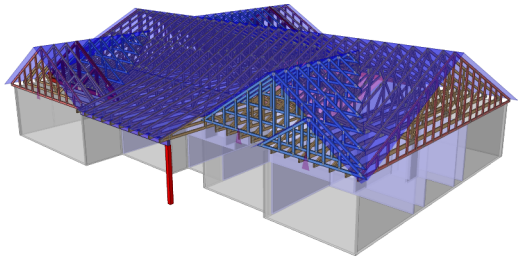
Kempsville Chesapeake Component Plant
3300 Bus Center Dr
Chesapeake, VA 23323

Phone #:757-485-8590



Builder: Mitchell Homes, Inc.

Model: SPENCER

THE PLACEMENT PLAN NOTES:

1. The Placement Plan is a diagram for truss installation. It is not an engineered drawing and has not been reviewed by an engineer. The Owner/Building Designer is responsible for obtaining an engineer's review if one is required by the local jurisdiction.
2. The responsibilities of the Owner, Contractor, Building Designer, Component Designer and Component Manufacturer shall be as set forth in ANSI/TPI 1. Capitalized terms shall be as defined in ANSI/TP 1 unless otherwise indicated.
3. Each Component is designed as an individual component utilizing information provided by others. The Owner/Building Designer is responsible for reviewing all Component Submittal Packages and individual Component Design Drawings for compliance with the Construction Documents and compatibility with the overall Building design.
4. Contractor will not proceed with component installation until the Owner/Building Designer has reviewed the Component Submittal Package. Questions on the suitability of any Component will be resolved by the Building Designer.
5. The Building Designer and Contractor are responsible for all temporary and permanent bracing.
6. The Placement Plan assumes the building is dimensionally correct, structurally sound, and in a suitable condition to support each Component during installation and thereafter, including but not limited to installation of all bearing points. Proper design and construction of all structural components, including foundations, headers, beams, walls and columns are the responsibility of the Owner, Building Designer and Contractor.
7. Do not cut, drill, or modify any Component without first consulting the Component Manufacturer or Building Designer. Damaged Components shall not be installed unless directed by the Building Designer or approved by the Component Manufacturer.
8. Components must be handled and installed following all applicable safety standards and best practices, including but not limited to BCSI, OSHA, TPI and local codes. Failure to properly handle, brace or otherwise install Component can result in serious injury or death.
9. All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility of the building designer and or contractor.

Approved By: _____ **Date:** _____

General Notes:

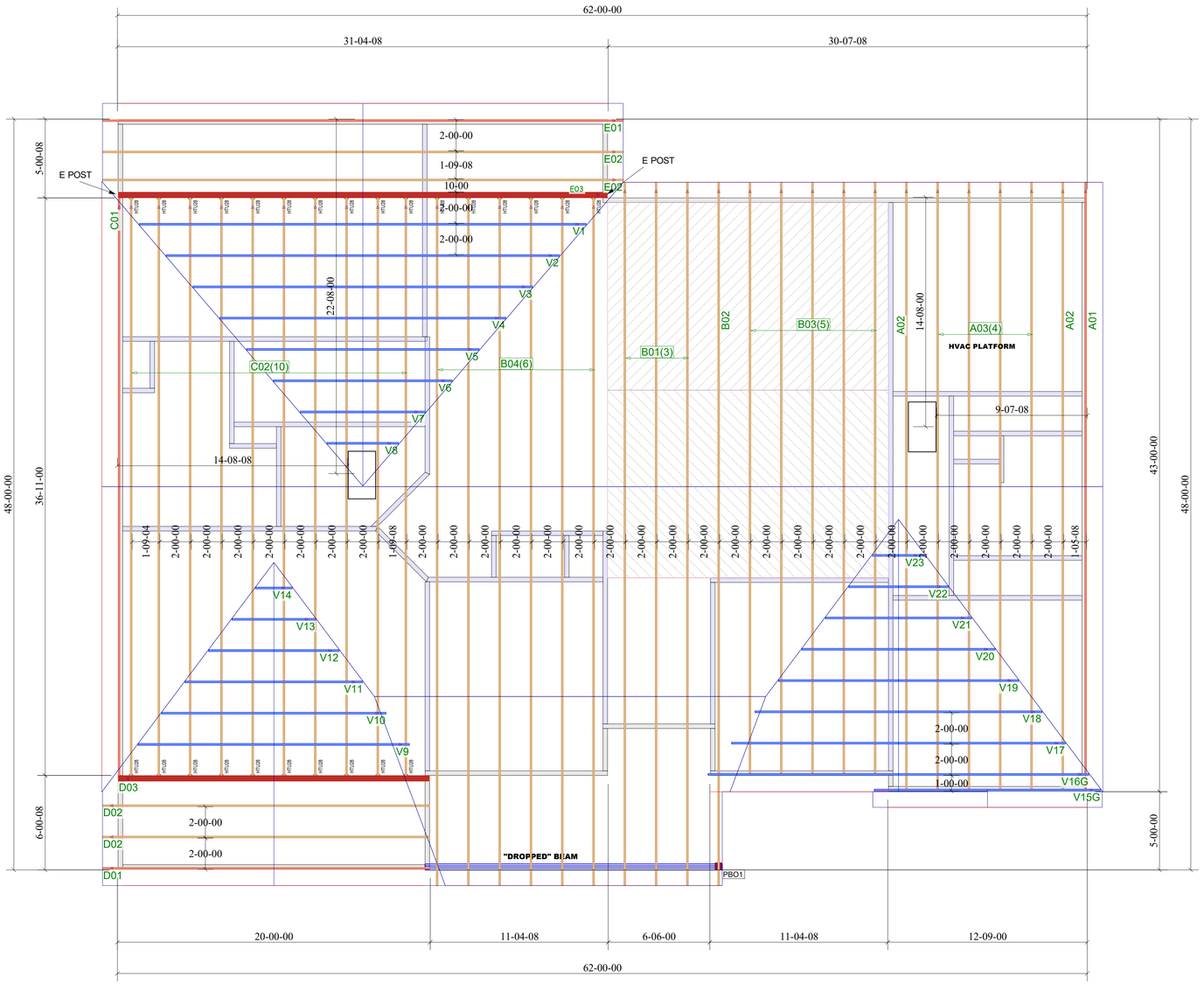
** CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION.

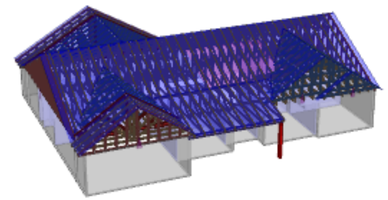
** ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.

** TRUSS TO TRUSS CONNECTIONS ARE TOE-NAILED, UNLESS NOTED OTHERWISE.

** DAMAGED COMPONENTS SHOULD NOT BE INSTALLED UNLESS TOLD TO BY THE COMPONENT PLANT.

** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.

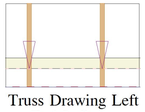




Hatch Legend
4/12 VAULT

Truss Connector Total List		
Manuf	Product	Qty
Simpson	HTU28	26

APPROX. ROOF AREA. (DOES NOT INCLUDE AREA UNDER VALLEYS)
3298.11



Truss Drawing Left End Indicator

FB# - Flush Beam
DB# - Dropped Beam
BBO - Beam that is not supplied by the component plant

** All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility of the bldg designer and or contractor.

** DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH.

** GIRDERS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS.

Revisions	
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor systems and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding the bracing consult "Bracing of Wood Trusses" available from the Truss Plate Institute, 583 D'Onofrio Drive; Madison, WI 53179

Kempsville Building Materials
A Division of the Carter Lumber Company

Mitchell Homes, Inc.

SPENCER

Roof PLACEMENT PLAN

Scale:	NTS
Date:	3/3/2025
Designer:	Jon Rife
Project Number:	25020278-B
Sheet Number:	1/1

** TRIANGULAR SYMBOL NEAR END OF TRUSS INDICATES LEFT END OF TRUSS AS SHOWN ON INDIVIDUAL TRUSS DRAWINGS.

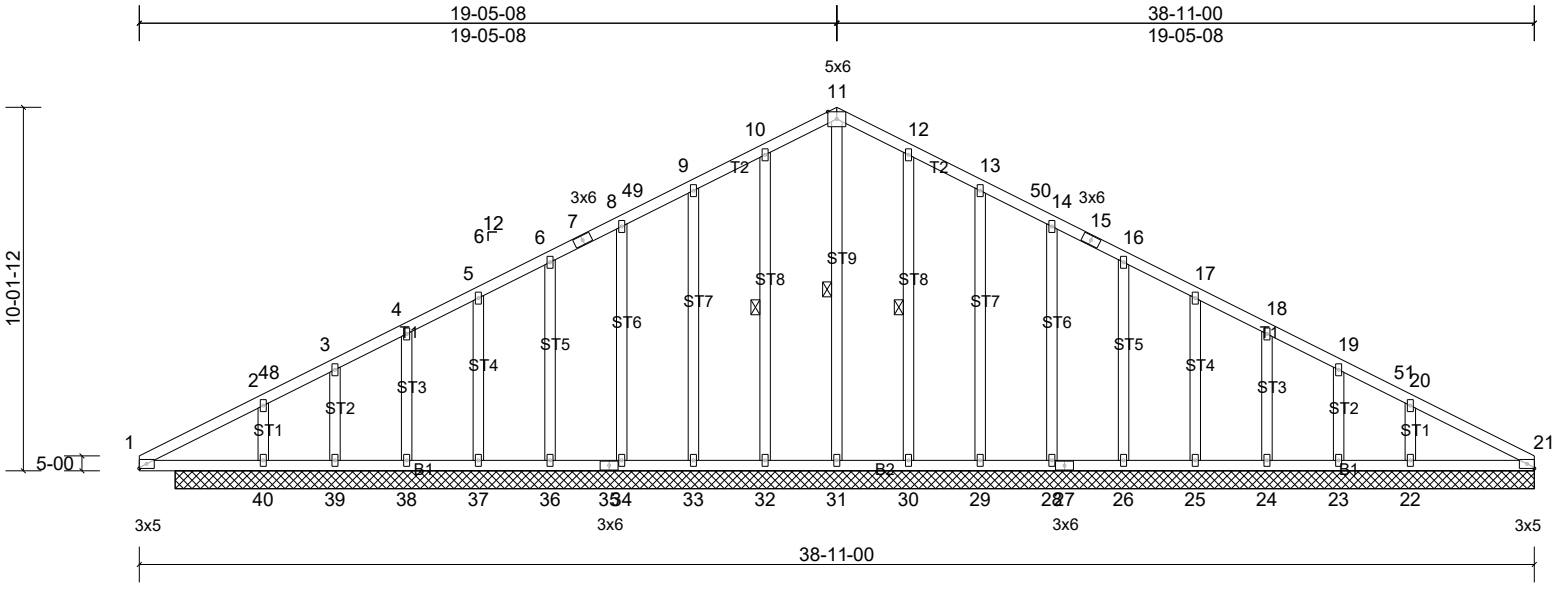
** PLUMBING DROPS NOTED ARE IN THE APPROXIMATE LOCATIONS PER PLAN. BUILDER TO VERIFY LOCATIONS BEFORE SETTING TRUSSES.

** REFER TO FINAL TRUSS ENGINEERING SHEETS FOR PLY TO PLY CONNECTIONS.

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	A01	Common Supported Gable	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:05 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-f71A6GXmDB?IToMddxYhKumceYzEfH9kuevRwpzegkO



Scale = 1:64.6

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.26	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.02	21	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 258 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 10-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 11-31, 10-32, 12-30

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 37-11-00.

