ENGINEERING BY TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

RE: Cooper III Rev.4

Site Information:

Project Customer: DRB Raleigh Project Name: DRB Raleigh Model Track
Lot/Block: 00.0025 Subdivision:
Model: Cooper III Rev. 4
Address: 270 Peach Grove Way LILLINGTON, NC 27546
City: State: NC

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

Design Code: IRC2021/TPI2014
Wind Code: ASCE 7-16
Wind Speed: 120 mph
Roof Load: 40.0 psf
Mean Roof Height (feet): 25

Design Program: MiTek 20/20 25.2
Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16
Floor Load: N/A psf

Exposure Category: B

No.	Seal#	Truss Name	Date
1	I74682155	B1	7/7/25
2	I74682157	B1G	7/7/25
3	I74682158	A1A	7/7/25
4	I74682161	PB1	7/7/25
5	I74682162	PB1G	7/7/25
6	I74682172	A3	7/7/25
7	I74682173	A1T	7/7/25
8	I74682174	A3G	7/7/25
9	I74682177	C1G	7/7/25
10	I74682178	C1	7/7/25
11	I74682179	C1A	7/7/25
12	I74682180	VA2	7/7/25
13	I74682181	VA1	7/7/25
14	I74682183	A4A	7/7/25
15	I74682185	PB5	7/7/25
16	I74682187	A5	7/7/25
17	I74682188	A5G	7/7/25
18	I74682189	P1G	7/7/25
19	I74682190	P1	7/7/25
20	I74682191	P1GR	7/7/25
21	I74682192	P2G	7/7/25
22	I74682193	P2	7/7/25
23	I74682194	P2A	7/7/25
24	I74682195	P2B	7/7/25
25	I74682196	V9	7/7/25
26	I74682197	V8	7/7/25
27	I74682198	V7	7/7/25
28	I74682199	V6	7/7/25
29	I74682201	G2G	7/7/25
30	I74682202	G2	7/7/25
31	I74682203	G2A	7/7/25
32	I74682204	G2B	7/7/25
33	I74682205	VG1	7/7/25
34	I74682206	VG2	7/7/25
35	I74682207	VG3	7/7/25
36	I74682208	A4T	7/7/25
37	I74682213	H1	7/7/25
38	I74682215	H2G	7/7/25
39	I74682216	H2	7/7/25
40	I74682217	PB3	7/7/25
41	I74682218	PB3G	7/7/25

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.

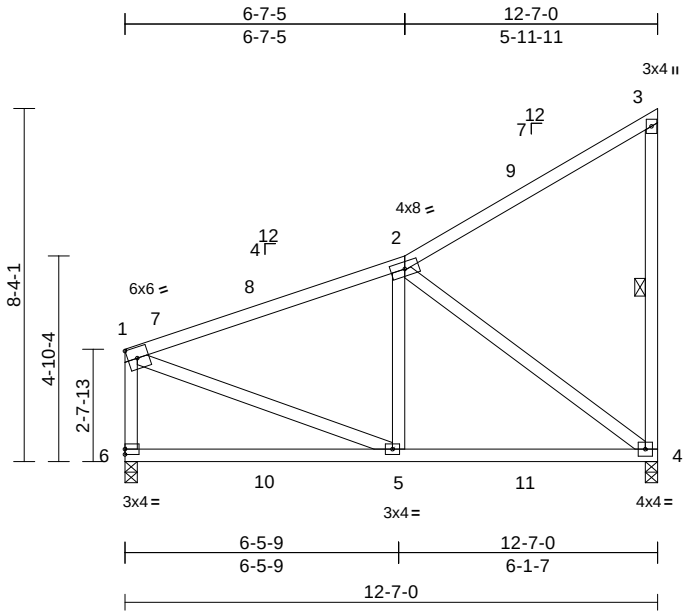
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which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

July 7,2025
Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	B1	Roof Special	7	1	I74682155
					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. Thu Jul 03 17:52:21 ID:PG_85eDjrFYDCiYm7klD4syAUC2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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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	0.77	Vert(LL)	-0.12	5-6	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.15	5-6	>978	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.00	5	>999	240		
BCDL	10.0										Weight: 81 lb	FT = 20%

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

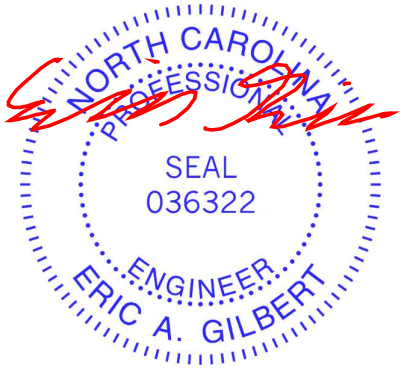
BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-4

REACTIONS (size) 4=0-3-8, 6=0-3-8
Max Horiz 6=120 (LC 16)
Max Uplift 4=-37 (LC 16)
Max Grav 4=499 (LC 42), 6=530 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-486/0, 2-3=-118/68, 3-4=-302/109, 1-6=-469/32
BOT CHORD 5-6=-211/129, 4-5=-113/395
WEBS 1-5=0/354, 2-5=0/264, 2-4=-490/138

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) 5-6-4 to 8-6-4, Interior (1) 8-6-4 to 17-9-12 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Plates checked for a plus or minus 5 degree rotation about its center.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. This connection is for uplift only and does not consider lateral forces.
9) 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.
10) 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



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Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	B1G	Roof Special Supported Gable	1	1	I74682157 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. Thu Jul 03 17:52:21 Page: 1
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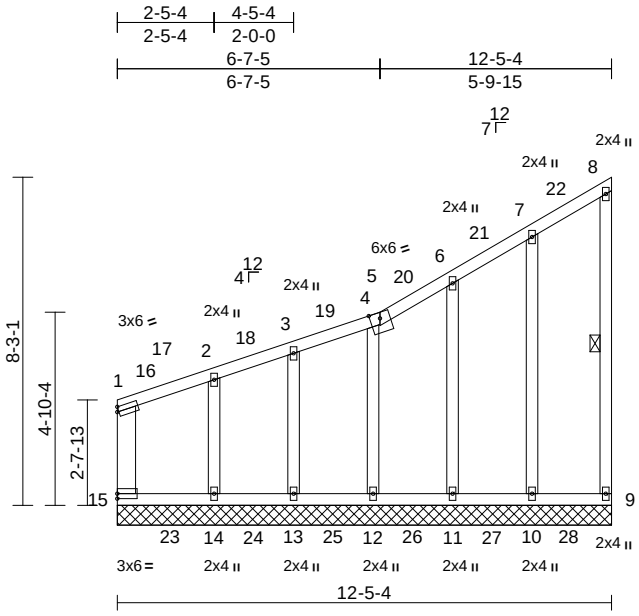

Scale = 1:58

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)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.55	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.25	Horiz(TL)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 89 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x6 SP No.2 *Except* 8-9:2x4 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 8-9

REACTIONS (size) 9=12-5-4, 10=12-5-4, 11=12-5-4, 12=12-5-4, 13=12-5-4, 14=12-5-4, 15=12-5-4
Max Horiz 15=118 (LC 16)
Max Uplift 9=-22 (LC 16), 11=-11 (LC 16), 12=-1 (LC 16), 14=-206 (LC 16)
Max Grav 9=284 (LC 66), 10=336 (LC 65), 11=333 (LC 64), 12=334 (LC 63), 13=329 (LC 62), 14=349 (LC 61), 15=289 (LC 60)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-15=-271/58, 1-2=-345/108, 2-3=-224/70, 3-4=-206/65, 4-5=-174/48, 5-6=-168/78, 6-7=-97/73, 7-8=-84/62, 8-9=-265/65
BOT CHORD 14-15=-10/3, 13-14=-10/3, 12-13=-10/3, 11-12=-10/3, 10-11=-10/3, 9-10=-10/3
WEBS 7-10=-278/99, 6-11=-278/120, 4-12=-281/79, 3-13=-281/29, 2-14=-293/356

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) 5-7-4 to 8-7-4, Exterior(2N) 8-7-4 to 17-8-0 zone; cantilever 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) 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.
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.

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Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	A1A	Piggyback Base	1	1	I74682158 Job Reference (optional)

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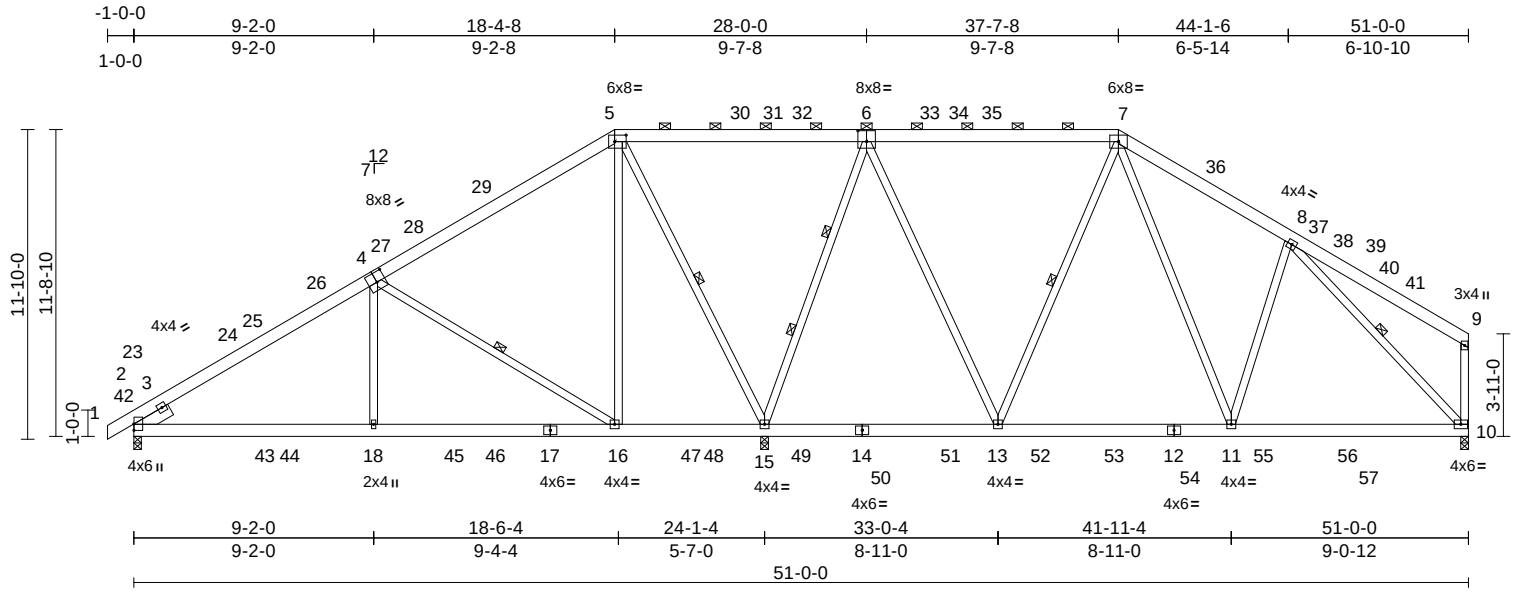

Scale = 1:88

Plate Offsets (X, Y): [2:0-2-14,0-0-2], [4:0-4-0,0-4-8], [5:0-5-4,0-3-0], [6:0-4-0,0-5-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.14	16-18	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.21	16-18	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.03	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.02	18-21	>999	240		
BCDL	10.0										Weight: 414 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 15-5:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-7-10 max.): 5-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-15, 4-16, 7-13, 8-10
WEBS 2 Rows at 1/3 pts 6-15

REACTIONS (size) 2=0-3-8, 10=0-3-8, 15=0-3-8
Max Horiz 2=176 (LC 13)
Max Grav 2=1032 (LC 52), 10=1170 (LC 54), 15=2736 (LC 49)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-5=-1284/118, 5-7=-523/458, 7-8=-1023/119, 8-9=-158/115, 9-10=-328/59
BOT CHORD 2-18=-106/1147, 16-18=-39/1147, 15-16=-40/240, 13-15=-100/269, 11-13=0/617, 10-11=0/785
WEBS 5-15=-1367/18, 4-18=0/501, 4-16=-1122/68, 5-16=0/866, 7-13=-546/50, 7-11=-21/654, 8-11=-281/223, 6-15=-1541/22, 6-13=0/961, 8-10=-1095/2

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 4-1-0, Interior (1) 4-1-0 to 18-4-8, Exterior(2R) 18-4-8 to 25-6-13, Interior (1) 25-6-13 to 37-7-8, Exterior(2R) 37-7-8 to 44-9-13, Interior (1) 44-9-13 to 50-10-4 zone; cantilever left and right exposed ; end vertical left 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) 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.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	PB1	Piggyback	9	1	I74682161
					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. Thu Jul 03 17:52:28 Page: 1
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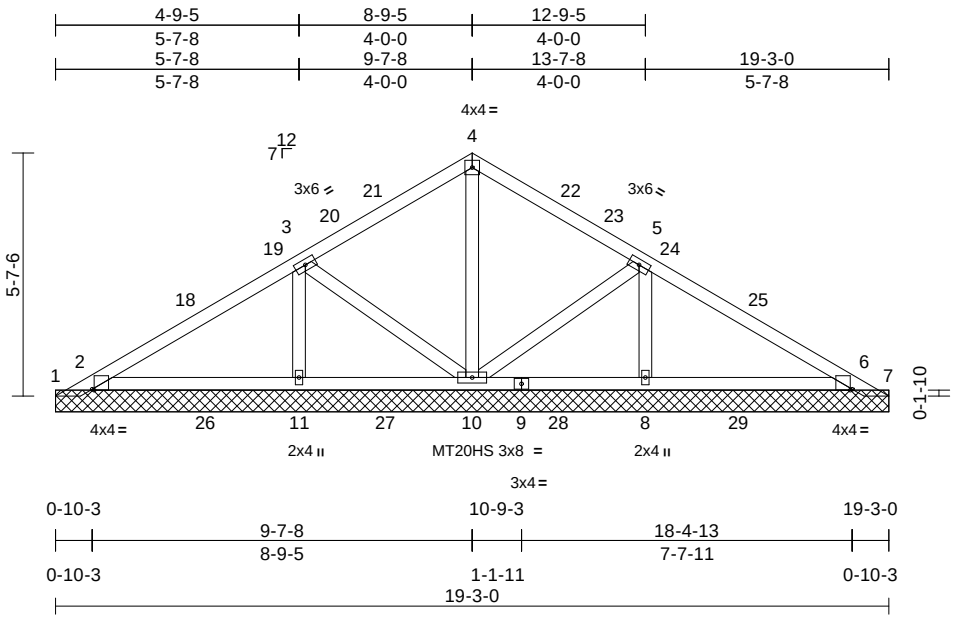

Scale = 1:53.2

Plate Offsets (X, Y): [2:0-0-9,Edge], [6:0-0-9,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	0.47	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.79	Vert(TL)	n/a	-	n/a	999	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	15	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 88 lb	FT = 20%

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

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

REACTIONS (size) 1=19-3-0, 2=19-3-0, 6=19-3-0, 7=19-3-0, 8=19-3-0, 10=19-3-0, 11=19-3-0
Max Horiz 1=87 (LC 13)
Max Uplift 1=-394 (LC 42), 2=-14 (LC 16), 6=-10 (LC 17), 7=-391 (LC 45)
Max Grav 1=141 (LC 40), 2=689 (LC 42), 6=675 (LC 45), 7=144 (LC 56), 8=417 (LC 67), 10=413 (LC 66), 11=417 (LC 65)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-92/211, 2-3=-146/209, 3-4=-116/58, 4-5=-116/56, 5-6=-146/207, 6-7=-12/209
BOT CHORD 2-11=-214/75, 10-11=-24/75, 8-10=0/60, 6-8=-214/60
WEBS 4-10=-261/13, 3-11=-270/44, 5-8=-270/42, 3-10=-72/54, 5-10=-72/56

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-8 to 3-3-8, Interior (1) 3-3-8 to 9-7-8, Exterior(2R) 9-7-8 to 12-7-8, Interior (1) 12-7-8 to 18-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All plates are MT20 plates unless otherwise indicated.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 2, 10 lb uplift at joint 6, 394 lb uplift at joint 1, 391 lb uplift at joint 7, 14 lb uplift at joint 2 and 10 lb uplift at joint 6.
13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
14) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
15) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	PB1G	Piggyback	1	1	I74682162
					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. Thu Jul 03 17:52:28 Page: 1

