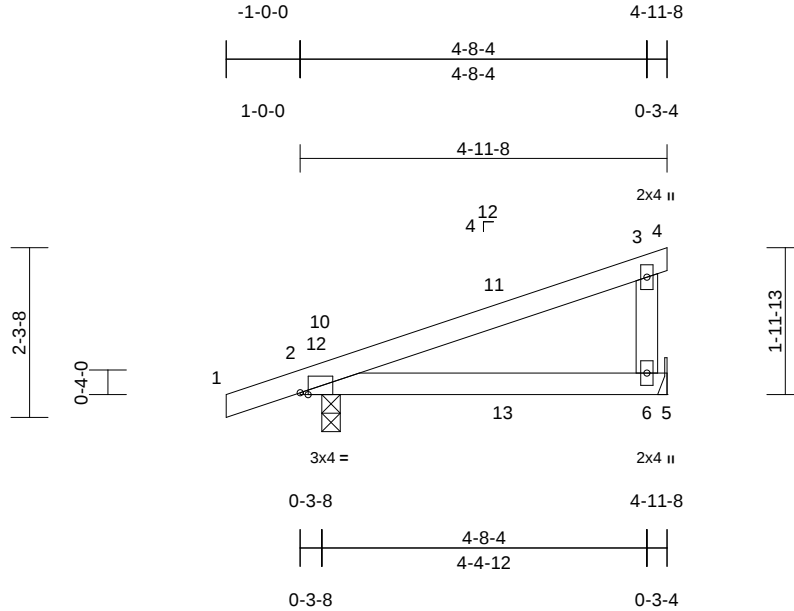
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	P1	Monopitch	20	1	170910829
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:59
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Page: 1



Scale = 1:22.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.07	6-9	>769	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.10	6-9	>564	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.04	6-9	>999	240		
BCDL	10.0										Weight: 19 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS

(size) 2=0-3-0, 6= Mechanical
Max Horiz 2=46 (LC 12)
Max Uplift 2=-46 (LC 12), 6=-32 (LC 12)
Max Grav 2=369 (LC 42), 6=356 (LC 44)

FORCES

(lb) - Maximum Compression/Maximum Tension

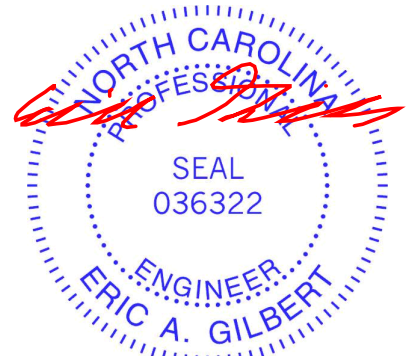
TOP CHORD 1-2=0/26, 2-3=-193/49, 3-4=-6/0
BOT CHORD 2-6=-63/166, 5-6=0/0
WEBS 3-6=-305/110

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 4-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 32 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 and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



January 22,2025

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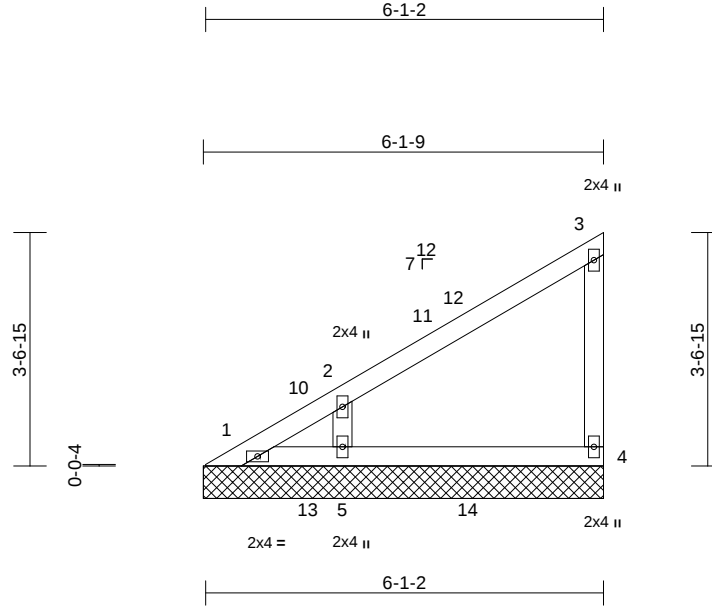
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	VA2	Valley	2	1	170910830
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:32.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	n/a	-	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.79	Vert(TL)	n/a	-	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS							
BCDL	10.0										
										Weight: 24 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.3
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)	1=6-1-9, 4=6-1-9, 5=6-1-9
Max Horiz	1=78 (LC 15)
Max Uplift	1=-89 (LC 49), 4=-3 (LC 13), 5=-21 (LC 16)
Max Grav	1=248 (LC 47), 4=316 (LC 53), 5=411 (LC 52)

FORCES

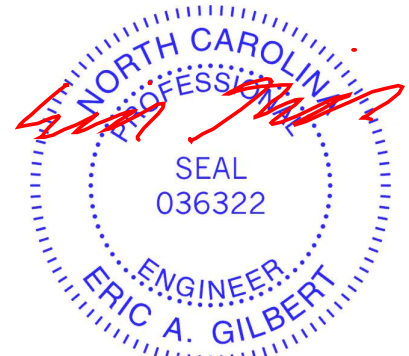
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-184/138, 2-3=-104/77, 3-4=-284/79
BOT CHORD	1-5=-47/51, 4-5=-47/51
WEBS	2-5=-378/172

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) 0-6-15 to 3-6-15, Interior (1) 3-6-15 to 5-11-13 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) Plates checked for a plus or minus 5 degree rotation about its center.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 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.3 .
- 11) Bearing at joint(s) 1, 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 1, 3 lb uplift at joint 4, 21 lb uplift at joint 5 and 89 lb uplift at joint 1.
- 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.

LOAD CASE(S) Standard



January 22,2025

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Edenton, NC 27932

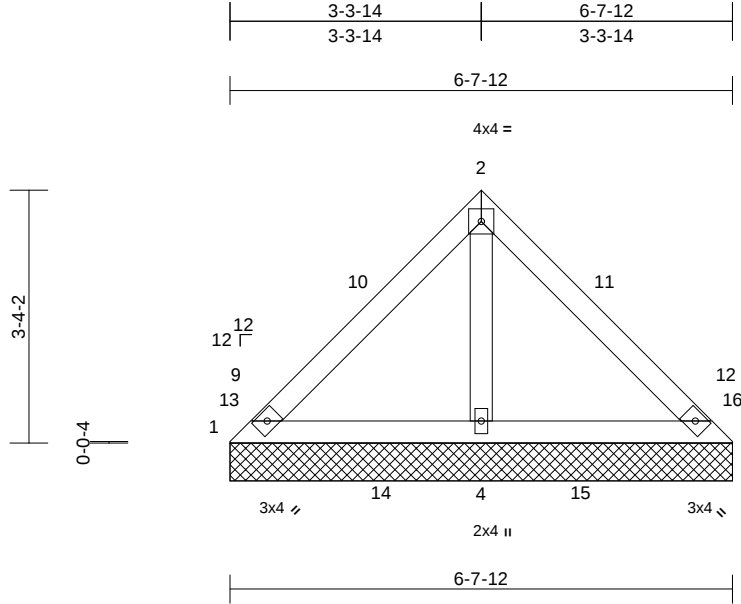
Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	VG2	Valley	5	1	170910831
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:36:02

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Scale = 1:22.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.40	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.53	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	4	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP							
BCDL	10.0										
										Weight: 27 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=6-7-12, 3=6-7-12, 4=6-7-12
Max Horiz	1=-50 (LC 12)
Max Uplift	1=-38 (LC 45), 3=-38 (LC 44)
Max Grav	1=275 (LC 47), 3=275 (LC 51), 4=493 (LC 45)

FORCES

(lb) - Maximum Compression/Maximum Tension

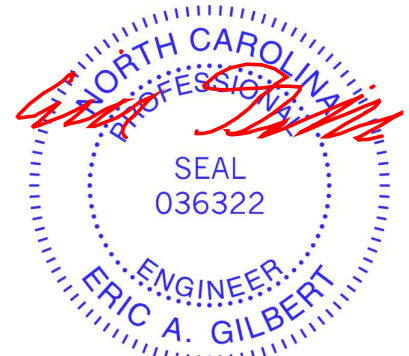
TOP CHORD	1-2=-211/224, 2-3=-211/224
BOT CHORD	1-4=-143/132, 3-4=-143/132
WEBS	2-4=-374/85

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) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 3-4-2, Exterior(2R) 3-4-2 to 6-4-2, Interior (1) 6-4-2 to 6-8-0 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
- 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 38 lb uplift at joint 1 and 38 lb uplift at joint 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



January 22, 2025

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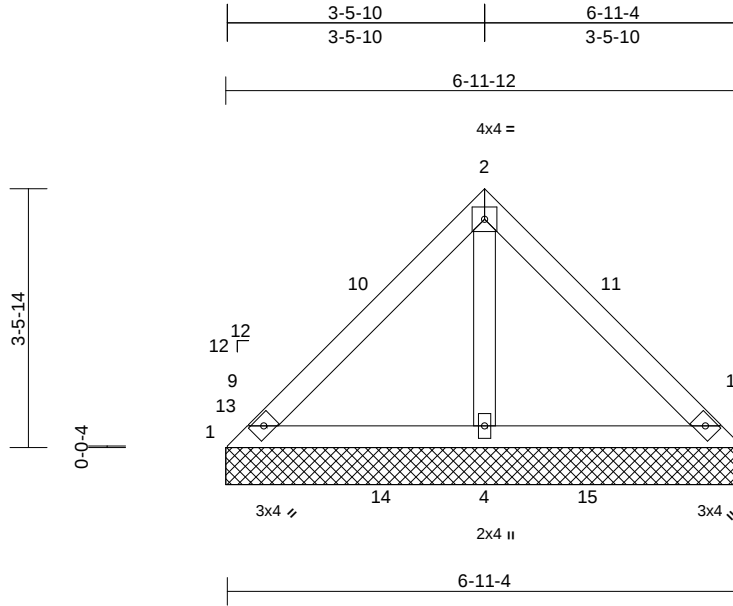
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	V2	Valley	3	1	170910832
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:22.8

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	0.43	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.57	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	4	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP							
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 or 6-11-4 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size)	1=6-11-12, 3=6-11-12, 4=6-11-12
Max Horiz	1=-53 (LC 12)
Max Uplift	1=-46 (LC 45), 3=-46 (LC 44), 4=-1 (LC 16)
Max Grav	1=272 (LC 47), 3=272 (LC 51), 4=522 (LC 45)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-208/242, 2-3=-208/242
BOT CHORD	1-4=-151/170, 3-4=-151/170
WEBS	2-4=-401/215

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 3-5-14, Exterior(2R) 3-5-14 to 6-3-5, Interior (1) 6-3-5 to 6-11-12 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 46 lb uplift at joint 1, 46 lb uplift at joint 3 and 1 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



January 22, 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

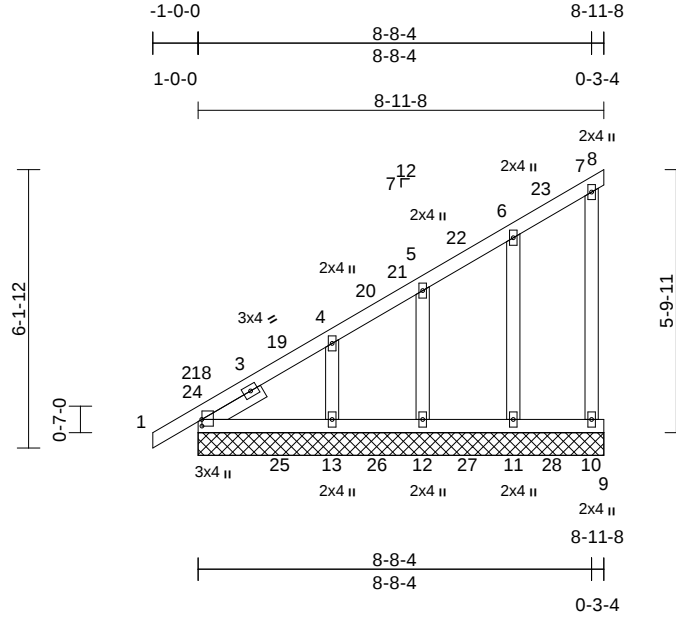
Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	G2G	Monopitch Supported Gable	5	1	170910833
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:57

Page: 1

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Scale = 1:37.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	n/a	-	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	8	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS							
BCDL	10.0										
										Weight: 54 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
SLIDER	Left 2x4 SP No.3 -- 1-6-0

BRACING

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

REACTIONS	(size)	2=8-11-8, 8=8-11-8, 9=8-11-8, 10=8-11-8, 11=8-11-8, 12=8-11-8, 13=8-11-8
	Max Horiz	2=124 (LC 16)
	Max Uplift	8=63 (LC 44), 9=231 (LC 57), 10=60 (LC 56), 11=14 (LC 16), 12=3 (LC 16), 13=32 (LC 16)
	Max Grav	2=326 (LC 59), 8=113 (LC 45), 9=61 (LC 56), 10=415 (LC 57), 11=335 (LC 63), 12=321 (LC 62), 13=368 (LC 61)

FORCES

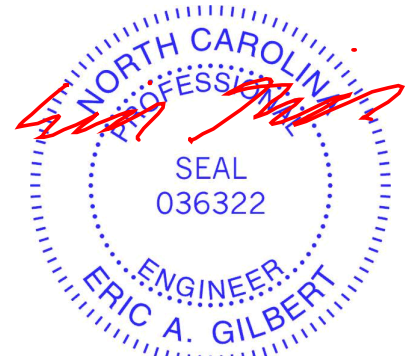
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/41, 2-4=-260/137, 4-5=-176/81, 5-6=-120/74, 6-7=-79/66, 7-8=-35/57
BOT CHORD	2-13=0/0, 12-13=0/0, 11-12=0/0, 10-11=0/0, 9-10=0/0
WEBS	6-11=-282/130, 5-12=-279/88, 4-13=-306/151, 7-10=-199/57

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

- 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 231 lb uplift at joint 9, 63 lb uplift at joint 8, 14 lb uplift at joint 11, 3 lb uplift at joint 12, 32 lb uplift at joint 13 and 60 lb uplift at joint 10.
- 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.

