ENGINEERING BY TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

RE: 2502-1871-D - Norris Rev 1-Elev 5-Roof

Site Information:

Project Customer: DRB Raleigh Project Name: DRB Raleigh Model Track
Lot/Block: Subdivision: DRB Raleigh
Model: Norris Rev 1
Address:
City: State: NC

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

Design Code: IRC2021/TPI2014
Design Program: MiTek 20/20 25.2
Wind Code: ASCE 7-16
Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16
Wind Speed: 120 mph
Floor Load: N/A psf
Roof Load: 40.0 psf
Mean Roof Height (feet): 25
Exposure Category: B

No.	Seal#	Truss Name	Date
1	I73874522	B1GE	6/2/25
2	I73874523	B1	6/2/25
3	I73874524	C1G	6/2/25
4	I73874525	C1	6/2/25
5	I73874526	M1GE	6/2/25
6	I73874527	M1	6/2/25
7	I73874528	B2	6/2/25
8	I73874529	B2GE	6/2/25
9	I73874530	A4GE	6/2/25
10	I73874531	A4	6/2/25
11	I73874532	A2A	6/2/25
12	I73874533	A2B	6/2/25
13	I73874534	A2	6/2/25
14	I73874535	A1	6/2/25
	I73874536	A1GE	6/2/25
16	I73874537	A2T	6/2/25
17	I73874538	PB1	6/2/25
18	I73874539	V1	6/2/25
19	I73874540	V2	6/2/25
20	I73874541	V3	6/2/25
21	I73874542	V4	6/2/25
22	I73874543	V5	6/2/25
23	I73874544	V6	6/2/25
	I73874545	V7	6/2/25
25	I73874546	V8	6/2/25
26	I73874547	A2GE	6/2/25
27	I73874548	A2AGE	6/2/25
28	I73874549	A3	6/2/25
29	I73874550	A2BGE	6/2/25
30	I73874551	A3GE	6/2/25

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.

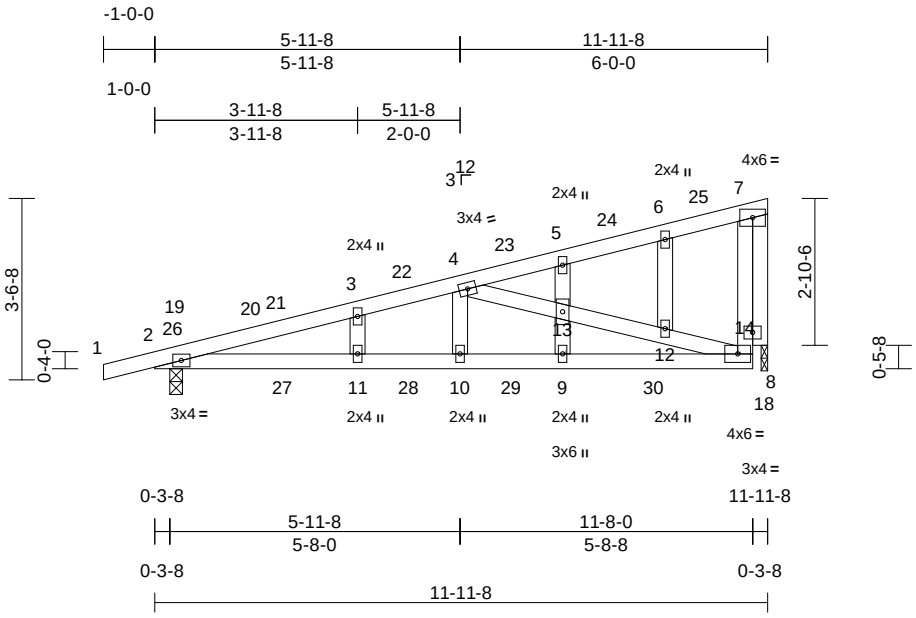
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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.

June 2,2025

Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof
	C1G	Monopitch Supported Gable	2	1	I73874524 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:46 Page: 1
ID:?i4o_sna8qbUiqhtkL7nH0zlvAp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:45

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	0.56	Vert(LL)	-0.10	11-17	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.16	11-17	>908	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.02	18	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.06	11-17	>999	240		
BCDL	10.0										Weight: 61 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-0, 18=0-1-8
Max Horiz 2=66 (LC 12)
Max Uplift 2=-88 (LC 12), 18=-77 (LC 12)
Max Grav 2=538 (LC 2), 18=486 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/20, 2-3=-1148/401, 3-4=-1126/412, 4-5=-156/14, 5-6=-157/22, 6-7=-127/34, 8-14=-164/452, 7-14=-164/452
BOT CHORD 2-11=-466/1099, 10-11=-466/1099, 9-10=-466/1099, 8-9=-466/1099
WEBS 4-10=-92/354, 4-13=-1019/434, 12-13=-1018/433, 8-12=-1038/441, 6-12=-112/30, 5-13=-146/104, 9-13=-90/167, 3-11=-121/131, 7-18=-493/195

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 11-6-4 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 18.
12) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 18. This connection is for uplift only and does not consider lateral forces.
13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
14) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

June 2,2025

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Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof
	C1	Monopitch	18	1	I73874525 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:46 Page: 1
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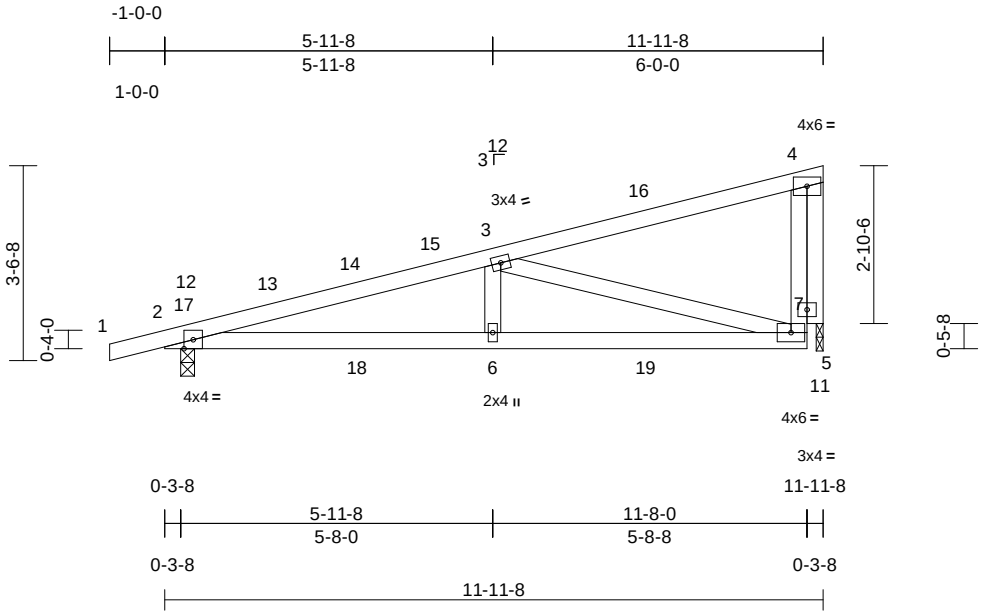

Scale = 1:41.8

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	0.63	Vert(LL)	-0.12	5-6	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.18	6-10	>802	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.02	11	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.06	6-10	>999	240		
BCDL	10.0										Weight: 55 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-0, 11=0-1-8
Max Horiz 2=66 (LC 12)
Max Uplift 2=-88 (LC 12), 11=-77 (LC 12)
Max Grav 2=538 (LC 2), 11=486 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/20, 2-3=-1156/411, 3-4=-172/31, 5-7=-142/437, 4-7=-142/437
BOT CHORD 2-6=-468/1108, 5-6=-468/1108
WEBS 3-6=-68/369, 3-5=-1027/436, 4-11=-494/195

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 11-6-4 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) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 11.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 11. This connection is for uplift only and does not consider lateral forces.
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

June 2,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof	I73874526
	M1GE	Monopitch Structural Gable	2	1	Job Reference (optional)	

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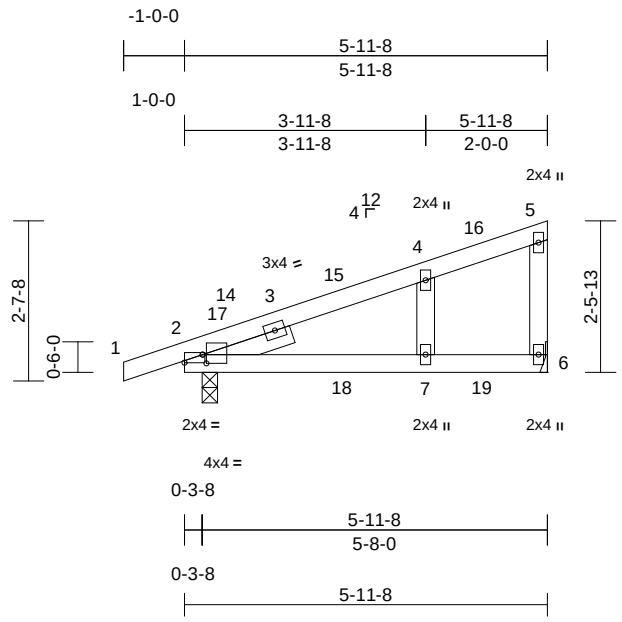

Scale = 1:37.8

Plate Offsets (X, Y): [2:0-0-12,0-1-12], [2:Edge,0-1-10]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.09	7-12	>761	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.14	7-12	>505	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.07	7-12	>959	240		
BCDL	10.0										Weight: 27 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, except end verticals.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS (size) 2=0-3-0, 6= Mechanical
Max Horiz 2=57 (LC 15)
Max Uplift 2=-60 (LC 12), 6=-34 (LC 12)
Max Grav 2=421 (LC 40), 6=357 (LC 57)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/26, 2-4=-410/165, 4-5=-59/64, 5-6=-304/100
BOT CHORD	2-7=-110/64, 6-7=-32/34
WEBS	4-7=-132/120

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 5-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 2.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 6.
13) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
14) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
15) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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June 2,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof	I73874527
	M1	Monopitch	9	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:47 Page: 1
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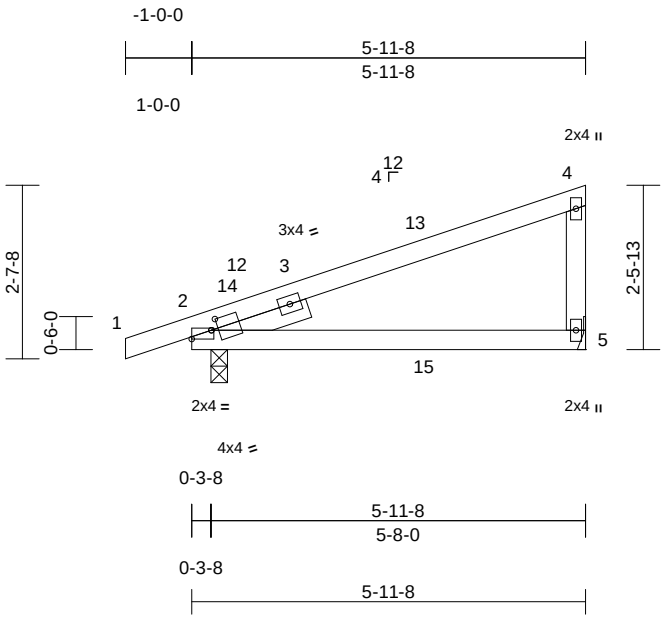