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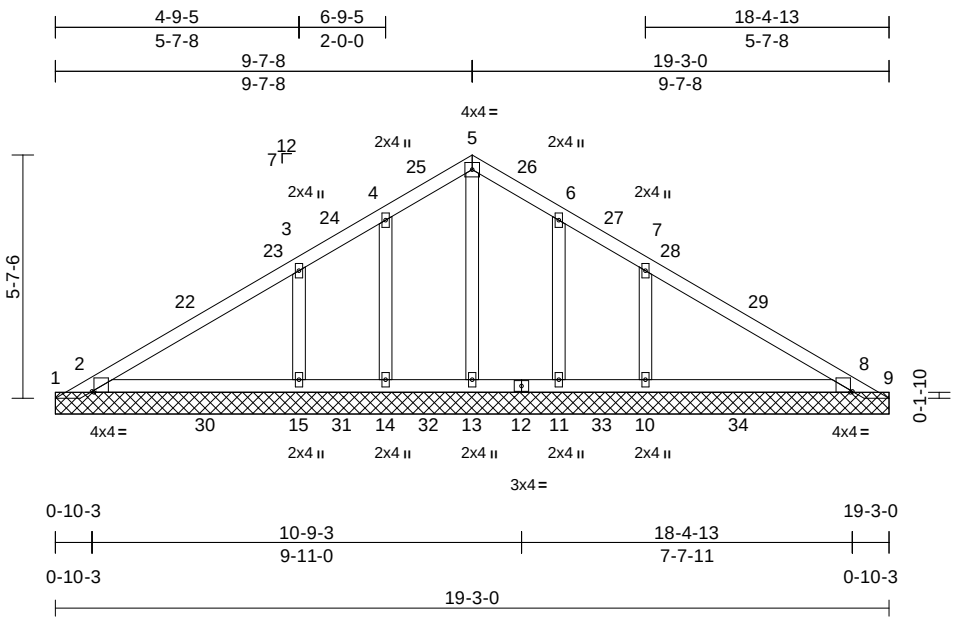


Scale = 1:53.2

Plate Offsets (X, Y): [2:0-0-9,Edge], [8:0-0-9,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	0.46	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.76	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 85 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=19-3-0, 2=19-3-0, 8=19-3-0, 9=19-3-0, 10=19-3-0, 11=19-3-0, 13=19-3-0, 14=19-3-0, 15=19-3-0
Max Horiz 1=-87 (LC 12)
Max Uplift 1=-387 (LC 42), 2=-9 (LC 16), 8=-2 (LC 17), 9=-384 (LC 47), 10=-21 (LC 17), 11=-52 (LC 67), 14=-52 (LC 62), 15=-20 (LC 16)
Max Grav 1=131 (LC 40), 2=662 (LC 42), 8=649 (LC 47), 9=134 (LC 60), 10=415 (LC 75), 11=296 (LC 74), 13=335 (LC 73), 14=296 (LC 72), 15=415 (LC 71)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-93/217, 2-3=-118/213, 3-4=-95/67, 4-5=-110/92, 5-6=-110/89, 6-7=-87/64, 7-8=-114/212, 8-9=-14/205
BOT CHORD 2-15=-211/52, 14-15=-21/52, 13-14=-21/52, 11-13=-21/52, 10-11=-21/52, 8-10=-211/52
WEBS 5-13=-240/1, 4-14=-267/46, 3-15=-330/77, 6-11=-267/46, 7-10=-329/77

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-8 to 3-3-8, Interior (1) 3-3-8 to 9-7-8, Exterior(2R) 9-7-8 to 12-7-8, Interior (1) 12-7-8 to 18-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 9 lb uplift at joint 2, 2 lb uplift at joint 8, 387 lb uplift at joint 1, 384 lb uplift at joint 9, 52 lb uplift at joint 14, 20 lb uplift at joint 15, 52 lb uplift at joint 11, 21 lb uplift at joint 10, 9 lb uplift at joint 2 and 2 lb uplift at joint 8.
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

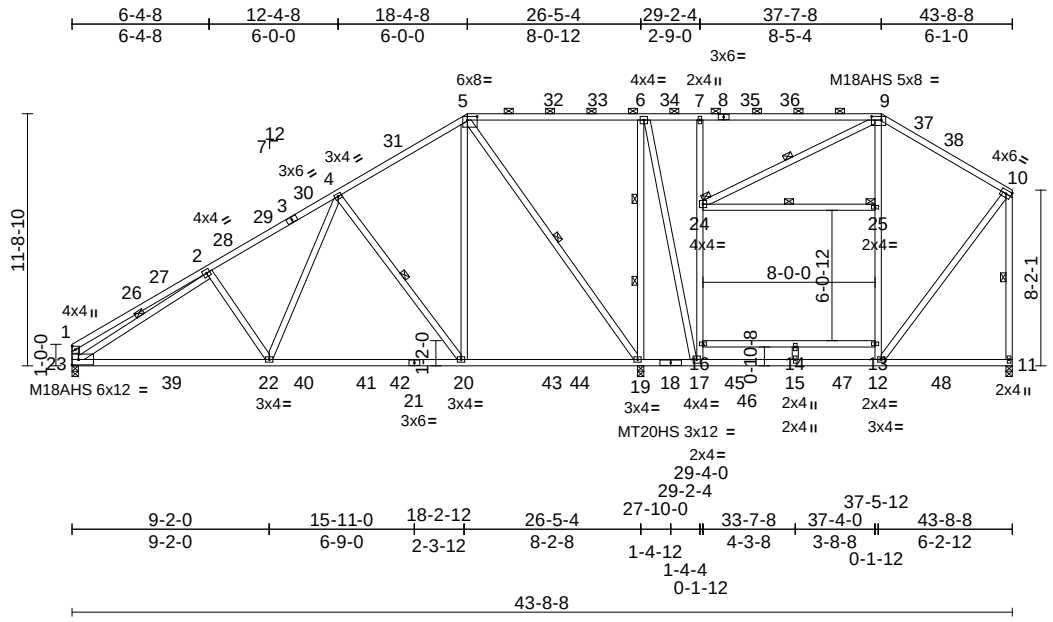
July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	A3	Attic	1	1	I74682172
					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. Thu Jul 03 17:52:18 Page: 1

ID:eW?e6daPLXKyNUOUDcC2wYyATYH-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:107.1

Plate Offsets (X, Y): [5:0-5-8,0-2-0], [9:0-5-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.37	20-22	>846	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.48	20-22	>657	240	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.05	11	n/a	n/a	MT20HS	187/143
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.03	20-22	>999	240		
BCDL	10.0										Weight: 349 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2 *Except* 5-8,8-9:2x4 SP SS
BOT CHORD	2x4 SP SS
WEBS	2x4 SP No.3 *Except* 7-17,9-12,24-25,23-1,19-5:2x4 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-9.	
BOT CHORD	Rigid ceiling directly applied.	
WEBS	1 Row at midpt	4-20, 24-25, 2-23, 10-11, 5-19, 9-24
WEBS	2 Rows at 1/3 pts	6-19
JOINTS	1 Brace at Jt(s): 24, 25	

REACTIONS (size) 11=0-3-8, 19=0-3-8, 23=0-3-8
Max Horiz 23=180 (LC 16)
Max Grav 11=1345 (LC 55), 19=2240 (LC 50), 23=1415 (LC 53)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-595/23, 2-4=-1913/0, 4-5=-1180/3, 5-6=-386/20, 6-7=-604/0, 7-9=-600/0, 9-10=-761/0, 1-23=-432/36, 10-11=-1264/0
BOT CHORD	22-23=-27/1737, 20-22=0/1423, 19-20=0/923, 17-19=0/361, 15-17=0/585, 12-15=0/585, 11-12=-5/15
WEBS	4-20=-817/81, 5-20=0/1066, 16-17=-595/42, 16-24=-538/81, 7-24=-538/84, 12-13=-257/115, 13-25=-191/160, 9-25=-191/160, 14-16=0/10, 13-14=0/10, 24-25=-5/9, 2-23=-1503/0, 6-19=-1530/0, 5-19=-1007/37, 9-24=-20/0, 10-12=0/978, 14-15=0/197, 4-22=0/570, 2-22=-244/108, 6-17=0/1126

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) 0-1-12 to 4-6-0, Interior (1) 4-6-0 to 18-4-8, Exterior(2R) 18-4-8 to 24-6-7, Interior (1) 24-6-7 to 37-7-8, Exterior(2E) 37-7-8 to 43-6-12 zone; cantilever left and right exposed ; end vertical left 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) 250.0lb AC unit load placed on the bottom chord, 33-4-0 from left end, supported at two points, 5-0-0 apart.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) The Fabrication Tolerance at joint 9 = 4%
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. 15-17, 12-15
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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	A1T	Piggyback Base	2	1	I74682173
					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. Thu Jul 03 17:52:15 Page: 1
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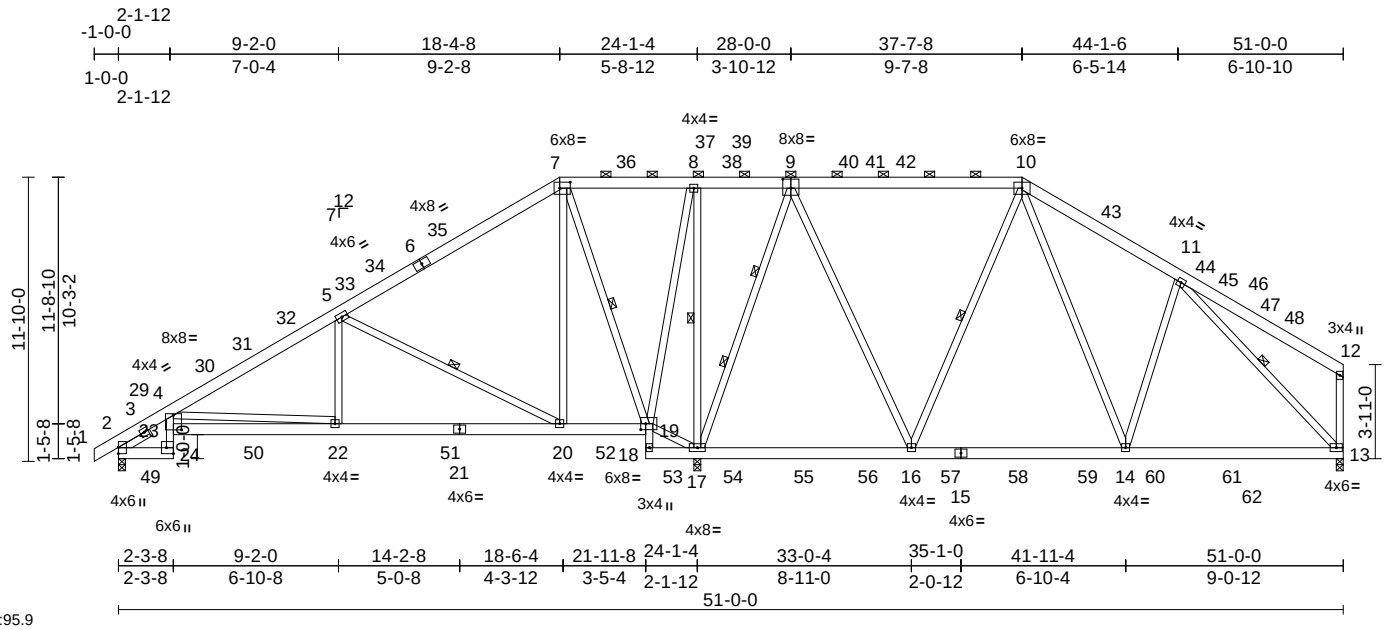

Scale = 1:95.9

Plate Offsets (X, Y): [4:0-4-0,0-7-4], [7:0-5-4,0-3-0], [9:0-4-0,0-4-8], [19:0-2-8,0-3-0], [24:Edge,0-3-8]

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	0.70	Vert(LL)	-0.14	13-14	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.21	20-22	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.09	13	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.04	22-23	>999	240		
BCDL	10.0										Weight: 454 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2 *Except* 24-4:2x4 SP No.2, 19-18:2x4 SP No.3, 18-15:2x6 SP DSS
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, and 2-0-0 oc purlins (6-0-0 max.): 7-10.	
BOT CHORD	Rigid ceiling directly applied.	
WEBS	1 Row at midpt	7-19, 8-17, 5-20, 10-16, 11-13
WEBS	2 Rows at 1/3 pts	9-17

REACTIONS (size) 2=0-3-8, 13=0-3-8, 17=0-3-8
Max Horiz 2=176 (LC 13)
Max Uplift 13=-6 (LC 12)
Max Grav 2=715 (LC 52), 13=1012 (LC 54), 17=3039 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/41, 2-4=-868/0, 4-5=-869/0, 5-7=-57/527, 7-8=0/810, 8-10=-316/969, 10-11=-837/135, 11-12=-155/119, 12-13=-327/59
BOT CHORD	2-24=-89/678, 23-24=-11/377, 4-23=0/408, 22-23=-78/1414, 20-22=-3/805, 19-20=-257/83, 18-19=-236/38, 17-18=-80/14, 16-17=-524/84, 14-16=-41/470, 13-14=-23/656
WEBS	7-20=0/809, 7-19=-1514/20, 8-17=-846/14, 9-17=-1527/41, 5-22=0/486, 5-20=-1208/68, 17-19=-943/61, 8-19=-14/834, 9-16=0/1139, 10-16=-755/57, 10-14=-20/725, 11-14=-358/168, 11-13=-905/41, 4-22=-715/79

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 4-1-0, Interior (1) 4-1-0 to 18-4-8, Exterior(2R) 18-4-8 to 25-6-13, Interior (1) 25-6-13 to 37-7-8, Exterior(2R) 37-7-8 to 44-9-13, Interior (1) 44-9-13 to 50-10-4 zone; cantilever left and right exposed ; end vertical left 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) 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. 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.
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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	A3G	Piggyback Base Supported Gable	1	1	I74682174 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. Thu Jul 03 17:52:18 Page: 1
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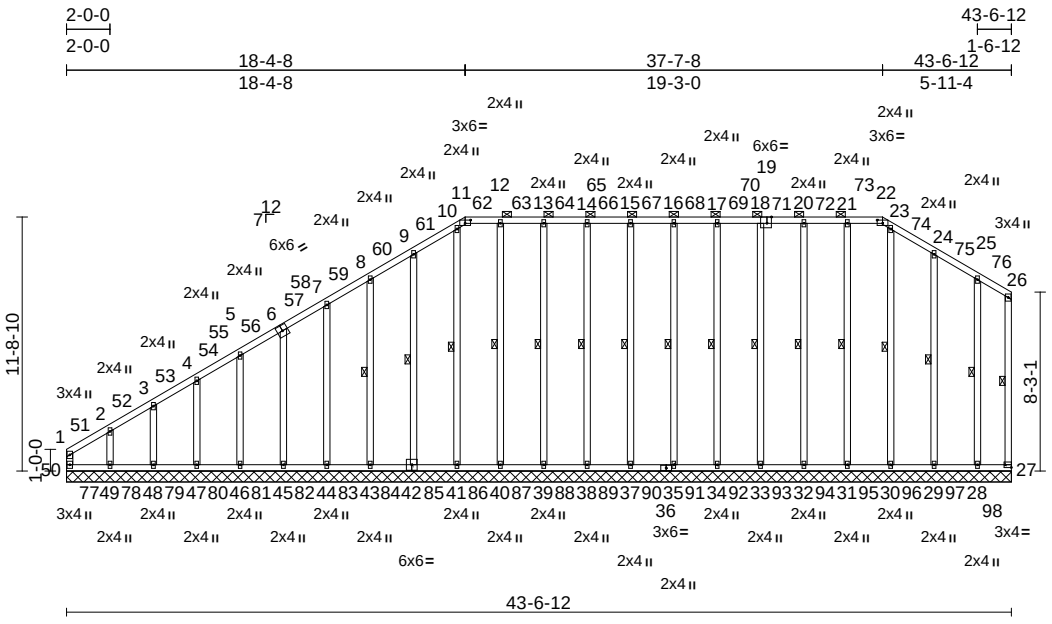

Scale = 1:106.2

Plate Offsets (X, Y): [11:0-3-0,0-1-12], [19:0-2-8,Edge], [22:0-3-0,0-1-12], [27:Edge,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	0.65	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horiz(TL)	0.01	27	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 425 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, and 2-0-0 oc purlins (6-0-0 max.): 11-22.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 26-27, 16-35, 15-37, 14-38, 13-39, 12-40, 10-41, 9-42, 8-43, 17-34, 18-33, 20-32, 21-31, 23-30, 24-29, 25-28