LOAD CASE(S) Standard



January 22,2025

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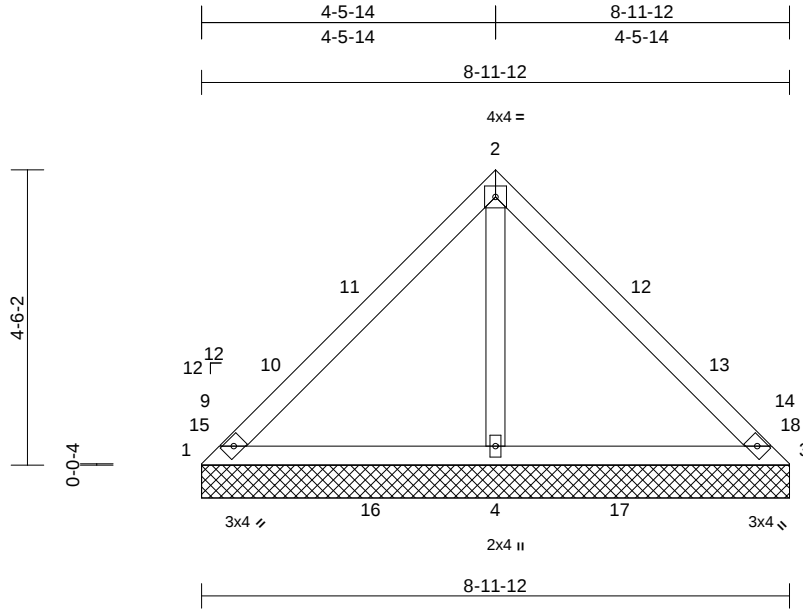
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	VG3	Valley	5	1	170910834
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:26.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.62	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.83	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.01	4	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP							
BCDL	10.0									Weight: 37 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 8-11-12 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS	(size)	1=8-11-12, 3=8-11-12, 4=8-11-12
	Max Horiz	1=-69 (LC 12)
	Max Uplift	1=-77 (LC 45), 3=-77 (LC 44), 4=-16 (LC 16)
	Max Grav	1=262 (LC 47), 3=262 (LC 51), 4=685 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-194/330, 2-3=-194/330
BOT CHORD	1-4=-255/132, 3-4=-255/132
WEBS	2-4=-639/159

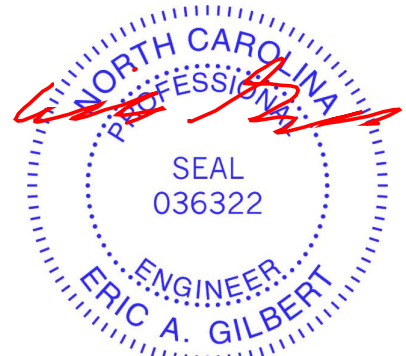
NOTES

- 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) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 4-6-2, Exterior(2R) 4-6-2 to 7-6-2, Interior (1) 7-6-2 to 9-0-0 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.
- 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 16 lb uplift at joint 4.
- 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



January 22, 2025

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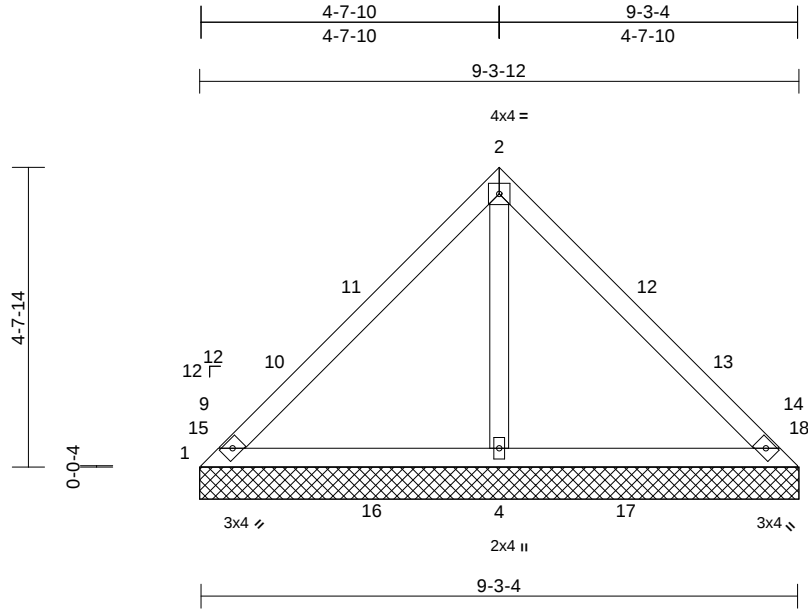
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	V3	Valley	3	1	170910835
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:36:00
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Page: 1



Scale = 1:27.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.86	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horiz(TL)	0.01	4	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS							
BCDL	10.0										
										Weight: 38 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 9-3-4 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size)	1=9-3-12, 3=9-3-12, 4=9-3-12
Max Horiz	1=71 (LC 13)
Max Uplift	1=-65 (LC 54), 3=-65 (LC 53), 4=-4 (LC 16)
Max Grav	1=266 (LC 47), 3=266 (LC 51), 4=683 (LC 2)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-210/306, 2-3=-210/306
BOT CHORD	1-4=-204/182, 3-4=-204/182
WEBS	2-4=-606/268

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 4-7-14, Exterior(2R) 4-7-14 to 7-7-14, Interior (1) 7-7-14 to 9-3-12 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 65 lb uplift at joint 1, 65 lb uplift at joint 3 and 4 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



January 22,2025

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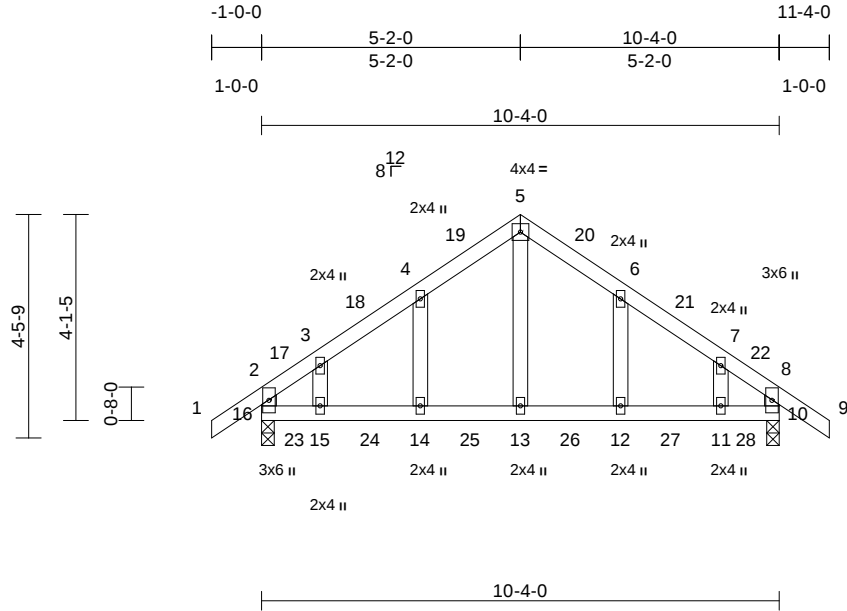
Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	C1G	Common Supported Gable	2	1	170910836
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:56

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Scale = 1:40

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	0.37	-0.06	14-15	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.46	-0.07	14-15	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	0.01	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		0.02	14-15	>999	240		
BCDL	10.0										
										Weight: 53 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)	10=0-3-0, 16=0-3-0
Max Horiz	16=-76 (LC 14)
Max Grav	10=481 (LC 24), 16=481 (LC 23)

FORCES

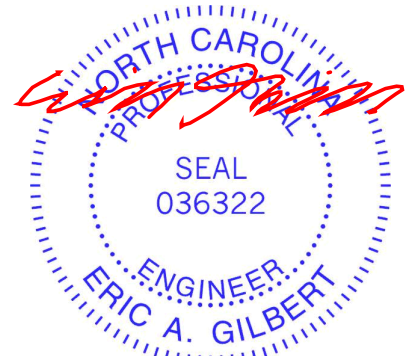
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	2-16=-429/176, 1-2=0/52, 2-3=-420/155, 3-4=-394/174, 4-5=-405/211, 5-6=-405/211, 6-7=-394/174, 7-8=-420/155, 8-9=0/52, 8-10=-429/176
BOT CHORD	15-16=-61/306, 14-15=-61/306, 13-14=-61/306, 12-13=-61/306, 11-12=-61/306, 10-11=-61/306
WEBS	5-13=-128/329, 4-14=-143/106, 3-15=-127/121, 6-12=-143/106, 7-11=-127/121

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 2-0-0, Interior (1) 2-0-0 to 5-2-0, Exterior(2R) 5-2-0 to 8-2-0, Interior (1) 8-2-0 to 11-4-0 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.
- 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.
- 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



January 22, 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

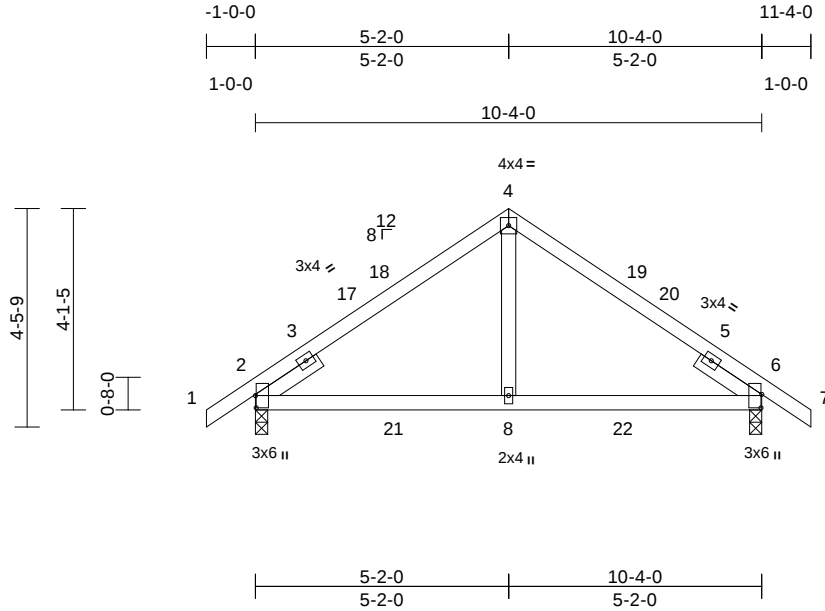
Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	C1	Common	10	1	Job Reference (optional)
					I70910837

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:55

Page: 1

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Scale = 1:41.1

Plate Offsets (X, Y): [2:0-3-0,0-0-3], [6:0-3-5,0-0-3]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.08	8-11	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.09	8-11	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.02	8-11	>999	240		
BCDL	10.0											
											Weight: 48 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size)	2=0-3-0, 6=0-3-0
Max Horiz	2=-66 (LC 14)
Max Grav	2=486 (LC 23), 6=486 (LC 24)

FORCES

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

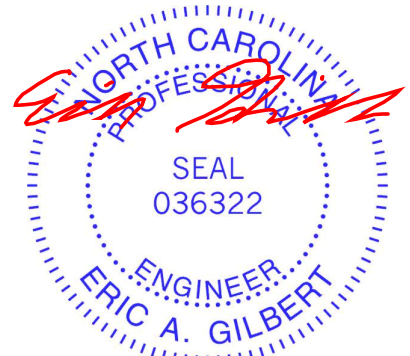
TOP CHORD	1-2=0/45, 2-4=-526/206, 4-6=-526/206, 6-7=0/45
BOT CHORD	2-8=-75/326, 6-8=-85/326
WEBS	4-8=-88/349

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 2-0-0, Interior (1) 2-0-0 to 5-2-0, Exterior(2R) 5-2-0 to 8-2-0, Interior (1) 8-2-0 to 11-4-0 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
- 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.
- 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.
- 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



January 22,2025

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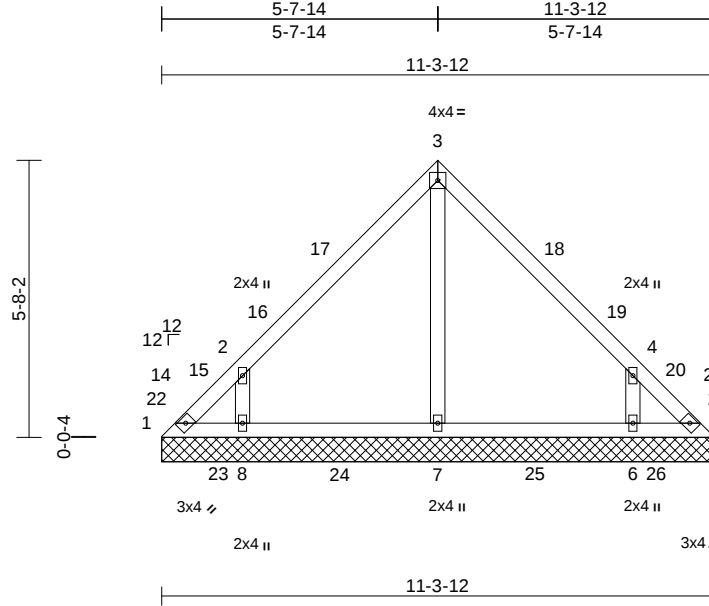
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	VG4	Valley	5	1	170910838
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:36:03
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Page: 1



Scale = 1:42.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.74	Vert(TL)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horiz(TL)	-0.01	5	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS							
BCDL	10.0										
Weight: 50 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=11-3-12, 5=11-3-12, 6=11-3-12, 7=11-3-12, 8=11-3-12
	Max Horiz	1=-88 (LC 12)
	Max Uplift	1=-187 (LC 55), 5=-2 (LC 55), 6=-58 (LC 17), 8=-71 (LC 16)
	Max Grav	1=258 (LC 49), 6=400 (LC 65), 7=614 (LC 55), 8=393 (LC 63)

FORCES

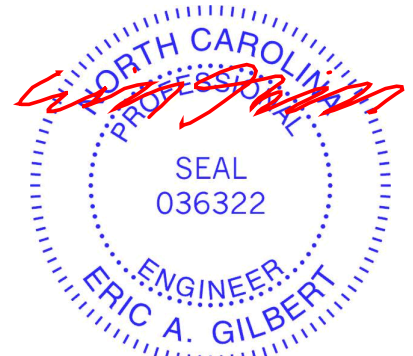
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-207/352, 2-3=-168/367, 3-4=-242/361, 4-5=-112/370
BOT CHORD	1-8=-242/125, 7-8=-242/76, 6-7=-242/76, 5-6=-242/95
WEBS	3-7=-546/51, 2-8=-371/188, 4-6=-365/180

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) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 5-8-2, Exterior(2R) 5-8-2 to 8-8-2, Interior (1) 8-8-2 to 11-4-0 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.
- 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 187 lb uplift at joint 1, 2 lb uplift at joint 5, 71 lb uplift at joint 8, 58 lb uplift at joint 6 and 2 lb uplift at joint 5.
- 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



January 22, 2025

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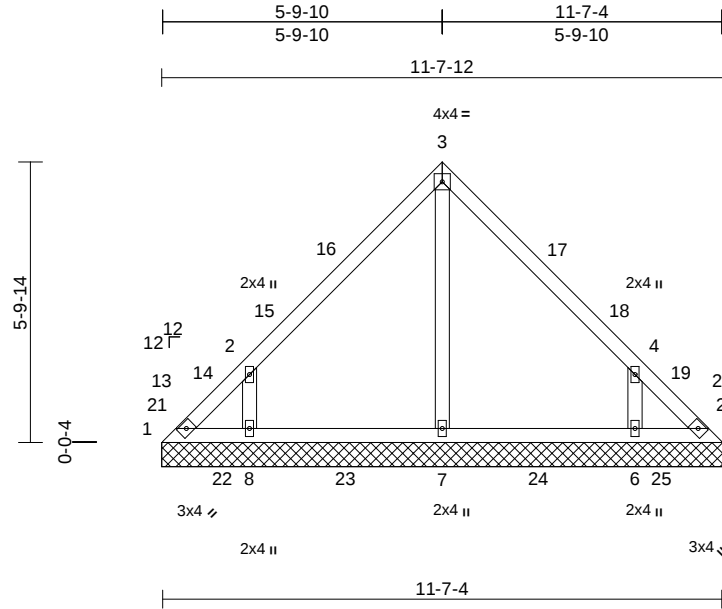
Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	V4	Valley	3	1	170910839
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:36:00

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.72	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS							Weight: 52 lb	FT = 20%
BCDL	10.0											

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 10-0-0 oc bracing.
REACTIONS (size)	
	1=11-7-12, 5=11-7-12, 6=11-7-12, 7=11-7-12, 8=11-7-12
Max Horiz	1=-90 (LC 12)
Max Uplift	1=-29 (LC 12), 5=-26 (LC 59), 6=-65 (LC 17), 8=-68 (LC 16)
Max Grav	1=278 (LC 49), 5=278 (LC 55), 6=397 (LC 65), 7=382 (LC 64), 8=397 (LC 63)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-230/115, 2-3=-203/123, 3-4=-203/116, 4-5=-230/115
BOT CHORD	1-8=-30/144, 7-8=-23/72, 6-7=-23/72, 5-6=-30/144
WEBS	3-7=-211/0, 2-8=-355/250, 4-6=-355/250

- 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 5-9-14, Exterior(2R) 5-9-14 to 8-9-14, Interior (1) 8-9-14 to 11-7-12 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 29 lb uplift at joint 1, 26 lb uplift at joint 5, 68 lb uplift at joint 8 and 65 lb uplift at joint 6.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
- 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



January 22,2025

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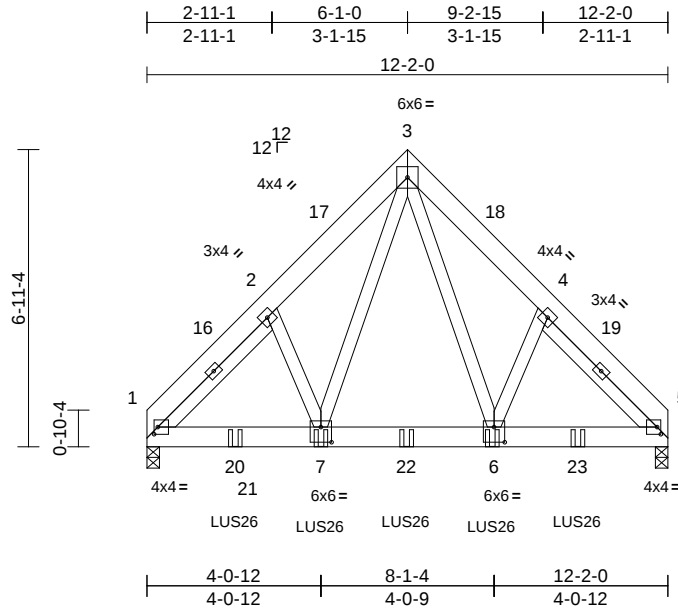
Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	B2GR	Common Girder	3	2	Job Reference (optional)
					I70910840