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Plate Offsets (X, Y): [2:0-1-4,0-1-12], [2:Edge,0-1-10]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.11	5-10	>623	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.16	5-10	>446	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.06	5-10	>999	240		
BCDL	10.0										Weight: 25 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-0, 5= Mechanical
Max Horiz 2=57 (LC 15)
Max Uplift 2=-60 (LC 12), 5=-34 (LC 12)
Max Grav 2=421 (LC 40), 5=357 (LC 53)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-4=-378/74, 4-5=-306/124
BOT CHORD 2-5=-32/34

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 5-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 5.
11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
12) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

June 2,2025

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof	
	B2	Monopitch	10	1	Job Reference (optional)	I73874528

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:46 Page: 1
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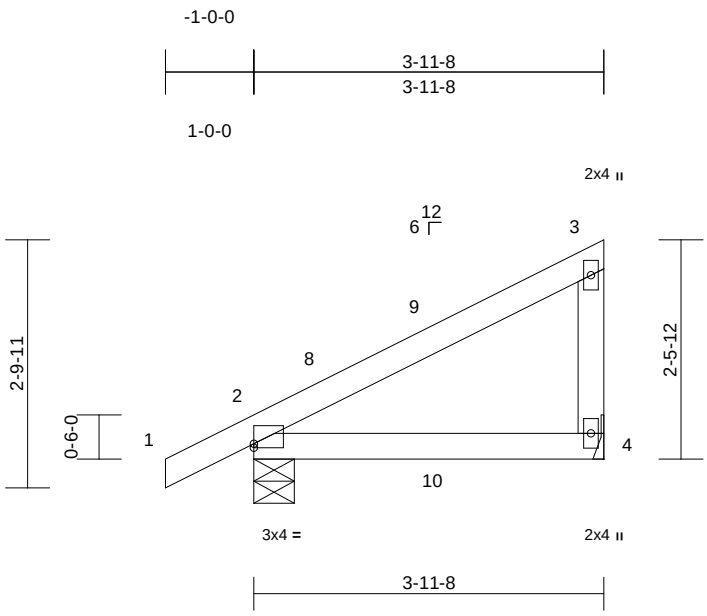

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Plate Offsets (X, Y): [2:Edge,0-0-9]

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	0.52	Vert(LL)	-0.05	4-7	>978	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.06	4-7	>770	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP		Wind(LL)	0.01	4-7	>999	240		
BCDL	10.0										Weight: 17 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, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 4= Mechanical
Max Horiz 2=57 (LC 15)
Max Uplift 4=-1 (LC 16)
Max Grav 2=352 (LC 40), 4=327 (LC 42)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-116/97, 3-4=-289/99
BOT CHORD 2-4=-124/105

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 3-9-12 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
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.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 4.
11) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.

LOAD CASE(S) Standard

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof
	B2GE	Monopitch Supported Gable	1	1	I73874529 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:46 Page: 1
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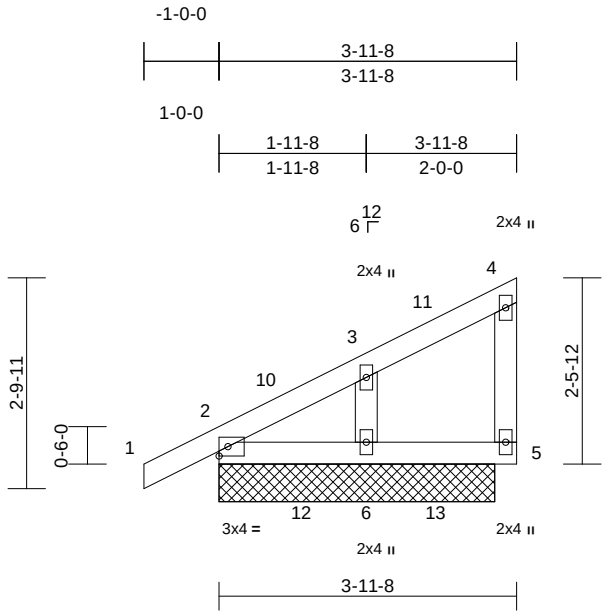

Scale = 1:30.7

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	0.50	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
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
OTHERS 2x4 SP No.3

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

REACTIONS (size) 2=3-8-0, 6=3-8-0
Max Horiz 2=57 (LC 15)
Max Uplift 2=-210 (LC 43), 6=-1 (LC 16)
Max Grav 2=282 (LC 40), 6=636 (LC 43)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-174/96, 3-4=-106/37, 4-5=-135/117
BOT CHORD 2-6=-79/57, 5-6=-31/41
WEBS 3-6=-347/257

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 1-11-8, Exterior(2N) 1-11-8 to 3-9-12 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
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) Plates checked for a plus or minus 5 degree rotation about its center.
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) N/A
12) Non Standard bearing condition. Review required.
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

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof	
	A4GE	Common Supported Gable	1	1	Job Reference (optional)	I73874530

Structural, LLC, Thurmont, MD - 21788, Run: 25.10 E Mar 10 2025 Print: 25.1.0 E Mar 10 2025 MiTek Industries, Inc. Mon Jun 02 17:22:34 Page: 1
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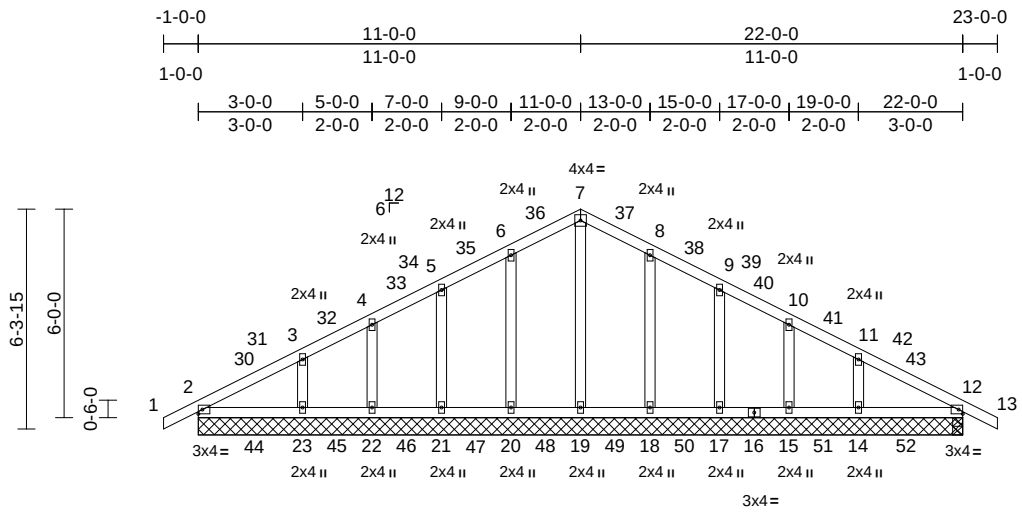

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.01	23-26	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.02	23-26	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.00	23-26	>999	240		
BCDL	10.0										Weight: 116 lb	FT = 20%

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

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

REACTIONS All bearings 22-0-0.
(lb) - Max Horiz 2=-52 (LC 14)
Max Uplift All uplift 100 (lb) or less at joint(s) 14, 15, 17, 18, 20, 21, 22, 23
Max Grav All reactions 250 (lb) or less at joint (s) except 2=335 (LC 65), 12=314 (LC 76), 14=369 (LC 87), 15=321 (LC 86), 17=337 (LC 85), 18=334 (LC 84), 19=319 (LC 83), 20=334 (LC 82), 21=337 (LC 81), 22=321 (LC 80), 23=369 (LC 79)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 6-20=-281/58, 5-21=-284/66, 4-22=-280/56, 3-23=-307/93, 8-18=-281/58, 9-17=-284/66, 10-15=-280/56, 11-14=-307/93

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 2-0-0, Exterior(2N) 2-0-0 to 11-0-0, Corner (3R) 11-0-0 to 14-0-0, Exterior(2N) 14-0-0 to 23-0-0 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
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) Plates checked for a plus or minus 5 degree rotation about its center.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 20, 21, 22, 23, 18, 17, 15, 14.
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

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof	
	A4	Common	5	1	Job Reference (optional)	I73874531

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:45 Page: 1
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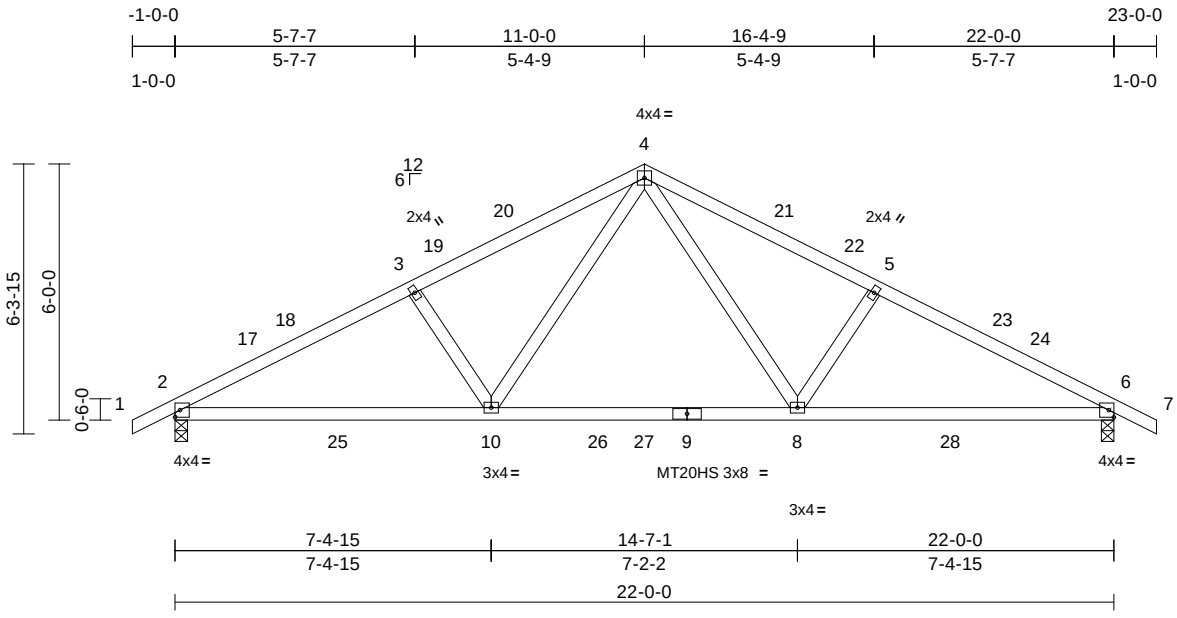

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.22	8-10	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.29	8-10	>912	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.03	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.03	8-10	>999	240		
BCDL	10.0										Weight: 102 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=-52 (LC 14)
Max Grav 2=1001 (LC 3), 6=1001 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-1579/138, 3-4=-1435/155, 4-5=-1435/155, 5-6=-1579/138, 6-7=0/36
BOT CHORD 2-10=-50/1383, 8-10=0/933, 6-8=-58/1360
WEBS 4-8=-20/582, 5-8=-316/124, 4-10=-20/583, 3-10=-316/124