REACTIONS (size) 27=43-6-12, 28=43-6-12, 29=43-6-12, 30=43-6-12, 31=43-6-12, 32=43-6-12, 33=43-6-12, 34=43-6-12, 35=43-6-12, 37=43-6-12, 38=43-6-12, 39=43-6-12, 40=43-6-12, 41=43-6-12, 42=43-6-12, 43=43-6-12, 44=43-6-12, 45=43-6-12, 46=43-6-12, 47=43-6-12, 48=43-6-12, 49=43-6-12, 50=43-6-12
Max Horiz 50=252 (LC 13)
Max Uplift 27=-21 (LC 16), 28=-11 (LC 12), 29=-17 (LC 17), 31=-2 (LC 13), 40=-2 (LC 13), 41=-13 (LC 13), 42=-14 (LC 16), 43=-12 (LC 16), 44=-10 (LC 16), 45=-12 (LC 16), 46=-6 (LC 16), 47=-16 (LC 16), 49=-125 (LC 13), 50=-123 (LC 14)
Max Grav 27=275 (LC 152), 28=326 (LC 151), 29=335 (LC 150), 30=332 (LC 149), 31=333 (LC 148), 32=333 (LC 147), 33=333 (LC 146), 34=333 (LC 145), 35=333 (LC 144), 37=333 (LC 143), 38=333 (LC 142), 39=333 (LC 141), 40=333 (LC 140), 41=334 (LC 139), 42=333 (LC 138), 43=331 (LC 137), 44=335 (LC 136), 45=333 (LC 135), 46=331 (LC 134), 47=334 (LC 133), 48=332 (LC 132), 49=339 (LC 131), 50=283 (LC 130)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-50=-268/161, 1-2=-360/299, 2-3=-274/237, 3-4=-245/223, 4-5=-202/197, 5-7=-173/177, 7-8=-156/182, 8-9=-166/222, 9-10=-193/265, 10-11=-169/228, 11-12=-169/246, 12-13=-169/246, 13-14=-169/246, 14-15=-169/246, 15-16=-169/246, 16-17=-169/246, 17-18=-169/246, 18-20=-169/246, 20-21=-169/246, 21-22=-169/246, 22-23=-169/228, 23-24=-193/265, 24-25=-161/218, 25-26=-182/238, 26-27=-256/207
BOT CHORD 49-50=-113/147, 48-49=-113/147, 47-48=-113/147, 46-47=-113/147, 45-46=-113/147, 44-45=-114/148, 43-44=-114/148, 41-43=-114/148, 40-41=-113/148, 39-40=-113/148, 38-39=-113/148, 37-38=-113/148, 35-37=-113/148, 34-35=-113/148, 33-34=-113/148, 32-33=-113/148, 31-32=-113/148, 30-31=-113/148, 29-30=-113/148, 28-29=-113/148, 27-28=-113/148
WEBS 16-35=-264/35, 15-37=-264/35, 14-38=-264/35, 13-39=-264/43, 12-40=-264/31, 10-41=-267/38, 9-42=-270/64, 8-43=-271/56, 7-44=-276/57, 6-45=-273/58, 5-46=-276/52, 4-47=-282/61, 3-48=-284/50, 2-49=-291/148, 17-34=-264/35, 18-33=-264/35, 20-32=-264/43, 21-31=-264/31, 23-30=-266/35, 24-29=-270/73, 25-28=-262/107

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

July 7,2025

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) 0-1-12 to 4-6-0, Exterior(2N) 4-6-0 to 18-4-8, Corner(3R) 18-4-8 to 22-8-12, Exterior(2N) 22-8-12 to 37-7-8, Corner(3R) 37-7-8 to 42-0-0, Exterior(2N) 42-0-0 to 43-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Provide adequate drainage to prevent water ponding.
7) Plates checked for a plus or minus 5 degree rotation about its center.
8) Gable requires continuous bottom chord bearing.
9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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) 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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	C1G	Common Supported Gable	1	1	I74682177
					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. Thu Jul 03 17:52:22 ID:DcVRCIUL0AWPKUIlnhLAbRzjYIP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

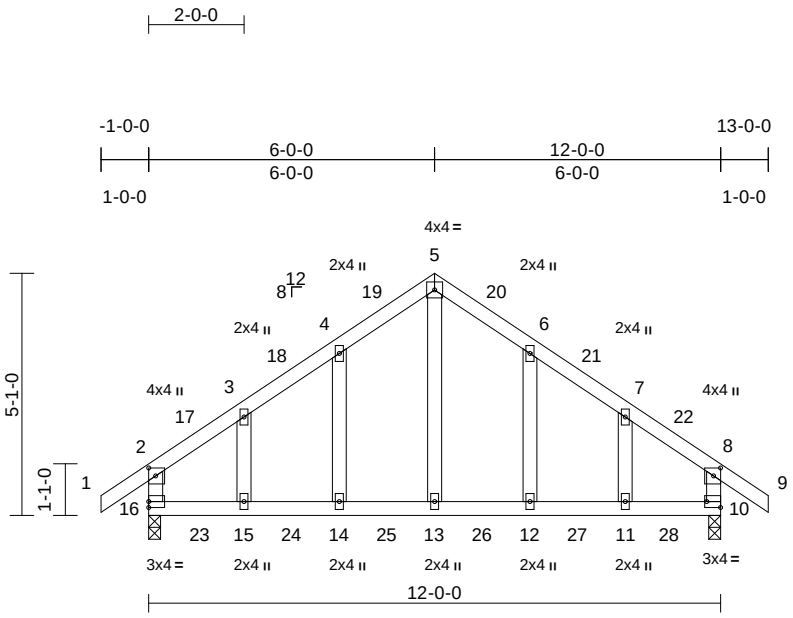

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Plate Offsets (X, Y): [2:0-2-0,0-1-12], [8:0-2-0,0-1-12], [10:Edge,0-1-8]

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	0.51	Vert(LL)	-0.09	14-15	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.11	14-15	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.04	14-15	>999	240		
BCDL	10.0										Weight: 67 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 10=0-3-0, 16=0-3-0
Max Horiz 16=95 (LC 15)
Max Grav 10=537 (LC 2), 16=537 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-16=-449/180, 1-2=0/52, 2-3=-462/167, 3-4=-408/189, 4-5=-397/224, 5-6=-397/223, 6-7=-408/189, 7-8=-462/167, 8-9=0/52, 8-10=-449/180
BOT CHORD	15-16=-74/313, 14-15=-74/313, 13-14=-74/313, 12-13=-74/313, 11-12=-74/313, 10-11=-74/313
WEBS	5-13=-139/319, 4-14=-143/105, 3-15=-125/125, 6-12=-143/105, 7-11=-125/125

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior (1) 9-0-0 to 13-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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.
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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	C1	Common	4	1	I74682178
					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. Thu Jul 03 17:52:22 Page: 1
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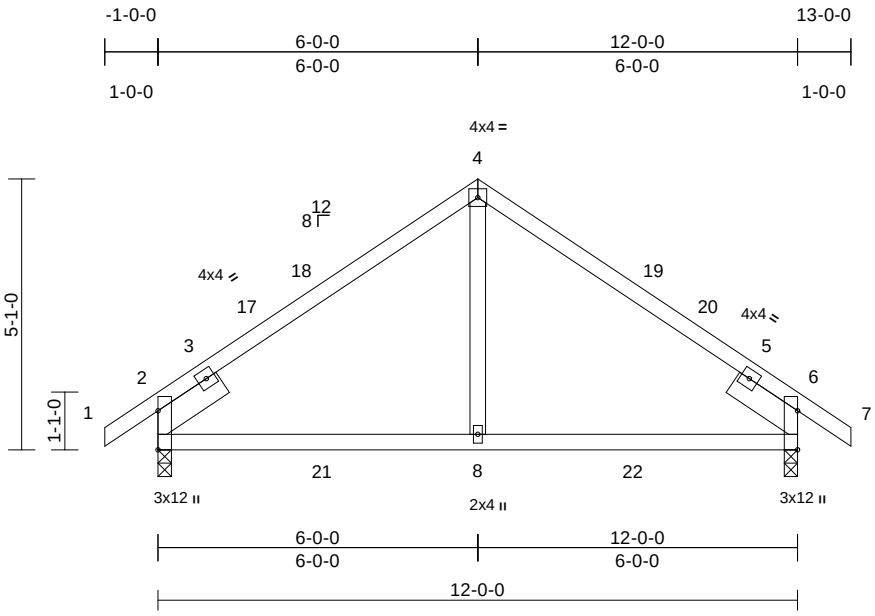


Scale = 1:43.2

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	0.62	Vert(LL)	-0.12	8-15	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.14	8-11	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.03	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.03	8-11	>999	240		
BCDL	10.0										Weight: 57 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.2 -- 1-6-9, Right 2x6 SP No.2 -- 1-6-9

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

REACTIONS (size) 2=0-3-0, 6=0-3-0
Max Horiz 2=-75 (LC 14)
Max Grav 2=540 (LC 2), 6=540 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-4=-484/277, 4-6=-484/277, 6-7=0/45
BOT CHORD 2-8=-81/333, 6-8=-81/333
WEBS 4-8=-87/347

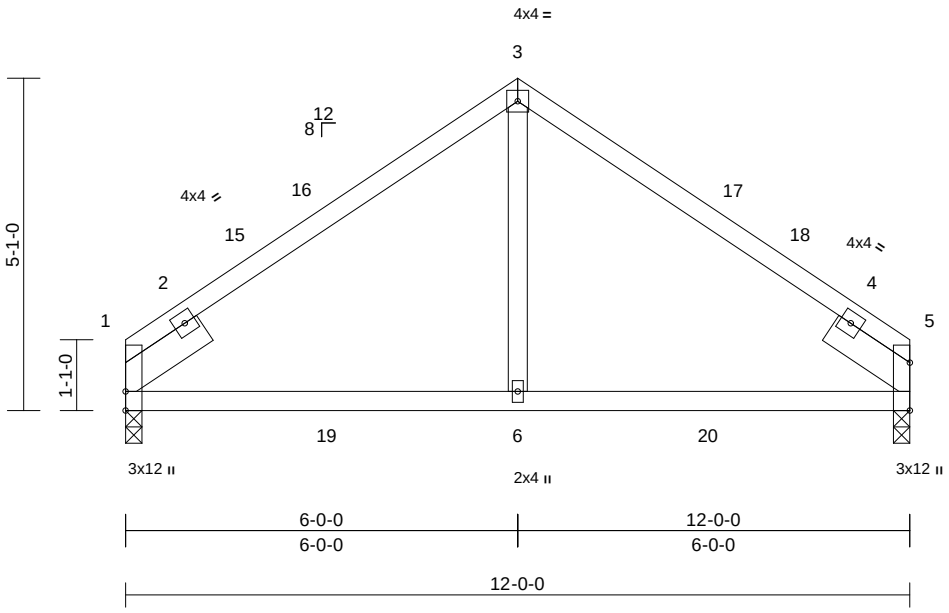
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior (1) 9-0-0 to 13-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) 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.
10) 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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	C1A	Common	1	1	I74682179
					Job Reference (optional)



Scale = 1:35.3

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	0.72	Vert(LL)	-0.12	6-13	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.14	6-9	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.13	Horz(CT)	0.08	1	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.14	6-9	>999	240		
BCDL	10.0										Weight: 54 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.2 -- 1-6-9, Right 2x6 SP No.2 -- 1-6-9

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

REACTIONS (size) 1=0-3-0, 5=0-3-0
Max Horiz 1=64 (LC 48)
Max Uplift 1=-474 (LC 47), 5=-474 (LC 46)
Max Grav 1=779 (LC 38), 5=779 (LC 39)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-915/815, 3-5=-915/818
BOT CHORD 1-6=-679/756, 5-6=-679/756
WEBS 3-6=-87/349

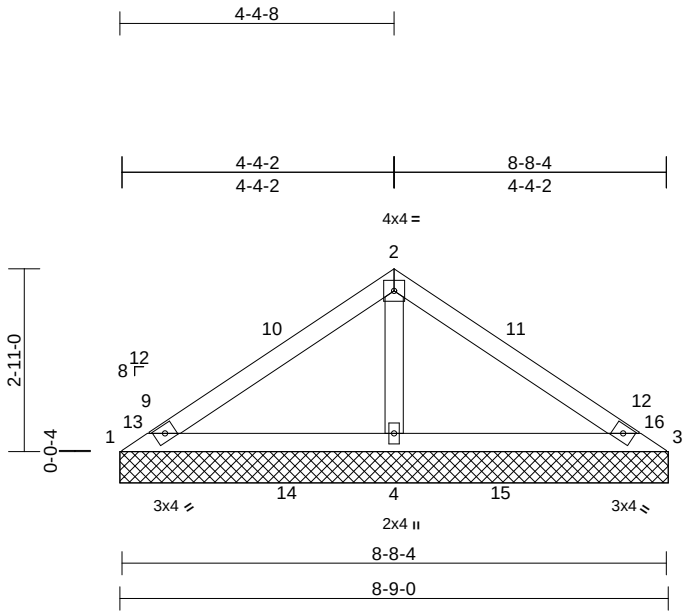
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior (1) 9-0-0 to 12-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Plates checked for a plus or minus 5 degree rotation about its center.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 474 lb uplift at joint 1 and 474 lb uplift at joint 5.
9) 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.
10) This truss has been designed for a total drag load of 100 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 12-0-0 for 100.0 plf.
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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	VA2	Valley	1	1	I74682180
					Job Reference (optional)



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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	0.52	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.72	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	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=8-9-0, 3=8-9-0, 4=8-9-0
Max Horiz 1=-44 (LC 14)
Max Uplift 1=-58 (LC 41), 3=-58 (LC 40)
Max Grav 1=268 (LC 43), 3=268 (LC 47), 4=643 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-229/334, 2-3=-229/334
BOT CHORD 1-4=-215/173, 3-4=-215/173
WEBS 2-4=-481/163

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 4-4-8, Exterior(2R) 4-4-8 to 7-4-8, Interior (1) 7-4-8 to 8-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	VA1	Valley	1	1	I74682181
					Job Reference (optional)

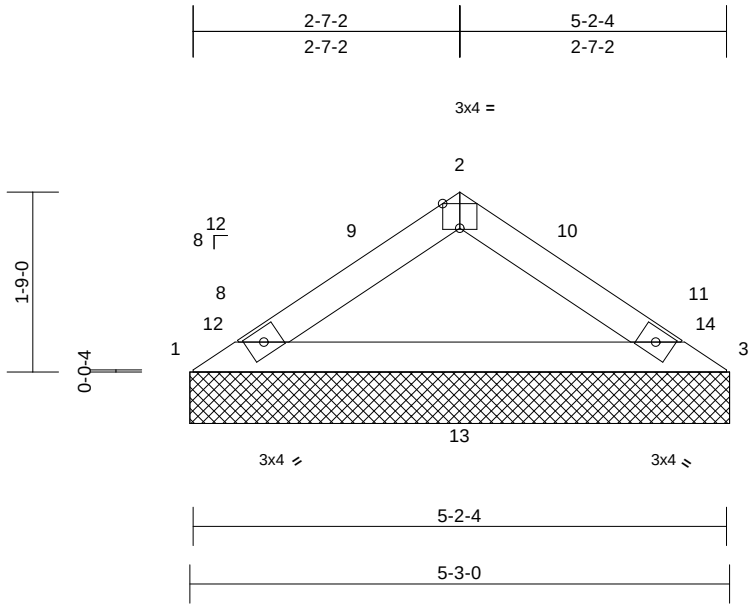

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Plate Offsets (X, Y): [2:0-2-0,Edge]

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	0.38	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.79	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 15 lb	FT = 20%

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

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

REACTIONS (size) 1=5-3-0, 3=5-3-0
Max Horiz 1=25 (LC 15)
Max Grav 1=358 (LC 43), 3=358 (LC 47)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-525/102, 2-3=-525/102
BOT CHORD 1-3=-74/432