Structural, LLC, Thurmont, MD - 21788,

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Scale = 1:49.2

Plate Offsets (X, Y): [1:0-1-0,0-2-0], [5:0-1-0,0-2-0], [6:0-3-0,0-4-4], [7:0-3-0,0-4-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.02	6-7	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.05	6-7	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.45	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS		Wind(LL)	0.00	6-7	>999	240		
BCDL	10.0											
											Weight: 217 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 -- 3-7-6, Right 2x4 SP No.3 -- 3-7-6

BRACING

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

REACTIONS	(size) 1=0-3-8, 5=0-3-8
	Max Horiz 1=-95 (LC 10)
	Max Grav 1=3079 (LC 2), 5=3068 (LC 2)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-2540/0, 2-3=-3145/0, 3-4=-3146/0, 4-5=-2538/0
BOT CHORD	1-7=0/2239, 6-7=0/1603, 5-6=0/2195
WEBS	3-6=0/2191, 4-6=-84/212, 3-7=0/2189, 2-7=-85/211

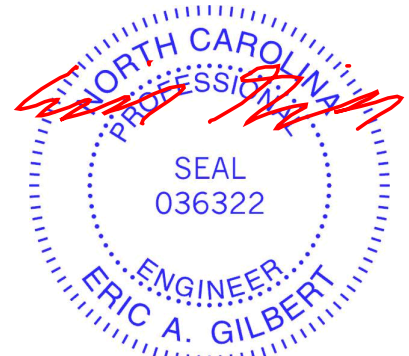
NOTES

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

- Wind: ASCE 7-16; 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 LUS26 (4-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 10-0-12 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-51, 3-5=-51, 8-12=-20
Concentrated Loads (lb)
Vert: 6=-966 (B), 7=-966 (B), 20=-966 (B), 22=-966 (B), 23=-966 (B)



January 22, 2025

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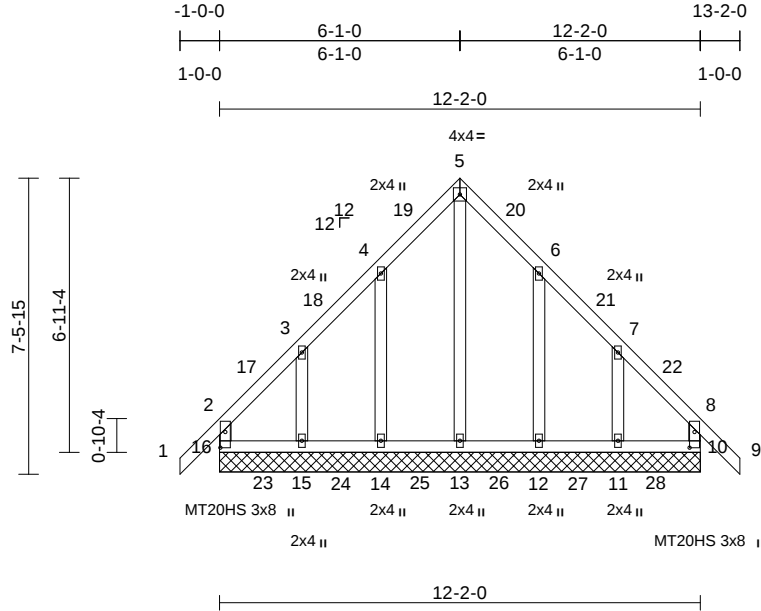
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	B2	Common Supported Gable	3	1	170910841
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:55
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Page: 1



Scale = 1:51.8

Plate Offsets (X, Y): [10:0-4-12,0-1-8], [16:0-4-12,0-1-8]

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	0.21	Vert(CT)	n/a	-	n/a	999	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 79 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=12-2-0, 11=12-2-0, 12=12-2-0, 13=12-2-0, 14=12-2-0, 15=12-2-0, 16=12-2-0
	Max Horiz	16=-128 (LC 14)
	Max Uplift	10=-26 (LC 13), 11=-64 (LC 17), 12=-32 (LC 17), 14=-32 (LC 16), 15=-66 (LC 16), 16=-38 (LC 12)
	Max Grav	10=317 (LC 69), 11=330 (LC 68), 12=336 (LC 67), 13=327 (LC 66), 14=336 (LC 65), 15=330 (LC 64), 16=317 (LC 63)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-16=-297/39, 1-2=0/66, 2-3=-134/82, 3-4=-125/99, 4-5=-162/190, 5-6=-162/190, 6-7=-125/100, 7-8=-134/73, 8-9=0/66, 8-10=-297/28
BOT CHORD	15-16=-59/94, 14-15=-59/94, 13-14=-59/94, 12-13=-59/94, 11-12=-59/94, 10-11=-59/94
WEBS	5-13=-231/117, 4-14=-287/104, 3-15=-283/126, 6-12=-287/104, 7-11=-283/125

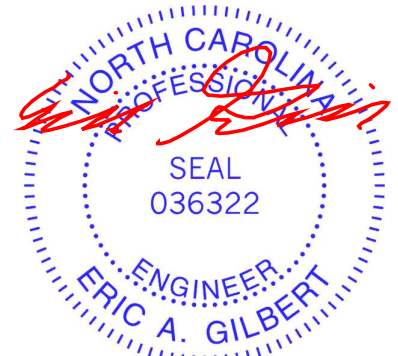
NOTES

- 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 Corner (3E) -1-0-0 to 2-1-0, Exterior(2N) 2-1-0 to 6-1-0, Corner (3R) 6-1-0 to 9-1-0, Exterior(2N) 9-1-0 to 13-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 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) All plates are MT20 plates unless otherwise indicated.
- 8) Plates checked for a plus or minus 5 degree rotation about its center.
- 9) Gable requires continuous bottom chord bearing.
- 10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 11) Gable studs spaced at 2-0-0 oc.
- 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 13) * 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.
- 14) All bearings are assumed to be SP No.2.

- 15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 16, 26 lb uplift at joint 10, 32 lb uplift at joint 14, 66 lb uplift at joint 15, 32 lb uplift at joint 12 and 64 lb uplift at joint 11.
- 16) 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



January 22,2025

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.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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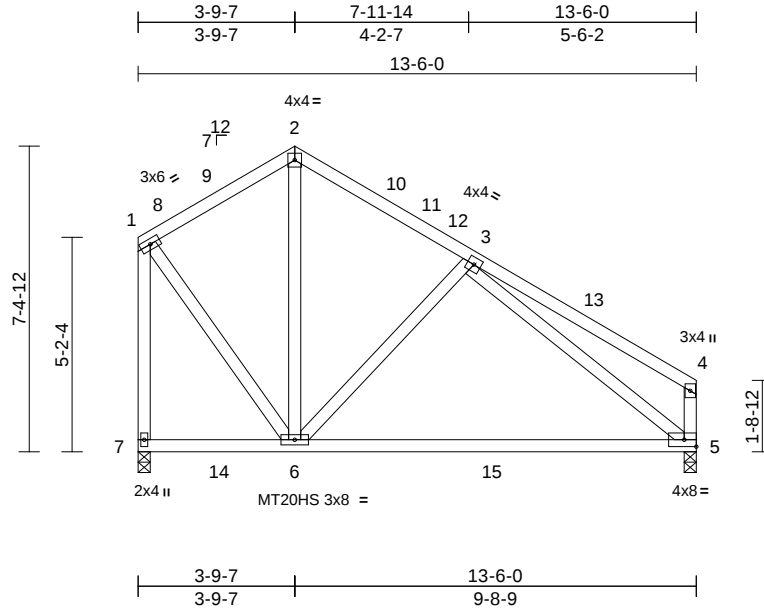
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	B1A	Common	6	1	170910842
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:54
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Page: 1



Scale = 1:51

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	0.63	Vert(LL)	-0.35	5-6	>451	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.50	5-6	>314	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.01	6-7	>999	240		
BCDL	10.0										Weight: 90 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP SS
WEBS 2x4 SP No.3 *Except* 5-4:2x4 SP No.2

BRACING

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

REACTIONS (size) 5=0-3-8, 7=0-3-8
Max Horiz 7=154 (LC 12)
Max Grav 5=528 (LC 2), 7=528 (LC 2)

FORCES

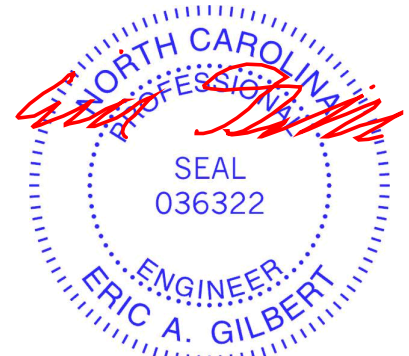
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-367/110, 2-3=-385/109, 3-4=-303/71,
1-7=-579/78, 4-5=-357/69
BOT CHORD 6-7=-164/200, 5-6=-61/416
WEBS 1-6=-56/427, 2-6=-80/171, 3-5=-348/85,
3-6=-271/142

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) 4-7-5 to 7-7-5, Interior (1) 7-7-5 to 8-3-0, Exterior(2R) 8-3-0 to 11-3-0, Interior (1) 11-3-0 to 17-9-13 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.
- 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.
- 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



January 22, 2025

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

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Edenton, NC 27932

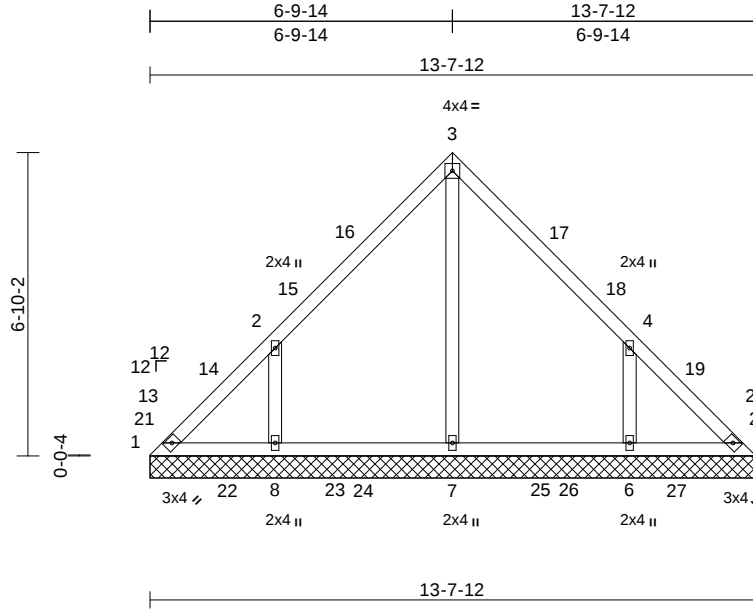
Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	VG5	Valley	5	1	170910843
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:36:03

Page: 1

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Scale = 1:47.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.48	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.44	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	5	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS							
BCDL	10.0									Weight: 64 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=13-7-12, 5=13-7-12, 6=13-7-12, 7=13-7-12, 8=13-7-12
Max Horiz	1=-106 (LC 14)
Max Uplift	1=-19 (LC 12), 6=-72 (LC 17), 8=-75 (LC 16)
Max Grav	1=296 (LC 49), 5=296 (LC 55), 6=410 (LC 65), 7=399 (LC 64), 8=410 (LC 63)

FORCES

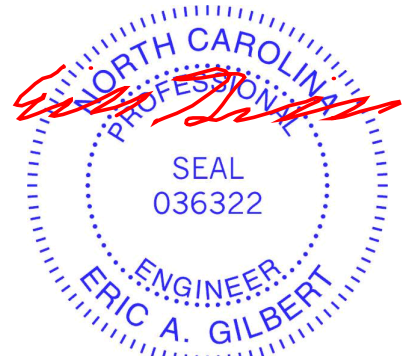
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-265/148, 2-3=-186/119, 3-4=-186/113, 4-5=-265/148
BOT CHORD	1-8=-45/166, 7-8=-45/89, 6-7=-45/89, 5-6=-45/166
WEBS	3-7=-234/0, 2-8=-332/204, 4-6=-332/203

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) 0-0-4 to 2-10-2, Interior (1) 2-10-2 to 6-10-2, Exterior(2R) 6-10-2 to 9-10-2, Interior (1) 9-10-2 to 13-8-0 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

- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 1, 75 lb uplift at joint 8 and 72 lb uplift at joint 6.
- 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



January 22, 2025

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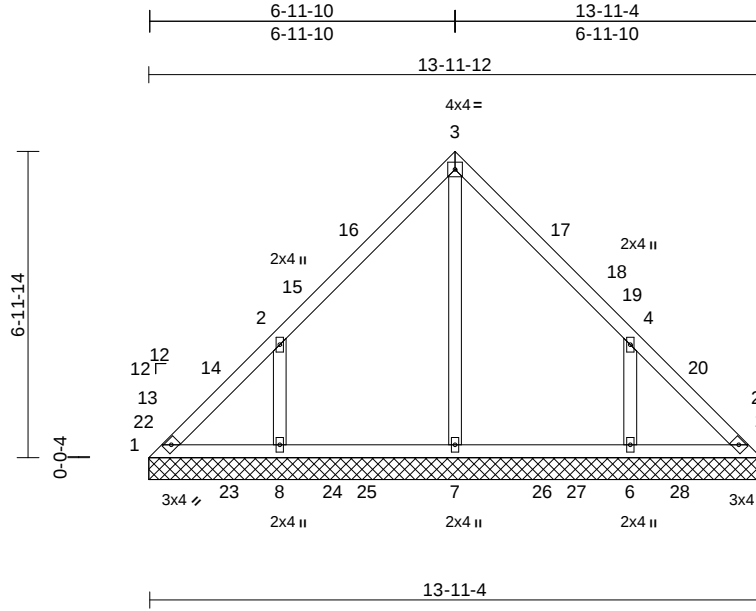
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	V5	Valley	3	1	170910844
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:48

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.44	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.00	5	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS							
BCDL	10.0									Weight: 65 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=13-11-12, 5=13-11-12, 6=13-11-12, 7=13-11-12, 8=13-11-12
Max Horiz	1=108 (LC 13)
Max Uplift	1=-17 (LC 12), 6=-73 (LC 17), 8=-75 (LC 16)
Max Grav	1=297 (LC 49), 5=241 (LC 55), 6=413 (LC 65), 7=404 (LC 64), 8=416 (LC 33)

FORCES

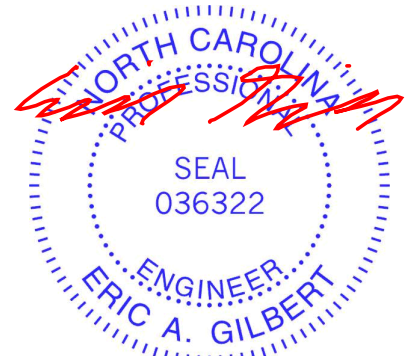
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-268/158, 2-3=-182/117, 3-4=-182/111, 4-5=-262/158
BOT CHORD	1-8=-47/173, 7-8=-47/85, 6-7=-47/85, 5-6=-47/171
WEBS	3-7=-240/0, 2-8=-333/201, 4-6=-333/200

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 2-11-14, Interior (1) 2-11-14 to 6-11-14, Exterior(2R) 6-11-14 to 9-11-14, Interior (1) 9-11-14 to 13-7-8 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.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 1, 75 lb uplift at joint 8 and 73 lb uplift at joint 6.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
- 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



January 22, 2025

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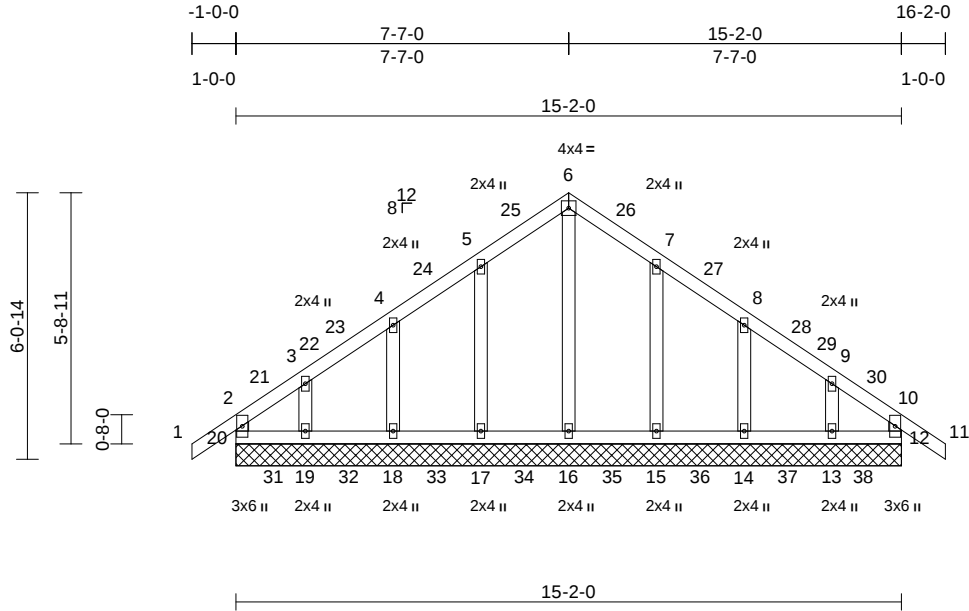
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	A2G	Common Supported Gable	2	1	170910845
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:53
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Page: 1