(lb) - Max Horiz 40=219 (LC 15)

Max Uplift All uplift 100 (lb) or less at joint(s) 21, 24, 25, 26, 28, 29, 30, 32, 33, 34, 36, 37, 38, 44 except 22=-152 (LC 15), 23=-161 (LC 16), 39=-171 (LC 15), 40=-157 (LC 16)

Max Grav All reactions 250 (lb) or less at joint(s) 21, 23, 24, 25, 26, 28, 29, 33, 34, 36, 37, 38, 39, 44 except 22=411 (LC 39), 30=258 (LC 22), 31=360 (LC 28), 32=258 (LC 21), 40=407 (LC 38)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-156/271, 3-48=-94/257, 3-4=-23/267, 4-5=0/280, 5-6=0/292, 6-7=0/280, 7-8=0/305, 8-49=-15/298, 9-49=-10/316, 9-10=-34/376, 10-11=-53/433, 11-12=-53/433, 12-13=-34/376, 13-50=-10/316, 14-50=-15/298, 14-15=0/305, 15-16=0/280, 16-17=0/292, 17-18=0/280, 18-19=-24/268, 19-51=-92/256, 20-21=-156/271

WEBS 11-31=-319/0, 2-40=-248/270, 20-22=-249/273

NOTES

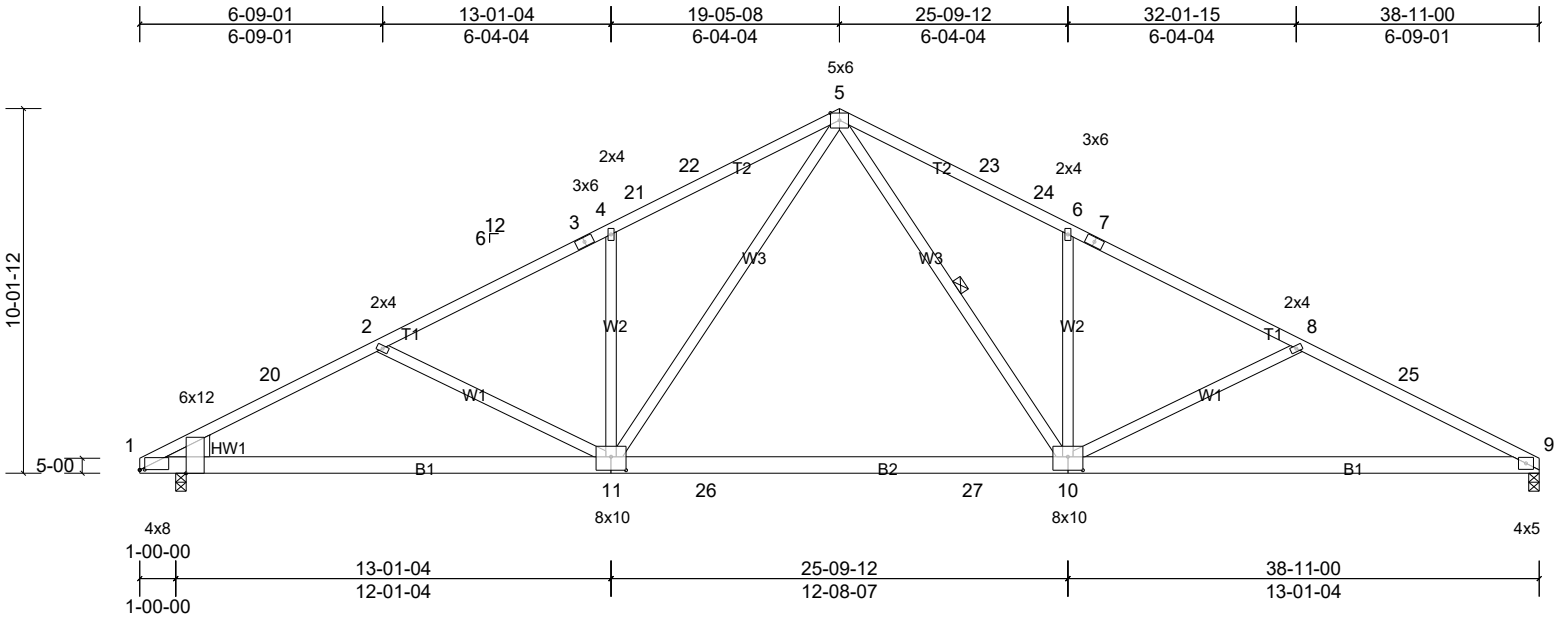
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-10-13, Exterior(2N) 3-10-13 to 19-5-8, Corner(3R) 19-5-8 to 23-5-8, Exterior(2N) 23-5-8 to 38-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable studs spaced at 2-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 32, 33, 34, 36, 37, 38, 30, 29, 28, 26, 25, 24 except (jt=lb) 39=171, 40=157, 23=161, 22=152.
10) Non Standard bearing condition. Review required.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	A02	Common	2	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:05 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-f71A6GXmDB?IToMddxYhKumTQYpIf57kuevRwpzegkO



Scale = 1:64.3

Plate Offsets (X, Y): [1:1-11,0-02], [1:1-01,Edge], [10:5-00,4-08], [11:5-00,4-08]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.37	10-11	>999	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.59	10-11	>792	180		
TCDL	10.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.06	9	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 233 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.1 *Except* T1:2x4 SP No.2
BOT CHORD	2x6 SP 2400F 2.0E *Except* B2:2x6 SP No.2
WEBS	2x4 SP No.3 *Except* W3:2x4 SP No.2
WEDGE	Left: 2x8 SP 2400F 2.0E

BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	1 Row at midpt 5-10

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 1=1629/3-08, (min. 1-08), 9=1546/3-08, (min. 1-08)
Max Horiz 1=219 (LC 15)
Max Uplift 1=-421 (LC 15), 9=-404 (LC 16)
Max Grav 1=1778 (LC 4), 9=1687 (LC 4)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-20=-3304/690, 2-20=-3259/712, 2-3=-2997/592, 3-4=-2863/611, 4-21=-3075/743, 21-22=-3019/753, 5-22=-2994/774, 5-23=-3162/811, 23-24=-3184/790, 6-24=-3240/780, 6-7=-3047/645, 7-8=-3181/627, 8-25=-3557/791, 9-25=-3616/775
BOT CHORD	1-11=-731/2853, 11-26=-230/1855, 26-27=-230/1855, 10-27=-230/1855, 9-10=-600/3175
WEBS	4-11=-556/385, 5-11=-423/1278, 2-11=-337/302, 5-10=-468/1555, 6-10=-524/372, 8-10=-529/363

NOTES

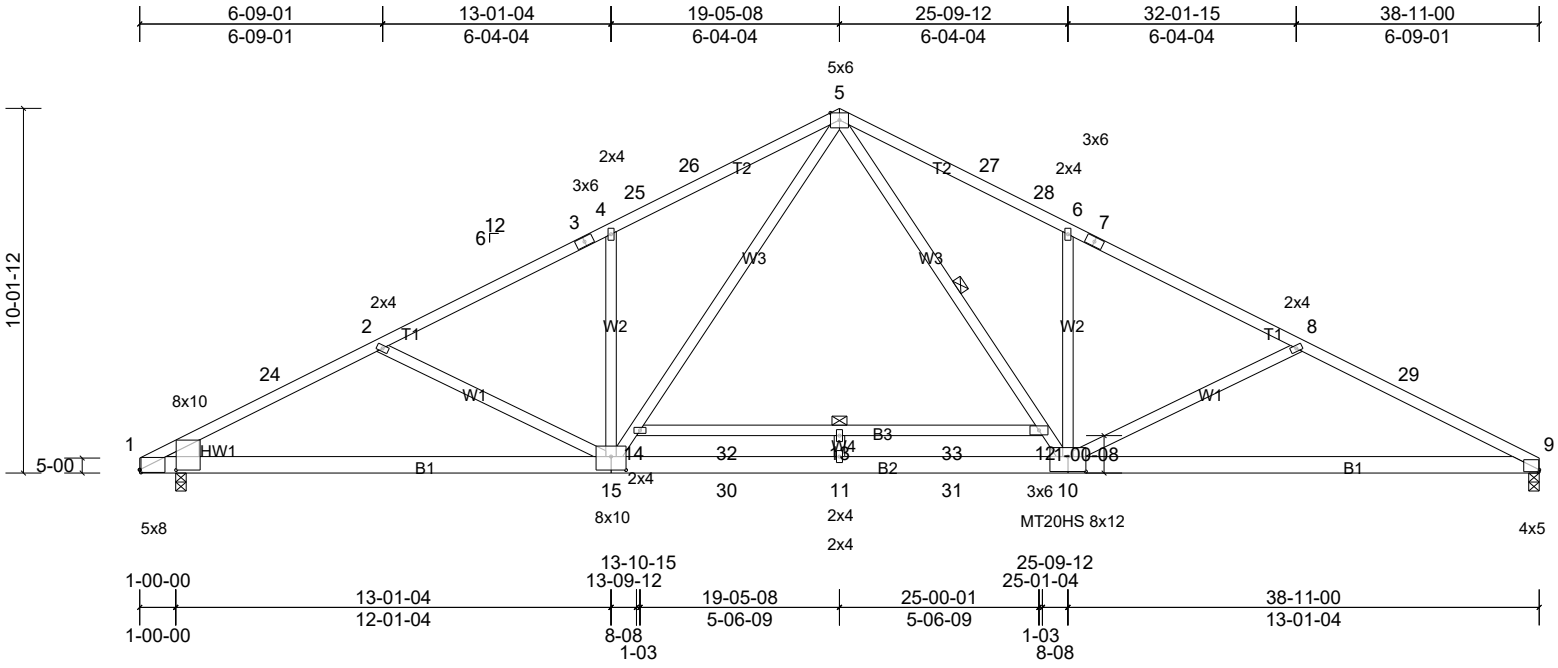
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-10-13, Interior (1) 3-10-13 to 19-5-8, Exterior(2R) 19-5-8 to 23-4-5, Interior (1) 23-4-5 to 38-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 404 lb uplift at joint 9 and 421 lb uplift at joint 1.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	A03	Common	4	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:06 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-7JbYKbYO_U785yxpBe3wt5JbbxD2OZJt6Ie_TFzegkN



Scale = 1:64.3

Plate Offsets (X, Y): [1:0-07,0-14], [1:0-01,1-00-03], [9:0-03,0-10], [10:6-00,5-00], [15:5-00,4-08]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.50	11	>943	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.84	11-15	>557	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.07	9	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 249 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP 2400F 2.0E *Except* T1:2x4 SP No.2
BOT CHORD	2x6 SP 2400F 2.0E *Except* B3:2x4 SP No.2
WEBS	2x4 SP No.3 *Except* W3:2x4 SP No.2
WEDGE	Left: 2x6 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 5-10

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 1=1747/3-08, (min. 1-11), 9=1657/3-08, (min. 1-09)
Max Horiz 1=219 (LC 15)
Max Uplift 1=-351 (LC 15), 9=-337 (LC 16)
Max Grav 1=2023 (LC 4), 9=1919 (LC 4)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-24=-3816/542, 2-24=-3765/566, 2-3=-3509/435, 3-4=-3390/454, 4-25=-3607/586, 25-26=-3585/595, 5-26=-3525/616, 5-27=-3723/651, 27-28=-3746/630, 6-28=-3802/620, 6-7=-3606/485, 7-8=-3740/467, 8-29=-4107/633, 9-29=-4179/616
BOT CHORD	1-15=-605/3296, 15-30=-112/2238, 11-30=-112/2238, 11-31=-112/2238, 10-31=-112/2238, 9-10=-460/3663
WEBS	4-15=-560/383, 14-15=-380/1419, 5-14=-342/1545, 2-15=-302/320, 6-10=-524/373, 5-12=-382/1872, 10-12=-420/1747, 8-10=-513/367, 11-13=-318/0

NOTES

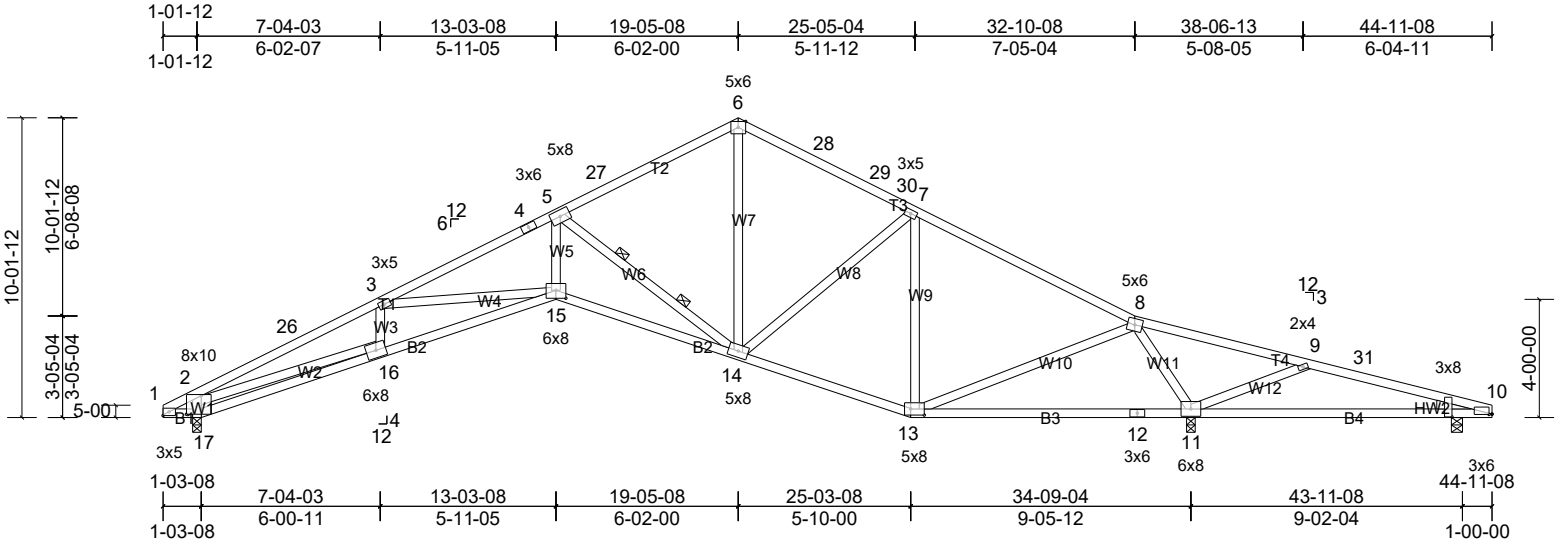
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-10-13, Interior (1) 3-10-13 to 19-5-8, Exterior(2R) 19-5-8 to 23-4-5, Interior (1) 23-4-5 to 38-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; 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) * 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 337 lb uplift at joint 9 and 351 lb uplift at joint 1.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	B01	Roof Special	3	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:06 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-7JbYKbYO_U785yxpBe3wt5JcXxBVOaFt6Ie_TFzegkN