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.
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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	A4A	Piggyback Base	1	1	I74682183
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 25.10 E Mar 10 2025 Print: 25.1.0 E Mar 10 2025 MiTek Industries, Inc. Mon Jul 07 16:58:24 Page: 1
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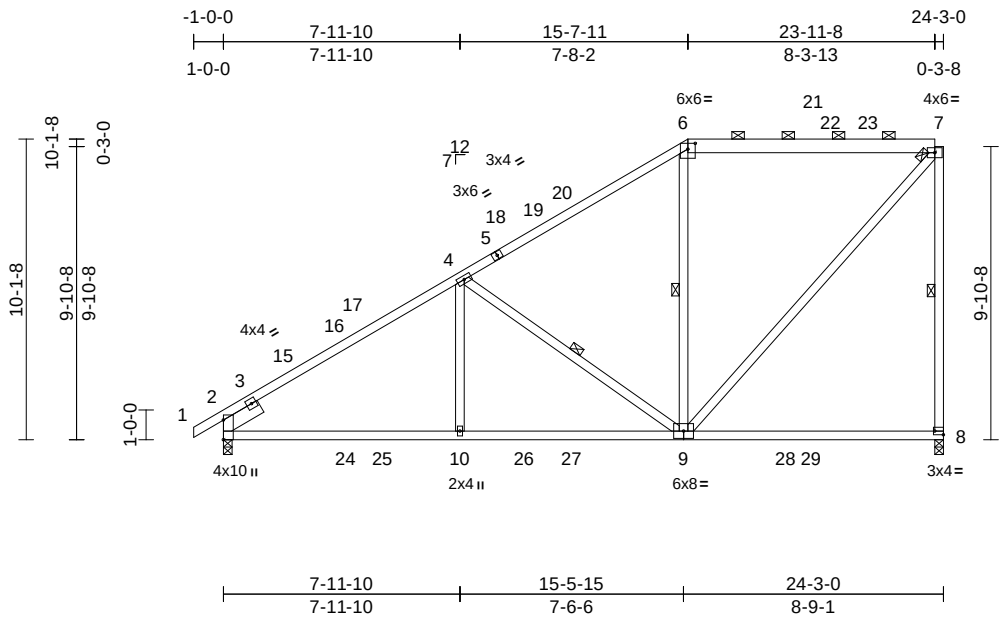

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Plate Offsets (X, Y): [6:0-3-0,0-2-5], [8:Edge,0-1-8]

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	0.93	Vert(LL)	-0.35	8-9	>825	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.48	8-9	>604	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	-0.03	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.02	10-13	>999	240		
BCDL	10.0										Weight: 156 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 6-7:2x6 SP No.2
BOT CHORD 2x4 SP SS
WEBS 2x4 SP No.3 *Except* 7-9:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-1-1 max.): 6-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-8, 4-9, 6-9

REACTIONS (lb/size) 2=920/0-3-8, 8=922/0-3-8
Max Horiz 2=208 (LC 16)
Max Grav 2=1257 (LC 42), 8=1158 (LC 39)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-634/265, 3-15=-1643/0, 15-16=-1611/0, 16-17=-1560/0, 4-17=-1470/0, 4-5=-967/0, 5-18=-908/0, 18-19=-862/0, 19-20=-826/0, 6-20=-820/0, 6-21=-723/26, 21-22=-724/26, 22-23=-724/26, 7-23=-725/26, 7-8=-972/65
BOT CHORD 2-24=-212/1393, 24-25=-60/1393, 10-25=-60/1393, 10-26=-60/1393, 26-27=-60/1393, 9-27=-60/1393
WEBS 4-10=0/368, 4-9=-819/76, 7-9=-42/1075

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 2-4-14, Interior (1) 2-4-14 to 15-7-11, Exterior(2R) 15-7-11 to 20-5-8, Interior (1) 20-5-8 to 24-1-4 zone; cantilever left and right exposed ; end vertical left 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; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
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) 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.
12) 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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	PB5	Piggyback	3	1	I74682185
					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. Thu Jul 03 17:52:29 Page: 1

ID:_SUzh1LF2rFSm2?pLkn5FzzjXmJ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

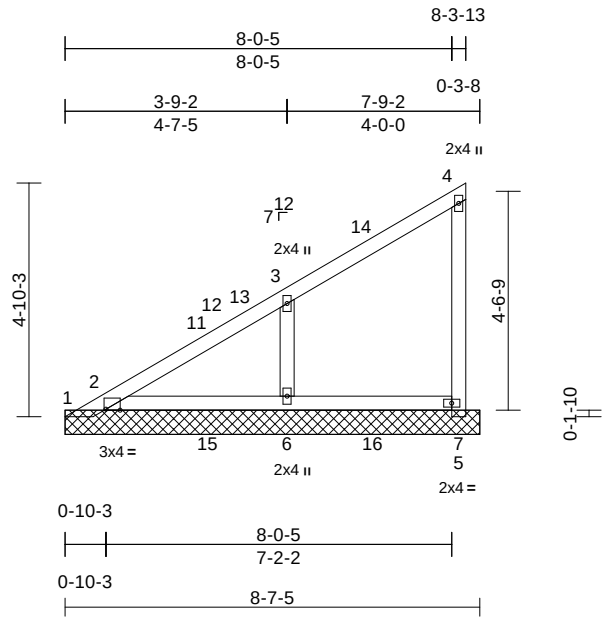

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Plate Offsets (X, Y): [2:0-3-9,Edge]

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	0.42	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.77	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 35 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 1=8-7-5, 2=8-7-5, 5=8-7-5, 6=8-7-5, 7=8-7-5
Max Horiz 1=100 (LC 16)
Max Uplift 1=-261 (LC 46), 2=-8 (LC 16), 5=-7 (LC 16), 6=-22 (LC 16)
Max Grav 1=200 (LC 36), 2=517 (LC 49), 5=308 (LC 51), 6=422 (LC 50)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-186/149, 2-3=-137/138, 3-4=-99/61
BOT CHORD	2-6=-144/19, 5-6=0/0
WEBS	3-6=-336/139, 5-7=0/0, 4-5=-280/51

NOTES

1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-8 to 3-3-8, Interior (1) 3-3-8 to 8-2-1 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
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Plates checked for a plus or minus 5 degree rotation about its center.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Bearing at joint(s) 2, 5, 1, 7, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 5 and 261 lb uplift at joint 1.
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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	A5	Monopitch	7	1	I74682187
					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. Thu Jul 03 17:52:21 ID:X6fz5k6uCWTc9dlojlyCKbyAQcN-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

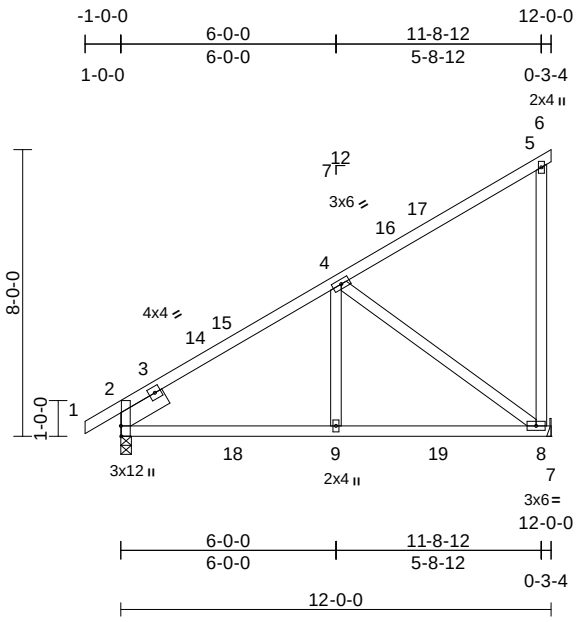

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Plate Offsets (X, Y): [2:0-3-8,Edge]

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	0.71	Vert(LL)	-0.17	8-9	>815	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.21	8-9	>664	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.01	9-12	>999	240		
BCDL	10.0										Weight: 71 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x6 SP No.2 -- 1-6-0

BRACING

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

REACTIONS (size) 2=0-3-8, 8= Mechanical
Max Horiz 2=162 (LC 16)
Max Uplift 8=-39 (LC 16)
Max Grav 2=532 (LC 2), 8=545 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/41, 2-4=-513/173, 4-5=-115/73, 5-6=-11/0
BOT CHORD	2-9=-188/421, 8-9=-80/421, 7-8=0/0
WEBS	4-9=0/368, 4-8=-522/99, 5-8=-305/67

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 2-4-14, Interior (1) 2-4-14 to 12-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) Plates checked for a plus or minus 5 degree rotation about its center.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 8.
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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	A5G	Monopitch Supported Gable	1	1	I74682188
					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. Thu Jul 03 17:52:21 Page: 1
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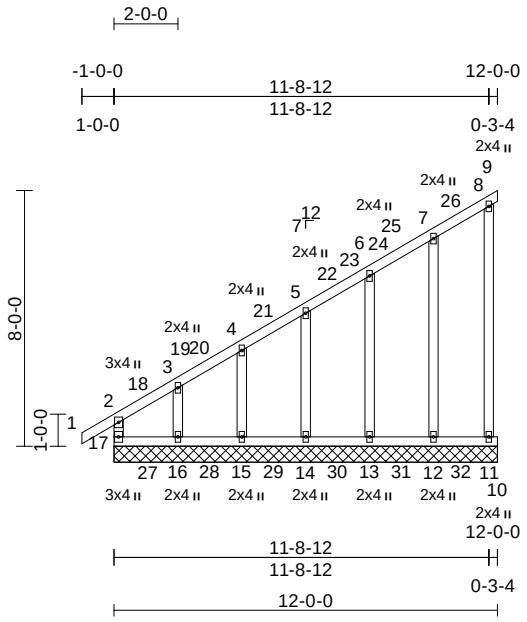

Scale = 1:72.1

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	0.38	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	-0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 82 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) 9=12-0-0, 10=12-0-0, 11=12-0-0, 12=12-0-0, 13=12-0-0, 14=12-0-0, 15=12-0-0, 16=12-0-0, 17=12-0-0
Max Horiz 17=158 (LC 16)
Max Uplift 9=-39 (LC 46), 10=-232 (LC 60), 11=-60 (LC 59), 12=-12 (LC 16), 13=-9 (LC 16), 14=-16 (LC 16), 16=-107 (LC 16), 17=-1 (LC 14)
Max Grav 9=132 (LC 47), 10=60 (LC 59), 11=415 (LC 60), 12=332 (LC 67), 13=334 (LC 66), 14=333 (LC 65), 15=334 (LC 64), 16=329 (LC 63), 17=314 (LC 62)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-17=-296/79, 1-2=0/47, 2-3=-373/181, 3-4=-268/130, 4-5=-223/107, 5-6=-165/78, 6-7=-106/73, 7-8=-81/64, 8-9=-22/66
BOT CHORD 16-17=0/0, 15-16=0/0, 14-15=0/0, 13-14=0/0, 12-13=0/0, 11-12=0/0, 10-11=0/0
WEBS 7-12=-276/111, 6-13=-279/92, 5-14=-281/91, 4-15=-285/68, 3-16=-283/188, 8-11=-171/44

NOTES
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -1-0-0 to 2-4-14, Exterior(2N) 2-4-14 to 12-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable requires continuous bottom chord bearing.
8) 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.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 17, 232 lb uplift at joint 10, 39 lb uplift at joint 9, 12 lb uplift at joint 12, 9 lb uplift at joint 13, 16 lb uplift at joint 14, 107 lb uplift at joint 16 and 60 lb uplift at joint 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

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	P1G	Monopitch Supported Gable	1	1	I74682189 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. Thu Jul 03 17:52:27 Page: 1
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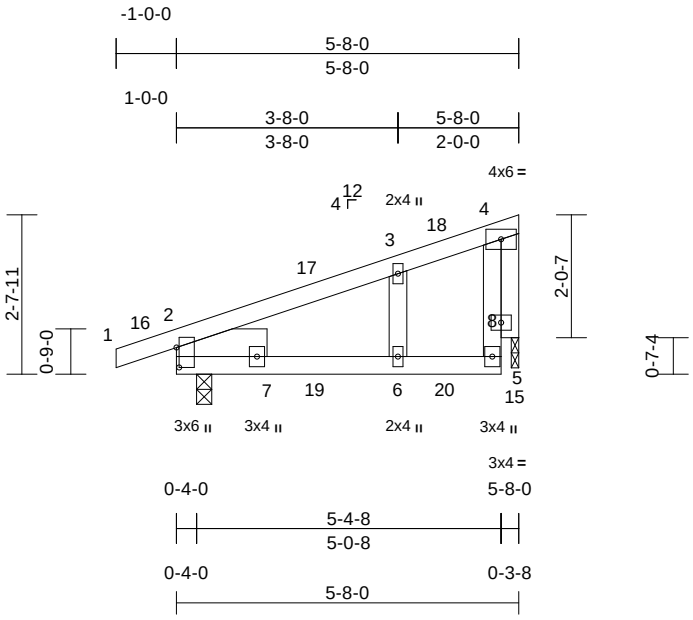

Scale = 1:38.1

Plate Offsets (X, Y): [2:0-3-15,0-0-9]

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	0.44	Vert(LL)	-0.03	6-13	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.04	6-13	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.02	6-13	>999	240		
BCDL	10.0										Weight: 30 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 2x6 SP No.2 -- 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, 15=0-1-8
Max Horiz 2=49 (LC 12)
Max Uplift 2=-51 (LC 12), 15=-35 (LC 12)
Max Grav 2=411 (LC 40), 15=322 (LC 44)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-3=-211/130, 3-4=-162/67, 5-8=-70/296, 4-8=-62/131
BOT CHORD 2-6=-116/181, 5-6=-95/162
WEBS 3-6=-111/138, 4-15=-222/83

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 5-2-12 zone; cantilever left and right exposed ; end vertical left 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) 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) Bearing at joint(s) 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
12) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 15.
13) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 15. 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.

LOAD CASE(S) Standard

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	P1	Monopitch	6	1	I74682190
					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. Thu Jul 03 17:52:27 Page: 1
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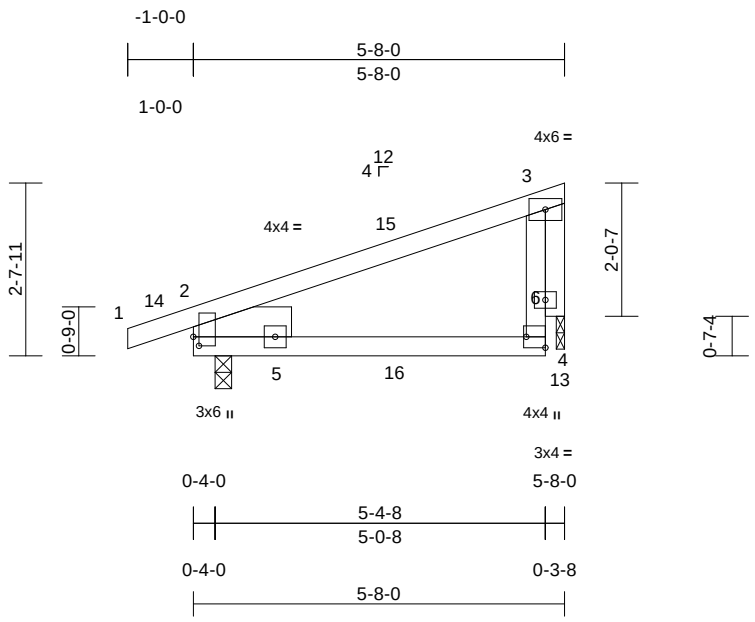

Scale = 1:35.2

Plate Offsets (X, Y): [2:0-1-10,0-1-1], [4:Edge,0-3-8]

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	0.65	Vert(LL)	-0.04	4-11	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.05	4-11	>999	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-MR		Wind(LL)	0.02	4-11	>999	240		
BCDL	10.0										Weight: 28 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 2x6 SP No.2 -- 1-6-0

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-8-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 13=0-1-8
Max Horiz 2=49 (LC 12)
Max Uplift 2=-51 (LC 12), 13=-35 (LC 12)
Max Grav 2=411 (LC 40), 13=322 (LC 43)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/26, 2-3=-223/130, 4-6=-53/301, 3-6=-110/185
BOT CHORD	2-4=-151/230
WEBS	3-13=-230/58

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 5-2-12 zone; cantilever left and right exposed ; end vertical left 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) 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.
10) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 13.
11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 13. This connection is for uplift only and does not consider lateral forces.
12) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.