Scale = 1:46.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.09	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	12	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS							
BCDL	10.0										
										Weight: 84 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
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)
12=15-2-0, 13=15-2-0, 14=15-2-0, 15=15-2-0, 16=15-2-0, 17=15-2-0, 18=15-2-0, 19=15-2-0, 20=15-2-0
Max Horiz 20=-102 (LC 14)
Max Uplift 12=-6 (LC 13), 13=-29 (LC 17), 14=-13 (LC 17), 15=-14 (LC 17), 17=-15 (LC 16), 18=-13 (LC 16), 19=-32 (LC 16), 20=-22 (LC 12)
Max Grav 12=307 (LC 77), 13=316 (LC 76), 14=336 (LC 75), 15=334 (LC 74), 16=331 (LC 73), 17=334 (LC 72), 18=336 (LC 71), 19=316 (LC 70), 20=307 (LC 69)

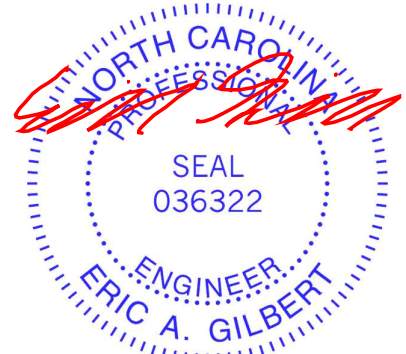
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-20=-292/55, 1-2=0/52, 2-3=-95/65, 3-4=-78/85, 4-5=-80/83, 5-6=-105/138, 6-7=-105/138, 7-8=-80/83, 8-9=-78/85, 9-10=-95/61, 10-11=0/52, 10-12=-292/55
BOT CHORD 19-20=-44/96, 18-19=-44/96, 17-18=-44/96, 16-17=-44/96, 15-16=-44/96, 14-15=-44/96, 13-14=-44/96, 12-13=-44/96
WEBS 6-16=-243/10, 5-17=-284/80, 4-18=-287/90, 3-19=-276/79, 7-15=-284/80, 8-14=-287/90, 9-13=-276/79

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 Corner (3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 7-7-0, Corner (3R) 7-7-0 to 10-7-0, Exterior(2N) 10-7-0 to 16-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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 SS .

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 20, 6 lb uplift at joint 12, 15 lb uplift at joint 17, 13 lb uplift at joint 18, 32 lb uplift at joint 19, 14 lb uplift at joint 15, 13 lb uplift at joint 14 and 29 lb uplift at joint 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.
- 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



January 22, 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.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	A2	Common	10	1	Job Reference (optional)

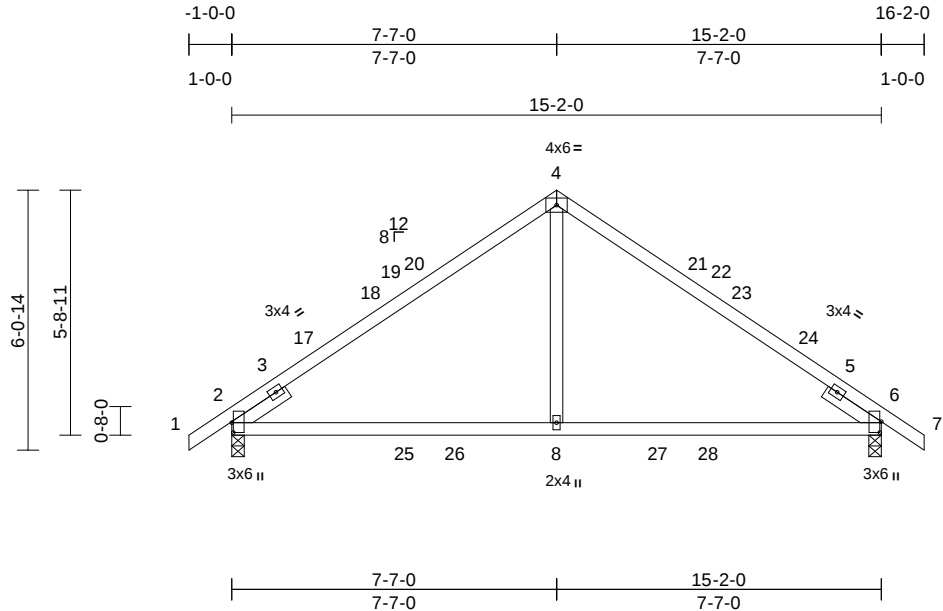
I70910846

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:52

Page: 1

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Scale = 1:47.6

Plate Offsets (X, Y): [2:0-2-12,0-0-7], [6:0-3-1,0-0-7]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.20	8-15	>918	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.25	8-15	>720	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.03	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.05	8-11	>999	240		
BCDL	10.0											
Weight: 66 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.

REACTIONS

(size) 2=0-3-8, 6=0-3-8
Max Horiz 2=92 (LC 15)
Max Grav 2=756 (LC 34), 6=756 (LC 35)

FORCES

(lb) - Maximum Compression/Maximum Tension

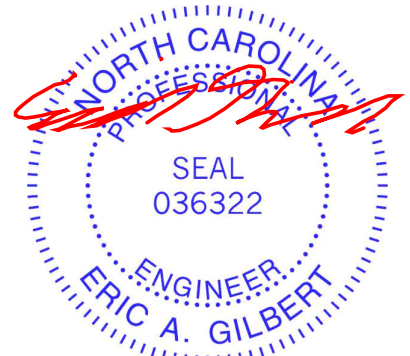
TOP CHORD 1-2=0/45, 2-4=-882/93, 4-6=-882/93, 6-7=0/45
BOT CHORD 2-8=-102/641, 6-8=-106/641
WEBS 4-8=0/421

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 2-0-0, Interior (1) 2-0-0 to 7-7-0, Exterior(2R) 7-7-0 to 10-7-0, Interior (1) 10-7-0 to 16-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SP SS.
- 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



January 22, 2025

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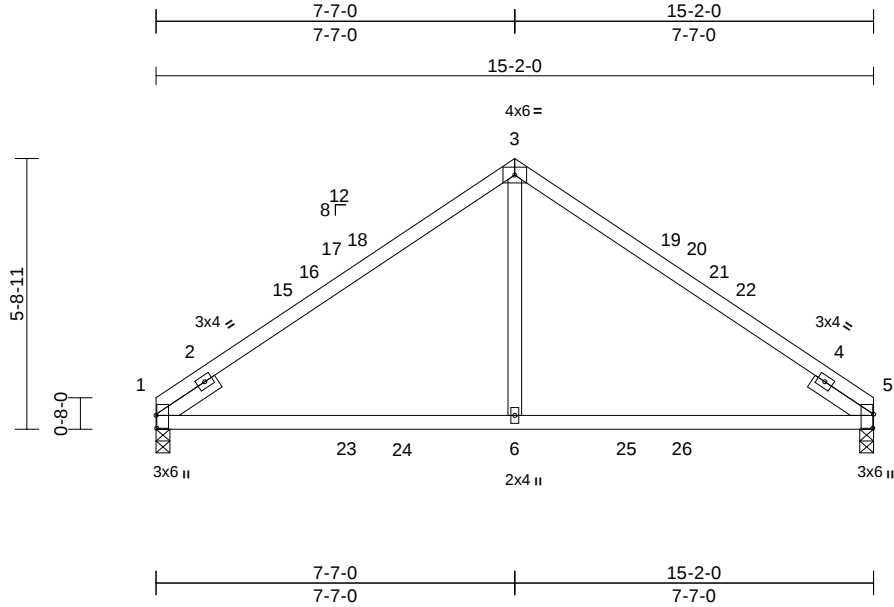
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	A2A	Common	12	1	Job Reference (optional)
					I70910847

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:52
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Page: 1



Scale = 1:44.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.20	6-9	>918	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.25	6-9	>717	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.03	1	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.05	6-9	>999	240		
BCDL	10.0										Weight: 62 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.

REACTIONS

(size) 1=0-3-8, 5=0-3-8
Max Horiz 1=-81 (LC 12)
Max Grav 1=701 (LC 33), 5=701 (LC 34)

FORCES

(lb) - Maximum Compression/Maximum Tension

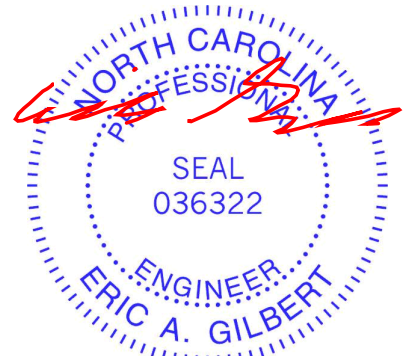
TOP CHORD 1-3=-888/86, 3-5=-888/86
BOT CHORD 1-6=-134/640, 5-6=-128/640
WEBS 3-6=0/423

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 7-7-0, Exterior(2R) 7-7-0 to 10-7-0, Interior (1) 10-7-0 to 15-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 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



January 22,2025

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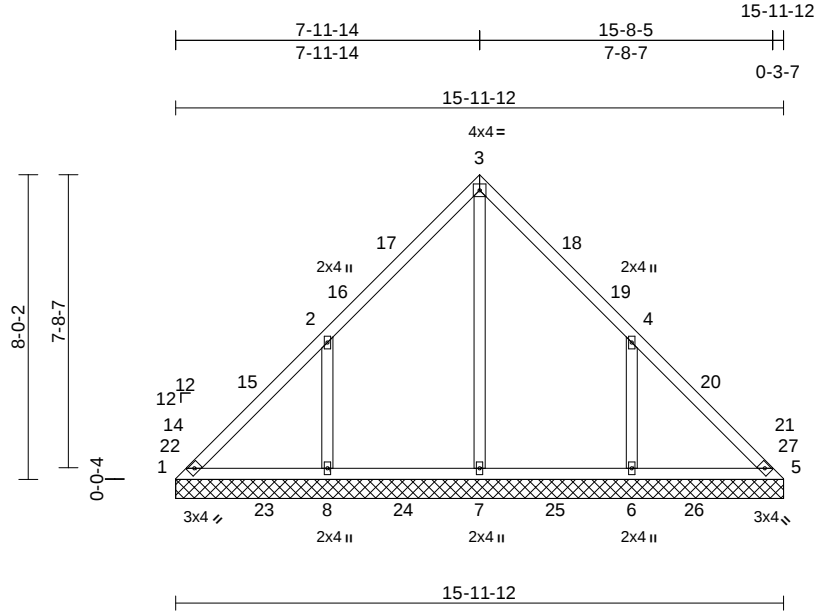
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	VG6	Valley	5	1	170910848
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:36:03
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Page: 1



Scale = 1:53.8

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	0.53	Vert(LL)	n/a	-	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.44	Vert(TL)	n/a	-	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.82	Horiz(TL)	-0.01	5	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS							
BCDL	10.0									Weight: 77 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=15-11-12, 5=15-11-12, 6=15-11-12, 7=15-11-12, 8=15-11-12
Max Horiz	1=-125 (LC 14)
Max Uplift	1=-239 (LC 55), 5=-1 (LC 55), 6=-86 (LC 17), 8=-91 (LC 16)
Max Grav	1=254 (LC 49), 5=1 (LC 60), 6=482 (LC 34), 7=809 (LC 55), 8=477 (LC 33)

FORCES

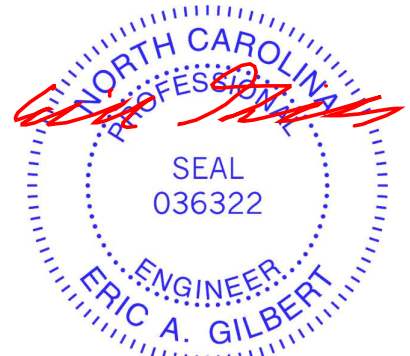
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-230/497, 2-3=-34/497, 3-4=-71/494, 4-5=-78/501
BOT CHORD	1-8=-334/158, 7-8=-334/52, 6-7=-334/52, 5-6=-346/66
WEBS	3-7=-734/0, 2-8=-380/180, 4-6=-383/179

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) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 8-0-2, Exterior(2R) 8-0-2 to 11-0-2, Interior (1) 11-0-2 to 16-0-0 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.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 239 lb uplift at joint 1, 1 lb uplift at joint 5, 91 lb uplift at joint 8, 86 lb uplift at joint 6 and 1 lb uplift at joint 5.
- 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



January 22,2025

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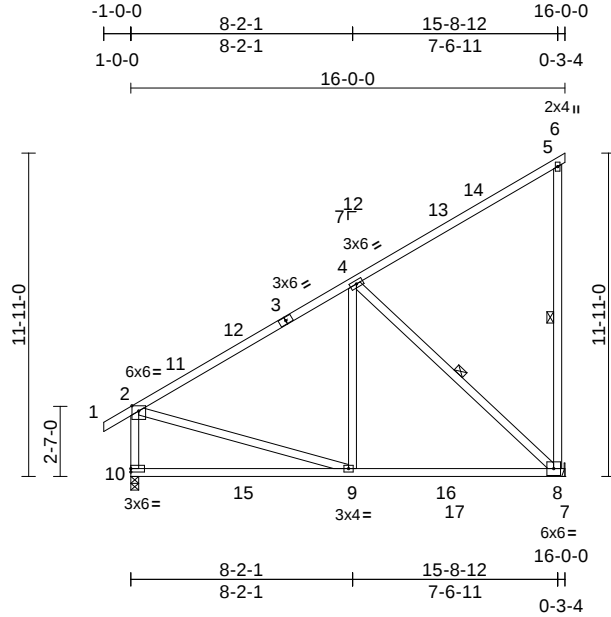
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	M2	Monopitch	21	1	170910849
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:72.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.29	8-9	>646	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.37	8-9	>512	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.01	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.01	8-9	>999	240		
BCDL	10.0										Weight: 110 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP SS
WEBS	2x4 SP No.3 *Except* 10-2:2x4 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-8, 5-8

REACTIONS

(size)	8= Mechanical, 10=0-3-8
Max Horiz	10=199 (LC 16)
Max Uplift	8=-71 (LC 16)
Max Grav	8=798 (LC 34), 10=770 (LC 34)

FORCES

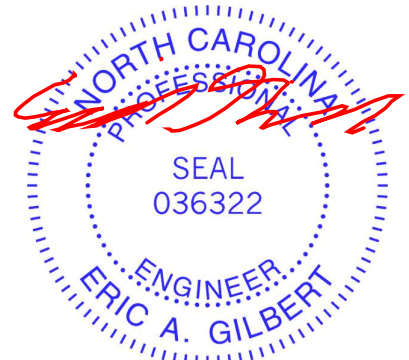
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/47, 2-4=-664/0, 4-5=-141/86, 5-6=-11/0, 2-10=-682/0
BOT CHORD	9-10=-309/276, 8-9=-106/587, 7-8=0/0
WEBS	4-9=0/350, 4-8=-802/145, 2-9=0/398, 5-8=-317/74

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 16-0-0 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
- 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, with BCDL = 10.0psf.
- 8) Bearings are assumed to be: Joint 10 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 71 lb uplift at joint 8.
- 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.
- 12) 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



January 22,2025

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

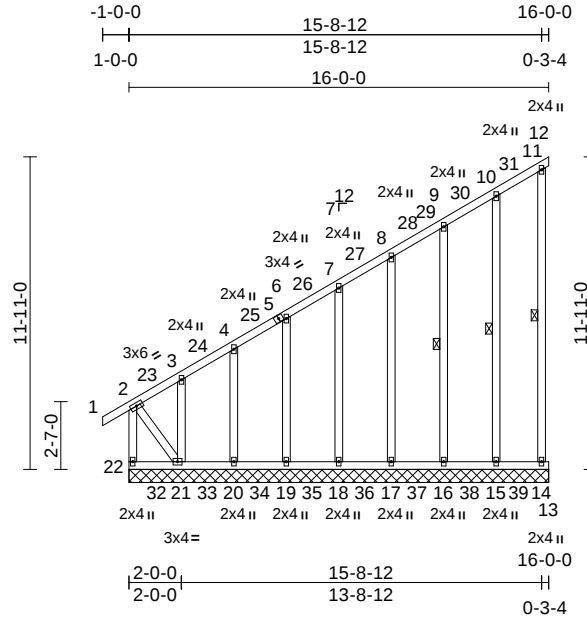
Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	M2G	Monopitch Supported Gable	3	1	170910850
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:58