Scale = 1:78.3

Plate Offsets (X, Y): [2:6-00,7-08], [10:1-03,0-02], [10:1-02,1-04-04], [13:5-08,2-08], [15:4-00,3-04]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	0.40	15-16	>999	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.74	15-16	>545	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.44	11	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 235 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.1 *Except* T3,T1:2x4 SP No.2
BOT CHORD	2x4 SP No.2 *Except* B2:2x4 SP No.1
WEBS	2x4 SP No.3 *Except* W2,W5:2x4 SP No.2
WEDGE	Right: 2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied or 4-11-5 oc bracing.
WEBS	2 Rows at 1/3 pts 5-14

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 10=-43/4-08, (min. 1-08), 11=2382/3-08, (min. 2-13), 17=1329/3-08, (min. 1-08)
Max Horiz 17=220 (LC 15)
Max Uplift 10=-195 (LC 21), 11=-552 (LC 16), 17=-356 (LC 15)
Max Grav 10=239 (LC 45), 11=2382 (LC 1), 17=1375 (LC 21)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-525/190, 2-26=-4216/1220, 3-26=-4133/1236, 3-4=-4047/1157, 4-5=-3900/1162, 5-27=-1477/569, 6-27=-1401/599, 6-28=-1404/607, 28-29=-1408/593, 29-30=-1472/578, 7-30=-1485/575, 7-8=-1205/467, 8-9=-604/1820, 9-31=-350/1194, 10-31=-360/1163

BOT CHORD 1-17=-252/607, 16-17=-405/453, 15-16=-1210/3864, 14-15=-906/3765, 13-14=-179/1049, 12-13=-656/274, 11-12=-656/274, 10-11=-1110/368

WEBS 2-17=-1459/674, 2-16=-874/3372, 6-14=-289/905, 7-14=-67/496, 7-13=-809/311, 8-13=-444/1649, 8-11=-2280/868, 9-11=-993/420, 3-16=-264/185, 3-15=-268/286, 5-15=-588/2508, 5-14=-3047/929

NOTES

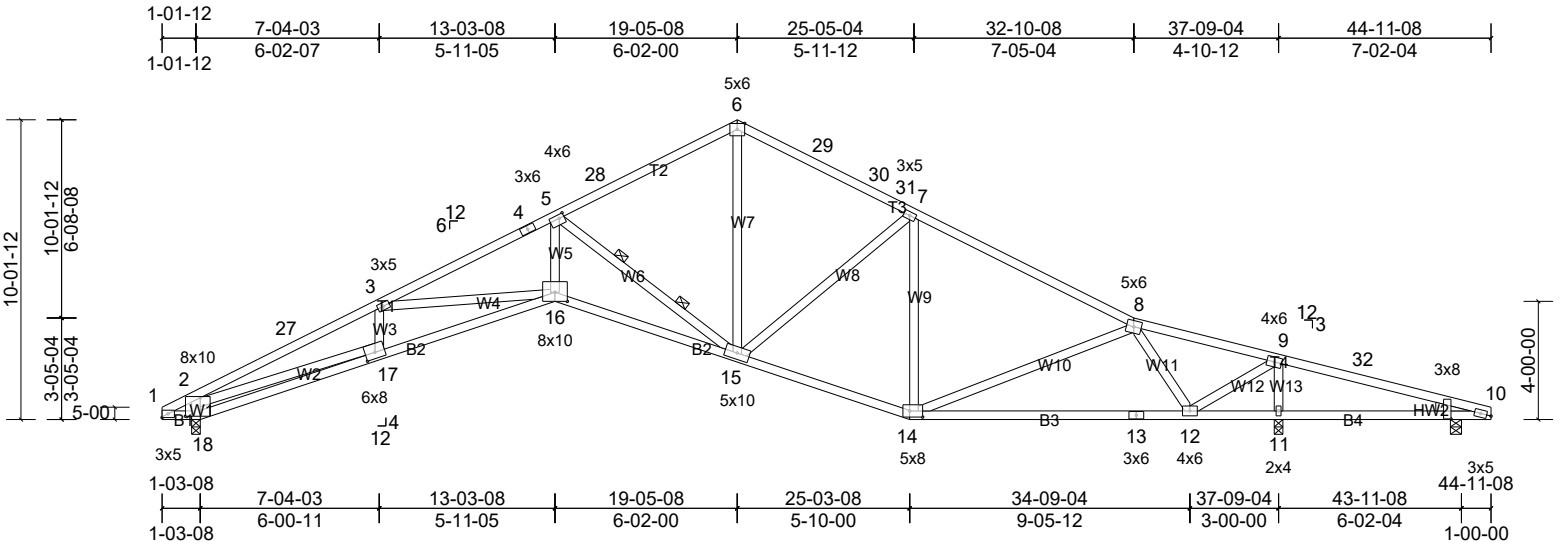
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 4-6-0, Interior (1) 4-6-0 to 19-5-8, Exterior(2R) 19-5-8 to 23-11-8, Interior (1) 23-11-8 to 44-11-8 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 552 lb uplift at joint 11, 356 lb uplift at joint 17 and 195 lb uplift at joint 10.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	B02	Roof Special	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:07 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-bV9xXxZ0loF?i5W?kMa9PJrmVLW97?m1LyOX?izegkM



Scale = 1:78.3

Plate Offsets (X, Y): [2:6-00,7-08], [5:2-00,1-08], [10:1-14,1-08], [10:1-02,1-04-04], [14:5-04,2-08], [16:5-00,3-11], [17:4-00,2-08]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	0.47	16-17	>935	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.86	16-17	>511	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.51	11	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 236 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.1 *Except* T4:2x4 SP No.2
BOT CHORD	2x4 SP No.2 *Except* B2:2x4 SP No.1
WEBS	2x4 SP No.3 *Except* W2,W5:2x4 SP No.2
WEDGE	Right: 2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied or 2-4-13 oc bracing.
WEBS	2 Rows at 1/3 pts 5-15

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 10=-160/4-08, (min. 1-08), 11=2323/3-08, (min. 2-12), 18=1504/3-08, (min. 1-08)
Max Horiz 18=220 (LC 15)
Max Uplift 10=-277 (LC 21), 11=-535 (LC 16), 18=-393 (LC 15)
Max Grav 10=136 (LC 45), 11=2323 (LC 1), 18=1525 (LC 21)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-600/205, 2-27=-4933/1458, 3-27=-4847/1473, 3-4=-4864/1445, 4-5=-4742/1463, 5-28=-1957/725, 6-28=-1882/755, 6-29=-1886/767, 29-30=-1889/753, 30-31=-1954/738, 7-31=-1967/735, 7-8=-1919/706, 8-9=-693/293, 9-32=-398/1490, 10-32=-404/1439

BOT CHORD 1-18=-267/681, 17-18=-412/489, 16-17=-1342/4533, 15-16=-1137/4463, 14-15=-403/1675, 13-14=-356/1253, 12-13=-356/1253, 11-12=-1408/436, 10-11=-1408/436

WEBS 3-17=-332/208, 6-15=-431/1333, 7-15=-143/316, 7-14=-522/220, 8-14=-115/528, 2-18=-1640/729, 8-12=-1353/542, 2-17=-1076/3962, 5-16=-690/2946, 3-16=-155/251, 5-15=-3442/1036, 9-11=-2212/701, 9-12=-603/2306

NOTES

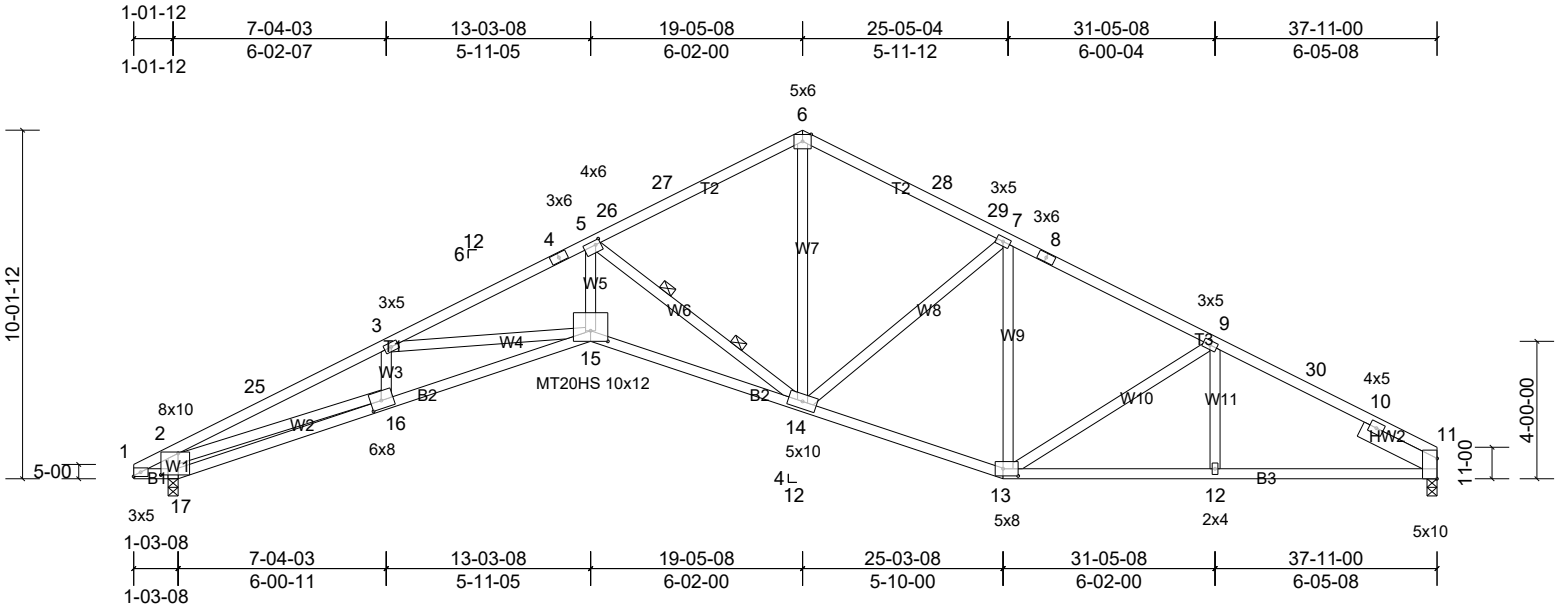
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 4-6-0, Interior (1) 4-6-0 to 19-5-8, Exterior(2R) 19-5-8 to 23-11-8, Interior (1) 23-11-8 to 44-11-8 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 535 lb uplift at joint 11, 393 lb uplift at joint 18 and 277 lb uplift at joint 10.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	B03	Roof Special	5	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:07 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-bV9xXxZ0loF?i5W?kMa9PJrn7LUR72u1LyOX?izegkM



Scale = 1:67.3

Plate Offsets (X, Y): [2:6-00,7-08], [5:1-12,1-08], [11:7-01,Edge], [13:5-04,2-08], [15:6-00,3-11], [16:3-12,2-12]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	0.52	15	>853	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.93	15-16	>475	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.58	11	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 211 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1 *Except* B1:2x4 SP No.2
WEBS	2x4 SP No.3 *Except* W2:2x4 SP No.1, W5,W6:2x4 SP No.2
SLIDER	Right 2x6 SP No.2 -- 2-06-00

BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	2 Rows at 1/3 pts 5-14

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 11=1498/3-08, (min. 1-12), 17=1595/3-08, (min. 1-08)
Max Horiz 17=234 (LC 15)
Max Uplift 11=-385 (LC 16), 17=-416 (LC 15)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-590/204, 2-25=-5317/1406, 3-25=-5232/1426, 3-4=-5340/1316, 4-5=-5218/1333, 5-26=-2207/590, 26-27=-2152/599, 6-27=-2132/620, 6-28=-2134/630, 28-29=-2198/601, 7-29=-2211/598, 7-8=-2135/616, 8-9=-2245/599, 9-30=-2506/624, 10-30=-2549/610

BOT CHORD 1-17=-263/670, 16-17=-421/458, 15-16=-1460/4901, 14-15=-1220/4915, 13-14=-354/2020, 12-13=-449/2172, 11-12=-449/2172

WEBS 2-17=-1729/675, 2-16=-1011/4340, 3-16=-372/201, 5-15=-769/3207, 5-14=-3627/1106, 6-14=-333/1540, 7-14=-211/312, 7-13=-343/137, 9-13=-317/224

NOTES

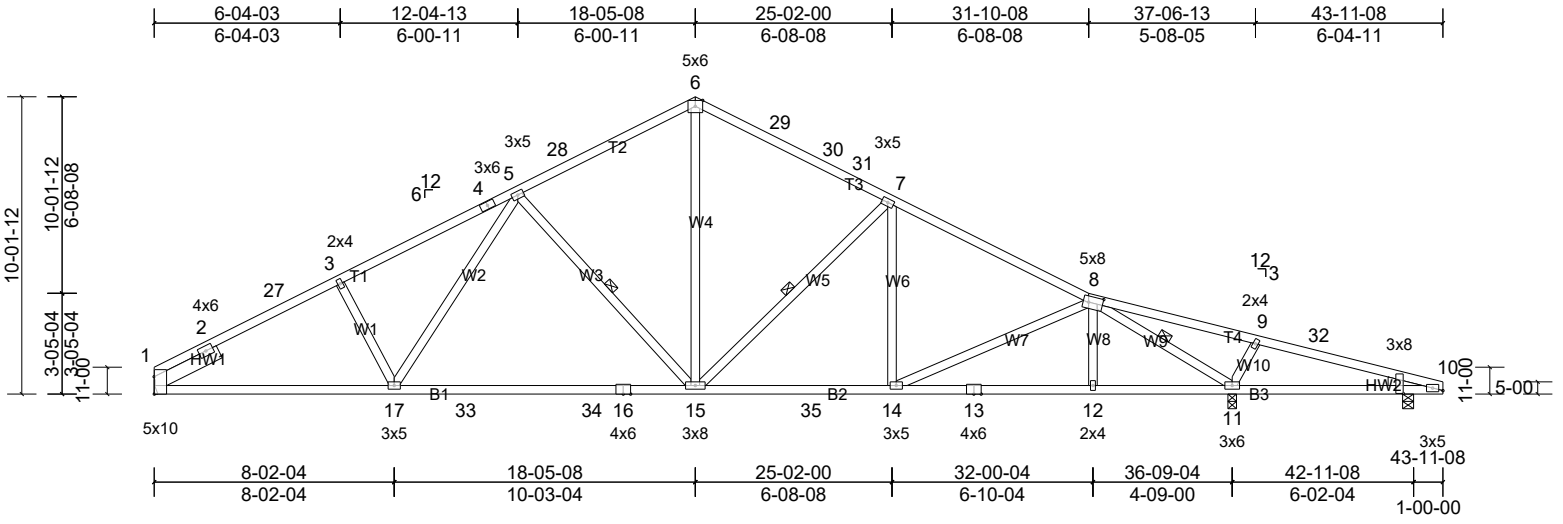
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-9-9, Interior (1) 3-9-9 to 19-5-8, Exterior(2R) 19-5-8 to 23-3-1, Interior (1) 23-3-1 to 37-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; 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) * 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.
7) Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 385 lb uplift at joint 11 and 416 lb uplift at joint 17.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	B04	Roof Special	6	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:08 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-3ijJkHafW6NsKF5CI35OyWOyalr?sWwAac75X8zegkL



Scale = 1:78.9

Plate Offsets (X, Y): [1:7-01,Edge], [8:5-12,2-08], [10:1-11,0-07], [10:1-02,1-04-04]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.45	15-17	>985	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.79	15-17	>562	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.10	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 237 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2 *Except* T1:2x4 SP 2400F 2.0E
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.3
WEDGE	Right: 2x4 SP No.3
SLIDER	Left 2x6 SP No.2 -- 2-06-00

BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	1 Row at midpt 5-15, 7-15, 8-11

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 1=1461/ Mechanical, (min. 1-08), 10=111/4-08, (min. 1-08), 11=2014/3-08, (min. 2-09)
Max Horiz 1=-233 (LC 16)
Max Uplift 1=-376 (LC 15), 10=-104 (LC 12), 11=-539 (LC 16)
Max Grav 1=1616 (LC 5), 10=280 (LC 45), 11=2183 (LC 4)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-27=-3031/822, 3-27=-2944/846, 3-4=-2915/860, 4-5=-2803/877, 5-28=-2107/704, 6-28=-2030/733, 6-29=-2020/726, 29-30=-2028/710, 30-31=-2062/703, 7-31=-2115/694, 7-8=-2594/763, 8-9=-194/804, 9-32=-140/626, 10-32=-151/580

BOT CHORD 1-17=-636/2577, 17-33=-474/2203, 33-34=-474/2203, 16-34=-474/2203, 15-16=-474/2203, 15-35=-440/2197, 14-35=-440/2197, 13-14=-463/2112, 12-13=-463/2112, 11-12=-459/2119, 10-11=-573/185

WEBS 3-17=-192/259, 5-17=-131/565, 5-15=-773/399, 6-15=-384/1444, 7-15=-705/364, 7-14=0/253, 8-11=-3454/888, 9-11=-562/260

NOTES

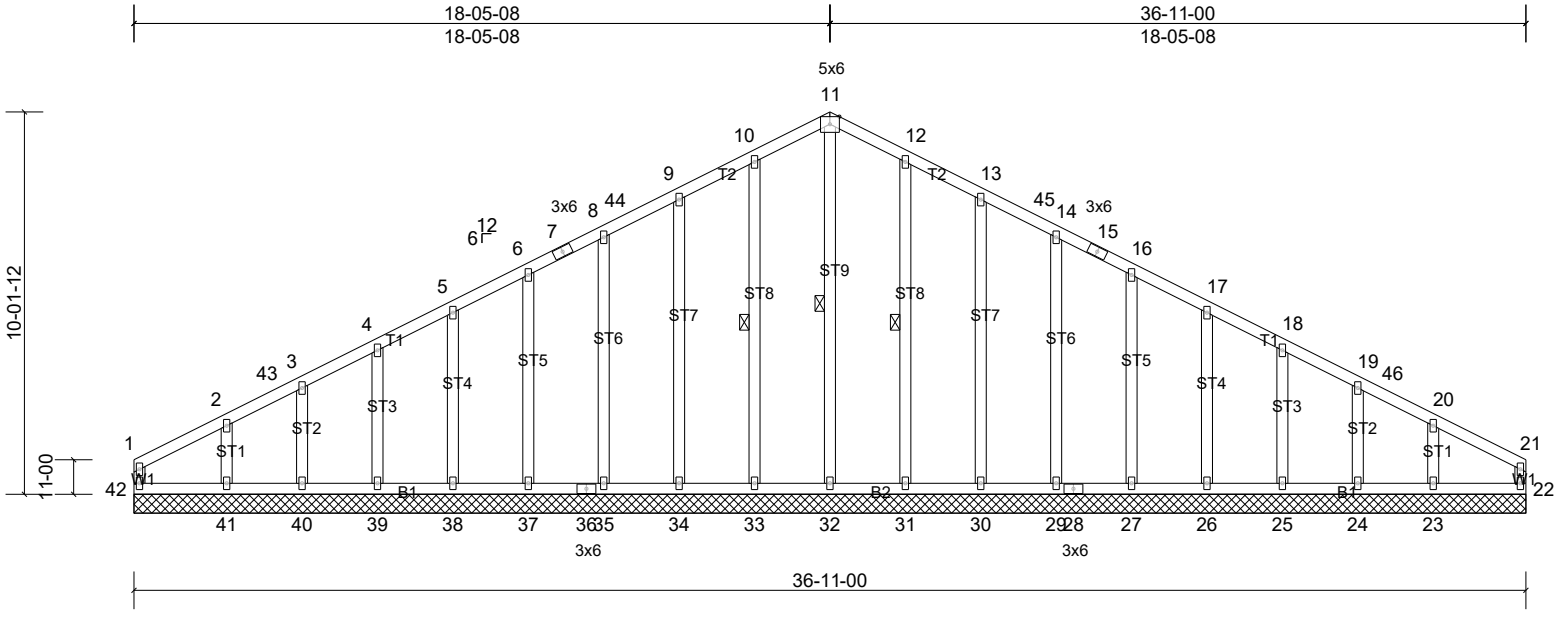
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 4-4-12, Interior (1) 4-4-12 to 18-5-8, Exterior(2R) 18-5-8 to 22-10-4, Interior (1) 22-10-4 to 43-11-8 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 376 lb uplift at joint 1, 539 lb uplift at joint 11 and 104 lb uplift at joint 10.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	C01	Common Supported Gable	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:09 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-3ijJkHafW6NsKF5CI35OyWO8ll2HseuAac75X8zegkL



Scale = 1:61.4

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.01	22	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 254 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 11-32, 10-33, 12-31

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 36-11-00.

(lb) - Max Horiz 42=-184 (LC 11)

Max Uplift All uplift 100 (lb) or less at joint(s) 22, 24, 25, 26, 27, 29, 30, 31, 33, 34, 35, 37, 38, 39, 40, 42 except 23=-171 (LC 16), 41=-186 (LC 15)

Max Grav All reactions 250 (lb) or less at joint(s) 22, 23, 24, 25, 26, 27, 29, 30, 31, 33, 34, 35, 37, 38, 39, 40, 41, 42 except 32=265 (LC 16)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 6-7=-123/306, 7-8=-114/312, 8-44=-145/366, 9-44=-129/375, 9-10=-169/444, 10-11=-189/500, 11-12=-189/500, 12-13=-169/444, 13-45=-129/375, 14-45=-145/366, 14-15=-114/312, 15-16=-123/306

WEBS 11-32=-333/78

NOTES

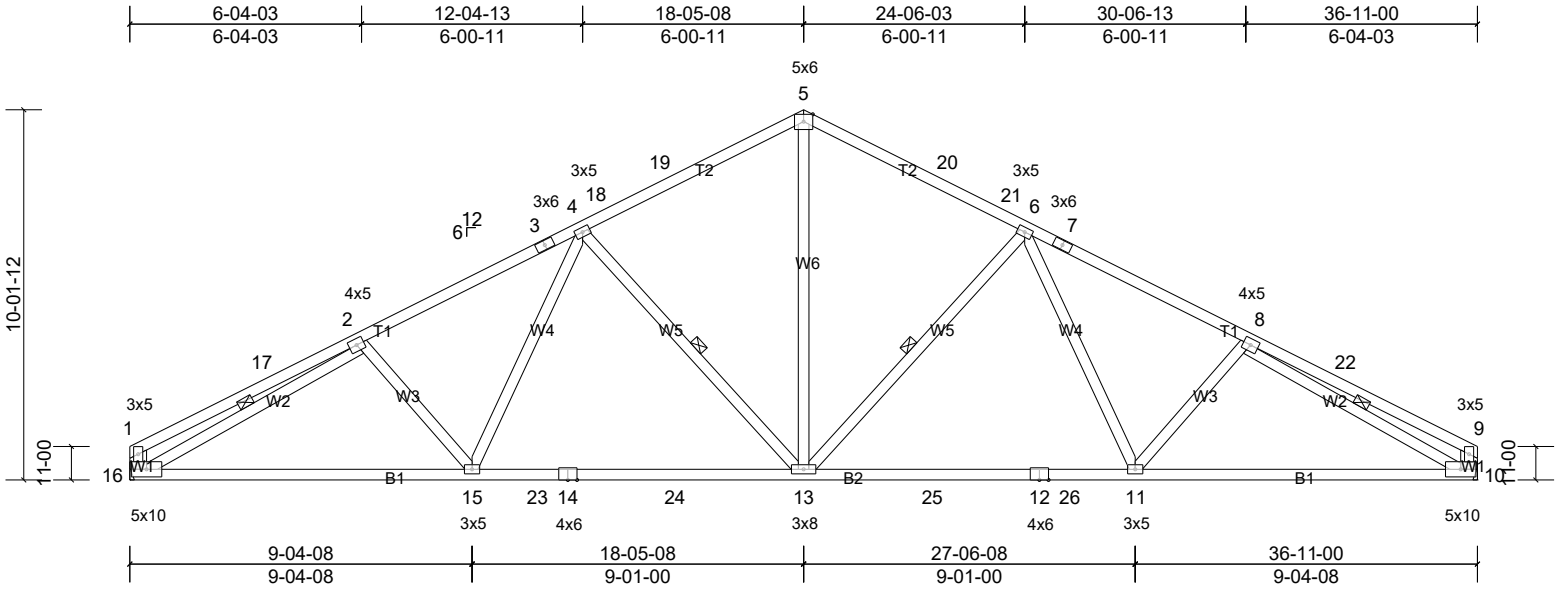
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-1-12 to 3-9-11, Exterior(2N) 3-9-11 to 18-5-8, Corner(3R) 18-5-8 to 22-1-7, Exterior(2N) 22-1-7 to 36-9-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) All plates are 2x4 MT20 unless otherwise indicated.
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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 42, 22, 33, 34, 35, 37, 38, 39, 40, 31, 30, 29, 27, 26, 25, 24 except (jt=lb) 41=186, 23=170.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	C02	Common	10	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:09 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-YuHhydaHHPVjyPgOsnddUkx9f9Dtb_zKpGte4azegkK