LOAD CASE(S) Standard

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	P1GR	Monopitch Girder	1	1	I74682191 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. Thu Jul 03 17:52:27 Page: 1
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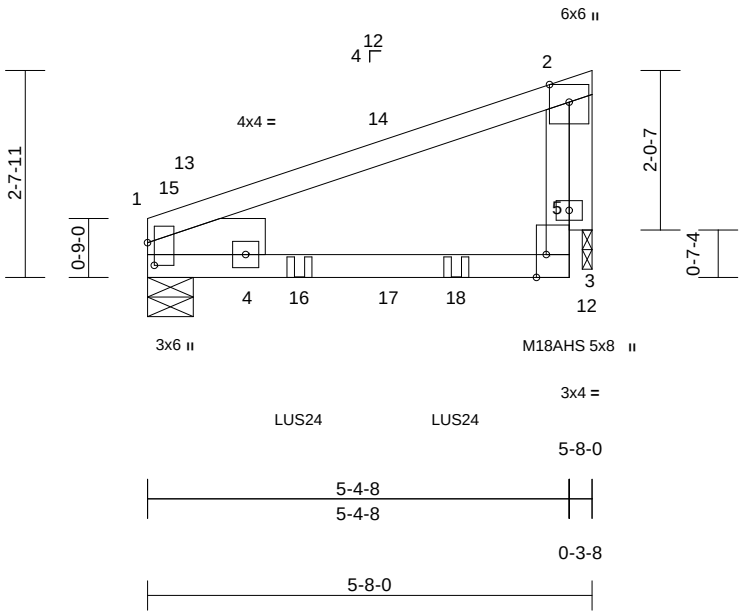

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Plate Offsets (X, Y): [1:0-3-7,0-1-1], [3:0-3-8,Edge]

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	0.89	Vert(LL)	-0.05	3-10	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.09	3-10	>729	240	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.02	1	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR		Wind(LL)	0.03	3-10	>999	240		
BCDL	10.0										Weight: 26 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-8-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=0-7-0, 12=0-1-8
Max Horiz 1=38 (LC 8)
Max Uplift 1=-28 (LC 8), 12=-38 (LC 8)
Max Grav 1=571 (LC 18), 12=507 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-450/84, 3-5=-15/424, 2-5=0/374
BOT CHORD 1-3=-57/360
WEBS 2-12=-430/16

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); cantilever left and right exposed ; end vertical left exposed; porch left and right exposed; 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) All plates are MT20 plates unless otherwise indicated.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 12.
11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 12. 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) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-11-4 from the left end to 3-11-4 to connect truss(es) to front face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.
15) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-51, 3-6=-20
Concentrated Loads (lb)
Vert: 16=-292 (F), 18=-292 (F)

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	P2G	Common Supported Gable	1	1	I74682192 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. Thu Jul 03 17:52:28 Page: 1
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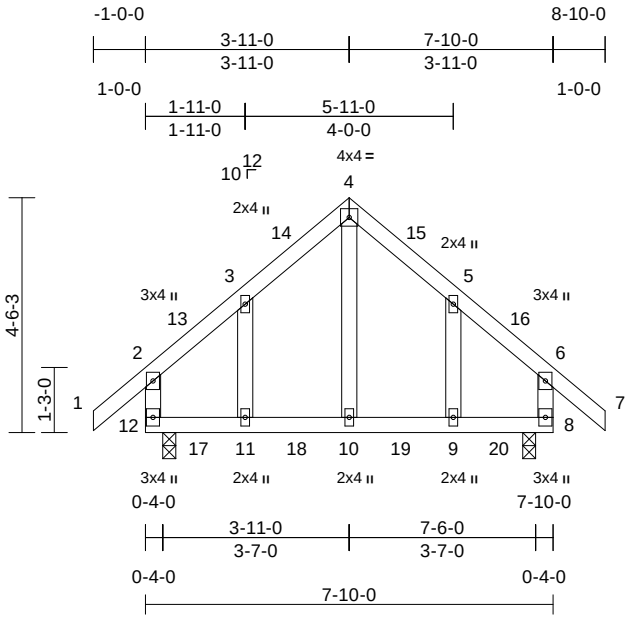

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.03	9-10	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.03	9-10	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.01	11	>999	240		
BCDL	10.0										Weight: 46 lb	FT = 20%

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

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

REACTIONS (size) 8=0-3-0, 12=0-3-0
Max Horiz 12=-90 (LC 14)
Max Grav 8=427 (LC 57), 12=427 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-12=-382/185, 1-2=0/60, 2-3=-271/140, 3-4=-278/185, 4-5=-278/185, 5-6=-271/140, 6-7=0/60, 6-8=-382/185
BOT CHORD 11-12=-22/166, 10-11=-22/166, 9-10=-22/166, 8-9=-22/166
WEBS 4-10=-116/244, 3-11=-133/116, 5-9=-133/116

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 1-11-0, Interior (1) 1-11-0 to 3-11-0, Exterior(2R) 3-11-0 to 6-11-0, Interior (1) 6-11-0 to 8-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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.
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

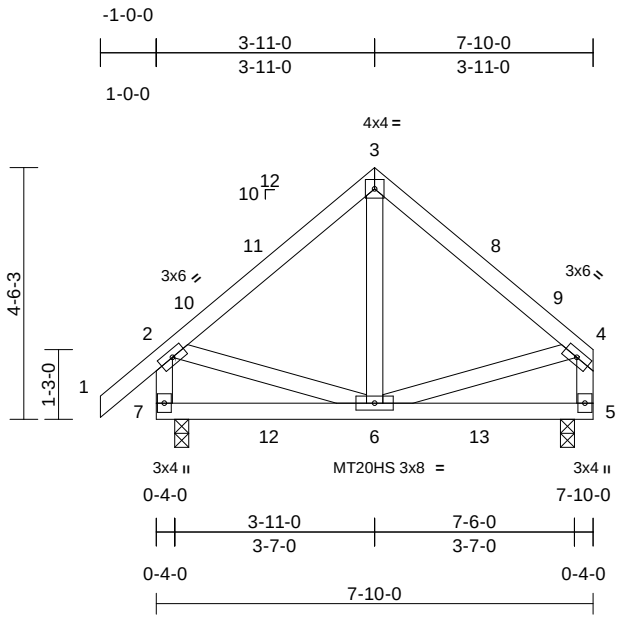
July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	P2	Common	1	1	I74682193
					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. Thu Jul 03 17:52:27 ID:5B3OFen0_YBVu3hwM79a24zhgS8-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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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	0.59	Vert(LL)	-0.05	6-7	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.05	6-7	>999	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.01	6-7	>999	240		
BCDL	10.0										Weight: 48 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 5=0-3-0, 7=0-3-0
Max Horiz 7=85 (LC 13)
Max Grav 5=402 (LC 43), 7=428 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 3-4=-271/142, 1-2=0/60, 2-3=-274/151, 4-5=-373/152, 2-7=-400/204
BOT CHORD 6-7=-85/70, 5-6=-15/17
WEBS 3-6=-55/241, 4-6=-47/195, 2-6=-12/195

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 3-11-0, Exterior(2R) 3-11-0 to 6-11-0, Interior (1) 6-11-0 to 7-8-4 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
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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	P2A	Common	2	1	I74682194 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. Thu Jul 03 17:52:28 Page: 1
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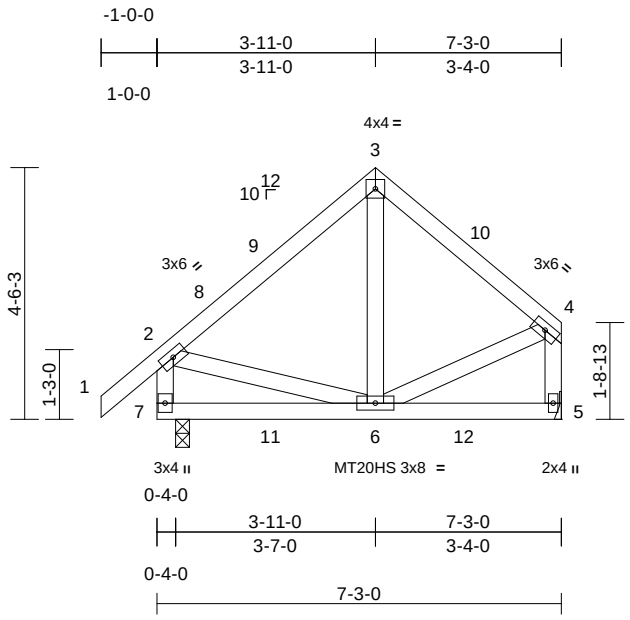


Scale = 1:41.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.05	6-7	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.05	6-7	>999	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.01	6-7	>999	240		
BCDL	10.0										Weight: 46 lb	FT = 20%

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

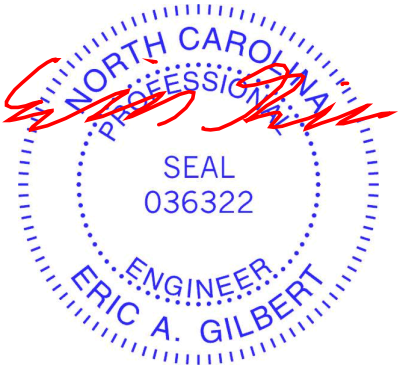
BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 5= Mechanical, 7=0-3-0
Max Horiz 7=74 (LC 13)
Max Uplift 5=-3 (LC 13)
Max Grav 5=390 (LC 43), 7=417 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/60, 2-3=-252/125, 3-4=-247/140, 2-7=-387/184, 4-5=-367/153
BOT CHORD 6-7=-86/62, 5-6=0/0
WEBS 3-6=-46/212, 4-6=-47/185, 2-6=-10/173

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 3-11-0, Exterior(2E) 3-11-0 to 7-1-4 zone; cantilever left and right exposed ; end vertical left 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) 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) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 5.
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



July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	P2B	Common	1	1	I74682195
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

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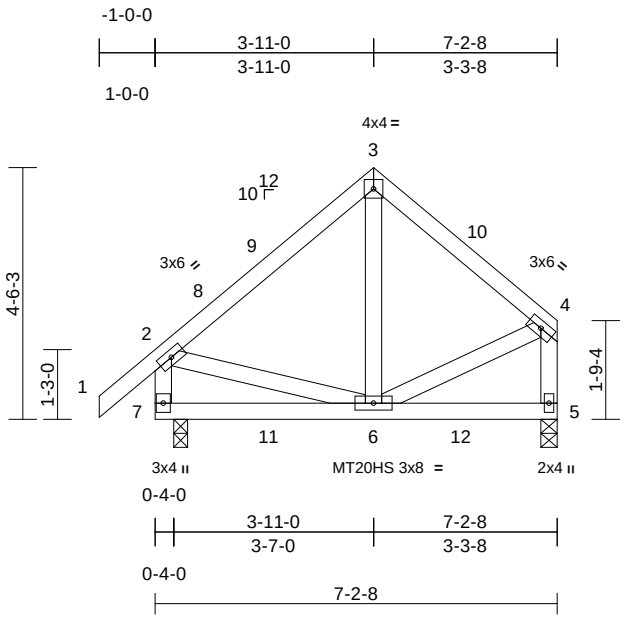

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.05	6-7	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.05	6-7	>999	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.01	6-7	>999	240		
BCDL	10.0										Weight: 46 lb	FT = 20%

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

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

REACTIONS (size) 5=0-3-8, 7=0-3-0
Max Horiz 7=74 (LC 13)
Max Uplift 5=-3 (LC 13)
Max Grav 5=389 (LC 46), 7=416 (LC 43)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/60, 2-3=-251/124, 3-4=-245/139, 2-7=-386/184, 4-5=-367/154
BOT CHORD 6-7=-87/62, 5-6=0/0
WEBS 3-6=-46/210, 2-6=-10/172, 4-6=-47/185

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 3-11-0, Exterior(2E) 3-11-0 to 7-0-12 zone; cantilever left and right exposed ; end vertical left 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) 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. 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.

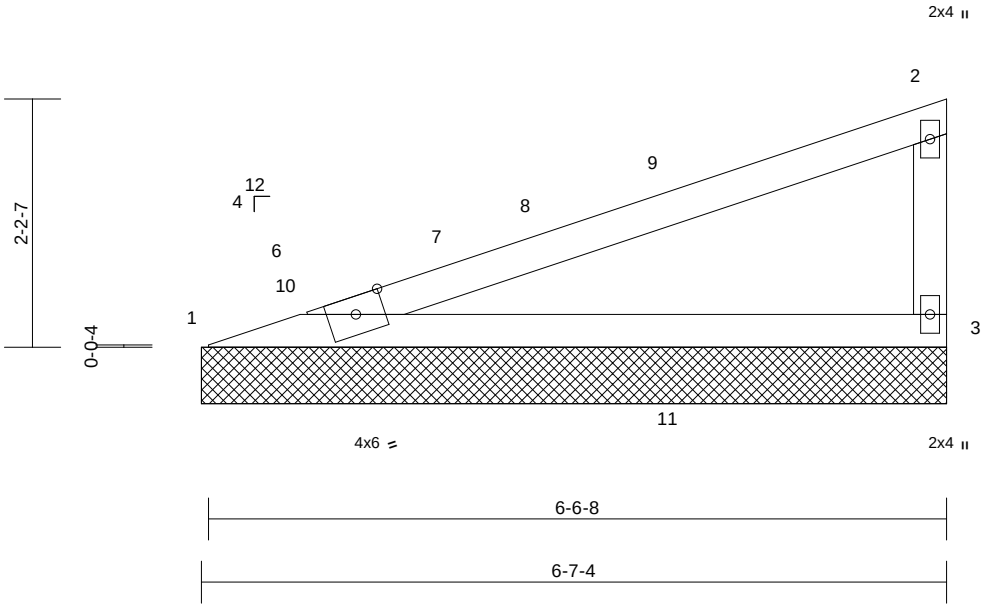
LOAD CASE(S) Standard

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	V9	Valley	1	1	I74682196
					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. Thu Jul 03 17:52:30 Page: 1
ID:m_Z3U6T8Ez5BQEWrzGJxZizhgba-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:20.4

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	0.83	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.92	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.02	3	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.2
WEBS 2x4 SP No.3

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

REACTIONS (size) 1=6-7-4, 3=6-7-4
Max Horiz 1=43 (LC 12)
Max Grav 1=382 (LC 42), 3=382 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-866/154, 2-3=-319/127
BOT CHORD 1-3=-247/820

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 6-5-8 zone; cantilever 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.
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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	V8	Valley	1	1	I74682197
					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. Thu Jul 03 17:52:30 Page: 1
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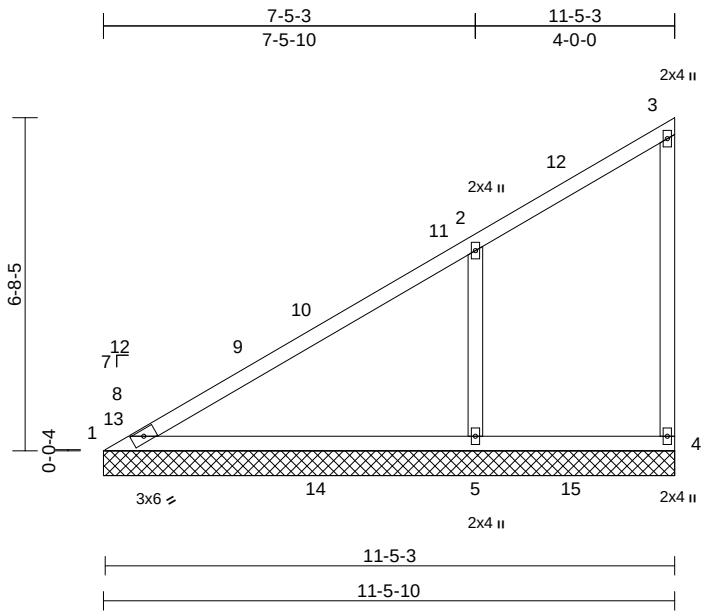

Scale = 1:46.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.90	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 51 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) 1=11-5-10, 4=11-5-10, 5=11-5-10
Max Horiz 1=140 (LC 16)
Max Uplift 4=-51 (LC 47), 5=-33 (LC 16)
Max Grav 1=373 (LC 43), 4=274 (LC 51), 5=764 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-578/149, 2-3=-110/58, 3-4=-264/43
BOT CHORD	1-5=-72/497, 4-5=-10/7
WEBS	2-5=-446/161