Page: 1

ID:8iVM4Y5bZVcBNccS2?o?urFzun0W-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f



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	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.00	13	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0											
												Weight: 147 lb FT = 20%

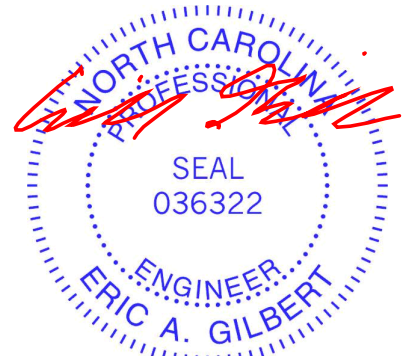
LUMBER		
TOP CHORD	2x4 SP No.2	
BOT CHORD	2x4 SP SS	
WEBS	2x4 SP No.3 *Except* 22-2:2x4 SP No.2	
OTHERS	2x4 SP No.3	
BRACING		
TOP CHORD	Structural wood sheathing directly applied, except end verticals.	
BOT CHORD	Rigid ceiling directly applied.	
WEBS	1 Row at midpt 10-15, 9-16, 11-14	
REACTIONS	(size)	13=16-0-0, 14=16-0-0, 15=16-0-0, 16=16-0-0, 17=16-0-0, 18=16-0-0, 19=16-0-0, 20=16-0-0, 21=16-0-0, 22=16-0-0
	Max Horiz	22=199 (LC 16)
	Max Uplift	13=-232 (LC 64), 14=-57 (LC 63), 15=-11 (LC 16), 16=-10 (LC 16), 17=-10 (LC 16), 18=-10 (LC 16), 19=-10 (LC 16), 20=-11 (LC 16), 21=-267 (LC 16), 22=-119 (LC 14)
	Max Grav	13=60 (LC 63), 14=419 (LC 64), 15=331 (LC 73), 16=334 (LC 72), 17=333 (LC 71), 18=333 (LC 70), 19=333 (LC 69), 20=334 (LC 68), 21=329 (LC 67), 22=364 (LC 16)
FORCES	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD		2-22=-654/282, 1-2=0/47, 2-3=-384/187, 3-4=-343/165, 4-6=-290/141, 6-7=-241/117, 7-8=-192/93, 8-9=-143/73, 9-10=-92/73, 10-11=-83/60, 11-12=-11/0
BOT CHORD		21-22=-406/186, 20-21=0/0, 19-20=0/0, 18-19=0/0, 17-18=0/0, 16-17=0/0, 15-16=0/0, 14-15=0/0, 13-14=0/0
WEBS		10-15=-271/90, 9-16=-270/77, 8-17=-272/74, 7-18=-275/74, 6-19=-267/73, 4-20=-281/80, 3-21=-277/70, 11-14=-268/44, 2-21=-300/656

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 Corner (3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 16-0-0 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 SS .

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 119 lb uplift at joint 22, 232 lb uplift at joint 13, 11 lb uplift at joint 15, 10 lb uplift at joint 16, 10 lb uplift at joint 17, 10 lb uplift at joint 18, 10 lb uplift at joint 19, 11 lb uplift at joint 20, 57 lb uplift at joint 14 and 267 lb uplift at joint 21.
- 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



January 22, 2025

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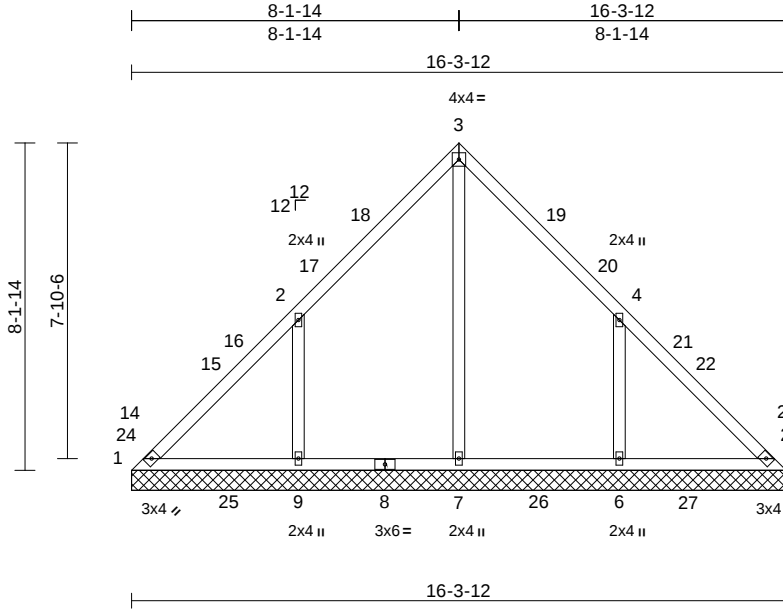
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	V6	Valley	3	1	170910851
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.50	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.75	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.34	Horiz(TL)	0.00	9	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS							
BCDL	10.0									Weight: 79 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=16-3-12, 5=16-3-12, 6=16-3-12, 7=16-3-12, 9=16-3-12
Max Horiz	1=-127 (LC 14)
Max Uplift	1=-17 (LC 12), 5=-1 (LC 44), 6=-86 (LC 17), 9=-88 (LC 16)
Max Grav	1=297 (LC 49), 5=297 (LC 55), 6=497 (LC 34), 7=466 (LC 33), 9=500 (LC 33)

FORCES

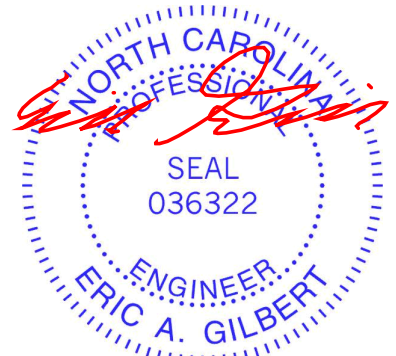
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-270/230, 2-3=-144/148, 3-4=-144/134, 4-5=-270/230
BOT CHORD	1-9=-103/178, 7-9=-103/114, 6-7=-103/114, 5-6=-103/178
WEBS	3-7=-290/0, 2-9=-346/192, 4-6=-346/191

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 8-1-14, Exterior(2R) 8-1-14 to 11-1-14, Interior (1) 11-1-14 to 16-3-12 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, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.3 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 1, 1 lb uplift at joint 5, 88 lb uplift at joint 9 and 86 lb uplift at joint 6.
- 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



January 22,2025

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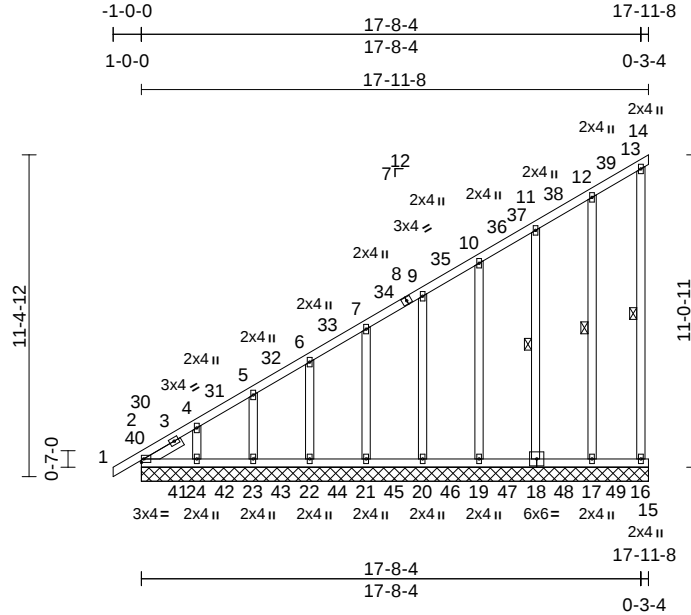
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	G1G	Monopitch Supported Gable	5	1	170910852
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:70.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.00	2	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS							
BCDL	10.0										
Weight: 140 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
SLIDER	Left 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 12-17, 11-18, 13-16

REACTIONS	(size)	2=17-11-8, 15=17-11-8, 16=17-11-8, 17=17-11-8, 18=17-11-8, 19=17-11-8, 20=17-11-8, 21=17-11-8, 22=17-11-8, 23=17-11-8, 24=17-11-8
Max Horiz	2=237 (LC 16)	
Max Uplift	2=-1 (LC 14), 15=-232 (LC 70), 16=-53 (LC 69), 17=-12 (LC 16), 18=-10 (LC 16), 19=-10 (LC 16), 20=-11 (LC 16), 21=-10 (LC 16), 22=-12 (LC 16), 23=-3 (LC 16), 24=-51 (LC 16)	
Max Grav	2=310 (LC 72), 15=58 (LC 69), 16=419 (LC 70), 17=331 (LC 81), 18=334 (LC 80), 19=333 (LC 79), 20=333 (LC 78), 21=333 (LC 77), 22=333 (LC 76), 23=333 (LC 75), 24=334 (LC 74)	

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/41, 2-4=-428/214, 4-5=-366/180, 5-6=-322/158, 6-7=-275/135, 7-9=-228/112, 9-10=-181/89, 10-11=-135/72, 11-12=-87/73, 12-13=-84/60, 13-14=-11/0
BOT CHORD	2-24=0/1, 23-24=0/1, 22-23=0/1, 21-22=0/1, 20-21=0/1, 19-20=0/1, 17-19=0/1, 16-17=0/0, 15-16=0/0

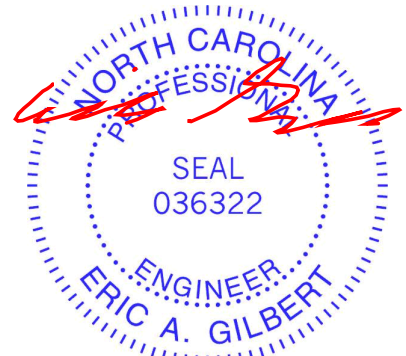
WEBS	12-17=-272/84, 11-18=-271/72, 10-19=-274/69, 9-20=-277/69, 7-21=-280/69, 6-22=-282/70, 5-23=-285/63, 4-24=-287/115, 13-16=-268/40
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NOTES

- 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 1-11-8, Exterior(2N) 1-11-8 to 17-11-8 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) 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 1 lb uplift at joint 2, 232 lb uplift at joint 15, 12 lb uplift at joint 17, 10 lb uplift at joint 18, 10 lb uplift at joint 19, 11 lb uplift at joint 20, 10 lb uplift at joint 21, 12 lb uplift at joint 22, 3 lb uplift at joint 23, 51 lb uplift at joint 24, 53 lb uplift at joint 16 and 1 lb uplift at joint 2.
- 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.

LOAD CASE(S) Standard



January 22, 2025

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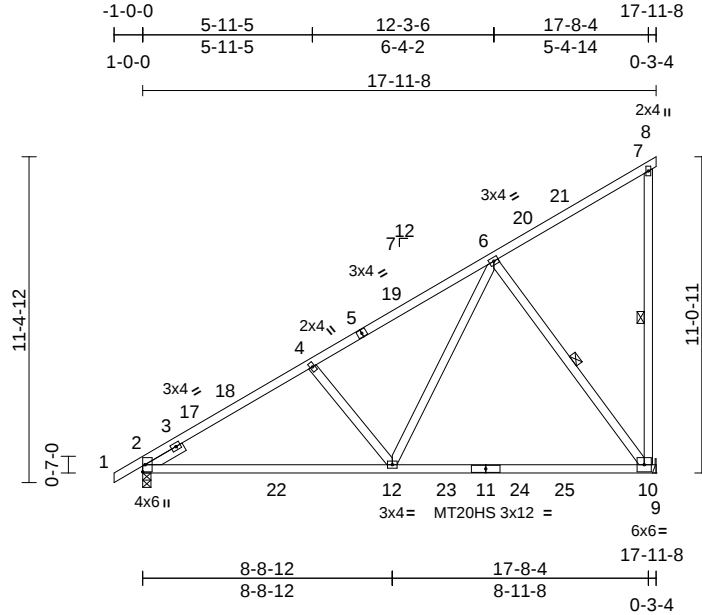
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	G1	Monopitch	45	1	170910853
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:56
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Page: 1



Scale = 1:70.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.71	-0.47	10-12	>444	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.75	-0.64	10-12	>328	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.02	2	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.02	12-15	>999	240	
BCDL	10.0										
Weight: 109 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

BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-10, 7-10

REACTIONS

(size)	2=0-3-8, 10= Mechanical
Max Horiz	2=237 (LC 16)
Max Uplift	10=49 (LC 16)
Max Grav	2=867 (LC 34), 10=892 (LC 34)

FORCES

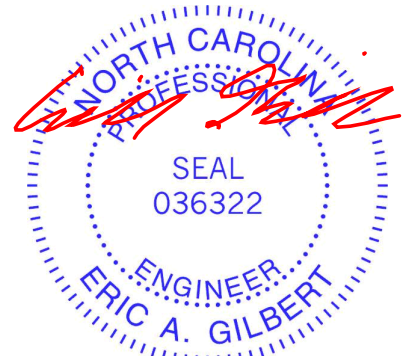
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/47, 2-4=-1095/0, 4-6=-931/0, 6-7=-114/66, 7-8=-11/0
BOT CHORD	2-12=-118/1014, 10-12=-61/479, 9-10=0/0
WEBS	4-12=-344/114, 6-12=0/748, 6-10=-815/104, 7-10=-299/50

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 17-11-8 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) All plates are MT20 plates unless otherwise indicated.
- 6) Plates checked for a plus or minus 5 degree rotation about its center.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) Bearings are assumed to be: Joint 2 SP SS .
- 10) Refer to girder(s) for truss to truss connections.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 10.
- 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.

LOAD CASE(S) Standard



January 22, 2025

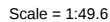
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

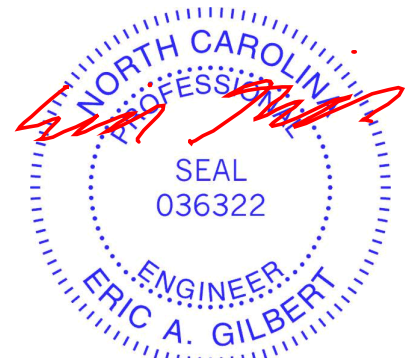
ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:54 Page: 1
ID:lnzCS5uBggtGkQOI38VHzumsR-RfC?PsB70Hg3NSgPqnL8w3ulTXbGKWRCDoI7J4CZ?cf



LUMBER			1) Unbalanced roof live loads have been considered for this design.	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		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) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 8-3-7, Corner(3R) 8-3-7 to 11-3-7, Exterior(2N) 11-3-7 to 17-10-4 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	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.
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.	
WEBS	2x4 SP No.3		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	
OTHERS	2x4 SP No.3		5) Unbalanced snow loads have been considered for this design.	
BRACING			6) Plates checked for a plus or minus 5 degree rotation about its center.	
TOP CHORD	Structural wood sheathing directly applied, except end verticals.		7) Gable requires continuous bottom chord bearing.	
BOT CHORD	Rigid ceiling directly applied.		8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).	
REACTIONS	(size)	11=18-0-0, 12=18-0-0, 13=18-0-0, 14=18-0-0, 15=18-0-0, 16=18-0-0, 17=18-0-0, 19=18-0-0, 20=18-0-0, 21=18-0-0	9) Gable studs spaced at 2-0-0 oc.	
	Max Horiz	21=-131 (LC 12)	10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	
	Max Uplift	11=-108 (LC 13), 12=-109 (LC 12), 13=-2 (LC 17), 14=-14 (LC 17), 15=-7 (LC 17), 17=-8 (LC 16), 19=-10 (LC 16), 20=39 (LC 13), 21=-23 (LC 12)	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.	
	Max Grav	11=281 (LC 80), 12=328 (LC 79), 13=334 (LC 78), 14=332 (LC 77), 15=334 (LC 76), 16=327 (LC 75), 17=324 (LC 74), 19=330 (LC 73), 20=342 (LC 72), 21=293 (LC 71)	12) All bearings are assumed to be SP No.2 .	
			13) N/A	
FORCES		(lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-21=-272/52, 1-2=-85/70, 2-3=-85/123, 3-4=-98/170, 4-5=-120/213, 5-6=-120/213, 6-7=-99/170, 7-8=-83/122, 8-9=-86/77, 9-10=-117/101, 10-11=-266/70			
BOT CHORD	20-21=-89/94, 19-20=-89/94, 17-19=-89/94, 16-17=-89/94, 15-16=-89/94, 14-15=-89/94, 13-14=-89/94, 12-13=-89/94, 11-12=-89/94			
WEBS	5-16=-270/38, 4-17=-280/62, 3-19=-279/73, 2-20=-289/84, 6-15=-280/62, 7-14=-280/73, 8-13=-283/74, 9-12=-282/99			