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 11-0-0, Exterior(2R) 11-0-0 to 14-0-0, Interior (1) 14-0-0 to 23-0-0 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
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) 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) 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

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof	I73874532
	A2A	Attic	5	1	Job Reference (optional)	

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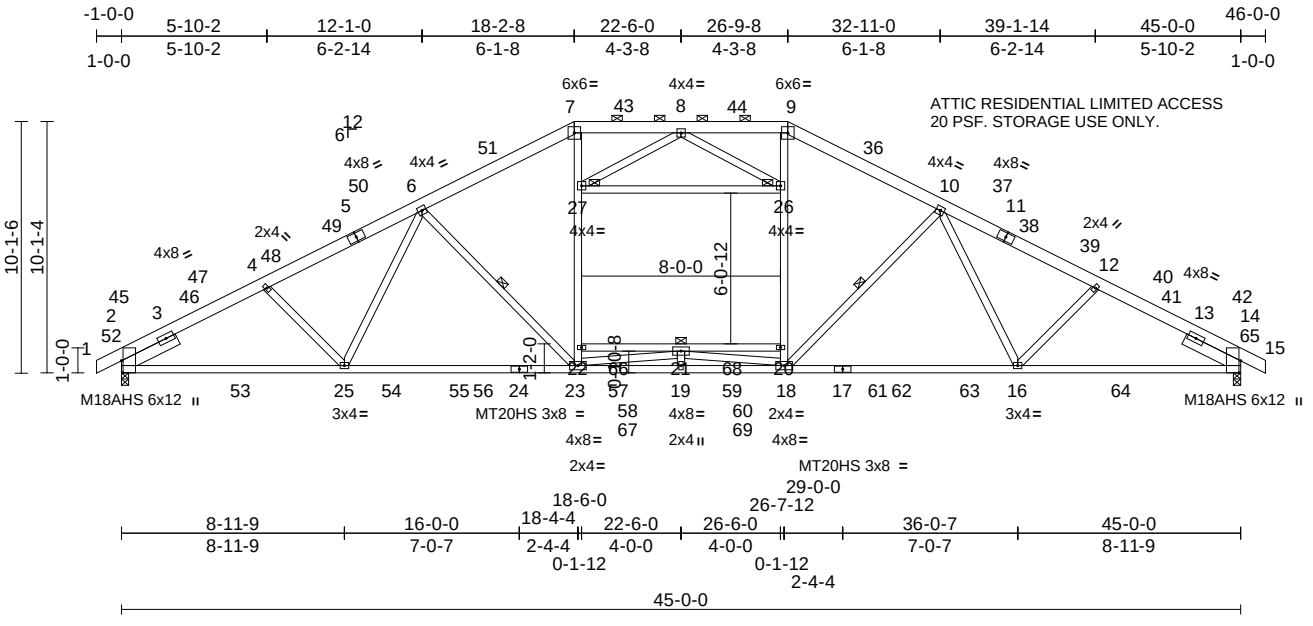

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Plate Offsets (X, Y): [2:0-5-14,Edge], [2:0-0-0,0-0-0], [14:0-5-14,Edge]

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	0.48	Vert(LL)	-0.46	23-25	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.73	23-25	>738	240	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.22	14	n/a	n/a	MT20HS	187/143
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.09	23-25	>999	240		
BCDL	10.0										Weight: 338 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 15-11,5-1:2x6 SP DSS
BOT CHORD 2x4 SP SS *Except* 20-22:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 9-18,7-23,26-27:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 2-6-0, Right 2x6 SP No.2 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-11-7 max.): 7-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-23, 10-18
JOINTS 1 Brace at Jt(s): 26, 27

REACTIONS (size) 2=0-3-8, 14=0-3-8
Max Horiz 2=84 (LC 15)
Max Grav 2=2601 (LC 48), 14=2613 (LC 48)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 9-10=-3802/0, 10-12=-4347/0, 12-14=-4384/0, 14-15=0/36, 7-8=-3334/0, 8-9=-3371/0, 1-2=0/36, 2-4=-4363/0, 4-6=-4324/0, 6-7=-3779/0
BOT CHORD 2-25=0/3729, 23-25=0/3747, 19-23=0/4115, 18-19=0/4115, 16-18=0/3770, 14-16=0/3747, 21-22=-72/389, 20-21=-72/363
WEBS 18-20=0/1210, 20-26=0/1396, 9-26=0/1411, 22-23=0/1195, 22-27=0/1344, 7-27=0/1380, 26-27=-41/363, 8-26=-381/78, 8-27=-381/78, 19-21=-34/294, 21-23=-1378/0, 18-21=-1378/0, 6-25=-24/323, 6-23=-727/133, 10-18=-736/133, 10-16=-25/323, 12-16=-73/271, 4-25=-73/265

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 3-6-0, Interior (1) 3-6-0 to 18-2-8, Exterior(2R) 18-2-8 to 24-6-14, Interior (1) 24-6-14 to 26-9-8, Exterior(2R) 26-9-8 to 32-11-0, Interior (1) 32-11-0 to 46-0-0 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
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) 250.0lb AC unit load placed on the bottom chord, 22-6-0 from left end, supported at two points, 5-0-0 apart.
7) Provide adequate drainage to prevent water ponding.
8) All plates are MT20 plates unless otherwise indicated.
9) Plates checked for a plus or minus 5 degree rotation about its center.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
12) Bottom chord live load (20.0 psf) and additional bottom chord dead load (20.0 psf) applied only to room. 21-22, 20-21
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.
16) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof
	A2B	Attic	2	1	I73874533 Job Reference (optional)

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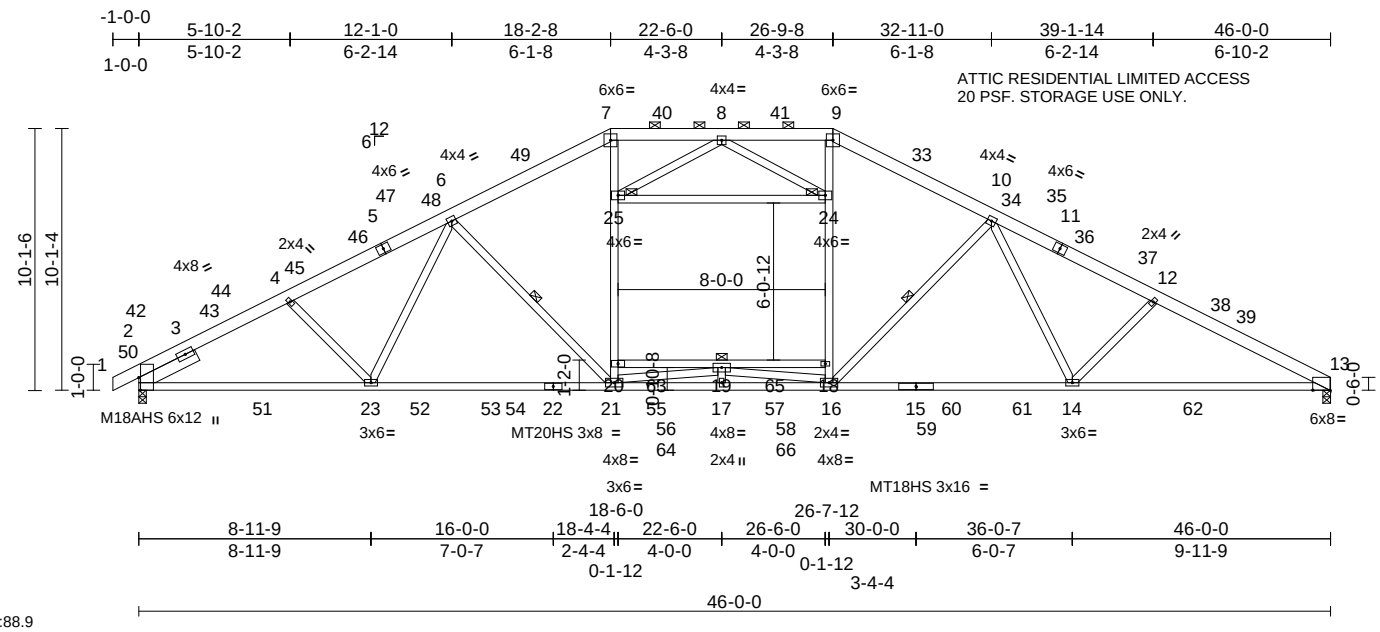

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Plate Offsets (X, Y): [2:0-5-14,Edge], [13:0-7-15,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.45	14-16	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.75	14-16	>740	240	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.23	13	n/a	n/a	MT20HS	187/143
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.10	14-16	>999	240	M18AHS	186/179
BCDL	10.0										Weight: 333 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 13-11,5-1:2x6 SP DSS
BOT CHORD 2x4 SP SS *Except* 18-20:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 9-16,7-21:2x4 SP SS, 24-25:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-10-5 max.): 7-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-21, 10-16
JOINTS 1 Brace at Jt(s): 24, 25

REACTIONS (size) 2=0-3-8, 13=0-3-8
Max Horiz 2=86 (LC 15)
Max Grav 2=2657 (LC 48), 13=2590 (LC 48)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 9-10=-3962/0, 10-12=-4873/0, 12-13=-5084/0, 7-8=-3420/0, 8-9=-3541/0, 1-2=0/36, 2-4=-4466/0, 4-6=-4430/0, 6-7=-3899/0
BOT CHORD 2-23=0/3817, 21-23=0/3848, 17-21=0/4228, 16-17=0/4228, 14-16=0/4040, 13-14=0/4492, 19-20=-14/505, 18-19=-130/347
WEBS 16-18=0/1298, 18-24=0/1490, 9-24=0/1482, 20-21=0/1220, 20-25=0/1359, 7-25=0/1418, 24-25=-42/357, 17-19=-29/297, 8-24=-347/91, 8-25=-411/72, 16-19=-1339/0, 19-21=-1430/0, 6-21=-715/136, 6-23=-26/316, 4-23=-68/274, 10-16=-910/118, 12-14=-339/128, 10-14=0/628