Scale = 1:63.4

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.25	13-15	>999	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.42	13-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.11	10	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 215 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.3 *Except* W1:2x6 SP No.2

REACTIONS (lb/size) 10=1487/ Mechanical, (min. 1-08), 16=1487/ Mechanical, (min. 1-08)
Max Horiz 16=-185 (LC 13)
Max Uplift 10=-381 (LC 16), 16=-381 (LC 15)
Max Grav 10=1628 (LC 4), 16=1628 (LC 4)

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 7-7-12 oc bracing.
WEBS	1 Row at midpt 6-13, 4-13, 2-16, 8-10

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-17=-610/160, 2-17=-527/177, 2-3=-2924/597, 3-4=-2797/627, 4-18=-2176/541, 18-19=-2121/551, 5-19=-2100/571, 5-20=-2100/571, 20-21=-2121/551, 6-21=-2176/541, 6-7=-2797/627, 7-8=-2924/597, 8-22=-526/177, 9-22=-610/160, 1-16=-437/182, 9-10=-437/182
BOT CHORD	15-16=-655/2608, 15-23=-449/2292, 14-23=-449/2292, 14-24=-449/2292, 13-24=-449/2292, 13-25=-356/2291, 12-25=-356/2291, 12-26=-356/2291, 11-26=-356/2291, 10-11=-494/2605
WEBS	5-13=-284/1513, 6-13=-766/381, 6-11=-90/528, 8-11=-185/264, 4-13=-766/381, 4-15=-90/528, 2-15=-185/263, 2-16=-2519/485, 8-10=-2519/484

NOTES

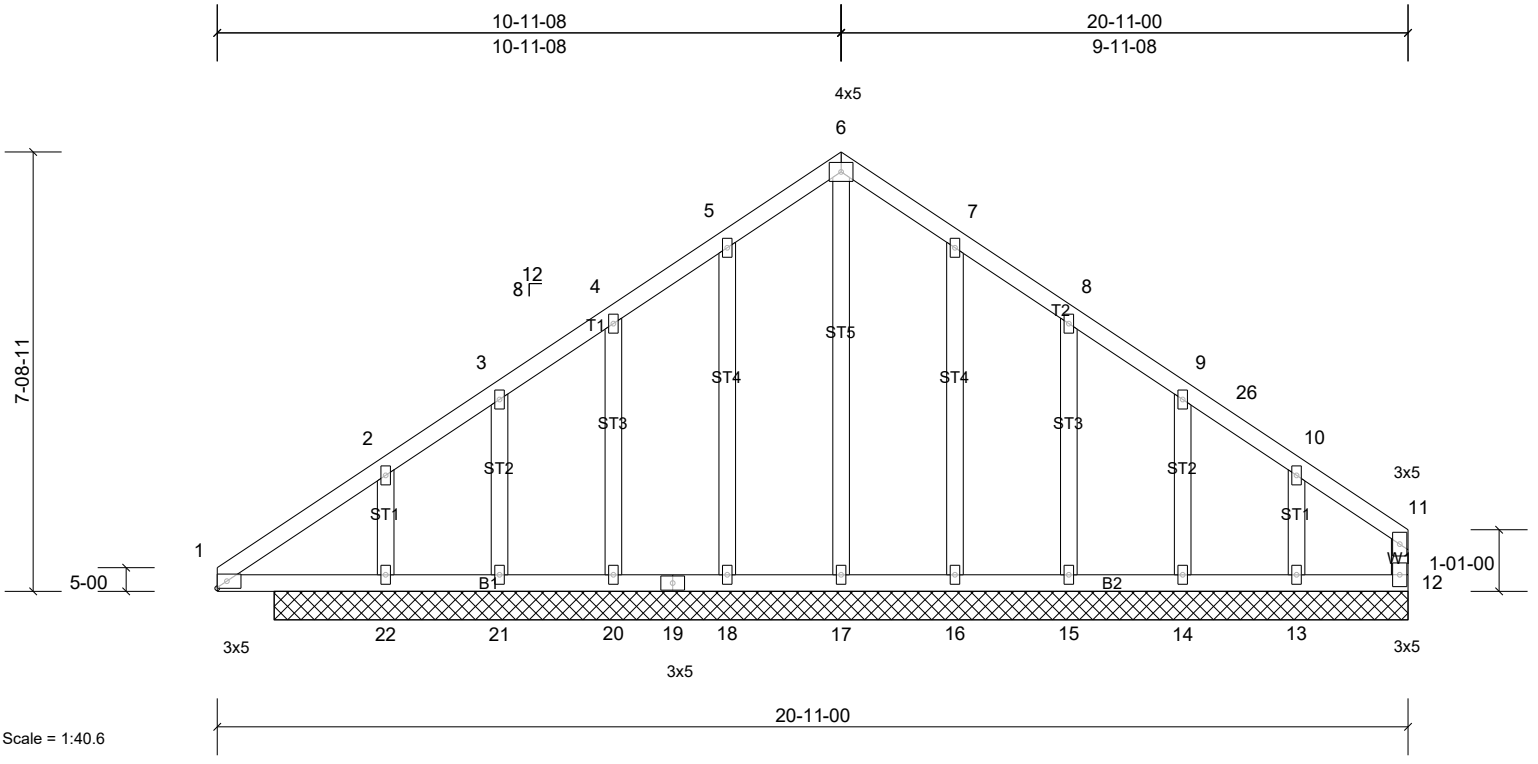
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-2-12 to 3-10-11, Interior (1) 3-10-11 to 18-5-8, Exterior(2R) 18-5-8 to 22-1-7, Interior (1) 22-1-7 to 36-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 381 lb uplift at joint 16 and 381 lb uplift at joint 10.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	D01	Common Supported Gable	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:10 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-YuHhydaHHPVjyPgOsnddUkxHA9NZb3aKpGte4azegkK



Scale = 1:40.6

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horiz(TL)	-0.01	12	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 126 lb	FT = 20%

LUMBER

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

BRACING

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 19-11-00.

(lb) - Max Horiz 22=261 (LC 12)

Max Uplift All uplift 100 (lb) or less at joint(s) 14, 16, 18 except 12=-227 (LC 12), 13=-205 (LC 14), 15=-112 (LC 14), 20=-103 (LC 13), 21=-120 (LC 13), 22=-116 (LC 13)

Max Grav All reactions 250 (lb) or less at joint(s) 12, 14, 15, 16, 18, 20, 21 except 13=356 (LC 23), 17=355 (LC 24), 22=323 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 6-7=-102/322, 7-8=-55/262, 10-11=-185/309, 5-6=-102/322

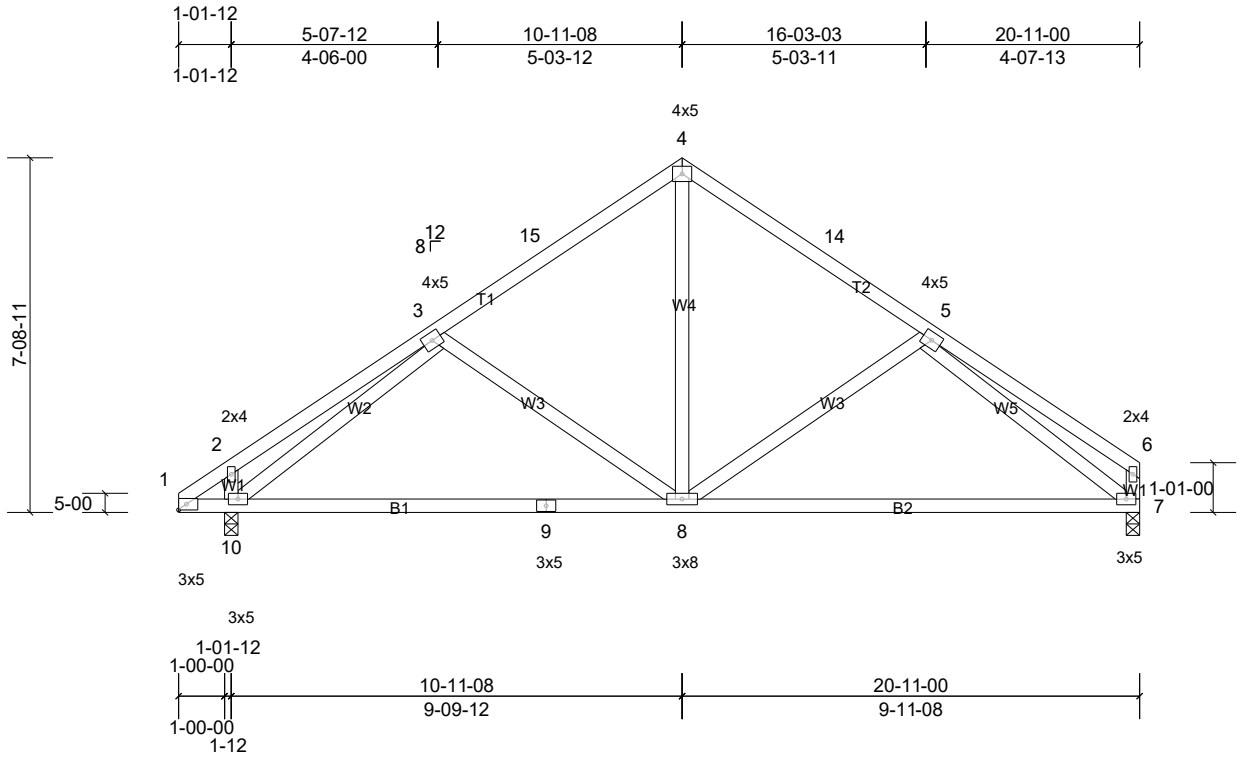
WEBS 6-17=-313/7, 2-22=-258/198

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 2-11-8, Exterior(2N) 2-11-8 to 10-11-8, Corner(3R) 10-11-8 to 13-11-8, Exterior(2N) 13-11-8 to 20-9-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable studs spaced at 2-0-0 oc.
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 100 lb uplift at joint(s) 18, 16, 14 except (jt=lb) 12=226, 20=103, 21=119, 22=115, 15=112, 13=205.
9) Non Standard bearing condition. Review required.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	D02	Common	2	1	Job Reference (optional)



Scale = 1:50.4

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	0.02	8	>999	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.21	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 117 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-8-12 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 7=798/3-08, (min. 1-08), 10=897/3-08, (min. 1-08)
Max Horiz 10=261 (LC 12)
Max Uplift 7=-191 (LC 14), 10=-223 (LC 13)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	4-14=-819/261, 5-14=-901/241, 5-6=-308/75, 2-3=-364/81, 3-15=-901/243, 4-15=-819/262, 6-7=-274/97
BOT CHORD	9-10=-271/839, 8-9=-271/839, 7-8=-195/836
WEBS	5-8=-290/292, 4-8=-101/541, 3-8=-289/284, 5-7=-859/259, 3-10=-773/269, 2-10=-251/265