January 22, 2025



WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-17-19 (Rev. 1/2/2023) BEFORE USE.
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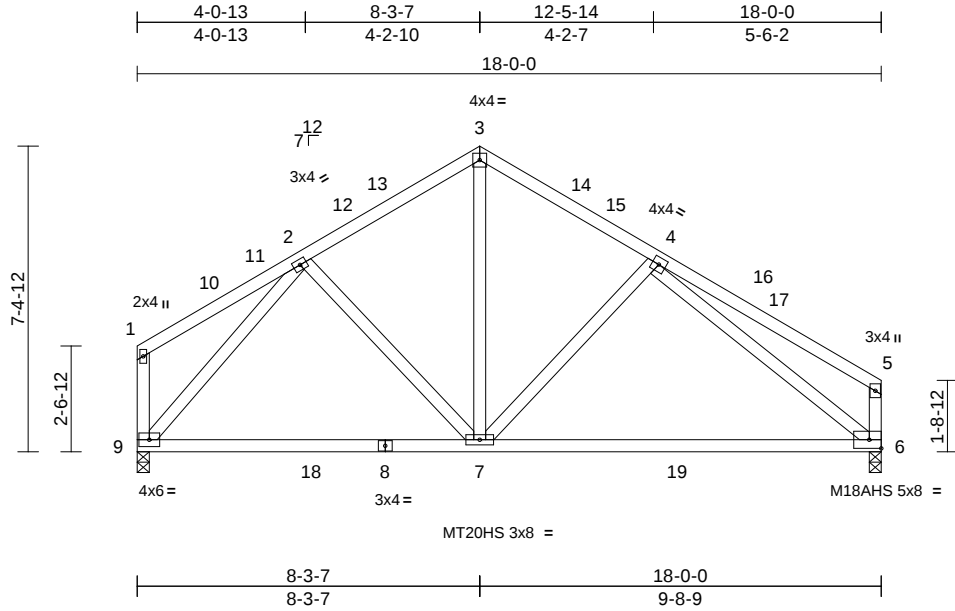
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	B1	Common	21	1	170910855
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:54
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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.40	6-7	>538	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.53	6-7	>398	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.01	6	n/a	n/a	M18AHS	186/179
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.01	7-9	>999	240		
BCDL	10.0											
											Weight: 109 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP SS
WEBS 2x4 SP No.3 *Except* 6-5:2x4 SP No.2

BRACING

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

REACTIONS (size) 6=0-3-8, 9=0-3-8
Max Horiz 9=-131 (LC 12)
Max Grav 6=708 (LC 2), 9=708 (LC 2)

FORCES

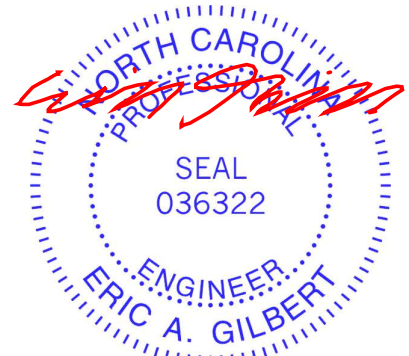
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-155/71, 2-3=-655/76, 3-4=-660/84, 4-5=-318/57, 1-9=-306/48, 5-6=-357/49
BOT CHORD 7-9=-45/508, 6-7=-42/616
WEBS 2-7=-102/97, 3-7=-11/386, 2-9=-706/64, 4-6=-613/61, 4-7=-213/105

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) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 8-3-7, Exterior(2R) 8-3-7 to 11-3-7, Interior (1) 11-3-7 to 17-10-4 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
- 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.
- 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.
- 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



January 22, 2025

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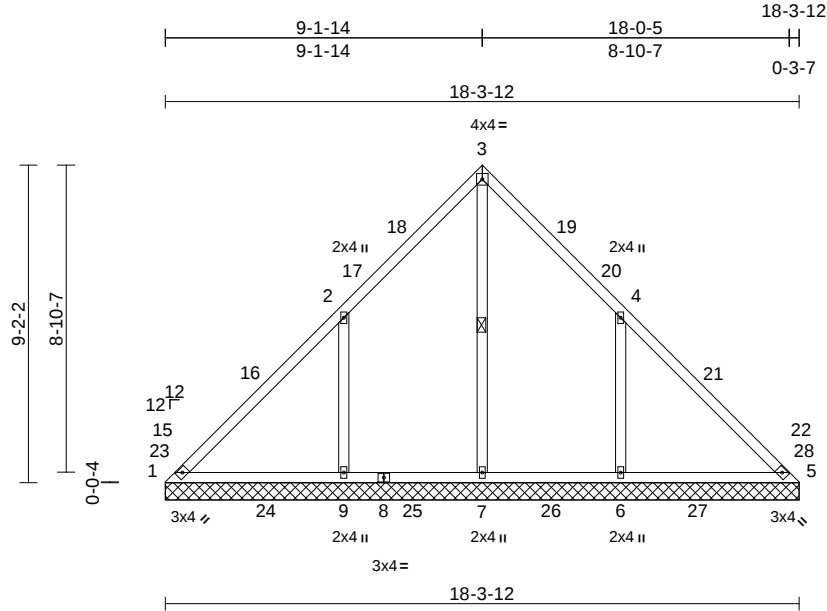
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	VG7	Valley	5	1	170910856
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:36:04
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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	n/a	-	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.99	Vert(TL)	n/a	-	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.32	Horiz(TL)	-0.01	5	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS							
BCDL	10.0									Weight: 91 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 2-2-0 oc bracing.

WEBS 1 Row at midpt 3-7

REACTIONS (size)	1=18-3-12, 5=18-3-12, 6=18-3-12, 7=18-3-12, 9=18-3-12
Max Horiz	1=-144 (LC 12)
Max Uplift	1=-245 (LC 55), 6=-103 (LC 17), 9=-107 (LC 16)
Max Grav	1=252 (LC 49), 5=2 (LC 60), 6=562 (LC 34), 7=840 (LC 55), 9=564 (LC 33)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-236/539, 2-3=-10/521, 3-4=-28/519, 4-5=-129/541

BOT CHORD 1-9=-357/165, 7-9=-357/67, 6-7=-357/67, 5-6=-380/94

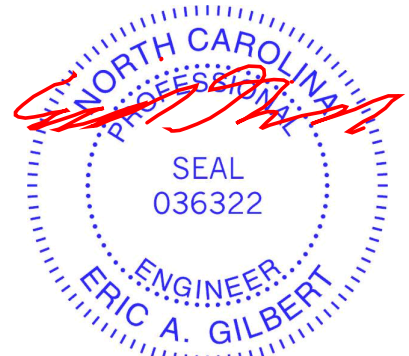
WEBS 3-7=-772/0, 2-9=-441/202, 4-6=-441/201

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) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 9-2-2, Exterior(2R) 9-2-2 to 12-2-2, Interior (1) 12-2-2 to 18-4-0 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.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.3 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 245 lb uplift at joint 1, 107 lb uplift at joint 9 and 103 lb uplift at joint 6.
- 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



January 22,2025

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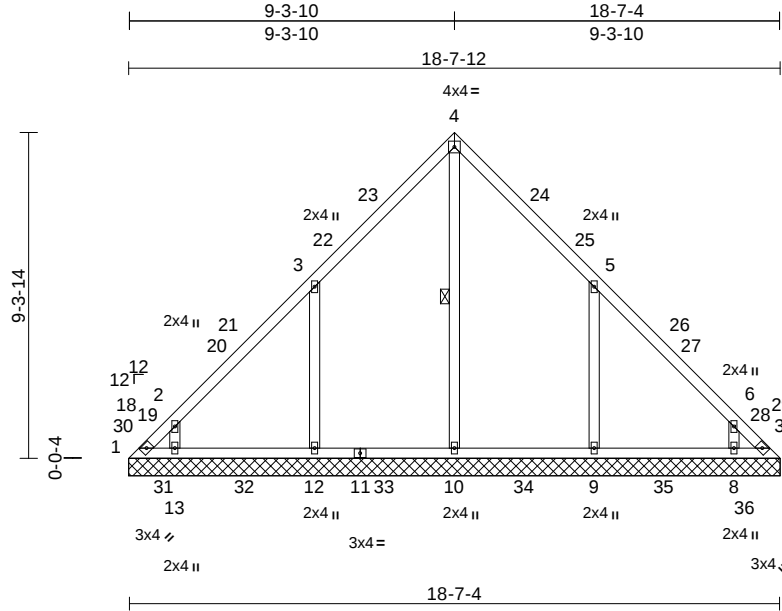
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	V7	Valley	3	1	170910857
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)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.50	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.75	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.00	7	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS							
BCDL	10.0										
										Weight: 95 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 10-0-0 oc bracing.

WEBS	1 Row at midpt	4-10
------	----------------	------

REACTIONS	(size)	1=18-7-12, 7=18-7-12, 8=18-7-12, 9=18-7-12, 10=18-7-12, 12=18-7-12, 13=18-7-12
	Max Horiz	1=-146 (LC 14)
	Max Uplift	1=-82 (LC 45), 7=-82 (LC 48), 8=-29 (LC 17), 9=-91 (LC 17), 12=-91 (LC 16), 13=-34 (LC 16)
	Max Grav	1=260 (LC 51), 7=260 (LC 59), 8=390 (LC 73), 9=460 (LC 34), 10=373 (LC 71), 12=459 (LC 33), 13=390 (LC 69)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-192/138, 2-3=-183/101, 3-4=-192/137, 4-5=-192/133, 5-6=-154/85, 6-7=-192/138
BOT CHORD	1-13=-87/118, 12-13=-54/114, 10-12=-54/114, 9-10=-54/114, 8-9=-54/114, 7-8=-87/118
WEBS	4-10=-206/28, 3-12=-339/184, 2-13=-407/138, 5-9=-339/184, 6-8=-407/138

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 9-3-14, Exterior(2R) 9-3-14 to 12-3-14, Interior (1) 12-3-14 to 18-7-12 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, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.3 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 1, 82 lb uplift at joint 7, 91 lb uplift at joint 12, 34 lb uplift at joint 13, 91 lb uplift at joint 9 and 29 lb uplift at joint 8.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 7.

- 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



January 22,2025

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

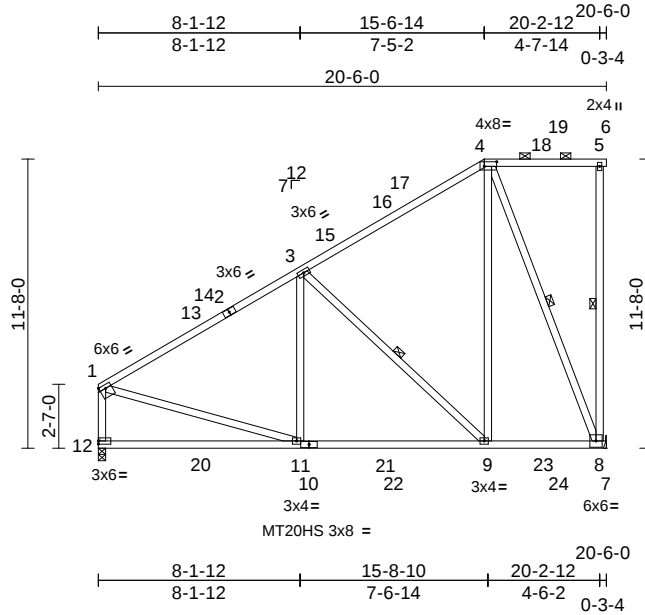
Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	M1A	Piggyback Base	10	1	170910858
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:57

Page: 1

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Scale = 1:83.8

Plate Offsets (X, Y): [1:Edge,0-1-12], [4:0-6-0,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.25	11-12	>971	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.32	11-12	>745	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.01	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.01	9-11	>999	240		
BCDL	10.0											
											Weight: 155 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP SS
WEBS 2x4 SP No.3 *Except* 12-1:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 4-6.

BOT CHORD Rigid ceiling directly applied.

WEBS 1 Row at midpt 3-9, 4-8, 5-8

REACTIONS

(size) 8= Mechanical, 12=0-3-8
Max Horiz 12=183 (LC 16)
Max Uplift 8=-7 (LC 16)
Max Grav 8=983 (LC 49), 12=1011 (LC 49)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-3=-1104/0, 3-4=-587/7, 4-5=0/0, 5-6=0/0, 1-12=-935/0

BOT CHORD 11-12=-274/270, 9-11=-126/972, 8-9=-41/408, 7-8=0/0

WEBS 3-11=-34/294, 3-9=-784/117, 4-9=-1/808, 4-8=-1076/107, 1-11=0/775, 5-8=-295/26

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) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 15-6-14, Exterior(2R) 15-6-14 to 18-6-14, Interior (1) 18-6-14 to 20-6-0 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) Provide adequate drainage to prevent water ponding.

6) All plates are MT20 plates unless otherwise indicated.

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

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, with BCDL = 10.0psf.

10) Bearings are assumed to be: Joint 12 SP SS.

11) Refer to girder(s) for truss to truss connections.

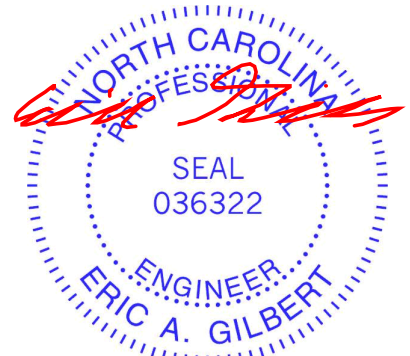
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 8.

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) 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



January 22, 2025

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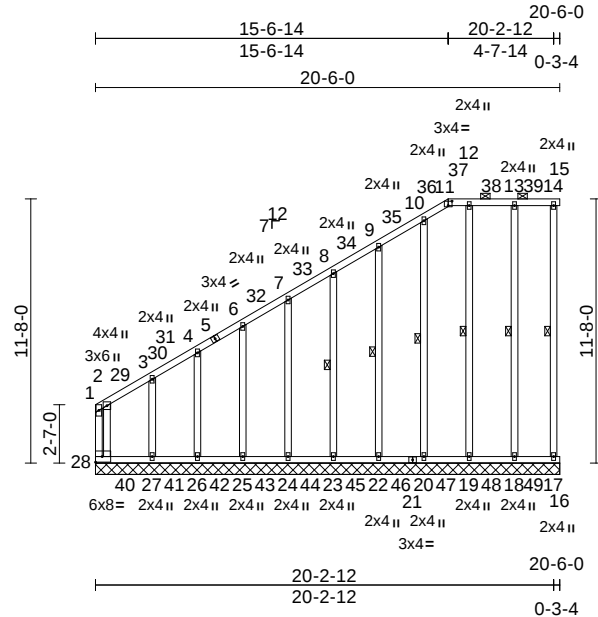
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	M1AG	Piggyback Base Supported Gable	2	1	170910859
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:57
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Page: 1



Scale = 1:83.8									
Plate Offsets (X, Y): [11:0-2-0,0-2-5]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	n/a	-	n/a
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.40	Vert(TL)	n/a	-	n/a
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horiz(TL)	-0.16	15	n/a
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS					
BCDL	10.0								
					PLATES				
					GRIP				
					MT20				
					244/190				
					Weight: 194 lb FT = 20%				

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 14-17:2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 11-15.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 14-17, 13-18, 12-19, 10-20, 9-22, 8-23

REACTIONS (size)
15=20-6-0, 16=20-6-0, 17=20-6-0, 18=20-6-0, 19=20-6-0, 20=20-6-0, 22=20-6-0, 23=20-6-0, 24=20-6-0, 25=20-6-0, 26=20-6-0, 27=20-6-0, 28=20-6-0
Max Horiz 28=183 (LC 16)
Max Uplift 15=-16 (LC 86), 16=-232 (LC 98), 17=-62 (LC 97), 20=-8 (LC 16), 22=-11 (LC 16), 23=-11 (LC 16), 24=-6 (LC 16), 25=-31 (LC 16), 27=-331 (LC 16), 28=-141 (LC 14)
Max Grav 15=157 (LC 75), 16=60 (LC 97), 17=413 (LC 98), 18=332 (LC 109), 19=334 (LC 108), 20=333 (LC 107), 22=333 (LC 106), 23=333 (LC 105), 24=333 (LC 104), 25=334 (LC 103), 26=327 (LC 102), 27=354 (LC 101), 28=352 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-28=-478/811, 1-2=-190/306, 2-3=-470/262, 3-4=-232/131, 4-6=-236/132, 6-7=-182/106, 7-8=-140/89, 8-9=-96/73, 9-10=-75/73, 10-11=-106/35, 11-12=0/0, 12-13=0/0, 13-14=0/0, 14-15=0/0
BOT CHORD 27-28=0/0, 26-27=0/0, 25-26=0/0, 24-25=0/0, 23-24=0/0, 22-23=0/0, 20-22=0/0, 19-20=0/0, 18-19=0/0, 17-18=0/0, 16-17=0/0
WEBS 14-17=-134/18, 13-18=-265/51, 12-19=-265/46, 10-20=-267/61, 9-22=-270/63, 8-23=-272/64, 7-24=-274/60, 6-25=-277/86, 4-26=-277/2, 3-27=-323/463, 2-28=-1257/695

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 Corner (3E) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 15-6-14, Corner(3R) 15-6-14 to 18-6-0, Exterior(2N) 18-6-0 to 20-6-0 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=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
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- 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 141 lb uplift at joint 28, 232 lb uplift at joint 16, 16 lb uplift at joint 15, 62 lb uplift at joint 17, 8 lb uplift at joint 20, 11 lb uplift at joint 22, 11 lb uplift at joint 23, 6 lb uplift at joint 24, 31 lb uplift at joint 25 and 331 lb uplift at joint 27.
- 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.