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 3-7-3, Interior (1) 3-7-3 to 18-2-8, Exterior(2R) 18-2-8 to 24-8-9, Interior (1) 24-8-9 to 26-9-8, Exterior(2R) 26-9-8 to 33-3-9, Interior (1) 33-3-9 to 45-11-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) 250.0lb AC unit load placed on the bottom chord, 22-6-0 from left end, supported at two points, 5-0-0 apart.
7) Provide adequate drainage to prevent water ponding.
8) All plates are MT20 plates unless otherwise indicated.
9) Plates checked for a plus or minus 5 degree rotation about its center.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
12) Bottom chord live load (20.0 psf) and additional bottom chord dead load (20.0 psf) applied only to room. 19-20, 18-19
13) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
14) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
15) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
17) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof
	A2	Piggyback Base	2	1	I73874534 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:38 Page: 1
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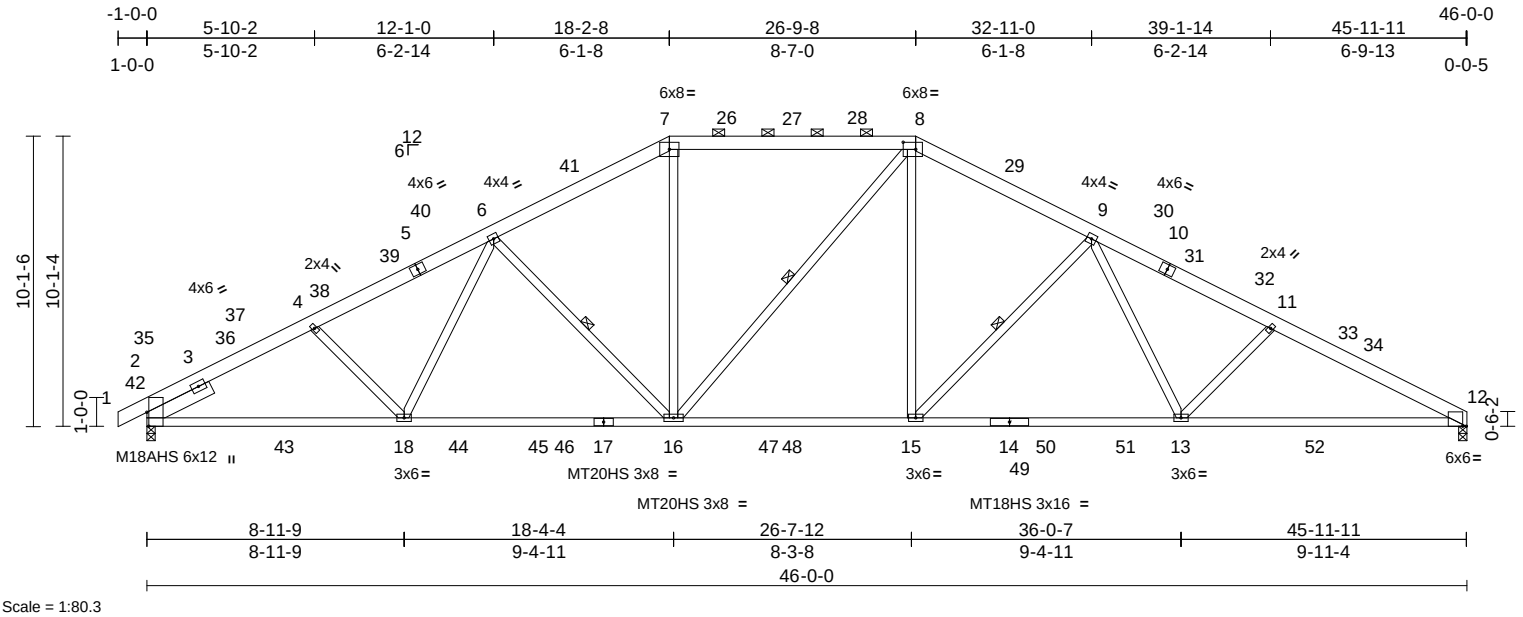

Scale = 1:80.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.43	13-15	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.68	13-15	>810	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.17	12	n/a	n/a	M18AHS	186/179
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.07	13-15	>999	240	MT18HS	244/190
BCDL	10.0										Weight: 302 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP SS
WEBS 2x4 SP No.3 *Except* 16-8:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-10-5 max.): 7-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 9-15, 8-16, 6-16

REACTIONS (size) 2=0-3-8, 12=0-3-8
Max Horiz 2=86 (LC 15)
Max Grav 2=2190 (LC 47), 12=2137 (LC 47)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 7-8=-2507/200, 8-9=-2949/191, 9-11=-3910/153, 11-12=-4107/153, 1-2=0/36, 2-4=-3608/134, 4-6=-3540/142, 6-7=-2902/191
BOT CHORD 2-18=-95/3088, 16-18=-21/2998, 15-16=0/2555, 13-15=-18/3144, 12-13=-71/3636
WEBS 11-13=-370/115, 9-13=0/669, 9-15=-905/99, 8-15=0/1038, 8-16=-247/168, 7-16=0/956, 6-16=-765/98, 6-18=0/406, 4-18=-159/161

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 3-6-0, Interior (1) 3-6-0 to 18-2-8, Exterior(2R) 18-2-8 to 24-6-14, Interior (1) 24-6-14 to 26-9-8, Exterior(2R) 26-9-8 to 32-11-0, Interior (1) 32-11-0 to 45-11-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) Plates checked for a plus or minus 5 degree rotation about its center.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) 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.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof
	A2T	Piggyback Base	5	1	I73874537 Job Reference (optional)

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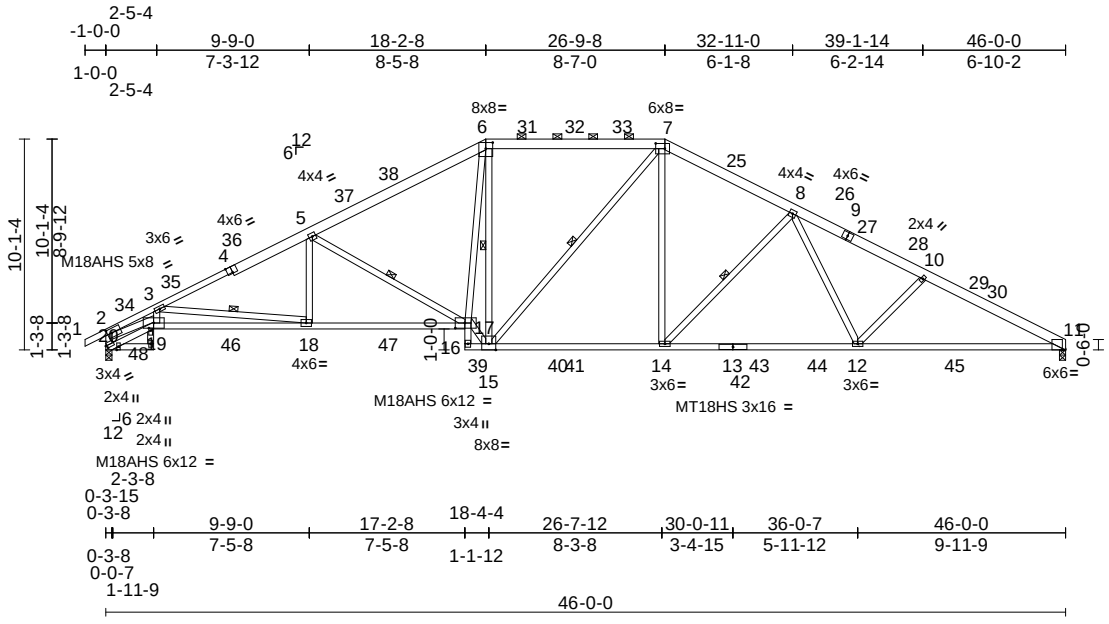

Scale = 1:110.4

Plate Offsets (X, Y): [2:0-2-11,0-2-8], [4:0-3-0,Edge], [6:0-4-0,0-3-8], [7:0-5-4,0-3-0], [11:0-1-8,Edge], [17:0-5-8,0-3-0], [19:0-1-6,0-1-0], [20:0-0-12,0-1-8]

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	0.90	Vert(LL)	-0.43	12-14	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.72	17-18	>759	240	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	-0.42	20	n/a	n/a	MT18HS	244/190
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.12	17-18	>999	240		
BCDL	10.0										Weight: 314 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 4-1:2x4 SP No.2
BOT CHORD 2x4 SP SS *Except* 16-17,21-20:2x4 SP No.3, 19-20:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 19-2:2x4 SP SS, 7-15,15-17,17-6:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-10-3 max.): 6-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-17, 3-18, 6-15, 7-15, 8-14

REACTIONS (size) 11=0-3-8, 20=0-3-8
Max Horiz 11=-96 (LC 14)
Max Grav 11=2115 (LC 47), 20=2152 (LC 47)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 7-8=-2899/191, 8-10=-3863/155, 10-11=-4059/154, 6-7=-2453/206, 1-2=0/42, 2-3=-5527/114, 3-5=-4276/145, 5-6=-3233/182, 2-20=-2139/91
BOT CHORD 15-16=-175/118, 14-15=0/2511, 12-14=-29/3100, 11-12=-78/3594, 16-17=-462/101, 18-19=-84/4771, 17-18=-18/3816, 19-20=0/228
WEBS 7-14=0/1033, 5-17=-1248/93, 5-18=0/511, 3-18=-1008/66, 3-19=0/672, 2-19=-90/4704, 6-15=-1850/24, 7-15=-249/182, 15-17=0/3416, 6-17=0/2852, 10-12=-370/115, 8-12=0/671, 8-14=-905/101

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 3-6-0, Interior (1) 3-6-0 to 18-2-8, Exterior(2R) 18-2-8 to 24-6-14, Interior (1) 24-6-14 to 26-9-8, Exterior(2R) 26-9-8 to 32-11-0, Interior (1) 32-11-0 to 45-11-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) Plates checked for a plus or minus 5 degree rotation about its center.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) Bearing at joint(s) 20, 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
12) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
13) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof	
	PB1	Piggyback	16	1	Job Reference (optional)	I73874538

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:47 Page: 1
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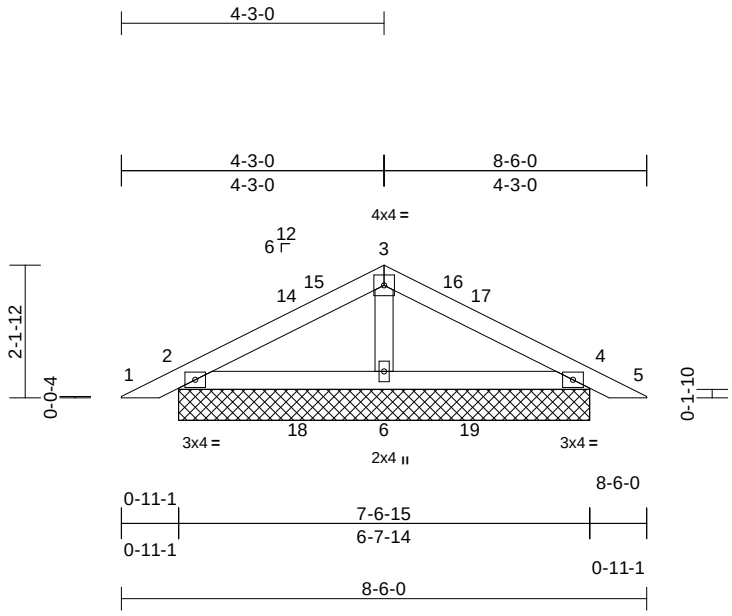

Scale = 1:37.3

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	0.36	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(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 26 lb	FT = 20%

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

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

REACTIONS (size) 2=6-7-14, 4=6-7-14, 6=6-7-14
Max Horiz 2=-17 (LC 14)
Max Uplift 2=-2 (LC 16), 4=-5 (LC 17)
Max Grav 2=332 (LC 49), 4=332 (LC 57), 6=387 (LC 55)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-128/66, 3-4=-128/63, 4-5=0/23
BOT CHORD 2-6=-14/104, 4-6=-12/104
WEBS 3-6=-264/46