NOTES

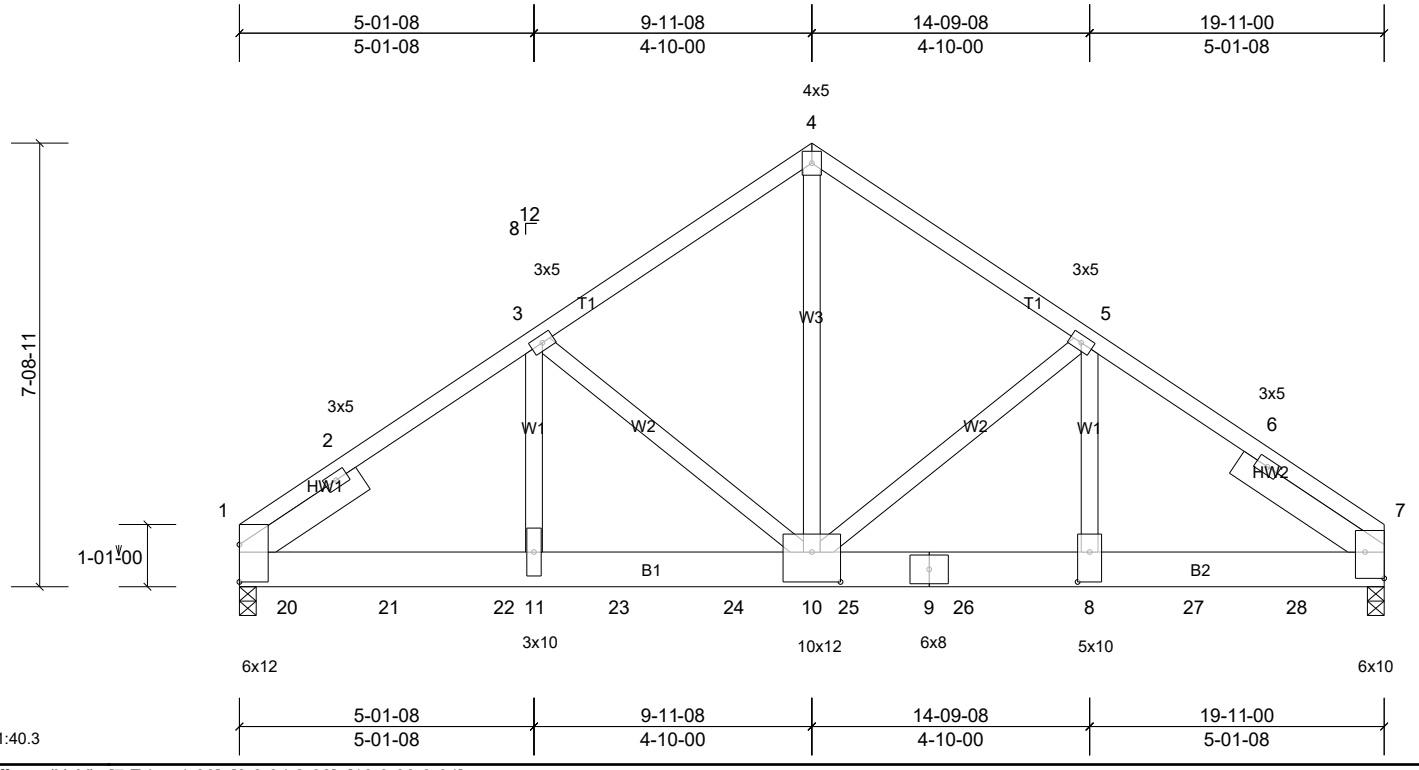
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 10-11-8, Exterior(2R) 10-11-8 to 13-11-8, Interior (1) 13-11-8 to 20-9-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 191 lb uplift at joint 7 and 223 lb uplift at joint 10.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	D03	Common Girder	1	3	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:10 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-04r39zbv2jdaZZFaQU8s1xTKEZfgKRgT1wcBc1zegkJ



Scale = 1:40.3

Plate Offsets (X, Y): [7:Edge,4-00], [8:6-04,2-08], [10:6-00,6-04]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.10	10-11	>999	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.18	10-11	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.66	Horz(CT)	0.04	7	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 446 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x8 SP 2400F 2.0E
WEBS	2x4 SP No.2
SLIDER	Left 2x6 SP No.2 -- 2-06-00, Right 2x6 SP No.2 -- 3-00-00

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-4-12 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=8395/3-08, (min. 2-08), 7=7903/3-08, (min. 2-05)
Max Horiz 1=222 (LC 31)
Max Uplift 1=-2224 (LC 9), 7=-2094 (LC 10)
Max Grav 1=9017 (LC 4), 7=8478 (LC 4)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	4-5=-7619/1978, 5-6=-10074/2520, 6-7=-6633/1595, 1-2=-6825/1594, 2-3=-10064/2514, 3-4=-7620/1978
BOT CHORD	1-20=-2112/8246, 20-21=-2112/8246, 21-22=-2112/8246, 11-22=-2112/8246, 11-23=-2112/8246, 23-24=-2112/8246, 10-24=-2112/8246, 10-25=-1978/8254, 9-25=-1978/8254, 9-26=-1978/8254, 8-26=-1978/8254, 8-27=-1978/8254, 27-28=-1978/8254, 7-28=-1978/8254
WEBS	4-10=-2005/8040, 3-10=-2494/806, 3-11=-694/2932, 5-10=-2505/811, 5-8=-703/2969

NOTES

1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 9-00 oc.
   Bottom chords connected as follows: 2x8 - 2 rows staggered at 5-00 oc.
   Web connected as follows: 2x4 - 1 row at 4-00 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
6) * 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2094 lb uplift at joint 7 and 2224 lb uplift at joint 1.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1609 lb down and 392 lb up at 0-10-0, 1608 lb down and 393 lb up at 2-7-4, 1608 lb down and 393 lb up at 4-7-4, 1608 lb down and 393 lb up at 6-7-4, 1608 lb down and 393 lb up at 8-7-4, 1608 lb down and 393 lb up at 10-7-4, 1608 lb down and 393 lb up at 12-7-4, 1608 lb down and 393 lb up at 14-7-4, and 1608 lb down and 393 lb up at 16-7-4, and 1608 lb down and 393 lb up at 18-4-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Continued on page 2

Uniform Loads (lb/ft)

Vert: 4-7=-62, 1-4=-62, 12-16=-20

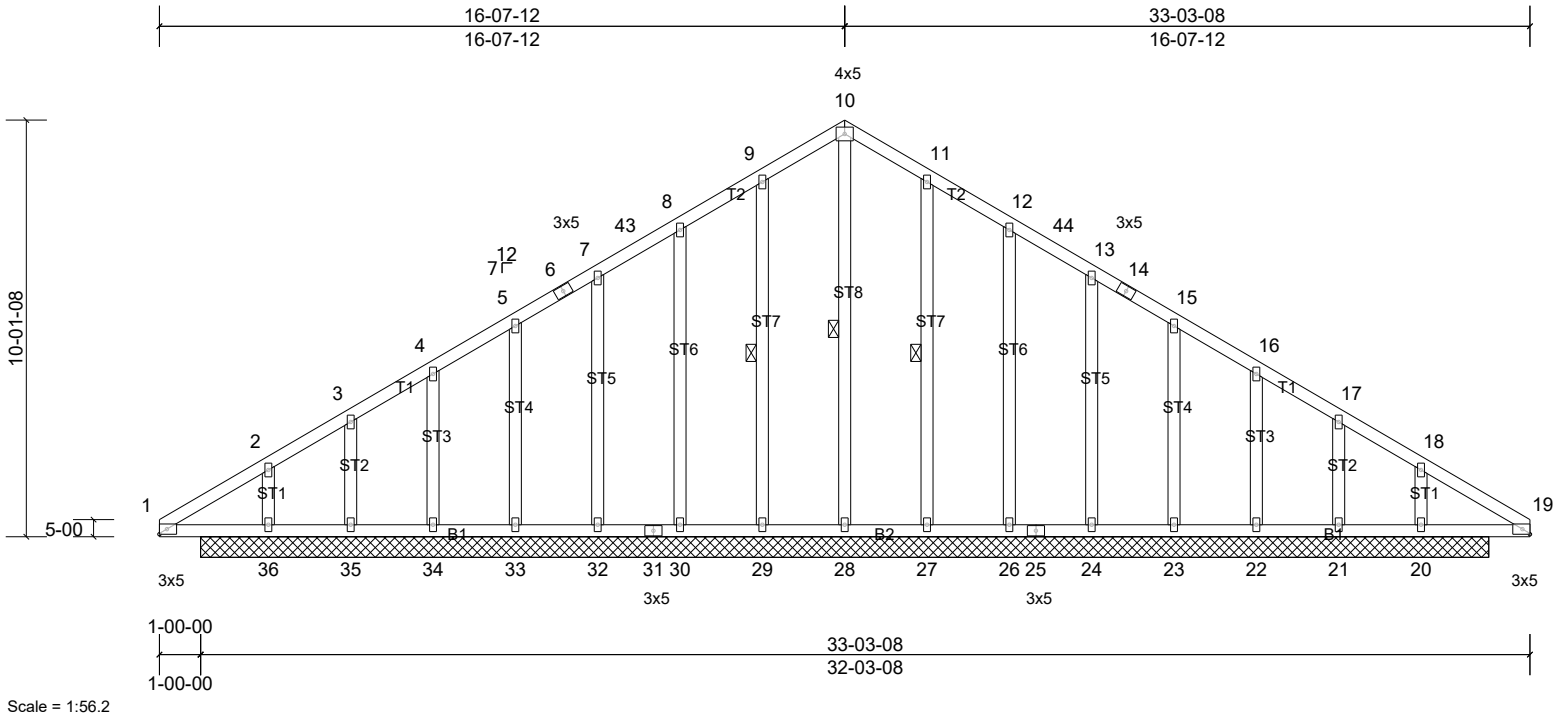
Concentrated Loads (lb)

Vert: 8=-1467, 20=-1469, 21=-1467, 22=-1467, 23=-1467, 24=-1467, 25=-1467, 26=-1467, 27=-1467, 28=-1467

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	E01	Common Supported Gable	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:11 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-UHORNJcXp1IRBjqnzCf5a90fhy1n3?zdGaMl8TzegkI



Scale = 1:56.2

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	-0.01	20	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 224 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 10-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 10-28, 9-29, 11-27

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 31-03-08.

(lb) - Max Horiz 36=-324 (LC 11)

Max Uplift All uplift 100 (lb) or less at joint(s) 22, 23, 24, 26, 27, 29, 30, 32, 33, 34 except 20=-153 (LC 15), 21=-199 (LC 16), 35=-210 (LC 15), 36=-167 (LC 16)

Max Grav All reactions 250 (lb) or less at joint(s) 22, 23, 24, 26, 30, 32, 33, 34 except 20=336 (LC 26), 21=252 (LC 14), 27=263 (LC 22), 28=355 (LC 29), 29=263 (LC 21), 35=268 (LC 13), 36=351 (LC 27)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-151/278, 2-3=-156/274, 6-7=-36/259, 7-43=-86/287, 8-43=-68/294, 8-9=-125/364, 9-10=-162/422, 10-11=-162/422, 11-12=-125/364, 12-44=-68/293, 13-44=-86/287, 13-14=-36/252, 17-18=-139/261, 18-19=-142/268