January 22,2025

Continued on page 2

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	M1AG	Piggyback Base Supported Gable	2	1	I70910859
					Job Reference (optional)

- 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

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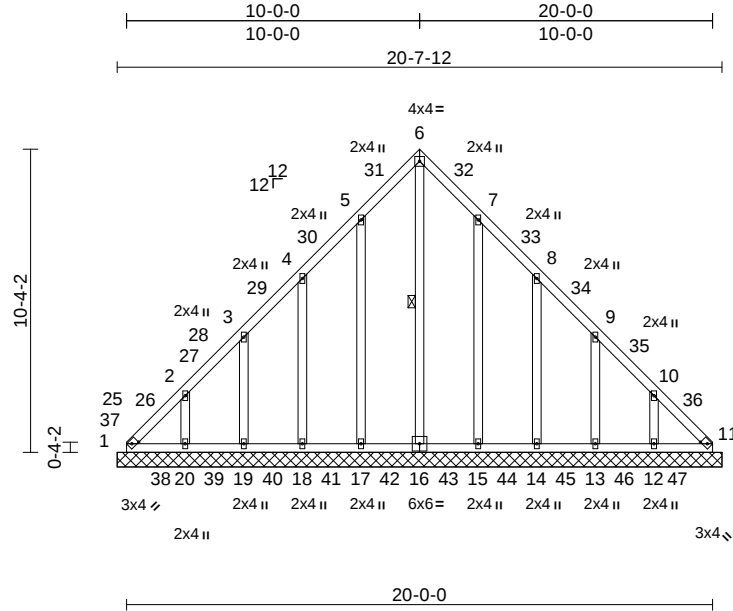
Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	VG8	Valley	5	1	170910860
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:36:04

Page: 1

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Scale = 1:72.7												
Plate Offsets (X, Y): [1:0-2-7,Edge], [11:0-2-7,Edge]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.33	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.34	Horiz(TL)	0.00	11	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS								
BCDL	10.0											
										Weight: 143 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.
WEBS 1 Row at midpt 6-16

REACTIONS (size)
1=20-7-12, 11=20-7-12,
12=20-7-12, 13=20-7-12,
14=20-7-12, 15=20-7-12,
16=20-7-12, 17=20-7-12,
18=20-7-12, 19=20-7-12,
20=20-7-12
Max Horiz 1=162 (LC 13)
Max Uplift 1=-42 (LC 14), 11=-23 (LC 15),
12=-44 (LC 17), 13=-37 (LC 17),
14=-42 (LC 17), 15=-35 (LC 17),
17=-37 (LC 16), 18=-40 (LC 16),
19=-43 (LC 16), 20=-23 (LC 16)
Max Grav 1=294 (LC 55), 11=288 (LC 67),
12=343 (LC 89), 13=330 (LC 88),
14=333 (LC 87), 15=335 (LC 86),
16=322 (LC 85), 17=335 (LC 84),
18=334 (LC 83), 19=327 (LC 82),
20=354 (LC 81)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-260/145, 2-3=-135/113, 3-4=-110/97,
4-5=-134/83, 5-6=-149/148, 6-7=-149/144,
7-8=-133/79, 8-9=-111/96, 9-10=-111/96,
10-11=-169/111

BOT CHORD 1-20=-84/162, 19-20=-84/138,
18-19=-84/138, 17-18=-84/138,
15-17=-84/138, 14-15=-84/138,
13-14=-84/138, 12-13=-84/138,
11-12=-84/138
WEBS 6-16=-189/73, 5-17=-280/88, 4-18=-280/82,
3-19=-282/78, 2-20=-295/63, 7-15=-280/88,
8-14=-280/83, 9-13=-283/75, 10-12=-291/74

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) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 10-4-2, Exterior(2R) 10-4-2 to 13-4-2, Interior (1) 13-4-2 to 20-4-0 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=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 42 lb uplift at joint 1, 23 lb uplift at joint 11, 37 lb uplift at joint 17, 40 lb uplift at joint 18, 43 lb uplift at joint 19, 23 lb uplift at joint 20, 35 lb uplift at joint 15, 42 lb uplift at joint 14, 37 lb uplift at joint 13 and 44 lb uplift at joint 12.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.
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



January 22,2025

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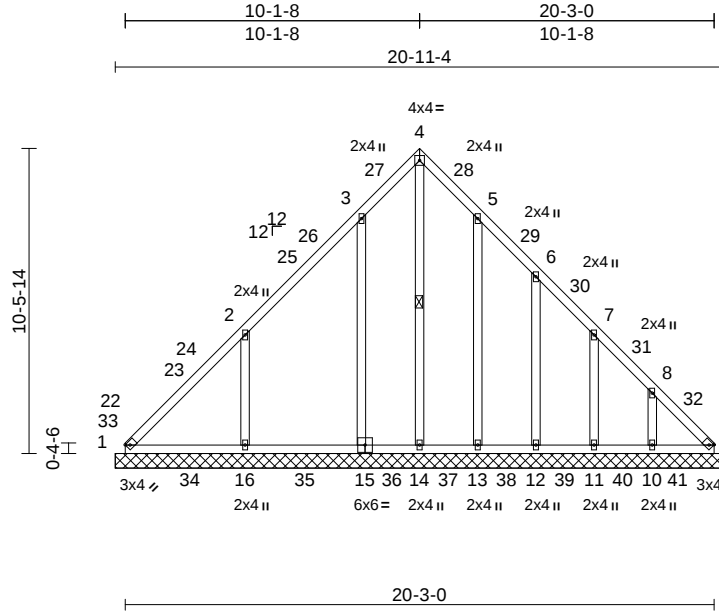
Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	VGE1	Valley	3	1	170910861
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:36:04

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Scale = 1:73.2

Plate Offsets (X, Y): [1:0-1-6,Edge], [9:0-1-6,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.81	Vert(TL)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.39	Horiz(TL)	-0.01	9	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS							
BCDL	10.0										
Weight: 134 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.
WEBS 1 Row at midpt 4-14

REACTIONS (size) 1=20-11-4, 9=20-11-4, 10=20-11-4, 11=20-11-4, 12=20-11-4, 13=20-11-4, 14=20-11-4, 15=20-11-4, 16=20-11-4
Max Horiz 1=164 (LC 13)
Max Uplift 1=-131 (LC 63), 9=-1 (LC 63), 11=-73 (LC 17), 12=-37 (LC 17), 13=-28 (LC 17), 14=-7 (LC 15), 15=-52 (LC 16), 16=-91 (LC 16)
Max Grav 1=298 (LC 53), 9=0 (LC 15), 10=357 (LC 81), 11=323 (LC 80), 12=333 (LC 79), 13=340 (LC 78), 14=482 (LC 63), 15=376 (LC 76), 16=517 (LC 33)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-290/346, 2-3=-125/344, 3-4=-142/318, 4-5=-133/318, 5-6=-90/336, 6-7=-59/336, 7-8=-97/310, 8-9=-68/353

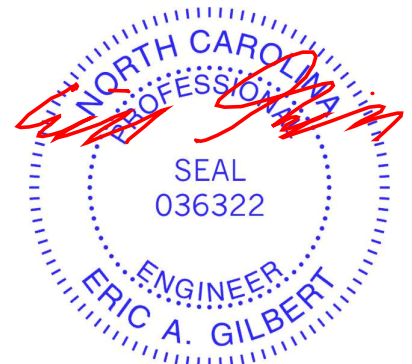
BOT CHORD 1-16=-223/202, 14-16=-225/49, 13-14=-225/49, 12-13=-225/49, 11-12=-225/49, 10-11=-225/49, 9-10=-225/49
WEBS 4-14=-454/131, 3-15=-306/131, 2-16=-347/164, 5-13=-283/82, 6-12=-279/82, 7-11=-280/89, 8-10=-298/54

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 10-5-14, Exterior(2R) 10-5-14 to 13-5-14, Interior (1) 13-5-14 to 20-7-6 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 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, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.3.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 131 lb uplift at joint 1, 1 lb uplift at joint 9, 7 lb uplift at joint 14, 52 lb uplift at joint 15, 91 lb uplift at joint 16, 28 lb uplift at joint 13, 37 lb uplift at joint 12, 73 lb uplift at joint 11 and 1 lb uplift at joint 9.

- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 21.
- 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



January 22, 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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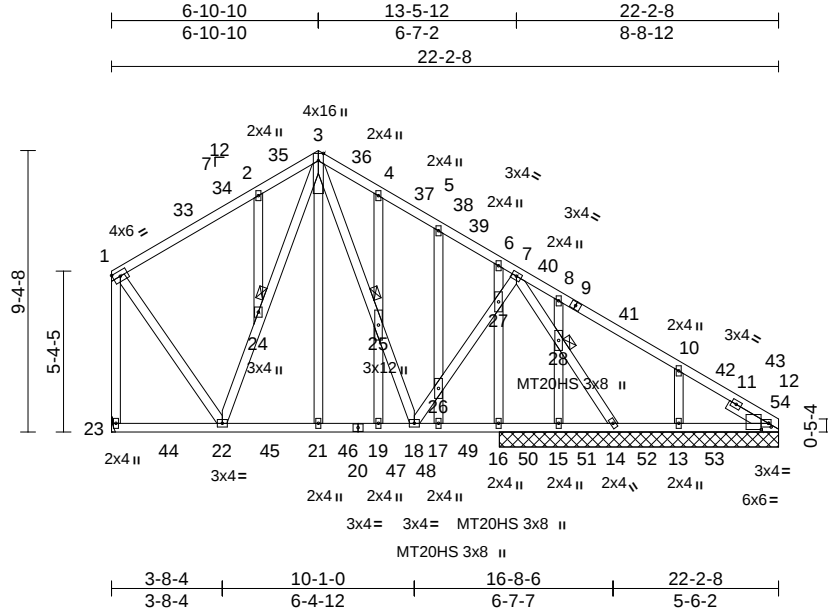
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	A2SG	Common Structural Gable	1	1	170910862
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:53
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Page: 1

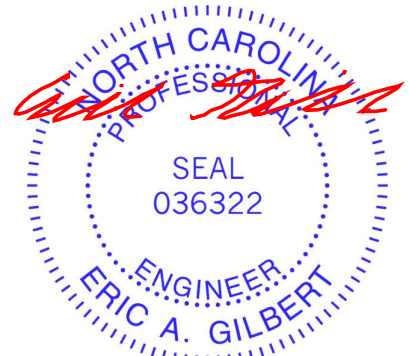


Scale = 1:70.9

Plate Offsets (X, Y): [12:0-1-0,0-1-8], [12:0-3-0,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.03	22-23	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.04	22-23	>999	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.00	29	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.00	22-23	>999	240		
BCDL	10.0											
											Weight: 192 lb	FT = 20%

LUMBER			WEBS	22-24=-243/88, 3-24=-140/83, 1-22=-26/345, 7-28=-214/0, 14-28=-199/0, 3-25=-88/134, 18-25=-83/121, 18-26=0/253, 26-27=0/247, 7-27=0/241, 3-21=0/308, 2-24=-172/54, 4-25=-190/51, 19-25=-155/85, 5-26=-231/49, 17-26=-177/65, 6-27=-322/16, 16-27=-335/19, 8-28=-326/63, 15-28=-331/60, 10-13=-337/80	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) Bearings are assumed to be: , Joint 12 SP No.2 . 12) Refer to girder(s) for truss to truss connections. 13) N/A
TOP CHORD	2x4 SP No.2				
BOT CHORD	2x4 SP No.2				
WEBS	2x4 SP No.3				
OTHERS	2x4 SP No.3				
SLIDER	Right 2x4 SP No.3 -- 1-6-0				
BRACING			NOTES		
TOP CHORD	Structural wood sheathing directly applied, except end verticals.		1) Unbalanced roof live loads have been considered for this design.		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.
BOT CHORD	Rigid ceiling directly applied.		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) 4-10-13 to 7-10-13, Interior (1) 7-10-13 to 11-9-14, Exterior(2R) 11-9-14 to 14-9-14, Interior (1) 14-9-14 to 26-11-9 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		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.
JOINTS	1 Brace at Jt(s): 24, 25, 28		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.		
REACTIONS (size)			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		
	Max Horiz	23=-187 (LC 14)	5) Unbalanced snow loads have been considered for this design.		
	Max Uplift	13=-38 (LC 17), 15=-19 (LC 17)	6) All plates are MT20 plates unless otherwise indicated.		
	Max Grav	12=309 (LC 86), 13=402 (LC 84), 14=357 (LC 83), 15=374 (LC 82), 16=438 (LC 69), 23=566 (LC 2)	7) Plates checked for a plus or minus 5 degree rotation about its center.		
FORCES (lb) - Maximum Compression/Maximum Tension			8) Gable studs spaced at 2-0-0 oc.		
TOP CHORD	1-2=-362/110, 2-3=-311/142, 3-4=-348/145, 4-5=-369/123, 5-6=-354/89, 6-7=-253/68, 7-8=-122/91, 8-10=-95/92, 10-12=-319/58, 1-23=-556/52		9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.		
BOT CHORD	22-23=-128/177, 21-22=-2/273, 19-21=-3/272, 18-19=-3/272, 17-18=-15/145, 16-17=-15/145, 15-16=-15/145, 14-15=-15/145, 13-14=-35/59, 12-13=-35/59				



January 22,2025

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818 Soundside Road
Edenton, NC 27932

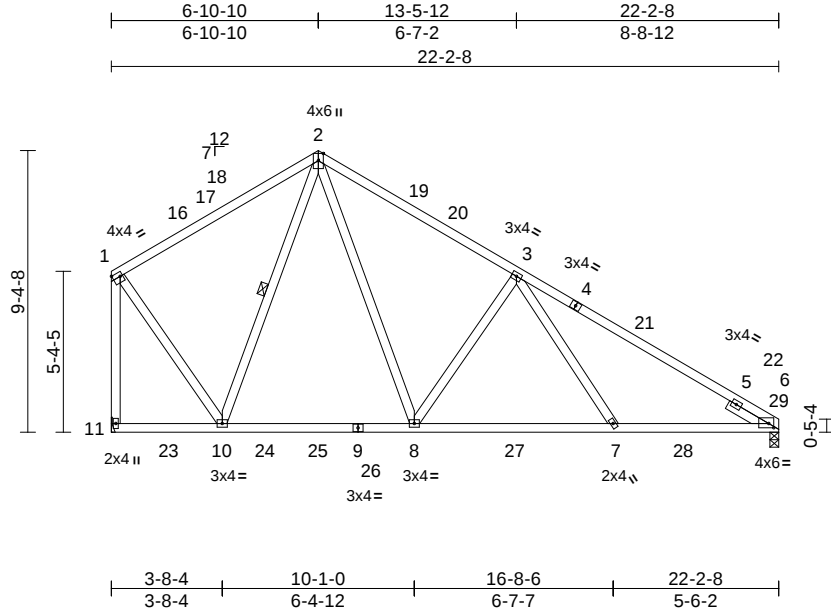
Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	A1C	Common	3	1	170910863
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:51

Page: 1

ID:5nu2qr7Daa5sSslrhYnErzfum7fRfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:70.9

Plate Offsets (X, Y): [1:Edge,0-1-12], [6:0-2-0,0-1-11]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.21	7-8	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.27	7-8	>986	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.04	7-14	>999	240		
BCDL	10.0											
Weight: 136 lb											FT = 20%	

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 2-10

REACTIONS

(size) 6=0-3-8, 11= Mechanical
 Max Horiz 11=-189 (LC 14)
 Max Grav 6=994 (LC 34), 11=1002 (LC 34)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-667/128, 2-3=-1131/138, 3-6=-1624/57, 1-11=-1080/47