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) 0-4-3 to 3-4-3, Interior (1) 3-4-3 to 4-3-8, Exterior(2R) 4-3-8 to 7-0-15, Interior (1) 7-0-15 to 8-2-13 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) 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) Plates checked for a plus or minus 5 degree rotation about its center.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 4-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
12) N/A
13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
14) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
15) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof
	V1	Valley	1	1	I73874539 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:47 Page: 1
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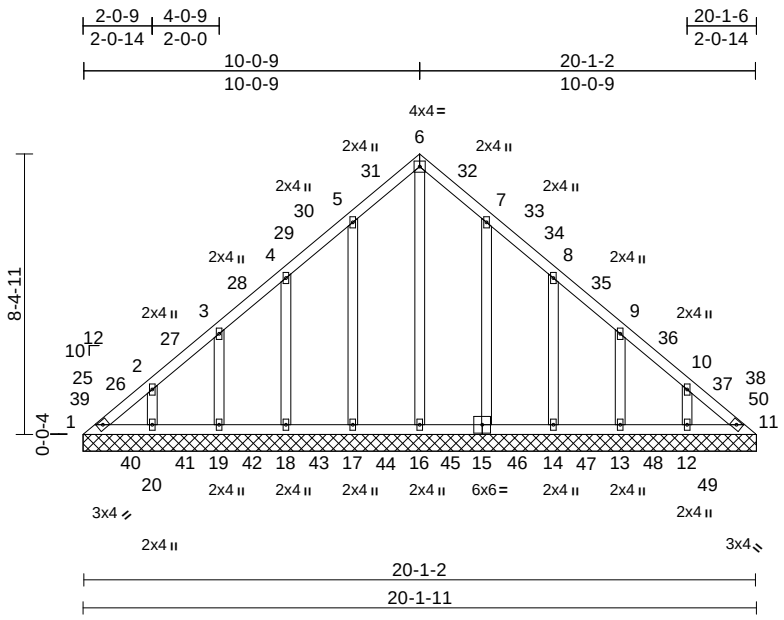

Scale = 1:68.9

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	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.35	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horiz(TL)	0.00	11	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 123 lb	FT = 20%

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

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

REACTIONS (size) 1=20-1-11, 11=20-1-11, 12=20-1-11, 13=20-1-11, 14=20-1-11, 15=20-1-11, 16=20-1-11, 17=20-1-11, 18=20-1-11, 19=20-1-11, 20=20-1-11
Max Horiz 1=-131 (LC 12)
Max Uplift 1=-25 (LC 12), 12=-7 (LC 17), 13=-30 (LC 17), 14=-26 (LC 17), 15=-21 (LC 17), 17=-22 (LC 16), 18=-27 (LC 16), 19=-29 (LC 16), 20=-10 (LC 16)
Max Grav 1=287 (LC 51), 11=288 (LC 63), 12=346 (LC 85), 13=329 (LC 84), 14=336 (LC 83), 15=334 (LC 82), 16=326 (LC 81), 17=335 (LC 80), 18=333 (LC 79), 19=330 (LC 78), 20=345 (LC 77)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-249/118, 2-3=-105/96, 3-4=-97/91, 4-5=-92/95, 5-6=-129/130, 6-7=-128/126, 7-8=-96/92, 8-9=-98/90, 9-10=-104/83, 10-11=-250/117
BOT CHORD 1-20=-61/171, 19-20=-61/96, 18-19=-61/96, 17-18=-61/96, 16-17=-61/96, 14-16=-61/96, 13-14=-59/95, 12-13=-59/95, 11-12=-59/172
WEBS 6-16=-214/42, 5-17=-280/69, 4-18=-281/63, 3-19=-284/61, 2-20=-291/45, 7-15=-276/67, 8-14=-281/63, 9-13=-284/61, 10-12=-291/46

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) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 10-0-14, Exterior(2R) 10-0-14 to 13-0-14, Interior (1) 13-0-14 to 20-1-11 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1, 22 lb uplift at joint 17, 27 lb uplift at joint 18, 29 lb uplift at joint 19, 10 lb uplift at joint 20, 21 lb uplift at joint 15, 26 lb uplift at joint 14, 30 lb uplift at joint 13 and 7 lb uplift at joint 12.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 11.
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

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof	
	V2	Valley	1	1	Job Reference (optional)	I73874540

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:47 Page: 1

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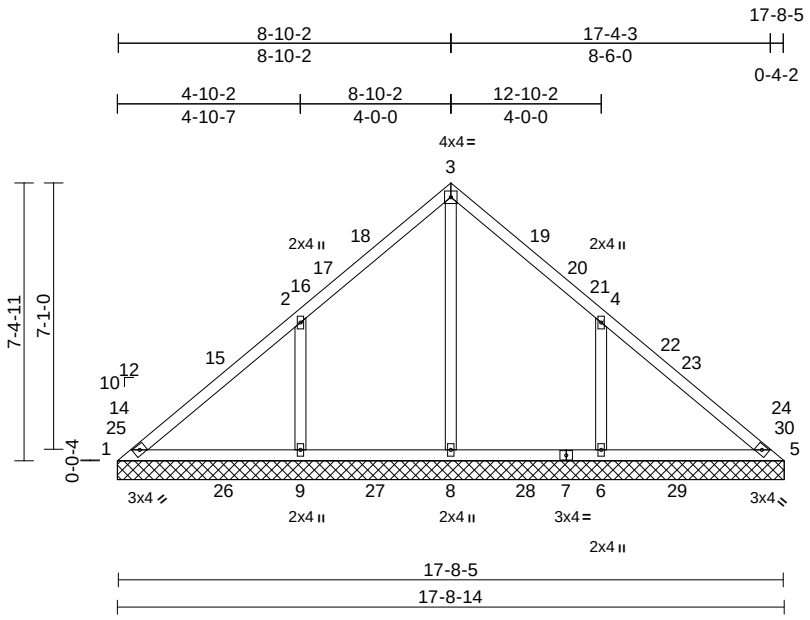

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.86	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.34	Horiz(TL)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 80 lb	FT = 20%

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

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

REACTIONS (size) 1=17-8-14, 5=17-8-14, 6=17-8-14, 8=17-8-14, 9=17-8-14
Max Horiz 1=115 (LC 13)
Max Uplift 1=-10 (LC 43), 5=-15 (LC 40), 6=-62 (LC 17), 9=-64 (LC 16)
Max Grav 1=293 (LC 45), 5=238 (LC 51), 6=531 (LC 30), 8=527 (LC 29), 9=534 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-276/276, 2-3=-93/202, 3-4=-93/189, 4-5=-270/275
BOT CHORD 1-9=-133/203, 8-9=-133/85, 6-8=-133/85, 5-6=-133/200
WEBS 3-8=-350/0, 2-9=-357/140, 4-6=-356/140

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) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 8-10-7, Exterior(2R) 8-10-7 to 11-10-7, Interior (1) 11-10-7 to 17-4-1 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, with BCDL = 10.0psf.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1, 15 lb uplift at joint 5, 64 lb uplift at joint 9 and 62 lb uplift at joint 6.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof	
	V3	Valley	1	1	Job Reference (optional)	I73874541

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:47 Page: 1
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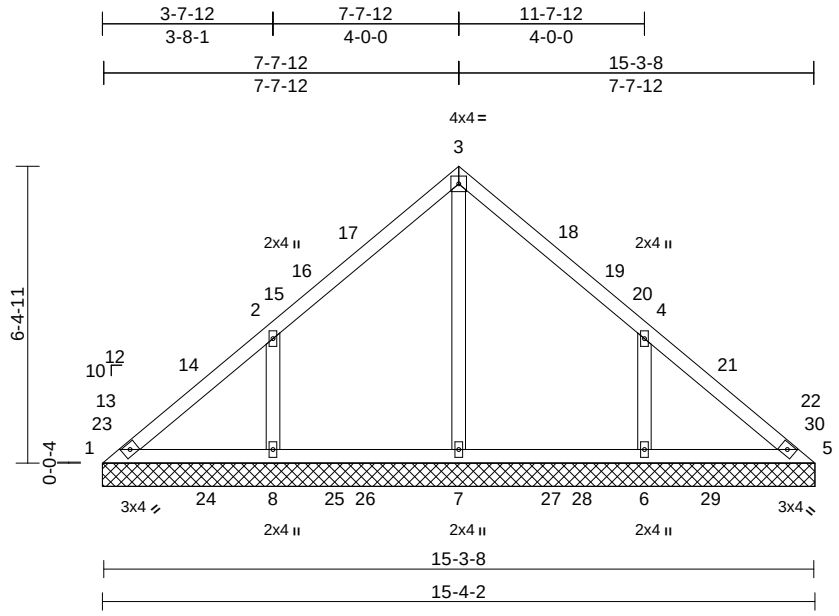

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.44	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 67 lb	FT = 20%

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

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

REACTIONS (size) 1=15-4-2, 5=15-4-2, 6=15-4-2, 7=15-4-2, 8=15-4-2
Max Horiz 1=-99 (LC 12)
Max Uplift 1=-7 (LC 12), 6=-52 (LC 17), 8=-53 (LC 16)
Max Grav 1=298 (LC 45), 5=298 (LC 51), 6=434 (LC 30), 7=436 (LC 29), 8=436 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-280/193, 2-3=-139/117, 3-4=-139/106, 4-5=-280/193
BOT CHORD 1-8=-69/203, 7-8=-69/74, 6-7=-69/74, 5-6=-69/203
WEBS 3-7=-290/0, 2-8=-339/142, 4-6=-339/141

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) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 7-8-1, Exterior(2R) 7-8-1 to 10-8-1, Interior (1) 10-8-1 to 15-4-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) 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, with BCDL = 10.0psf.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 1, 53 lb uplift at joint 8 and 52 lb uplift at joint 6.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof	
	V4	Valley	1	1	Job Reference (optional)	I73874542

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:47 Page: 1
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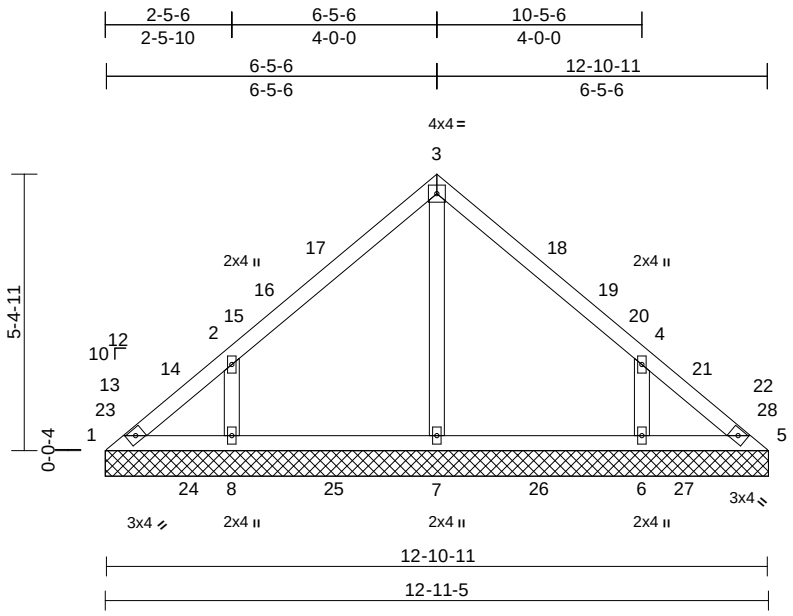