WEBS 10-28=-329/56

NOTES

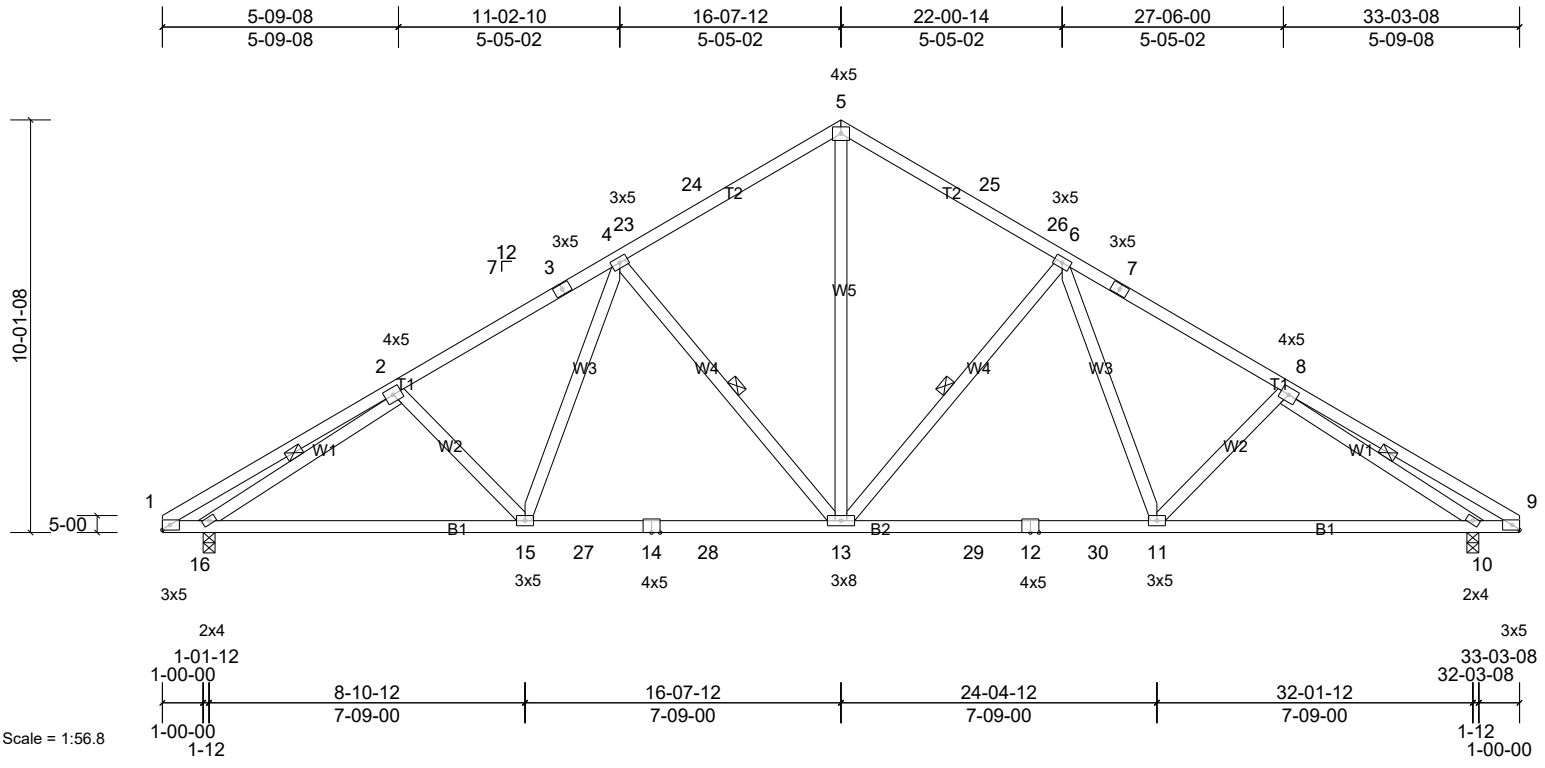
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-4-1, Exterior(2N) 3-4-1 to 16-7-12, Corner(3R) 16-7-12 to 19-11-13, Exterior(2N) 19-11-13 to 33-3-8 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=1.33
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=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable studs spaced at 2-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29, 30, 32, 33, 34, 27, 26, 24, 23, 22 except (jt=lb) 35=210, 36=167, 21=199, 20=153.
10) Non Standard bearing condition. Review required.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	E02	Common	2	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:12 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-UHORNJcXp1IRBjqnzCf5a90Ybyuu3xHdGaMl8TzegkI



Scale = 1:56.8

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.16	13-15	>999	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.27	13-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.08	10	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 196 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-6-9 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 8-0-0 oc bracing.
WEBS	1 Row at midpt 6-13, 4-13, 2-16, 8-10

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 10=1358/3-08, (min. 1-13), 16=1358/3-08, (min. 1-13)
Max Horiz 16=-324 (LC 11)
Max Uplift 10=-346 (LC 16), 16=-346 (LC 15)
Max Grav 10=1561 (LC 27), 16=1561 (LC 26)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-670/122, 2-3=-2414/470, 3-4=-2286/487, 4-23=-1825/422, 23-24=-1814/425, 5-24=-1748/455, 5-25=-1748/455, 25-26=-1814/425, 6-26=-1825/422, 6-7=-2286/488, 7-8=-2414/470, 8-9=-670/121

BOT CHORD 1-16=-53/475, 15-16=-533/2043, 15-27=-346/1777, 14-27=-346/1777, 14-28=-346/1777, 13-28=-346/1777, 13-29=-199/1777, 12-29=-199/1777, 12-30=-199/1777, 11-30=-199/1777, 10-11=-314/2043, 9-10=0/475

WEBS 5-13=-276/1405, 6-13=-701/350, 6-11=-75/444, 4-13=-701/350, 4-15=-74/444, 2-16=-1929/414, 8-10=-1929/414

NOTES

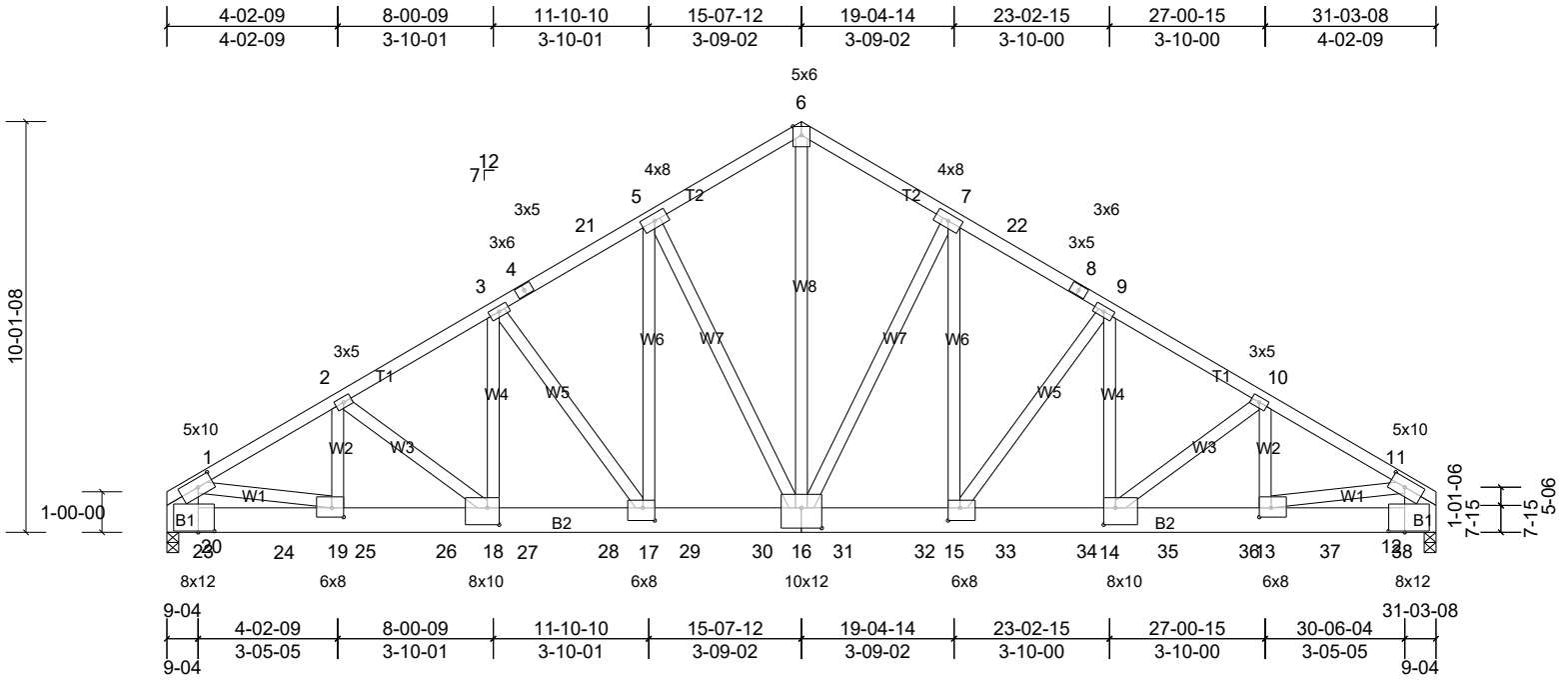
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-4-1, Interior (1) 3-4-1 to 16-7-12, Exterior(2R) 16-7-12 to 19-11-13, Interior (1) 19-11-13 to 33-3-8 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) All plates are 3x5 MT20 unless otherwise indicated.
6) * 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 346 lb uplift at joint 16 and 346 lb uplift at joint 10.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	E03	Common Girder	1	3	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:12 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-yTyqafd9aKtIptOzXvAK6MZg2ML?olumVE5IgvzegkH



Scale = 1:57

Plate Offsets (X, Y): [1:4-08,2-08], [11:4-08,2-08], [12:4-12,0-06], [13:3-08,2-12], [14:3-08,5-00], [15:3-08,3-12], [16:6-00,6-00], [17:3-08,3-12], [18:3-08,5-00], [19:3-08,2-12], [20:4-12,0-06]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.21	17	>999	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.38	17	>956	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.87	Horz(CT)	0.07	12	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 827 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x8 SP 2400F 2.0E *Except* B1:2x10 SP 2400F 2.0E
WEBS	2x4 SP No.2 *Except* W8:2x4 SP No.1

BRACING

TOP CHORD	Sheathed or 4-6-6 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 12=13070/3-08, (min. 1-08), 20=12870/3-08, (min. 1-08)
Max Horiz 20=-297 (LC 9)
Max Uplift 12=-3471 (LC 12), 20=-3405 (LC 11)
Max Grav 12=14038 (LC 6), 20=13792 (LC 5)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-17052/4217, 2-3=-17266/4311, 3-4=-15044/3775, 4-21=-14983/3785, 5-21=-14977/3796, 5-6=-12613/3264, 6-7=-12613/3264, 7-22=-14958/3794, 8-22=-14963/3782, 8-9=-15024/3773, 9-10=-17292/4323, 10-11=-17145/4247

BOT CHORD 20-23=-1223/4218, 23-24=-1223/4218, 19-24=-1223/4218, 19-25=-3771/14654, 25-26=-3771/14654, 18-26=-3771/14654, 18-27=-3742/14896, 27-28=-3742/14896, 17-28=-3742/14896, 17-29=-3177/12942, 29-30=-3177/12942, 16-30=-3177/12942, 16-31=-3078/12925, 31-32=-3078/12925, 15-32=-3078/12925, 15-33=-3565/14918, 33-34=-3565/14918, 14-34=-3565/14918, 14-35=-3596/14733, 35-36=-3596/14733, 13-36=-3596/14733, 13-37=-1056/4241, 37-38=-1056/4241, 12-38=-1056/4241, 1-20=-10788/2705, 11-12=-10836/2718

WEBS 1-19=-2596/10689, 11-13=-2588/10694, 2-19=-441/167, 2-18=-124/360, 3-18=-869/3544, 3-17=-3303/956, 5-17=-1305/5153, 5-16=-4645/1315, 6-16=-3146/12398, 7-16=-4607/1310, 7-15=-1299/5109, 9-15=-3370/977, 9-14=-892/3621, 10-14=-104/286, 10-13=-371/146

NOTES

1) 3-ply truss to be connected together with Simpson SDS 1/4 x 4-1/2 screws as follows:
   Top chords connected as follows: 2x4 - 1 row at 9-00 oc.
   Bottom chords connected as follows: 2x8 - 2 rows staggered at 6-00 oc, 2x10 - 2 rows staggered at 9-00 oc.
   Web connected as follows: 2x4 - 1 row at 9-00 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Bearing at joint(s) 20, 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3405 lb uplift at joint 20 and 3471 lb uplift at joint 12.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Continued on page 2

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1597 lb down and 388 lb up at 0-10-12, 1596 lb down and 388 lb up at 2-10-12, 1596 lb down and 388 lb up at 4-10-12, 1596 lb down and 388 lb up at 6-10-12, 1596 lb down and 388 lb up at 8-10-12, 1596 lb down and 388 lb up at 10-10-12, 1608 lb down and 393 lb up at 12-10-12, 1608 lb down and 393 lb up at 14-8-4, 1608 lb down and 393 lb up at 16-8-4, 1608 lb down and 393 lb up at 18-8-4, 1608 lb down and 393 lb up at 20-8-4, 1608 lb down and 393 lb up at 22-8-4, 1608 lb down and 393 lb up at 24-8-4, 1608 lb down and 393 lb up at 26-8-4, and 1608 lb down and 393 lb up at 28-8-4, and 1609 lb down and 392 lb up at 30-5-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