BOT CHORD

10-11=-122/172, 8-10=0/568, 7-8=0/1133, 6-7=0/1301

WEBS

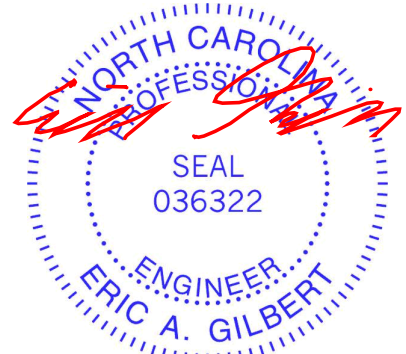
1-10=-8/758, 2-10=-437/88, 2-8=-18/807, 3-8=-597/125, 3-7=0/446

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) 4-10-13 to 7-10-13, Interior (1) 7-10-13 to 11-7-11, Exterior(2R) 11-7-11 to 14-7-11, Interior (1) 14-7-11 to 26-9-13 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=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) 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, with BCDL = 10.0psf.
- 8) Bearings are assumed to be: , Joint 6 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



January 22,2025

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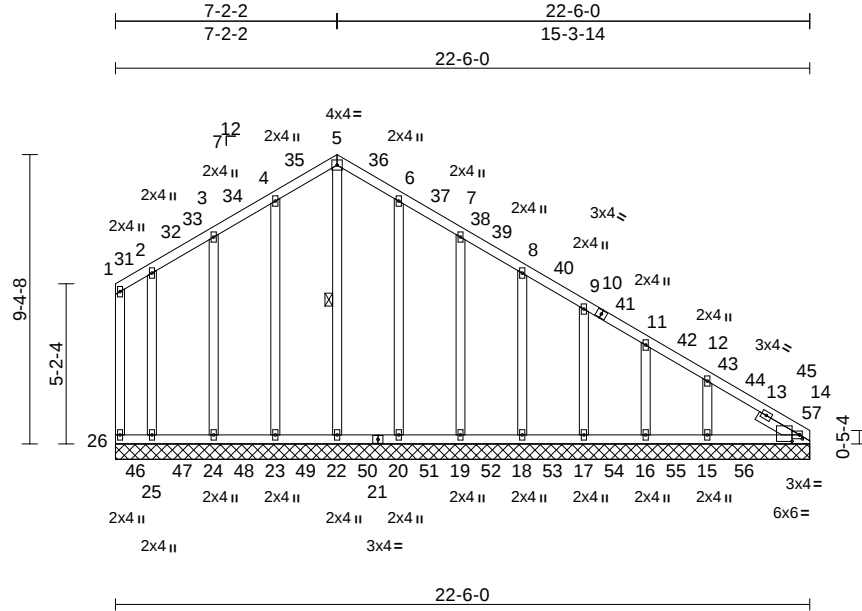
818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	A1G	Common Supported Gable	3	1	170910864
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:51
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Page: 1



Scale = 1:68.9

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.27	Vert(TL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horiz(TL)	0.01	14	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS							
BCDL	10.0										
										Weight: 166 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
SLIDER	Right 2x4 SP No.3 -- 1-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.

BOT CHORD Rigid ceiling directly applied.

WEBS 1 Row at midpt 5-22

REACTIONS (size) 14=22-6-0, 15=22-6-0, 16=22-6-0, 17=22-6-0, 18=22-6-0, 19=22-6-0, 20=22-6-0, 22=22-6-0, 23=22-6-0, 24=22-6-0, 25=22-6-0, 26=22-6-0

Max Horiz 26=188 (LC 14)

Max Uplift 14=29 (LC 13), 15=24 (LC 17), 16=19 (LC 54), 17=12 (LC 17), 18=10 (LC 17), 19=12 (LC 17), 20=6 (LC 17), 22=8 (LC 14), 23=7 (LC 16), 24=14 (LC 16), 25=11 (LC 13), 26=41 (LC 69)

Max Grav 14=308 (LC 92), 15=389 (LC 54), 16=313 (LC 89), 17=338 (LC 88), 18=332 (LC 87), 19=333 (LC 86), 20=334 (LC 85), 22=331 (LC 84), 23=334 (LC 83), 24=336 (LC 82), 25=319 (LC 81), 26=266 (LC 80)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-26=-248/117, 1-2=-109/147, 2-3=-114/157, 3-4=-141/202, 4-5=-160/238, 5-6=-160/238, 6-7=-141/202, 7-8=-128/159, 8-9=-136/119, 9-11=-144/121, 11-12=-155/132, 12-14=-307/182

BOT CHORD 25-26=-154/189, 24-25=-154/189, 23-24=-154/189, 22-23=-154/189, 20-22=-154/189, 19-20=-154/189, 18-19=-154/189, 17-18=-154/189, 16-17=-154/189, 15-16=-154/189, 14-15=-154/189

WEBS 5-22=-271/71, 4-23=-275/54, 3-24=-276/70, 2-25=-257/85, 6-20=-275/55, 7-19=-275/65, 8-18=-278/58, 9-17=-283/61, 11-16=-274/50, 12-15=-317/90

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 Corner (3E) 4-7-5 to 7-7-11, Exterior(2N) 7-7-11 to 11-7-11, Corner(3R) 11-7-11 to 14-7-11, Exterior(2N) 14-7-11 to 26-11-9 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 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 .
- 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.

LOAD CASE(S) Standard



January 22, 2025

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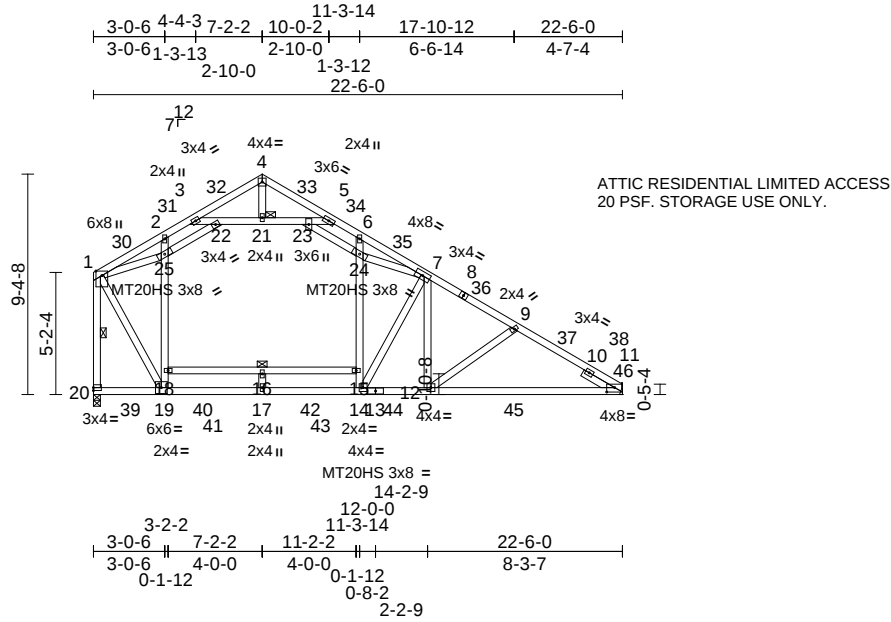
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	A1	Attic	15	1	170910865
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:49
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Page: 1



Scale = 1:77.5

Plate Offsets (X, Y): [11:0-4-1,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.23	14-17	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.67	14-17	>400	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.02	11	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS		Wind(LL)	0.12	14	>999	240		
BCDL	10.0											
											Weight: 171 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 4-8:2x4 SP SS
BOT CHORD 2x4 SP SS *Except* 18-15:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 2-19,6-14:2x4 SP No.2, 3-5:2x4 SP SS
SLIDER Right 2x4 SP No.3 -- 1-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-0-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 19-20.
WEBS 1 Row at midpt 15-18, 1-20
JOINTS 1 Brace at Jt(s): 21

REACTIONS (size) 11= Mechanical, 20=0-3-8
Max Horiz 20=187 (LC 14)
Max Grav 11=1073 (LC 35), 20=1346 (LC 35)

FORCES

TOP CHORD 1-2=-83/917, 2-3=0/866, 3-4=-248/79, 4-5=-253/72, 5-6=-2607/0, 6-7=-3009/0, 7-9=-1709/0, 9-11=-1840/0, 1-20=-1702/0, 7-12=-59/362
BOT CHORD 19-20=-146/173, 17-19=0/908, 14-17=0/908, 12-14=0/1406, 11-12=0/1570
WEBS 18-19=-870/103, 18-25=-809/133, 2-25=-302/164, 14-15=0/1237, 15-24=0/1298, 6-24=0/821, 16-18=-13/4, 15-16=-13/4, 3-22=-67/840, 21-22=-947/0, 21-23=-947/0, 5-23=-2518/0, 4-21=-39/22, 16-17=0/146, 22-25=-1973/0, 23-24=0/1888, 1-19=0/1899, 7-14=-984/38, 9-12=-280/79, 7-24=0/1591, 1-25=-1701/0

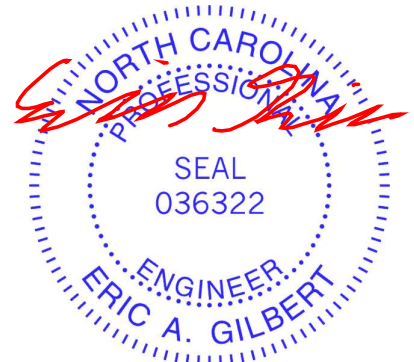
NOTES

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) 4-7-5 to 7-5-15, Interior (1) 7-5-15 to 11-7-11, Exterior(2R) 11-7-11 to 14-9-6, Interior (1) 14-9-6 to 26-10-13 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=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) 200.0lb AC unit load placed on the bottom chord, 7-2-2 from left end, supported at two points, 5-0-0 apart.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) Plates checked for a plus or minus 5 degree rotation about its center.
- 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) Bottom chord live load (20.0 psf) and additional bottom chord dead load (20.0 psf) applied only to room. 17-19, 14-17
- 11) Bearings are assumed to be: Joint 20 SP SS .
- 12) Refer to girder(s) for truss to truss connections.
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

15) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



January 22,2025

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.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

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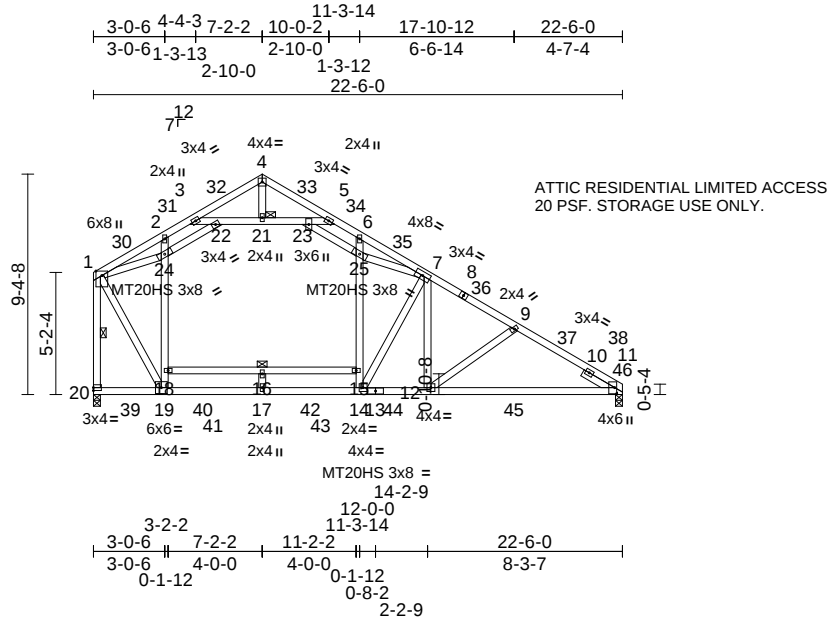
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neills Creek Lot 00.0049 Roof
2501-0707-A	A1A	Attic	6	1	170910866
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Tue Jan 21 11:35:50
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Page: 1



Scale = 1:77.5

Plate Offsets (X, Y): [11:0-3-2:0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.23	14-17	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.66	14-17	>402	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.01	11	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS		Wind(LL)	0.12	14	>999	240		
BCDL	10.0											
Weight: 171 lb											FT = 20%	

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 8-4:2x4 SP SS
BOT CHORD 2x4 SP SS *Except* 18-15:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 2-19:6-14:2x4 SP No.2, 3-5:2x4 SP SS
SLIDER Right 2x4 SP No.3 -- 1-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-0-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 19-20.
WEBS 1 Row at midpt 15-18, 1-20
JOINTS 1 Brace at Jt(s): 21

REACTIONS

(size) 11=0-3-8, 20=0-3-8
Max Horiz 20=187 (LC 14)
Max Grav 11=1071 (LC 35), 20=1342 (LC 35)

FORCES

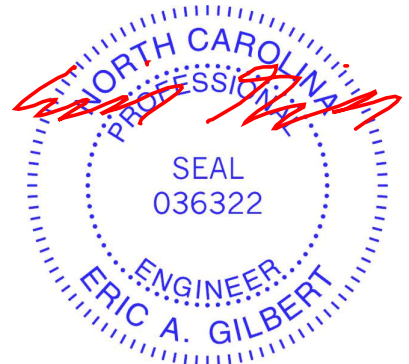
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-84/906, 2-3=0/856, 3-4=-248/79, 4-5=-253/72, 5-6=-2589/0, 6-7=-2989/0, 7-9=-1690/0, 9-11=-1810/0, 1-20=-1697/0, 7-12=-62/347
BOT CHORD 19-20=-145/172, 17-19=0/904, 14-17=0/904, 12-14=0/1392, 11-12=0/1539
WEBS 18-19=-864/104, 18-24=-804/134, 2-24=-301/164, 14-15=0/1228, 15-25=0/1288, 6-25=0/815, 16-18=-12/4, 15-16=-12/4, 3-22=-68/832, 21-22=-941/0, 21-23=-941/0, 5-23=-2498/0, 4-21=-39/22, 1-19=0/1891, 16-17=0/146, 7-14=-966/41, 22-24=-1957/0, 23-25=0/1872, 1-24=-1687/0, 7-25=0/1577, 9-12=-265/81

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) 4-7-5 to 7-5-15, Interior (1) 7-5-15 to 11-7-11, Exterior(2R) 11-7-11 to 14-9-6, Interior (1) 14-9-6 to 26-9-13 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.
- 200.0lb AC unit load placed on the bottom chord, 7-2-2 from left end, supported at two points, 5-0-0 apart.
- 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.
- Bottom chord live load (20.0 psf) and additional bottom chord dead load (20.0 psf) applied only to room. 17-19, 14-17
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



January 22,2025

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

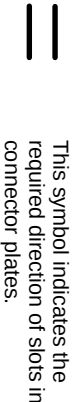
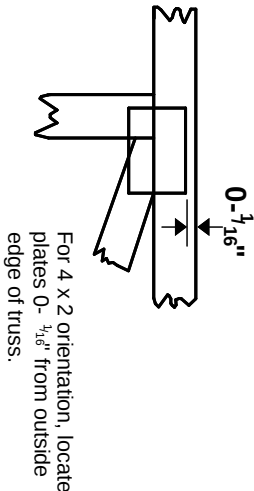
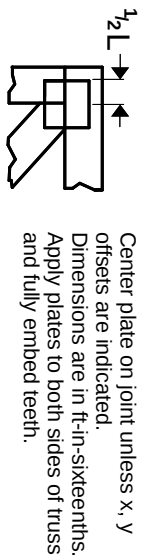
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



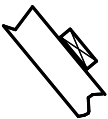
* Plate location details available in MITek software or upon request.

PLATE SIZE

4 X 4

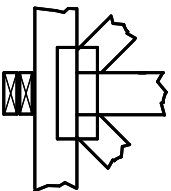
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

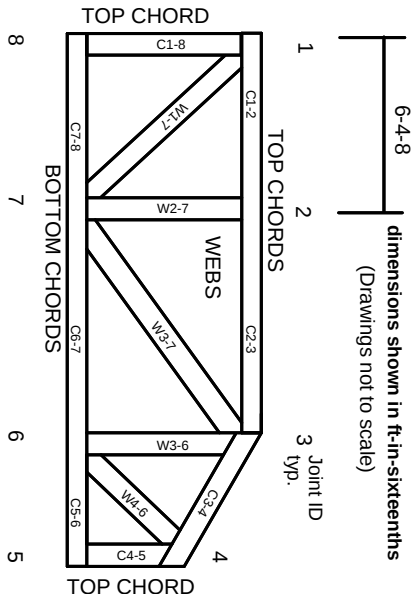


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: 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.

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MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023