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.43	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	5	n/a	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
OTHERS 2x4 SP No.3

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

REACTIONS (size) 1=12-11-5, 5=12-11-5, 6=12-11-5, 7=12-11-5, 8=12-11-5
Max Horiz 1=-83 (LC 14)
Max Uplift 1=-12 (LC 12), 6=-44 (LC 17), 8=-45 (LC 16)
Max Grav 1=290 (LC 45), 5=290 (LC 51), 6=401 (LC 61), 7=401 (LC 60), 8=401 (LC 59)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-259/130, 2-3=-172/99, 3-4=-172/95, 4-5=-259/130
BOT CHORD 1-8=-26/180, 7-8=-26/57, 6-7=-26/57, 5-6=-26/180
WEBS 3-7=-252/0, 2-8=-326/157, 4-6=-326/157

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) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 6-5-10, Exterior(2R) 6-5-10 to 9-5-10, Interior (1) 9-5-10 to 12-11-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1, 45 lb uplift at joint 8 and 44 lb uplift at joint 6.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof
	V5	Valley	1	1	I73874543
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:48 Page: 1

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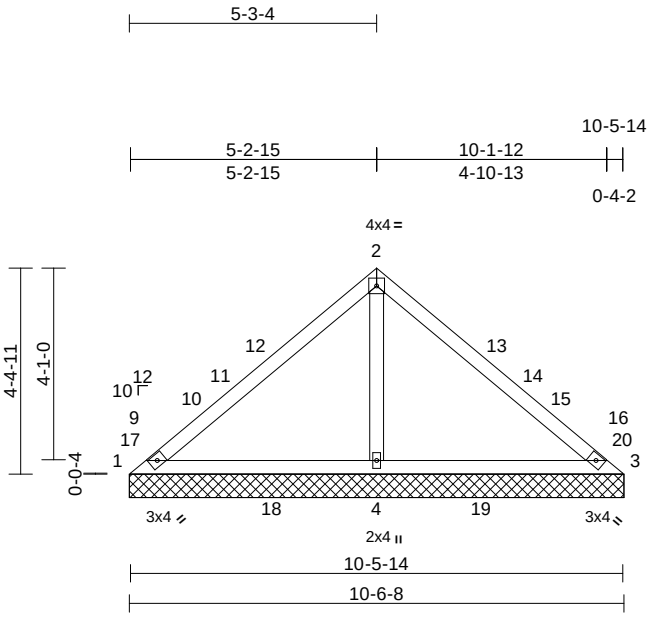

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.97	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horiz(TL)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 40 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 1=10-6-8, 3=10-6-8, 4=10-6-8
Max Horiz 1=-67 (LC 12)
Max Uplift 1=-67 (LC 50), 3=-67 (LC 49)
Max Grav 1=265 (LC 43), 3=265 (LC 47), 4=785 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-219/349, 2-3=-219/349
BOT CHORD 1-4=-209/153, 3-4=-209/153
WEBS 2-4=-617/219

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) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 5-3-4, Exterior(2R) 5-3-4 to 8-3-4, Interior (1) 8-3-4 to 10-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 1 and 67 lb uplift at joint 3.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
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

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof
	V6	Valley	1	1	I73874544
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:48 Page: 1
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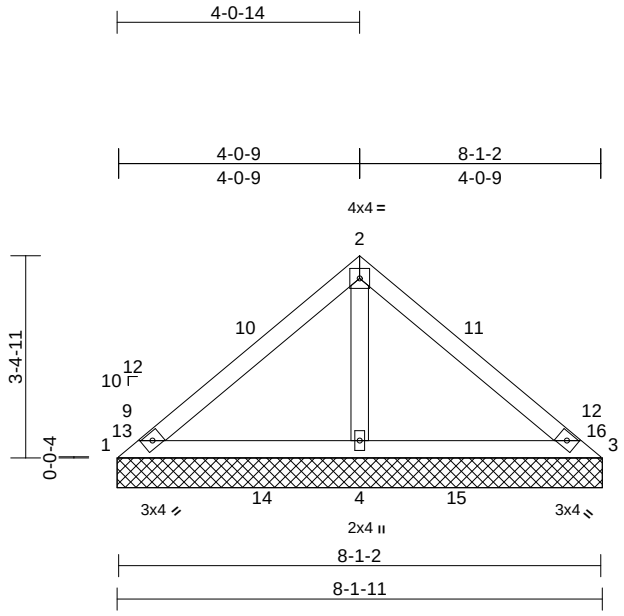

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.68	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 30 lb	FT = 20%

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

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

REACTIONS (size) 1=8-1-11, 3=8-1-11, 4=8-1-11
Max Horiz 1=51 (LC 15)
Max Uplift 1=-58 (LC 41), 3=-58 (LC 40)
Max Grav 1=268 (LC 43), 3=268 (LC 47), 4=594 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-207/296, 2-3=-207/296
BOT CHORD 1-4=-181/155, 3-4=-181/155
WEBS 2-4=-438/199

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) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 4-0-14, Exterior(2R) 4-0-14 to 7-4-1, Interior (1) 7-4-1 to 8-1-11 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 1 and 58 lb uplift at joint 3.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
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

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof	I73874545
	V7	Valley	4	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:48 Page: 1
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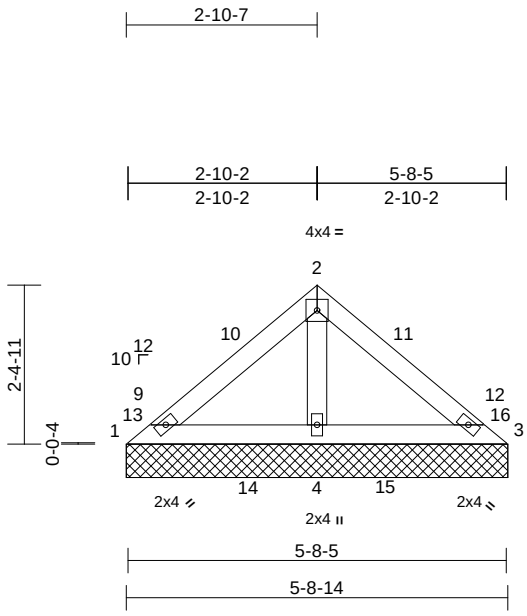

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.40	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 21 lb	FT = 20%

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

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

REACTIONS (size) 1=5-8-14, 3=5-8-14, 4=5-8-14
Max Horiz 1=-35 (LC 12)
Max Uplift 1=-33 (LC 46), 3=-33 (LC 44)
Max Grav 1=276 (LC 43), 3=276 (LC 47), 4=443 (LC 50)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-213/202, 2-3=-213/202
BOT CHORD 1-4=-103/148, 3-4=-103/148
WEBS 2-4=-309/120

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 1 and 33 lb uplift at joint 3.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
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

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof	
	V8	Valley	1	1	Job Reference (optional)	I73874546

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:48 Page: 1
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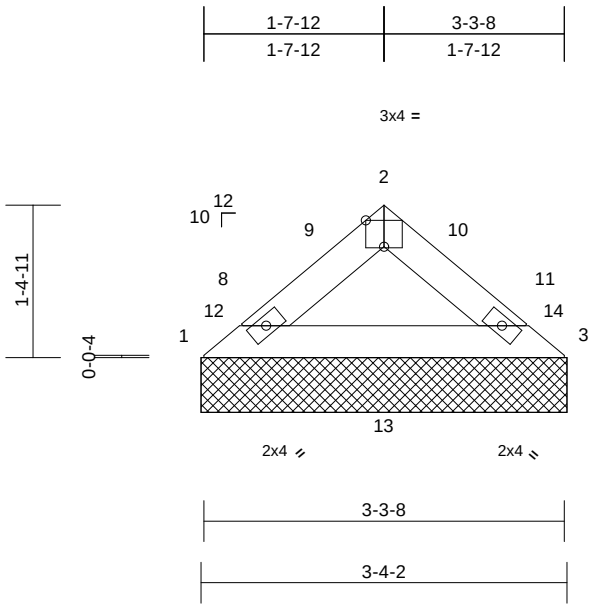

Scale = 1:21

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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.41	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 10 lb	FT = 20%

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

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

REACTIONS (size) 1=3-4-2, 3=3-4-2
Max Horiz 1=19 (LC 13)
Max Grav 1=320 (LC 43), 3=320 (LC 47)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-381/68, 2-3=-381/67
BOT CHORD 1-3=-46/291

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

LOAD CASE(S) Standard

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof
	A2GE	Piggyback Base Supported Gable	1	1	I73874547 Job Reference (optional)

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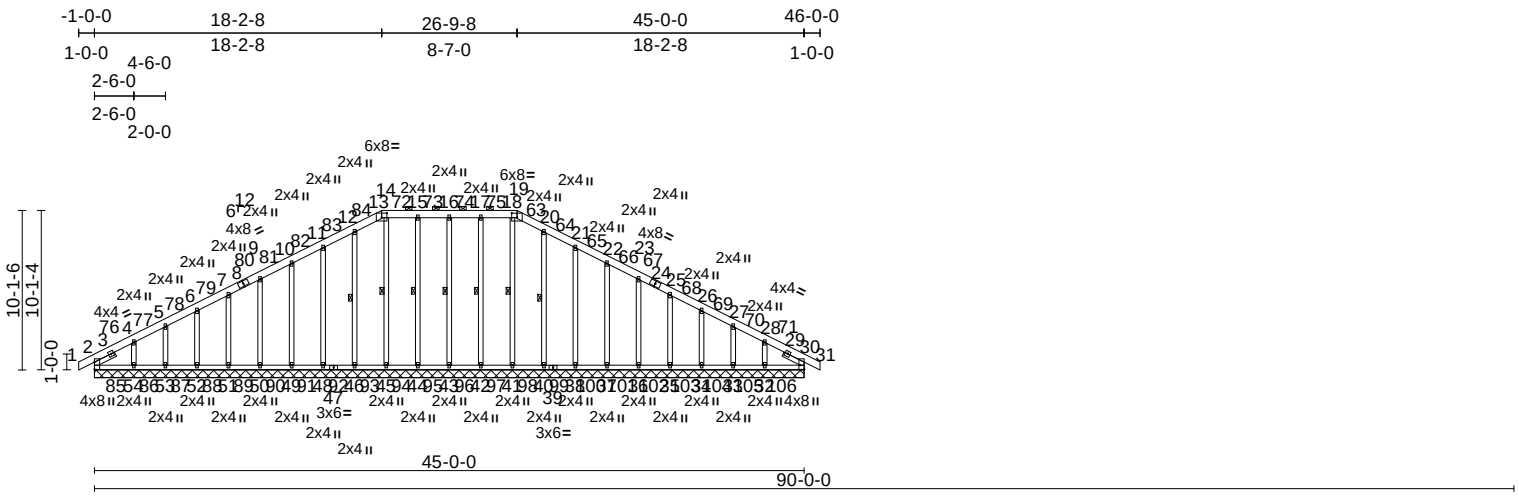