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) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 11-3-14 zone; cantilever 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 51 lb uplift at joint 4 and 33 lb uplift at joint 5.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.
13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	V7	Valley	1	1	I74682198 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. Thu Jul 03 17:52:30 Page: 1
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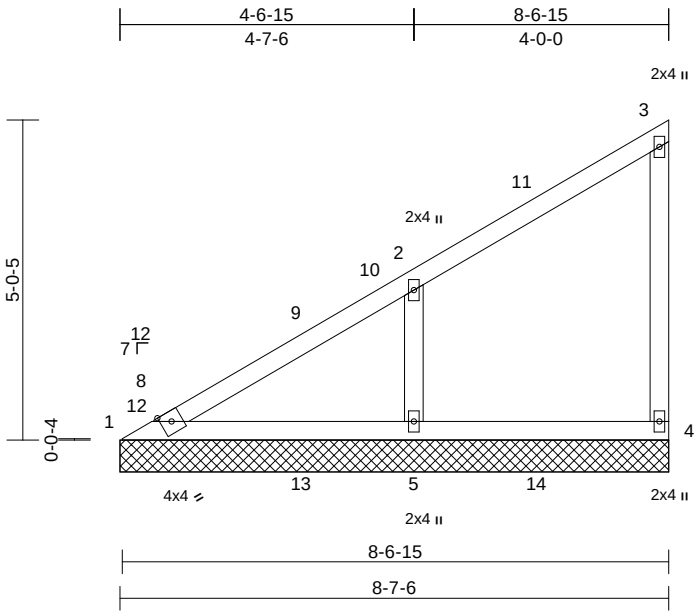

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.85	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 36 lb	FT = 20%

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

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

REACTIONS (size) 1=8-7-6, 4=8-7-6, 5=8-7-6
Max Horiz 1=104 (LC 16)
Max Uplift 4=-8 (LC 16), 5=-21 (LC 16)
Max Grav 1=326 (LC 43), 4=307 (LC 51), 5=466 (LC 50)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-447/106, 2-3=-101/61, 3-4=-280/54
BOT CHORD 1-5=-59/384, 4-5=0/0
WEBS 2-5=-359/145

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 8-5-10 zone; cantilever 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 8 lb uplift at joint 4 and 21 lb uplift at joint 5.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.
13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	V6	Valley	1	1	I74682199
					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. Thu Jul 03 17:52:30 Page: 1
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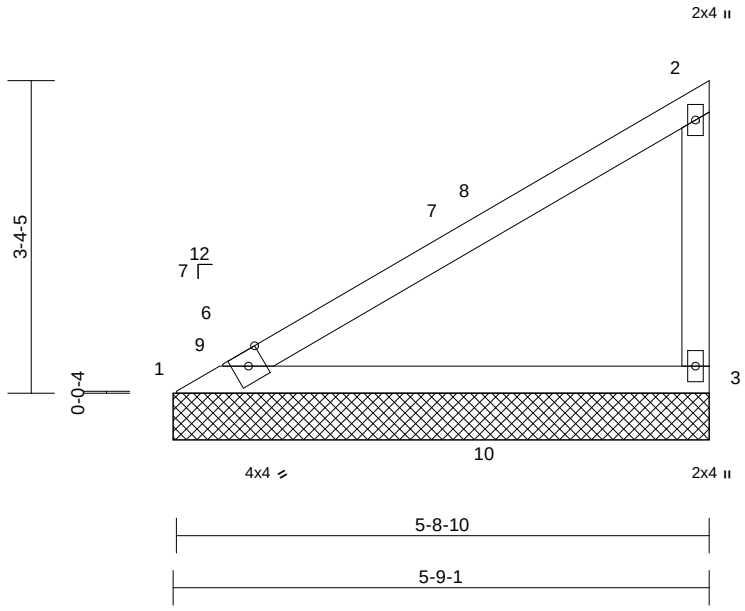

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.83	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 22 lb	FT = 20%

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

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

REACTIONS (size) 1=5-9-1, 3=5-9-1
Max Horiz 1=68 (LC 16)
Max Uplift 3=-12 (LC 16)
Max Grav 1=365 (LC 42), 3=365 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-566/83, 2-3=-309/81
BOT CHORD 1-3=-106/486

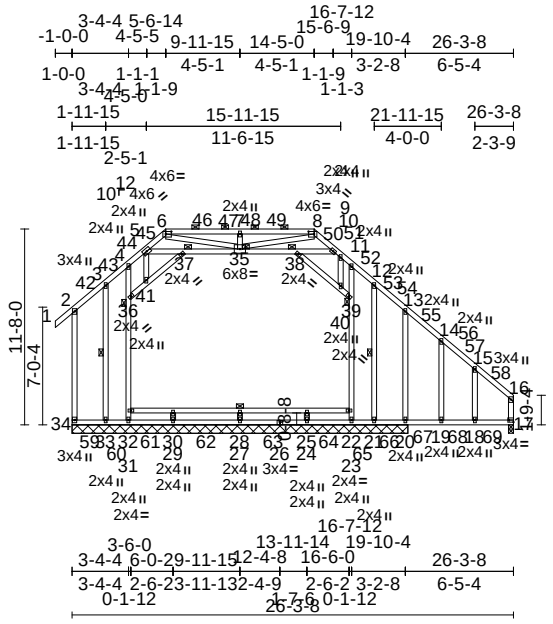
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 5-7-5 zone; cantilever left and 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 3.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.
13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	G2G	Attic Structural Gable	1	1	I74682201 Job Reference (optional)



Scale = 1:137.3

Plate Offsets (X, Y): [6:0-4-0,0-1-12], [8:0-4-0,0-1-12], [17:Edge,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	0.63	Vert(LL)	-0.09	18-19	>809	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.15	18-19	>506	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.01	17	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.10	18-19	>731	240		
BCDL	10.0										Weight: 244 lb	FT = 20%

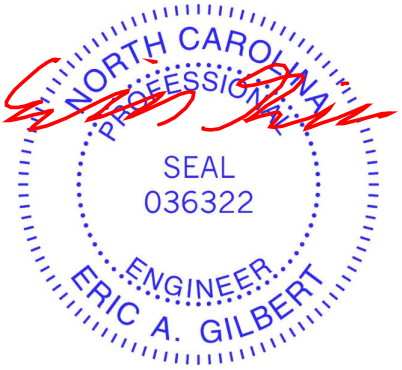
LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 4-32,11-22,5-9:2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-4-14 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 23-31, 3-33, 12-21
JOINTS 1 Brace at Jt(s): 35, 36, 37, 38, 39

REACTIONS (size) 17=0-3-8, 20=20-0-0, 21=20-0-0, 22=20-0-0, 25=20-0-0, 28=20-0-0, 30=20-0-0, 32=20-0-0, 33=20-0-0, 34=20-0-0
Max Horiz 34=-237 (LC 14)
Max Uplift 17=-112 (LC 13), 20=-167 (LC 12), 21=-339 (LC 114), 22=-3 (LC 12), 33=-147 (LC 45), 34=-43 (LC 17)
Max Grav 17=366 (LC 116), 20=1032 (LC 56), 21=128 (LC 12), 22=942 (LC 55), 25=456 (LC 23), 28=545 (LC 23), 30=459 (LC 23), 32=937 (LC 45), 33=251 (LC 106), 34=377 (LC 105)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/72, 2-3=-200/224, 3-4=-124/256, 4-5=-301/188, 5-6=-1017/50, 6-7=-2203/80, 7-8=-2203/80, 8-9=-1012/43, 9-10=-336/182, 10-11=-286/206, 11-12=-142/285, 12-13=-228/242, 13-14=-188/217, 14-15=-220/172, 15-16=-245/170, 2-34=-333/168, 16-17=-309/99
BOT CHORD 33-34=-136/168, 32-33=-136/168, 30-32=-169/146, 28-30=-169/146, 25-28=-169/146, 22-25=-169/146, 21-22=-129/164, 20-21=-129/164, 19-20=-129/164, 18-19=-129/164, 17-18=-129/164
WEBS 31-32=-874/34, 31-36=-856/34, 4-36=-719/19, 22-23=-828/36, 23-39=-810/36, 11-39=-677/51, 13-20=-455/153, 29-31=0/125, 27-29=0/125, 24-27=0/125, 23-24=0/125, 5-37=-7/935, 35-37=-4/847, 35-38=-40/837, 9-38=-15/900, 7-35=-413/70, 29-30=-74/0, 24-25=-74/0, 36-41=-150/18, 37-41=-96/14, 38-40=-75/2, 39-40=-135/0, 3-33=-193/160, 10-40=-112/14, 12-21=-130/201, 14-19=-146/100, 15-18=-139/110, 5-41=-94/15, 8-35=-39/1356, 6-35=-43/1344, 27-28=-83/0

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 1-11-15, Interior (1) 1-11-15 to 5-6-14, Exterior(2R) 5-6-14 to 9-11-15, Interior (1) 9-11-15 to 14-5-0, Exterior(2R) 14-5-0 to 18-7-15, Interior (1) 18-7-15 to 26-1-12 zone; cantilever left and right exposed ; end vertical left 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) 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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.



July 7,2025

Continued on page 2

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Edenton, NC 27932

13) Ceiling dead load (10.0 psf) on member(s). 2-3, 3-4, 4-5, 29-31, 27-29, 24-27, 23-24, 5-37, 35-37, 35-38, 9-38
14) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 33-34, 32-33, 30-32, 28-30, 25-28, 22-25, 21-22, 20-21, 19-20
15) N/A

16) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
17) 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.
18) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
19) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	G2	Attic	1	1	I74682202
					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. Thu Jul 03 17:52:24 Page: 1

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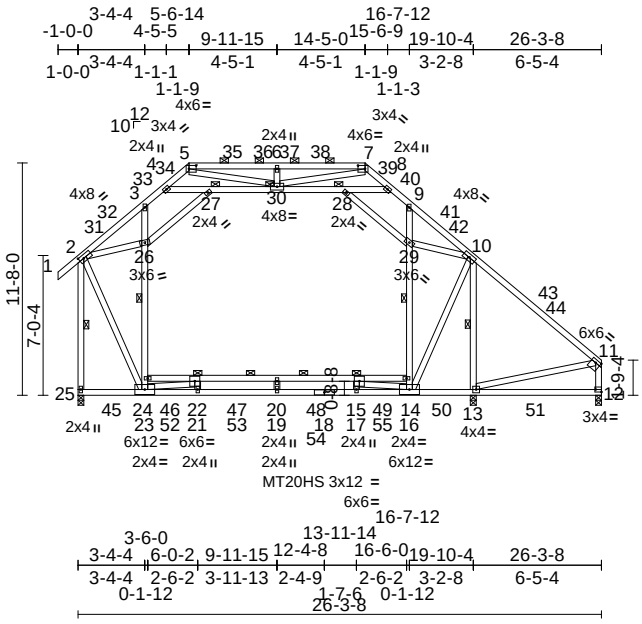

Scale = 1:115.7

Plate Offsets (X, Y): [2:0-2-14,0-2-0], [5:0-4-4,0-2-0], [7:0-4-4,0-2-0], [11:0-3-0,0-1-12], [12:Edge,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	0.65	Vert(LL)	-0.36	19	>650	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.60	19	>394	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.06	12	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.03	12-13	>999	240		
BCDL	10.0										Weight: 249 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP SS
WEBS 2x4 SP No.3 *Except* 3-24,9-14,4-8:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-2-6 max.): 5-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-23, 9-16, 2-25, 10-13
JOINTS 1 Brace at Jt(s): 27, 28, 30

REACTIONS (size) 12=0-3-8, 13=0-3-8, 25=0-3-8
Max Horiz 25=-237 (LC 14)
Max Uplift 12=-140 (LC 13)
Max Grav 12=391 (LC 101), 13=1857 (LC 56), 25=1570 (LC 52)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/72, 2-3=-679/97, 3-4=-520/105, 4-5=-768/85, 5-6=-1537/104, 6-7=-1537/104, 7-8=-785/80, 8-9=-516/101, 9-10=-729/111, 10-11=-323/246, 2-25=-1591/0, 11-12=-330/135
BOT CHORD 24-25=-150/178, 22-24=0/3201, 20-22=0/3201, 15-20=0/3201, 14-15=0/3201, 13-14=-150/211, 12-13=-55/144, 21-23=0/210, 19-21=-2752/0, 17-19=-2752/0, 16-17=0/221
WEBS 23-24=-504/141, 23-26=-511/140, 3-26=-350/132, 14-16=-431/92, 16-29=-426/90, 9-29=-296/141, 4-27=-305/465, 27-30=-419/197, 28-30=-430/224, 8-28=-296/438, 2-24=0/1205, 2-26=-223/29, 26-27=-337/23, 28-29=-269/2, 10-14=0/1125, 10-13=-1785/0, 10-29=-182/17, 21-22=0/269, 15-17=0/274, 21-24=-3060/0, 14-17=-3072/0, 5-30=-52/914, 6-30=-442/66, 7-30=-29/888, 11-13=-209/219, 19-20=-170/115

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 5-6-14, Exterior(2R) 5-6-14 to 9-11-15, Interior (1) 9-11-15 to 14-5-0, Exterior(2R) 14-5-0 to 18-7-15, Interior (1) 18-7-15 to 26-1-12 zone; cantilever left and right exposed ; end vertical left exposed; porch 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.
11) Ceiling dead load (10.0 psf) on member(s). 3-4, 8-9, 4-27, 27-30, 28-30, 8-28
12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 21-23, 19-21, 17-19, 16-17
13) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12. 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.

July 7,2025

Continued on page 2

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Edenton, NC 27932

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

July 7,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	G2A	Attic	2	1	I74682203 Job Reference (optional)

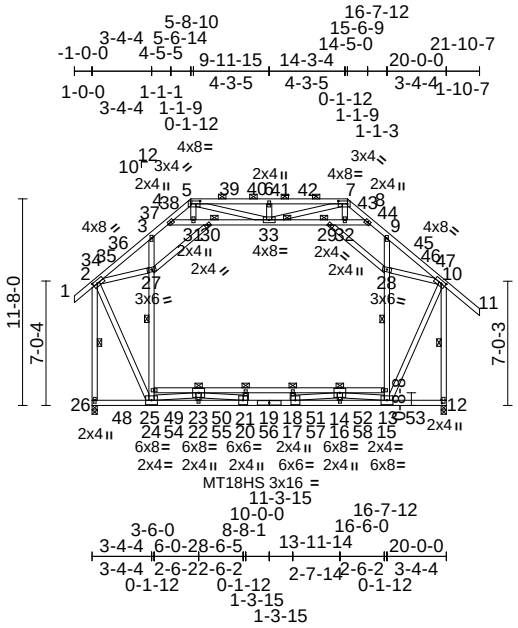

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Plate Offsets (X, Y): [2:0-2-14,0-2-0], [5:0-6-4,0-2-0], [7:0-6-4,0-2-0], [10:0-2-14,0-2-0], [12:0-2-0,0-0-8]

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	0.57	Vert(LL)	-0.24	17-20	>973	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.40	17-20	>588	240	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.05	12	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.03	23-25	>999	240		
BCDL	10.0										Weight: 230 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP SS *Except* 24-15:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 3-25,9-13,4-8:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-11-5 max.): 5-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-24, 9-15, 2-26, 10-12
JOINTS 1 Brace at Jt(s): 29, 30, 33

REACTIONS (lb/size) 12=1180/0-3-8, 26=1129/0-3-8
Max Horiz 26=-254 (LC 14)
Max Grav 12=1638 (LC 48), 26=1559 (LC 48)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-34=-905/188, 34-35=-888/188, 35-36=-812/200, 3-36=-802/208, 3-37=-750/202, 4-37=-702/214, 4-38=-651/156, 5-38=-630/166, 5-39=-1220/27, 39-40=-1220/27, 6-40=-1220/27, 6-41=-1220/27, 41-42=-1220/27, 7-42=-1220/27, 7-43=-616/186, 8-43=-636/176, 8-44=-659/232, 9-44=-707/220, 9-45=-755/232, 45-46=-795/218, 46-47=-858/212, 10-47=-876/212, 2-26=-1591/0, 10-12=-1676/0
BOT CHORD 26-48=-248/293, 25-48=-248/293, 25-49=0/2424, 23-49=0/2424, 23-50=0/2424, 21-50=0/2424, 19-21=0/3698, 18-19=0/3698, 18-51=0/2421, 14-51=0/2421, 14-52=0/2421, 13-52=0/2421, 22-55=-3259/0, 20-55=-3259/0, 20-56=-3259/0, 17-56=-3259/0, 17-57=-3259/0, 16-57=-3259/0
WEBS 24-25=-553/218, 24-27=-520/241, 3-27=-326/135, 13-15=-552/170, 15-28=-520/191, 9-28=-319/122, 10-13=0/1291, 4-31=-246/379, 30-31=-219/358, 30-33=-364/230, 29-33=-379/205, 29-32=-203/365, 8-32=-225/387, 2-25=0/1282, 2-27=-288/211, 10-28=-300/195, 28-29=-450/245, 27-30=-438/263, 5-33=-183/770, 6-33=-450/70, 7-33=-165/776, 22-25=-2281/0, 21-22=0/1318, 17-18=-274/2, 16-18=0/1321, 13-16=-2280/0, 20-21=-274/2

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 5-6-14, Exterior(2R) 5-6-14 to 9-11-15, Interior (1) 9-11-15 to 14-5-0, Exterior(2R) 14-5-0 to 18-7-15, Interior (1) 18-7-15 to 21-10-7 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; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
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.