Scale = 1:146.1

Plate Offsets (X, Y): [13:0-4-0,0-3-8], [19:0-4-0,0-3-8], [30:Edge,0-3-2]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.01	30	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 382 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (6-0-0 max.): 13-19.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 16-43, 17-42, 18-41, 20-40, 15-44, 14-45, 12-46

REACTIONS (size) 2=45-0-0, 30=45-0-0, 32=45-0-0, 33=45-0-0, 34=45-0-0, 35=45-0-0, 36=45-0-0, 37=45-0-0, 38=45-0-0, 40=45-0-0, 41=45-0-0, 42=45-0-0, 43=45-0-0, 44=45-0-0, 45=45-0-0, 46=45-0-0, 48=45-0-0, 49=45-0-0, 50=45-0-0, 51=45-0-0, 52=45-0-0, 53=45-0-0, 54=45-0-0
Max Horiz 2=-84 (LC 14)
Max Uplift 2=-16 (LC 12), 32=-30 (LC 17), 34=-7 (LC 17), 35=-6 (LC 17), 36=-6 (LC 17), 37=-7 (LC 17), 38=-11 (LC 17), 48=-10 (LC 16), 49=-7 (LC 16), 50=-6 (LC 16), 51=-6 (LC 16), 52=-8 (LC 16), 54=-44 (LC 16)
Max Grav 2=325 (LC 113), 30=296 (LC 85), 32=348 (LC 159), 33=329 (LC 158), 34=334 (LC 157), 35=333 (LC 156), 36=333 (LC 155), 37=333 (LC 154), 38=333 (LC 153), 40=332 (LC 152), 41=330 (LC 151), 42=333 (LC 150), 43=333 (LC 149), 44=333 (LC 148), 45=330 (LC 147), 46=332 (LC 146), 48=333 (LC 145), 49=333 (LC 144), 50=333 (LC 143), 51=333 (LC 142), 52=334 (LC 141), 53=329 (LC 140), 54=348 (LC 139)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 19-20=-133/277, 20-21=-121/253, 21-22=-101/213, 22-23=-83/174, 23-25=-79/135, 25-26=-75/97, 26-27=-76/58, 27-28=-73/58, 28-30=-186/55, 30-31=0/36, 13-14=-125/267, 14-15=-125/267, 15-16=-125/267, 16-17=-125/267, 17-18=-125/267, 18-19=-125/267, 1-2=0/36, 2-4=-186/72, 4-5=-82/58, 5-6=-77/66, 6-7=-79/97, 7-9=-79/135, 9-10=-83/174, 10-11=-101/213, 11-12=-121/254, 12-13=-133/277
BOT CHORD 2-54=-32/103, 53-54=-32/103, 52-53=-32/103, 51-52=-32/103, 50-51=-32/103, 49-50=-32/103, 48-49=-32/103, 46-48=-32/103, 45-46=-32/103, 44-45=-32/103, 43-44=-32/103, 42-43=-32/103, 41-42=-32/103, 40-41=-32/103, 38-40=-32/103, 37-38=-32/103, 36-37=-32/103, 35-36=-32/103, 34-35=-32/103, 33-34=-32/103, 32-33=-32/103, 30-32=-32/103
WEBS 16-43=-230/54, 17-42=-231/35, 18-41=-224/0, 20-40=-235/32, 21-38=-240/70, 22-37=-244/63, 23-36=-248/62, 25-35=-254/62, 26-34=-260/63, 27-33=-265/57, 28-32=-289/133, 15-44=-231/35, 14-45=-224/0, 12-46=-235/32, 11-48=-240/70, 10-49=-244/63, 9-50=-248/62, 7-51=-254/62, 6-52=-260/63, 5-53=-265/56, 4-54=-289/138

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

June 2,2025

Continued on page 2

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

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 3-6-0, Exterior(2N) 3-6-0 to 18-2-8, Corner (3R) 18-2-8 to 22-6-0, Exterior(2N) 22-6-0 to 26-9-8, Corner(3R) 26-9-8 to 31-3-8, Exterior(2N) 31-3-8 to 46-0-0 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) Plates checked for a plus or minus 5 degree rotation about its center.
9) Gable requires continuous bottom chord bearing.
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 2, 11 lb uplift at joint 38, 7 lb uplift at joint 37, 6 lb uplift at joint 36, 6 lb uplift at joint 35, 7 lb uplift at joint 34, 30 lb uplift at joint 32, 10 lb uplift at joint 48, 7 lb uplift at joint 49, 6 lb uplift at joint 50, 6 lb uplift at joint 51, 8 lb uplift at joint 52, 44 lb uplift at joint 54 and 16 lb uplift at joint 2.

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

LOAD CASE(S) Standard

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof
	A3	Common	9	1	I73874549 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:45 Page: 1
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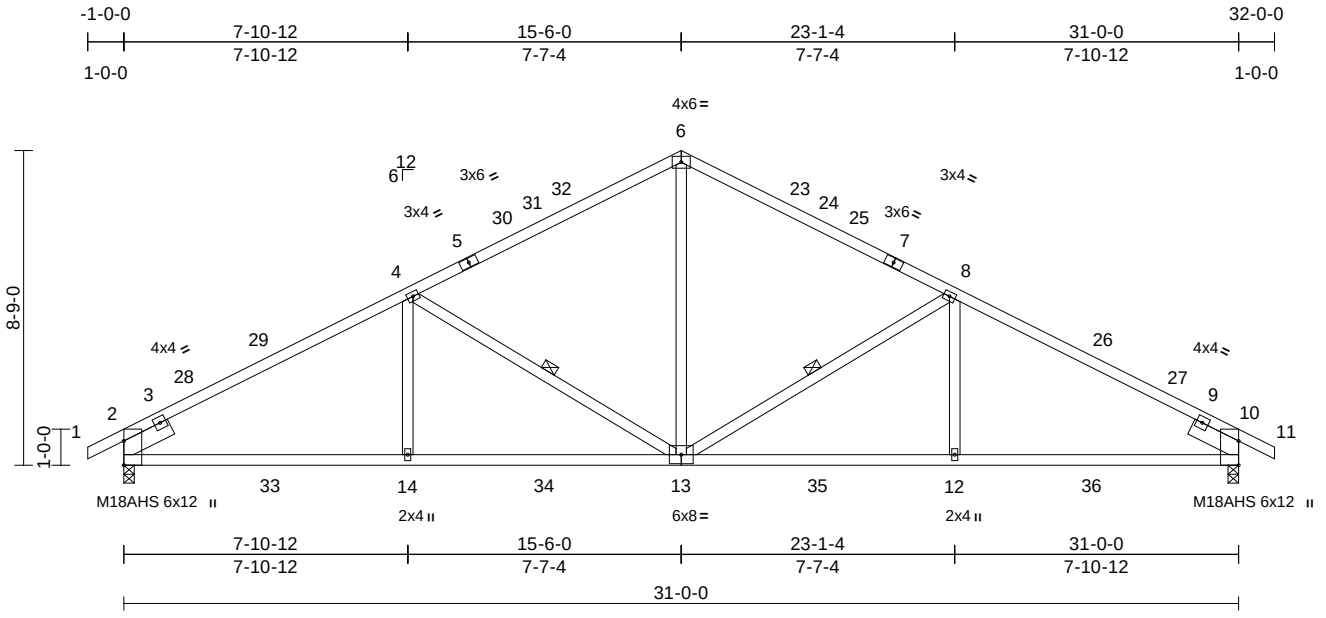

Scale = 1:64.1

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	0.65	Vert(LL)	-0.28	12-13	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.45	12-13	>830	240	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	-0.10	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.05	13-14	>999	240		
BCDL	10.0										Weight: 159 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP SS
BOT CHORD 2x4 SP SS
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.2 -- 1-6-5, Right 2x6 SP No.2 -- 1-6-5

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-13, 8-13

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 10=72 (LC 15)
Max Grav 2=1300 (LC 2), 10=1300 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 6-8=-1418/130, 8-10=-1902/287, 10-11=0/36, 1-2=0/36, 2-4=-1902/287, 4-6=-1418/130
BOT CHORD 2-14=-59/1600, 12-14=0/1600, 10-12=-74/1600
WEBS 6-13=0/711, 4-13=-546/77, 4-14=0/352, 8-13=-546/77, 8-12=0/352

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 15-6-0, Exterior(2R) 15-6-0 to 18-6-0, Interior (1) 18-6-0 to 32-0-0 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
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) 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) 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

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof	
	A2BGE	Piggyback Base Structural Gable	1	1	Job Reference (optional)	I73874550

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:41 Page: 1

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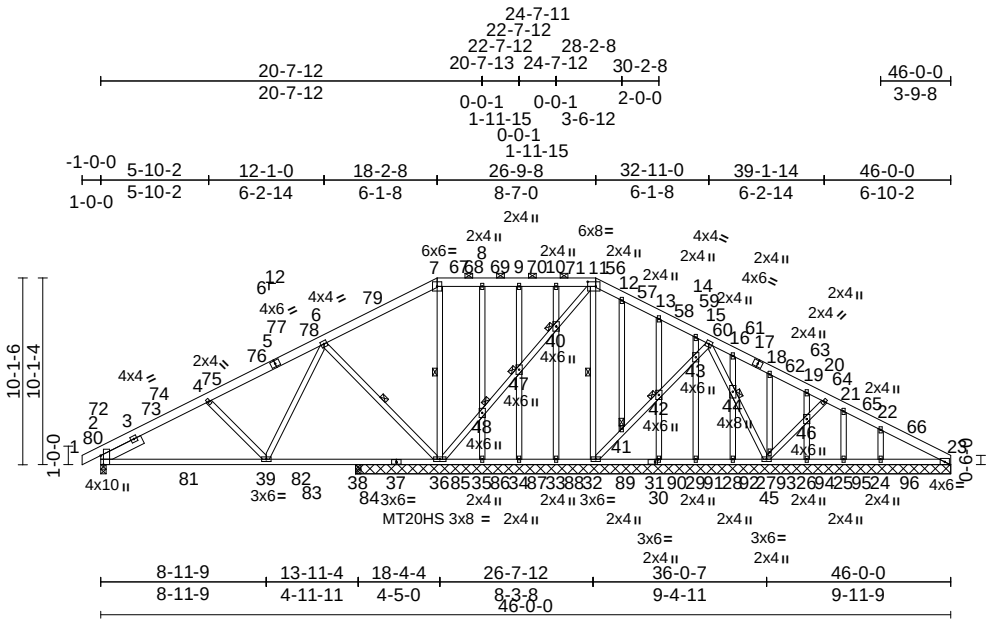

Scale = 1:124.7

Plate Offsets (X, Y): [2:0-5-14,Edge], [11:0-5-4,0-3-0], [31:0-1-8,0-1-8]

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	0.32	Vert(LL)	-0.21	39-54	>809	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.29	39-54	>584	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	-0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.01	39-54	>999	240		
BCDL	10.0										Weight: 401 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x4 SP SS *Except* 31-37:2x4 SP No.2
WEBS	2x4 SP No.3 *Except* 36-11:2x4 SP No.2
OTHERS	2x4 SP No.3
SLIDER	Left 2x6 SP No.2 -- 2-6-0

BRACING

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (10-0-0 max.): 7-11.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 11-32, 7-36, 6-36
JOINTS	1 Brace at Jt(s): 40, 41, 42, 44, 47, 48

REACTIONS (size) 2=0-3-8, 23=32-2-8, 24=32-2-8, 25=32-2-8, 26=32-2-8, 27=32-2-8, 28=32-2-8, 29=32-2-8, 30=32-2-8, 32=32-2-8, 33=32-2-8, 34=32-2-8, 35=32-2-8, 36=32-2-8, 38=0-3-8

Max Horiz 36=86 (LC 15)

Max Uplift 24=-17 (LC 17), 25=-69 (LC 116), 27=-23 (LC 17), 29=-27 (LC 109), 30=-5 (LC 17), 33=-1 (LC 109), 35=-11 (LC 104), 36=-21 (LC 16)

Max Grav 2=673 (LC 30), 23=315 (LC 135), 24=408 (LC 116), 25=284 (LC 132), 26=330 (LC 131), 27=342 (LC 130), 28=319 (LC 129), 29=303 (LC 128), 30=389 (LC 127), 32=366 (LC 126), 33=318 (LC 125), 34=336 (LC 124), 35=322 (LC 123), 36=1346 (LC 41), 38=337 (LC 121)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 11-12=-20/251, 12-13=-54/205, 13-14=-10/231, 14-15=-6/181, 15-16=-33/124, 16-18=-33/121, 18-19=-44/119, 19-20=-3/122, 20-21=-104/41, 21-22=-78/53, 22-23=-136/73, 7-8=0/334, 8-9=0/334, 9-10=0/334, 10-11=0/334, 1-2=0/36, 2-4=-887/80, 4-6=-606/87, 6-7=0/470

BOT CHORD 2-39=-113/673, 38-39=0/262, 36-38=0/262, 35-36=-166/115, 34-35=-166/115, 33-34=-166/115, 32-33=-166/115, 30-32=-82/84, 29-30=-82/84, 28-29=-82/84, 27-28=-82/84, 26-27=-30/49, 25-26=-30/49, 24-25=-30/49, 23-24=-30/80

WEBS 11-32=-174/0, 36-48=-257/39, 47-48=-259/39, 40-47=-258/39, 11-40=-252/38, 7-36=-471/46, 32-41=-128/49, 41-42=-112/46, 42-43=-125/48, 15-43=-140/55, 4-39=-334/95, 6-39=0/526, 6-36=-839/127, 15-44=-74/55, 27-44=-70/52, 27-45=-231/75, 45-46=-124/41, 20-46=-122/42, 8-48=-241/27, 9-47=-229/39, 10-40=-233/24, 12-41=-37/4, 13-42=-272/68, 30-42=-278/71, 14-43=-163/11, 29-43=-168/20, 16-44=-214/19, 28-44=-212/18, 18-45=-237/41, 19-46=-230/18, 26-46=-231/20, 21-25=-209/70, 22-24=-330/80, 33-40=-223/22, 34-47=-224/39, 35-48=-240/27

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 3-7-3, Interior (1) 3-7-3 to 18-2-8, Exterior(2R) 18-2-8 to 24-7-12, Interior (1) 24-7-12 to 26-9-8, Exterior(2R) 26-9-8 to 33-3-8, Interior (1) 33-3-8 to 45-11-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
5) Unbalanced snow loads have been considered for this design.

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Edenton, NC 27932

6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) All plates are MT20 plates unless otherwise indicated.
9) Plates checked for a plus or minus 5 degree rotation about its center.
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
13) N/A

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

LOAD CASE(S) Standard

June 2,2025

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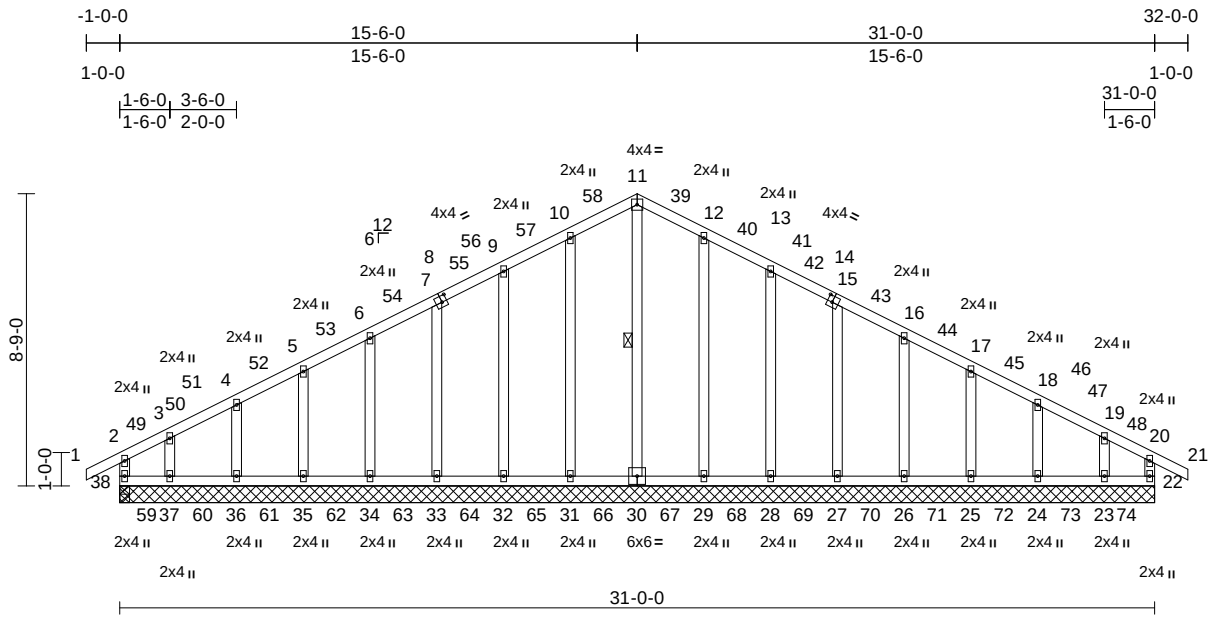
Job	Truss	Truss Type	Qty	Ply	Norris Rev 1-Elev 5-Roof	
	A3GE	Common Structural Gable	1	1	Job Reference (optional)	I73874551

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Fri May 30 16:10:45 Page: 1
ID:1ld6CJi_XtfyXT0dsp1E5Rzsp?P-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:69

Plate Offsets (X, Y): [8:0-1-12,0-2-4], [14:0-1-12,0-2-4]

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	0.21	Vert(LL)	-0.01	30-31	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.01	25-26	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.00	22	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.00	37-38	>999	240		
BCDL	10.0										Weight: 203 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.
WEBS 1 Row at midpt 11-30

REACTIONS (size) 22=31-0-0, 23=31-0-0, 24=31-0-0, 25=31-0-0, 26=31-0-0, 27=31-0-0, 28=31-0-0, 29=31-0-0, 30=31-0-0, 31=31-0-0, 32=31-0-0, 33=31-0-0, 34=31-0-0, 35=31-0-0, 36=31-0-0, 37=31-0-0, 38=31-0-0
Max Horiz 38=89 (LC 15)
Max Uplift 22=-14 (LC 13), 23=-43 (LC 17), 24=-1 (LC 17), 25=-8 (LC 17), 26=-6 (LC 17), 27=-6 (LC 17), 28=-9 (LC 17), 29=-1 (LC 17), 31=-2 (LC 16), 32=-9 (LC 16), 33=-6 (LC 16), 34=-6 (LC 16), 35=-8 (LC 16), 37=-51 (LC 16), 38=-34 (LC 12)
Max Grav 22=305 (LC 105), 23=315 (LC 104), 24=336 (LC 103), 25=332 (LC 102), 26=333 (LC 101), 27=333 (LC 100), 28=333 (LC 99), 29=334 (LC 98), 30=332 (LC 97), 31=334 (LC 96), 32=333 (LC 95), 33=333 (LC 94), 34=333 (LC 93), 35=332 (LC 92), 36=336 (LC 91), 37=315 (LC 90), 38=305 (LC 89)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 11-12=-108/240, 12-13=-92/206, 13-15=-113/166, 15-16=-65/127, 16-17=-64/89, 17-18=-66/65, 18-19=-61/70, 19-20=-72/53, 20-21=0/42, 1-2=0/42, 2-3=-72/54, 3-4=-61/70, 4-5=-66/65, 5-6=-64/89, 6-7=-65/127, 7-9=-73/166, 9-10=-92/206, 10-11=-108/240, 20-22=-291/52, 2-38=-291/55
BOT CHORD 37-38=-33/82, 36-37=-33/82, 35-36=-33/82, 34-35=-33/82, 33-34=-33/82, 32-33=-33/82, 31-32=-33/82, 29-31=-33/82, 28-29=-33/82, 27-28=-33/82, 26-27=-33/82, 25-26=-33/82, 24-25=-33/82, 23-24=-33/82, 22-23=-33/82
WEBS 11-30=-260/32, 12-29=-276/52, 13-28=-275/67, 15-27=-277/61, 16-26=-280/62, 17-25=-282/62, 18-24=-288/63, 19-23=-274/81, 10-31=-276/52, 9-32=-275/67, 7-33=-278/61, 6-34=-280/63, 5-35=-282/62, 4-36=-288/64, 3-37=-274/80

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 2-0-0, Exterior(2N) 2-0-0 to 15-6-0, Corner (3R) 15-6-0 to 18-6-0, Exterior(2N) 18-6-0 to 32-0-0 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
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) Plates checked for a plus or minus 5 degree rotation about its center.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

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12) N/A

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

June 2,2025

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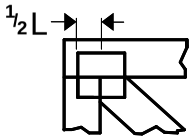
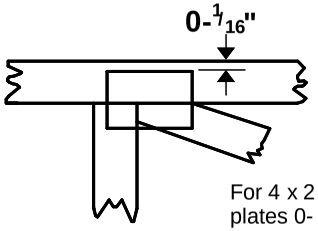
Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

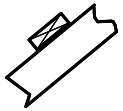
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

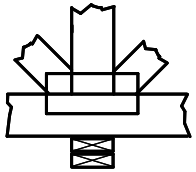
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

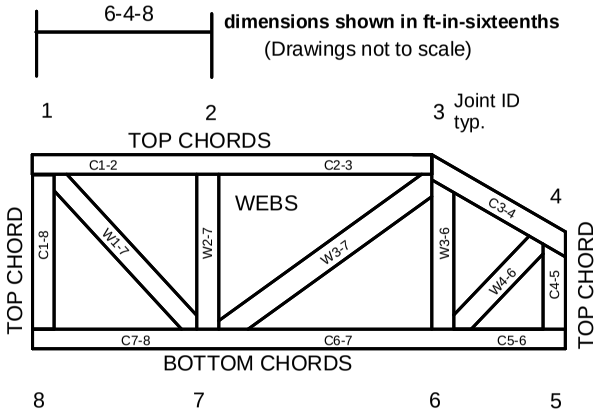


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: 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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek®

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MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.