July 7,2025

Continued on page 2

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11) Ceiling dead load (10.0 psf) on member(s). 3-4, 8-9, 4-31, 30-31, 30-33, 29-33, 29-32, 8-32
12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 22-24, 20-22, 17-20, 16-17, 15-16
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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	G2B	Attic	7	1	I74682204 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. Thu Jul 03 17:52:25 Page: 1
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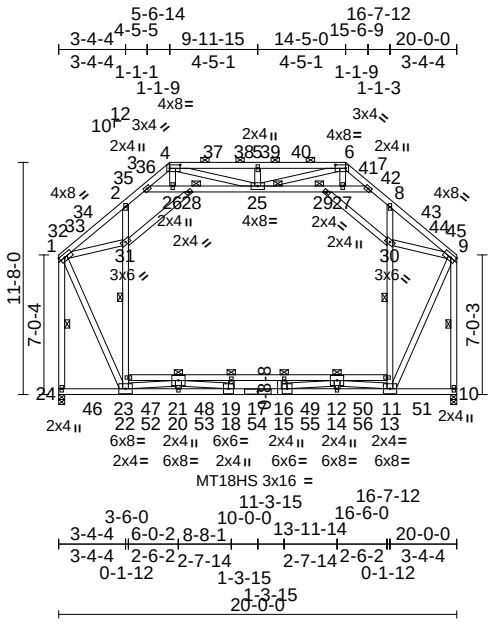

Scale = 1:115.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.24	15-18	>973	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.40	15-18	>587	240	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.05	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	-0.02	23	>999	240		
BCDL	10.0										Weight: 224 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP SS *Except* 22-13:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 2-23,8-11,3-7:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-11-5 max.): 4-6.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-22, 8-13, 1-24, 9-10
JOINTS 1 Brace at Jt(s): 25, 28, 29

REACTIONS (size) 10=0-3-8, 24=0-3-8
Max Horiz 24=-199 (LC 14)
Max Grav 10=1474 (LC 51), 24=1474 (LC 51)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-877/161, 2-3=-732/179, 3-4=-629/137, 4-5=-1222/44, 5-6=-1222/44, 6-7=-629/127, 7-8=-676/95, 8-9=-800/19, 1-24=-1506/0, 9-10=-1506/0
BOT CHORD 23-24=-126/138, 21-23=0/2426, 19-21=0/2426, 16-19=0/3702, 12-16=0/2426, 11-12=0/2426, 10-11=-2/9, 20-22=0/223, 18-20=-3260/0, 15-18=-3260/0, 14-15=-3260/0, 13-14=0/223
WEBS 22-23=-558/183, 22-31=-525/202, 2-31=-330/149, 11-13=-557/147, 13-30=-524/167, 8-30=-330/114, 9-11=0/1254, 3-26=-264/373, 26-28=-240/352, 25-28=-317/199, 25-29=-371/200, 27-29=-211/353, 7-27=-230/373, 5-25=-451/70, 4-26=-170/202, 6-27=-183/200, 4-25=-128/777, 6-25=-141/776, 28-31=-415/194, 29-30=-414/213, 9-30=-290/173, 1-31=-290/158, 18-19=-274/2, 15-16=-274/2, 12-14=-89/222, 20-21=-89/222, 1-23=0/1235, 20-23=-2281/0, 19-20=0/1320, 11-14=-2281/0, 14-16=0/1320

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) 0-1-12 to 3-4-4, Interior (1) 3-4-4 to 5-6-14, Exterior(2R) 5-6-14 to 9-11-15, Interior (1) 9-11-15 to 14-5-0, Exterior(2R) 14-5-0 to 18-7-15, Interior (1) 18-7-15 to 19-10-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) Plates checked for a plus or minus 5 degree rotation about its center.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Ceiling dead load (10.0 psf) on member(s). 2-3, 7-8, 3-26, 26-28, 25-28, 25-29, 27-29, 7-27
11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 20-22, 18-20, 15-18, 14-15, 13-14
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.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

July 7,2025

Continued on page 2

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

15) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

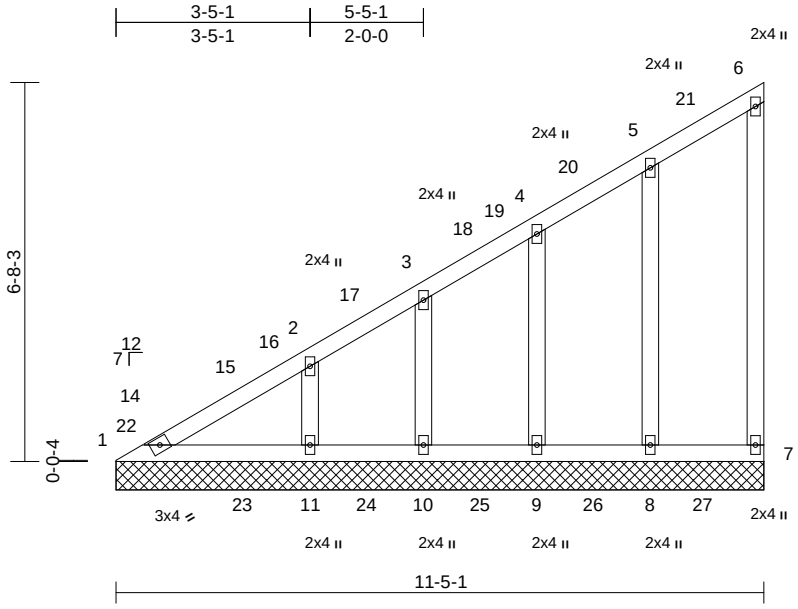
July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	VG1	Valley	1	1	I74682205
					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. Thu Jul 03 17:52:31 ID:fHg?gs9cTmB4_8pLwFsPRDzheK5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:40.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.45	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 64 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 1=11-5-1, 7=11-5-1, 8=11-5-1, 9=11-5-1, 10=11-5-1, 11=11-5-1
Max Horiz 1=140 (LC 16)
Max Uplift 7=-5 (LC 16), 8=-9 (LC 16), 9=-10 (LC 16), 10=-26 (LC 53), 11=-6 (LC 16)
Max Grav 1=309 (LC 46), 7=284 (LC 63), 8=336 (LC 62), 9=338 (LC 61), 10=311 (LC 60), 11=401 (LC 53)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-358/149, 2-3=-216/98, 3-4=-161/78, 4-5=-102/63, 5-6=-85/61, 6-7=-265/44
BOT CHORD	1-11=-99/306, 10-11=-1/3, 9-10=-1/3, 8-9=-1/3, 7-8=-1/3
WEBS	5-8=-281/115, 4-9=-284/93, 3-10=-275/83, 2-11=-318/123

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) 0-0-7 to 3-0-7, Exterior(2N) 3-0-7 to 11-3-12 zone; cantilever 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 5 lb uplift at joint 7, 9 lb uplift at joint 8, 10 lb uplift at joint 9, 26 lb uplift at joint 10 and 6 lb uplift at joint 11.
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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	VG2	Valley	1	1	I74682206
					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. Thu Jul 03 17:52:31 Page: 1

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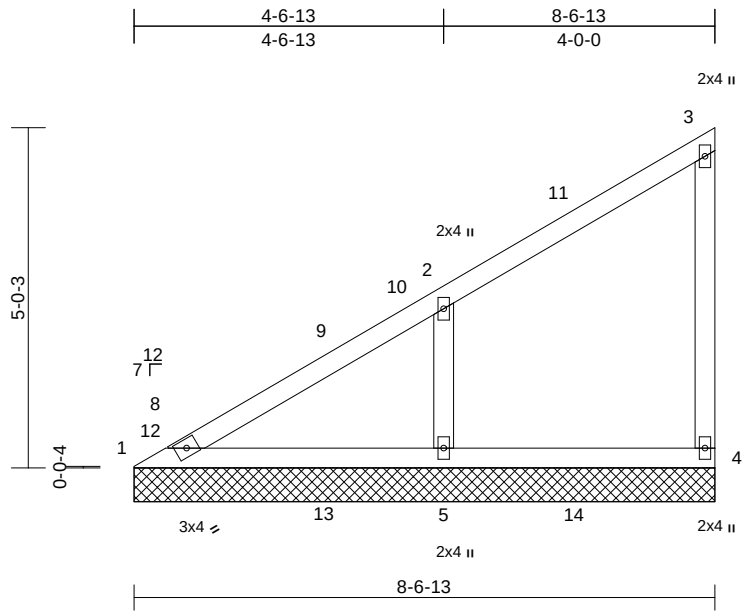

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.85	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 36 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 1=8-6-13, 4=8-6-13, 5=8-6-13
Max Horiz 1=104 (LC 16)
Max Uplift 4=-8 (LC 16), 5=-22 (LC 16)
Max Grav 1=325 (LC 43), 4=307 (LC 51), 5=464 (LC 50)

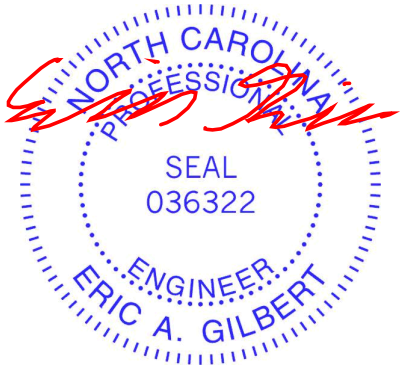
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-436/107, 2-3=-101/61, 3-4=-280/54
BOT CHORD	1-5=-61/371, 4-5=0/0
WEBS	2-5=-358/145

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) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 8-5-7 zone; cantilever 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 8 lb uplift at joint 4 and 22 lb uplift at joint 5.
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.

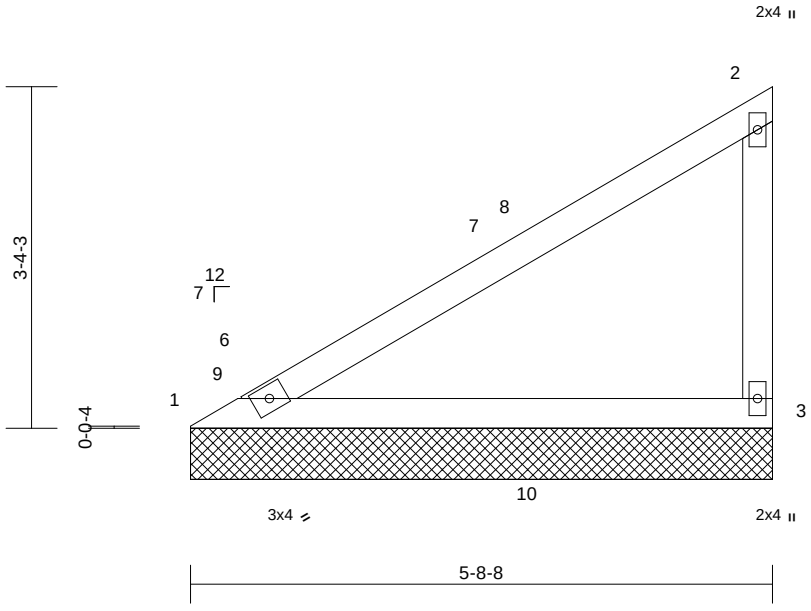
LOAD CASE(S) Standard



July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	VG3	Valley	1	1	I74682207
					Job Reference (optional)



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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	0.73	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.82	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 22 lb	FT = 20%

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

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

REACTIONS (size) 1=5-8-8, 3=5-8-8
Max Horiz 1=67 (LC 16)
Max Uplift 3=-13 (LC 16)
Max Grav 1=364 (LC 42), 3=364 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-550/82, 2-3=-309/81
BOT CHORD 1-3=-105/468

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) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 5-7-3 zone; cantilever 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 13 lb uplift at joint 3.
12) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
13) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	A4T	Piggyback Base	2	1	I74682208 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.10 E Mar 10 2025 Print: 25.1.0 E Mar 10 2025 MiTek Industries, Inc. Mon Jul 07 17:21:43 Page: 1
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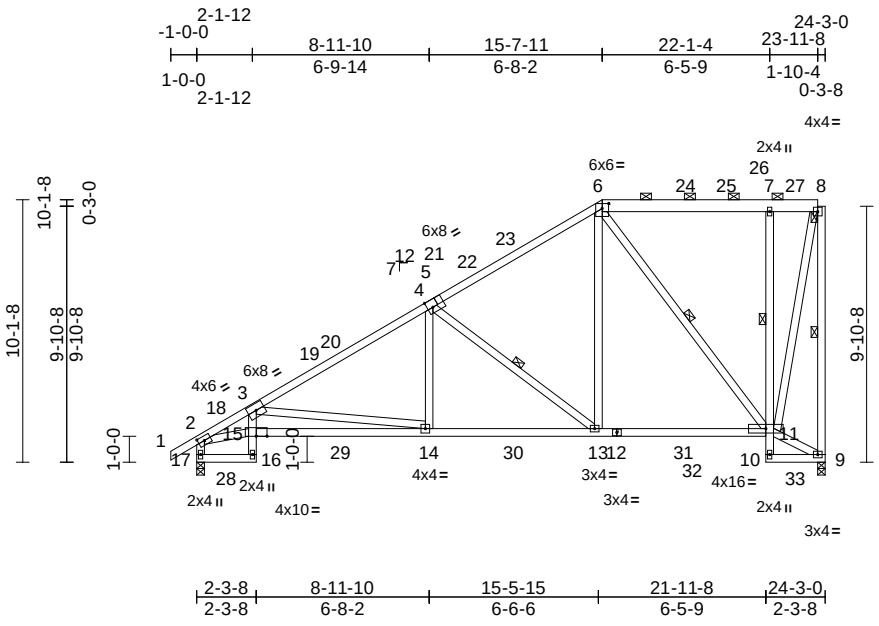

Scale = 1:88.9

Plate Offsets (X, Y): [2:0-2-14,0-2-0], [5:0-2-8,Edge], [6:0-3-0,0-2-5]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.17	14-15	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.28	14-15	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.12	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.05	14-15	>999	240		
BCDL	10.0										Weight: 191 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 6-8:2x6 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 16-3,7-10:2x4 SP No.3, 15-12:2x4 SP SS
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied. Except:
1 Row at midpt 7-11
WEBS 1 Row at midpt 8-9, 4-13, 6-11

REACTIONS (lb/size) 9=916/0-3-8, 17=923/0-3-8
Max Horiz 17=203 (LC 16)
Max Grav 9=1100 (LC 39), 17=1217 (LC 42)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-18=-2534/0, 3-18=-2494/0, 3-19=-1780/0, 19-20=-1703/0, 4-20=-1693/0, 4-5=-1009/0, 5-21=-1000/0, 21-22=-987/0, 22-23=-887/0, 6-23=-874/0, 6-24=-260/4, 24-25=-260/4, 25-26=-262/3, 7-26=-262/3, 7-27=-250/3, 8-27=-250/3, 8-9=-1076/22, 2-17=-1171/0
BOT CHORD 15-16=-28/259, 3-15=0/462, 15-29=-225/2585, 14-29=-225/2584, 14-30=-67/1516, 13-30=-67/1516, 12-13=-31/754, 12-31=-31/754, 31-32=-31/754, 11-32=-31/754, 7-11=-516/75
WEBS 3-14=-1079/171, 4-14=0/457, 4-13=-936/66, 6-13=0/845, 6-11=-901/49, 2-15=-81/2038, 8-11=-14/1108

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 2-1-12, Interior (1) 2-1-12 to 15-7-11, Exterior(2R) 15-7-11 to 20-5-8, Interior (1) 20-5-8 to 24-1-4 zone; cantilever left and right exposed ; end vertical left 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; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
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) 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.
12) 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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	H1	Common	3	1	I74682213
					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. Thu Jul 03 17:52:26 ID:OCYxcFg_g7uhGlMK3K0D69zjXSW-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

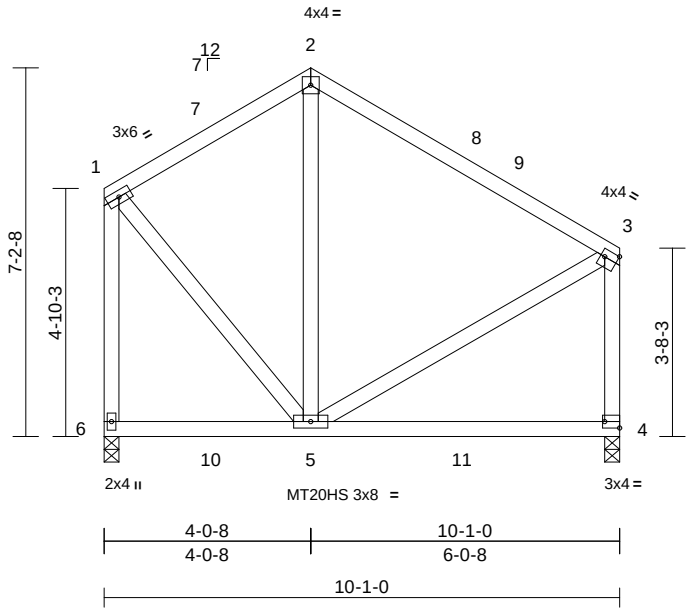

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Plate Offsets (X, Y): [3:Edge,0-1-12], [4:Edge,0-1-8]

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	0.69	Vert(LL)	-0.13	4-5	>919	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.16	4-5	>737	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.00	4-5	>999	240		
BCDL	10.0										Weight: 72 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 4=0-3-8, 6=0-3-8
Max Horiz 6=-54 (LC 12)
Max Grav 4=449 (LC 42), 6=449 (LC 39)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-233/77, 2-3=-269/64, 1-6=-422/90, 3-4=-393/73
BOT CHORD 5-6=-47/57, 4-5=-12/53
WEBS 1-5=-30/252, 3-5=0/169, 2-5=-165/87

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) 6-8-15 to 9-8-15, Interior (1) 9-8-15 to 10-7-11, Exterior(2R) 10-7-11 to 13-7-11, Interior (1) 13-7-11 to 16-6-7 zone; cantilever 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) All plates are MT20 plates unless otherwise indicated.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) 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.
10) 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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	H2G	Roof Special Supported Gable	1	1	I74682215 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. Thu Jul 03 17:52:27 Page: 1
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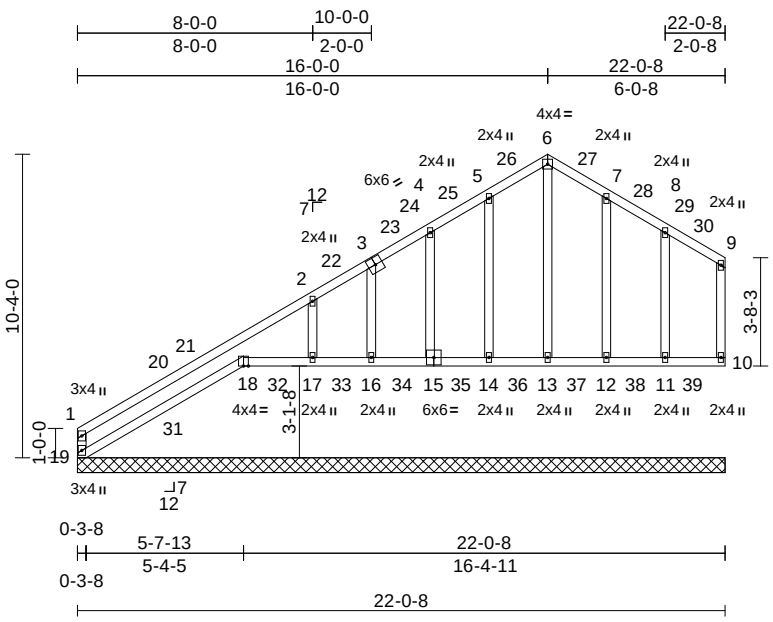

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.81	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horiz(TL)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 125 lb	FT = 20%

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

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

REACTIONS (size) 10=22-0-8, 11=22-0-8, 12=22-0-8, 13=22-0-8, 14=22-0-8, 15=22-0-8, 16=22-0-8, 17=22-0-8, 18=22-0-8, 19=22-0-8
Max Horiz 19=154 (LC 16)
Max Uplift 10=-40 (LC 16), 11=-27 (LC 12), 12=-10 (LC 17), 14=-1 (LC 16), 15=-38 (LC 16), 16=-189 (LC 40), 17=-135 (LC 16)
Max Grav 10=315 (LC 74), 11=309 (LC 73), 12=339 (LC 72), 13=319 (LC 71), 14=325 (LC 70), 15=355 (LC 69), 16=258 (LC 68), 17=521 (LC 29), 18=371 (LC 66), 19=365 (LC 65)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-19=-328/15, 1-2=-179/148, 2-4=-164/76, 4-5=-90/107, 5-6=-95/141, 6-7=-97/142, 7-8=-78/100, 8-9=-93/63, 9-10=-284/63
BOT CHORD 18-19=-62/134, 17-18=-28/40, 16-17=-28/40, 14-16=-26/37, 13-14=-23/32, 12-13=-23/32, 11-12=-23/32, 10-11=-23/32
WEBS 6-13=-264/18, 5-14=-272/40, 4-15=-300/107, 3-16=-202/243, 2-17=-524/288, 7-12=-282/60, 8-11=-270/52

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) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 16-0-0, Corner(3R) 16-0-0 to 19-0-0, Exterior(2N) 19-0-0 to 21-10-12 zone; cantilever 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) 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.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 10, 1 lb uplift at joint 14, 38 lb uplift at joint 15, 189 lb uplift at joint 16, 135 lb uplift at joint 17, 10 lb uplift at joint 12 and 27 lb uplift at joint 11.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 18, 10, 13, 14, 15, 16, 17, 12, 11.
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.

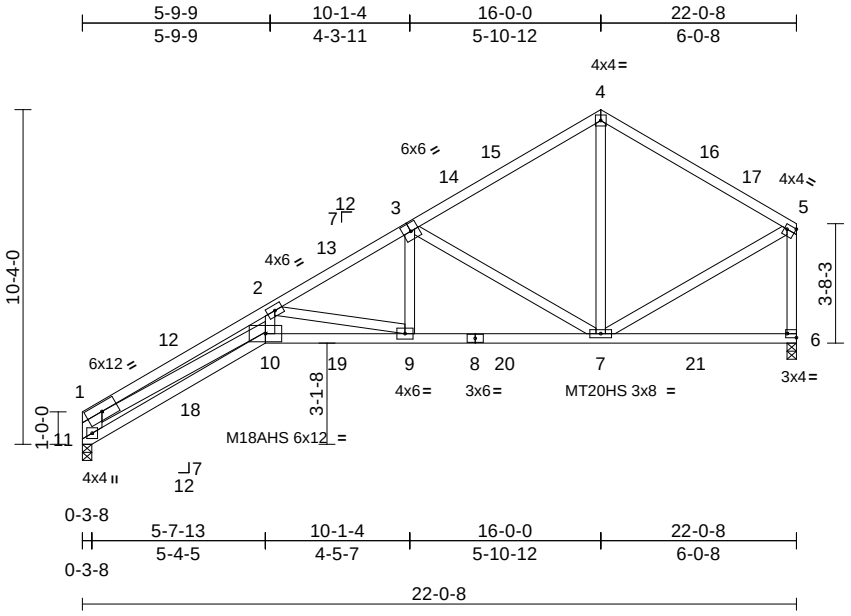
LOAD CASE(S) Standard

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	H2	Roof Special	7	1	I74682216
					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. Thu Jul 03 17:52:27 Page: 1
ID:OCYxcFg_g7uhGlMK3K0D69zjXSW-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:71.1

Plate Offsets (X, Y): [5:Edge,0-1-12], [6:Edge,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	0.91	Vert(LL)	-0.30	9-10	>850	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.61	9-10	>425	240	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.39	6	n/a	n/a	MT20HS	187/143
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.20	9-10	>999	240		
BCDL	10.0										Weight: 130 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 10-8:2x4 SP SS
WEBS 2x4 SP No.3 *Except* 11-1:2x8 SP DSS, 10-1:2x4 SP No.2

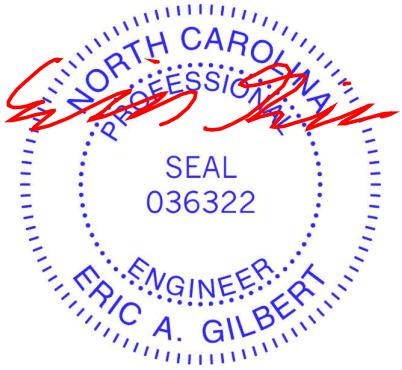
BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 6=0-3-8, 11=0-3-8
Max Horiz 11=152 (LC 16)
Max Grav 6=864 (LC 2), 11=864 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-11=-1044/118, 1-2=-4435/366, 2-4=-1655/103, 4-5=-739/83, 5-6=-807/73
BOT CHORD 10-11=-226/666, 9-10=-388/3479, 7-9=-121/1424, 6-7=-6/54
WEBS 1-10=-246/3500, 2-10=-140/1682, 2-9=-2124/273, 3-9=-1/685, 3-7=-999/121, 5-7=-14/610, 4-7=0/399

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-10 to 3-3-10, Interior (1) 3-3-10 to 16-0-0, Exterior(2R) 16-0-0 to 19-0-0, Interior (1) 19-0-0 to 21-10-12 zone; cantilever 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) All plates are MT20 plates unless otherwise indicated.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) 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.
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



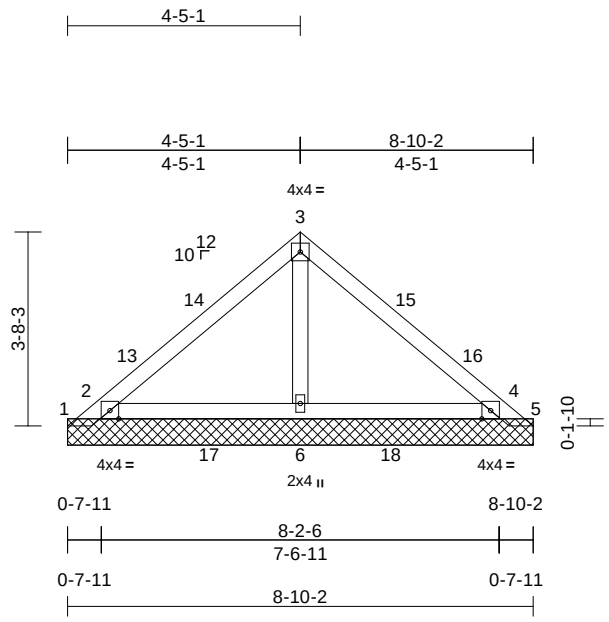
July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	PB3	Piggyback	10	1	I74682217
					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. Thu Jul 03 17:52:29 Page: 1

ID:R9lcXqE3N8mDSjvdpKQZU0zheqG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:43.8

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	0.41	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.60	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 33 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=8-10-2, 2=8-10-2, 4=8-10-2, 5=8-10-2, 6=8-10-2
Max Horiz 1=56 (LC 13)
Max Uplift 1=-449 (LC 42), 2=-73 (LC 16), 4=-64 (LC 17), 5=-446 (LC 43)
Max Grav 1=144 (LC 40), 2=739 (LC 42), 4=729 (LC 43), 5=147 (LC 52), 6=367 (LC 59)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-125/299, 2-3=-180/225, 3-4=-180/224, 4-5=-112/298
BOT CHORD 2-6=-187/65, 4-6=-187/69
WEBS 3-6=-211/2

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) 0-2-12 to 3-2-12, Interior (1) 3-2-12 to 4-5-1, Exterior(2R) 4-5-1 to 7-5-1, Interior (1) 7-5-1 to 8-7-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 449 lb uplift at joint 1 and 446 lb uplift at joint 5.
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

July 7,2025

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

Job	Truss	Truss Type	Qty	Ply	Cooper III Rev.4
	PB3G	Piggyback	1	1	I74682218
					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. Thu Jul 03 17:52:29 Page: 1

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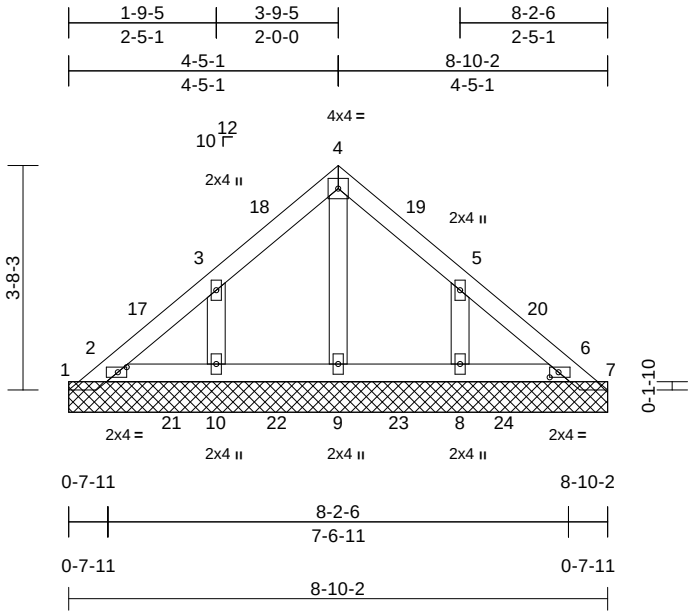


Scale = 1:37.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.32	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 37 lb	FT = 20%

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

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

REACTIONS (size) 1=8-10-2, 2=8-10-2, 6=8-10-2, 7=8-10-2, 8=8-10-2, 9=8-10-2, 10=8-10-2
Max Horiz 1=56 (LC 15)
Max Uplift 1=-129 (LC 42), 2=-3 (LC 59), 6=-12 (LC 60), 7=-127 (LC 45), 8=-33 (LC 17), 10=-32 (LC 16)
Max Grav 1=247 (LC 40), 2=373 (LC 64), 6=364 (LC 62), 7=248 (LC 56), 8=337 (LC 67), 9=315 (LC 66), 10=338 (LC 65)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-70/95, 2-3=-132/49, 3-4=-143/76, 4-5=-143/72, 5-6=-132/49, 6-7=-22/94
BOT CHORD 2-10=-44/67, 9-10=-27/67, 8-9=-27/67, 6-8=-45/67
WEBS 4-9=-201/0, 3-10=-292/132, 5-8=-292/132

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) 0-2-12 to 3-2-12, Interior (1) 3-2-12 to 4-5-1, Exterior(2R) 4-5-1 to 7-5-1, Interior (1) 7-5-1 to 8-7-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 3 lb uplift at joint 2, 12 lb uplift at joint 6, 129 lb uplift at joint 1, 127 lb uplift at joint 7, 3 lb uplift at joint 2 and 12 lb uplift at joint 6.
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.

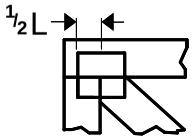
LOAD CASE(S) Standard

July 7,2025

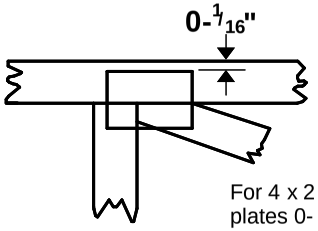
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

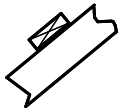
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

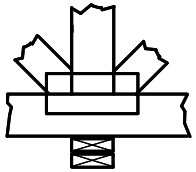
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

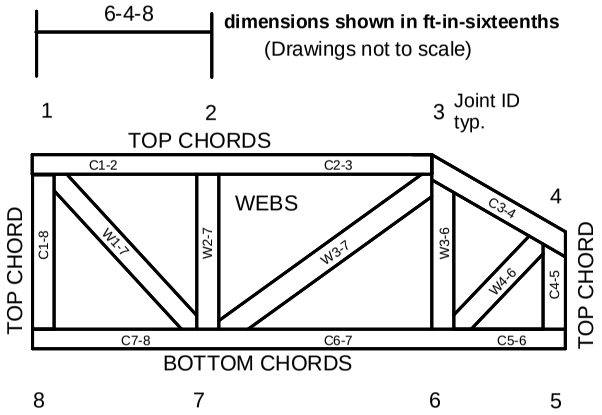


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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®

ENGINEERING BY TRENCO
A MiTek Affiliate

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.