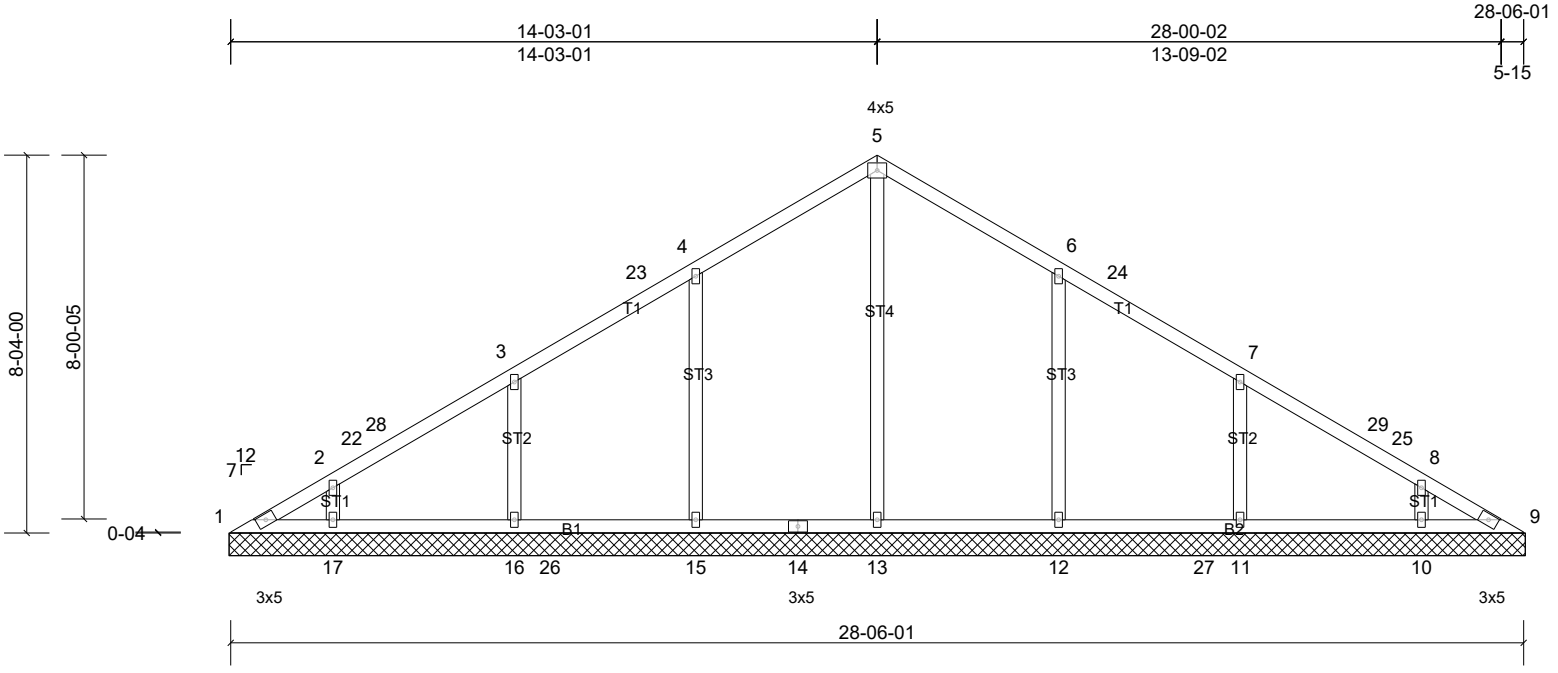
LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-6=-62, 6-11=-62, 12-20=-20
   Concentrated Loads (lb)
   Vert: 23=-1464, 24=-1463, 25=-1463, 26=-1463, 27=-1463, 28=-1463, 29=-1467, 30=-1467, 31=-1467, 32=-1467, 33=-1467, 34=-1467, 35=-1467, 36=-1467, 37=-1467, 38=-1469

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V1	Valley	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:13 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-QfWCo?dnLe?9Q0z95dhZfa5zSmkgXuVvjursDMzegkG



Scale = 1:51

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horiz(TL)	0.01	9	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 129 lb	FT = 20%

LUMBER

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

BRACING

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 28-06-15.

(lb) - Max Horiz 1=-273 (LC 11)

Max Uplift All uplift 100 (lb) or less at joint(s) 1, 9 except 10=-132 (LC 16), 11=-189 (LC 16), 12=-198 (LC 16), 15=-199 (LC 15), 16=-188 (LC 15), 17=-136 (LC 15)

Max Grav All reactions 250 (lb) or less at joint(s) 1, 9 except 10=354 (LC 27), 11=447 (LC 27), 12=520 (LC 6), 13=418 (LC 29), 15=520 (LC 5), 16=446 (LC 26), 17=358 (LC 26)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-252/219, 4-5=-191/266, 5-6=-191/262

WEBS 4-15=-396/246, 3-16=-323/235, 2-17=-279/195, 6-12=-396/246, 7-11=-323/236, 8-10=-279/193

NOTES

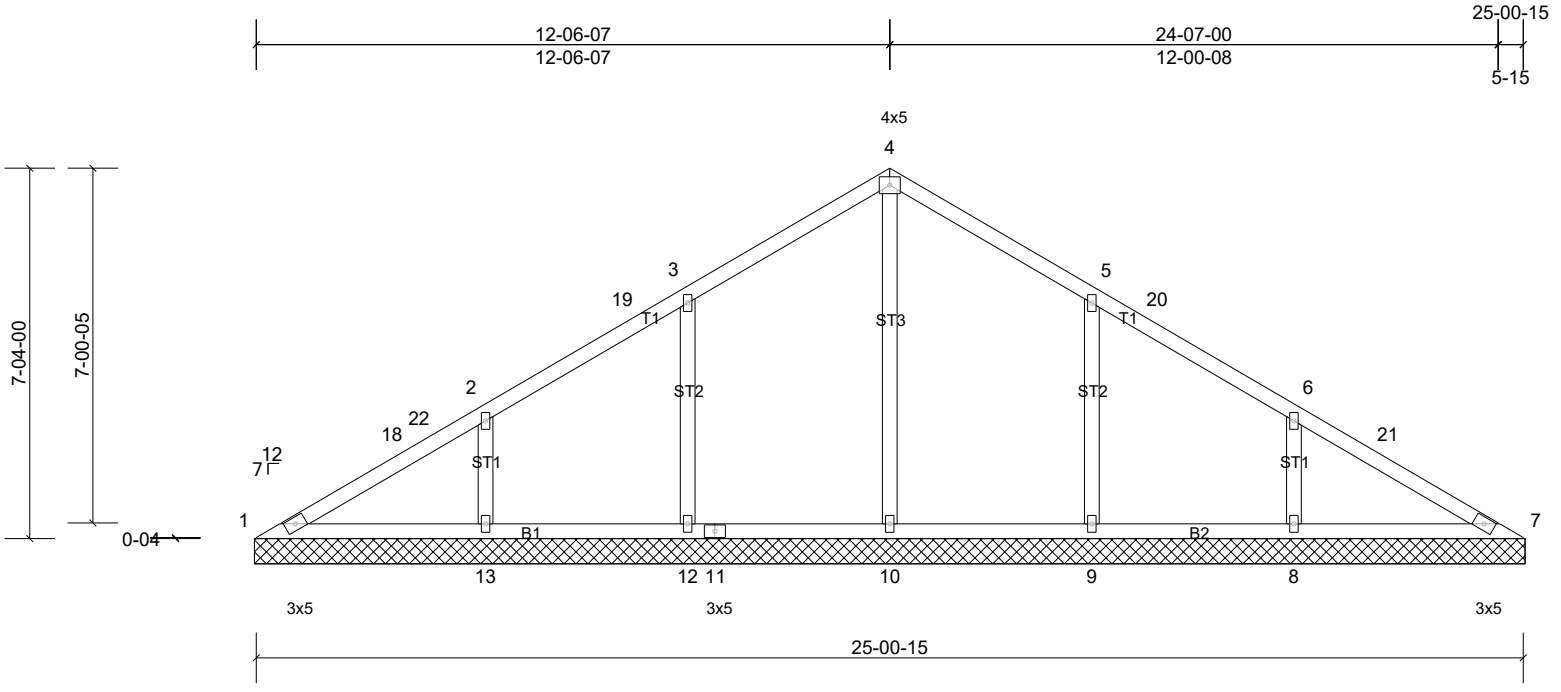
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 14-3-7, Corner(3R) 14-3-7 to 17-3-7, Exterior(2N) 17-3-7 to 28-6-15 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 15=198, 16=188, 17=136, 12=198, 11=189, 10=131.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 9.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V2	Valley	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:14 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-us4a?KeP6y702AYLfKCoBne82A3GGKH3yYaPlozegkF



Scale = 1:45.8

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horiz(TL)	0.01	7	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 108 lb	FT = 20%

LUMBER

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

BRACING

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 25-01-13.

(lb) - Max Horiz 1=-239 (LC 11)

Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 8=-204 (LC 16), 9=-194 (LC 16), 12=-194 (LC 15), 13=-206 (LC 15)

Max Grav All reactions 250 (lb) or less at joint(s) 1, 7 except 8=493 (LC 27), 9=468 (LC 6), 10=538 (LC 26), 12=468 (LC 5), 13=495 (LC 26)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-22=-181/286
WEBS	4-10=-323/0, 3-12=-390/247, 2-13=-349/232, 5-9=-390/247, 6-8=-349/231

NOTES

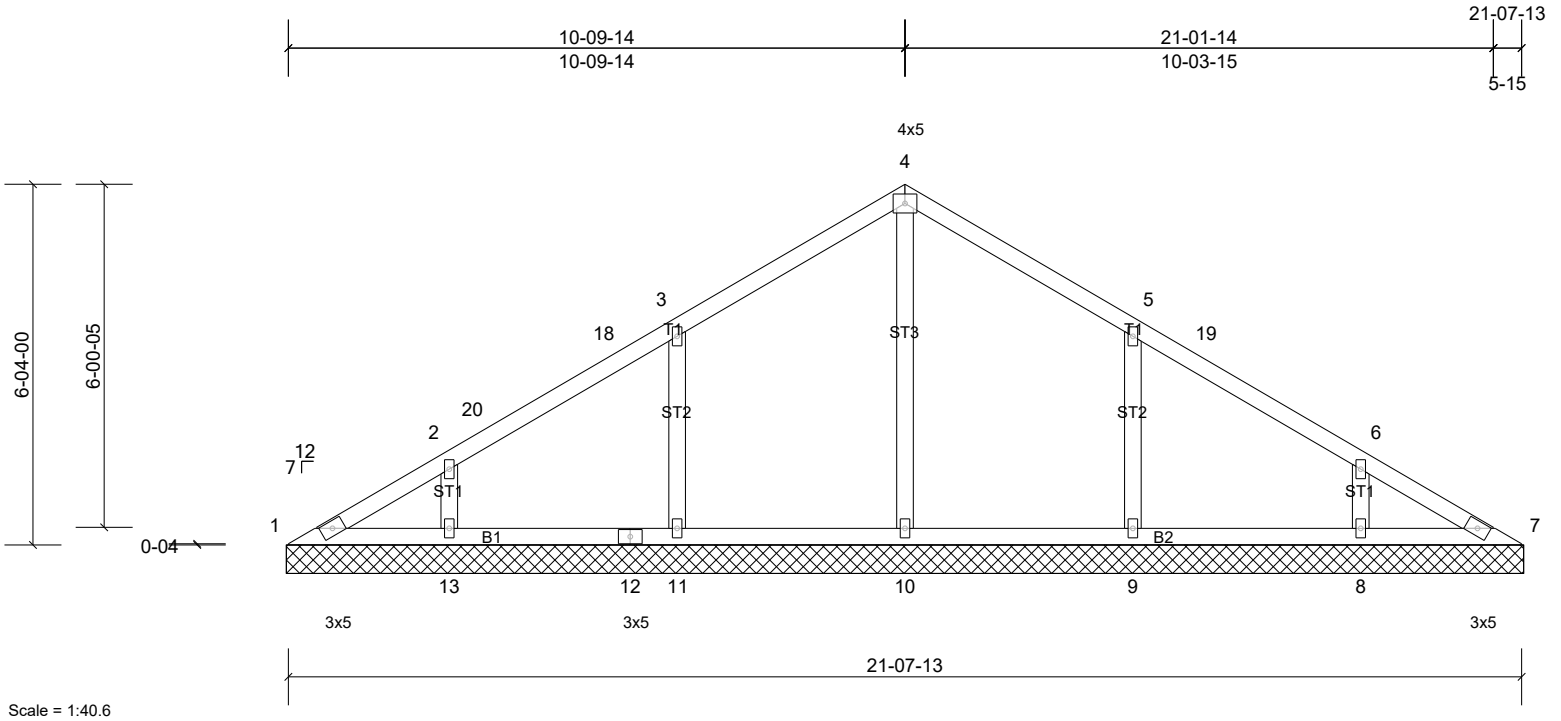
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 12-6-14, Corner(3R) 12-6-14 to 15-6-14, Exterior(2N) 15-6-14 to 25-1-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 12=193, 13=205, 9=193, 8=203.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 7.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V3	Valley	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:14 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-us4a?KeP6y702AYLfKCoBne82A4kGMU3yYaPlozegkF



Scale = 1:40.6

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 90 lb	FT = 20%

LUMBER

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

BRACING

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 21-08-10.

(lb) - Max Horiz 1=206 (LC 12)

Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 8=-150 (LC 16), 9=-207 (LC 16), 11=-207 (LC 15), 13=-152 (LC 15)

Max Grav All reactions 250 (lb) or less at joint(s) 1, 7 except 8=377 (LC 27), 9=496 (LC 6), 10=418 (LC 26), 11=496 (LC 5), 13=379 (LC 26)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

WEBS 3-11=-404/257, 2-13=-281/209, 5-9=-404/256, 6-8=-281/209

NOTES

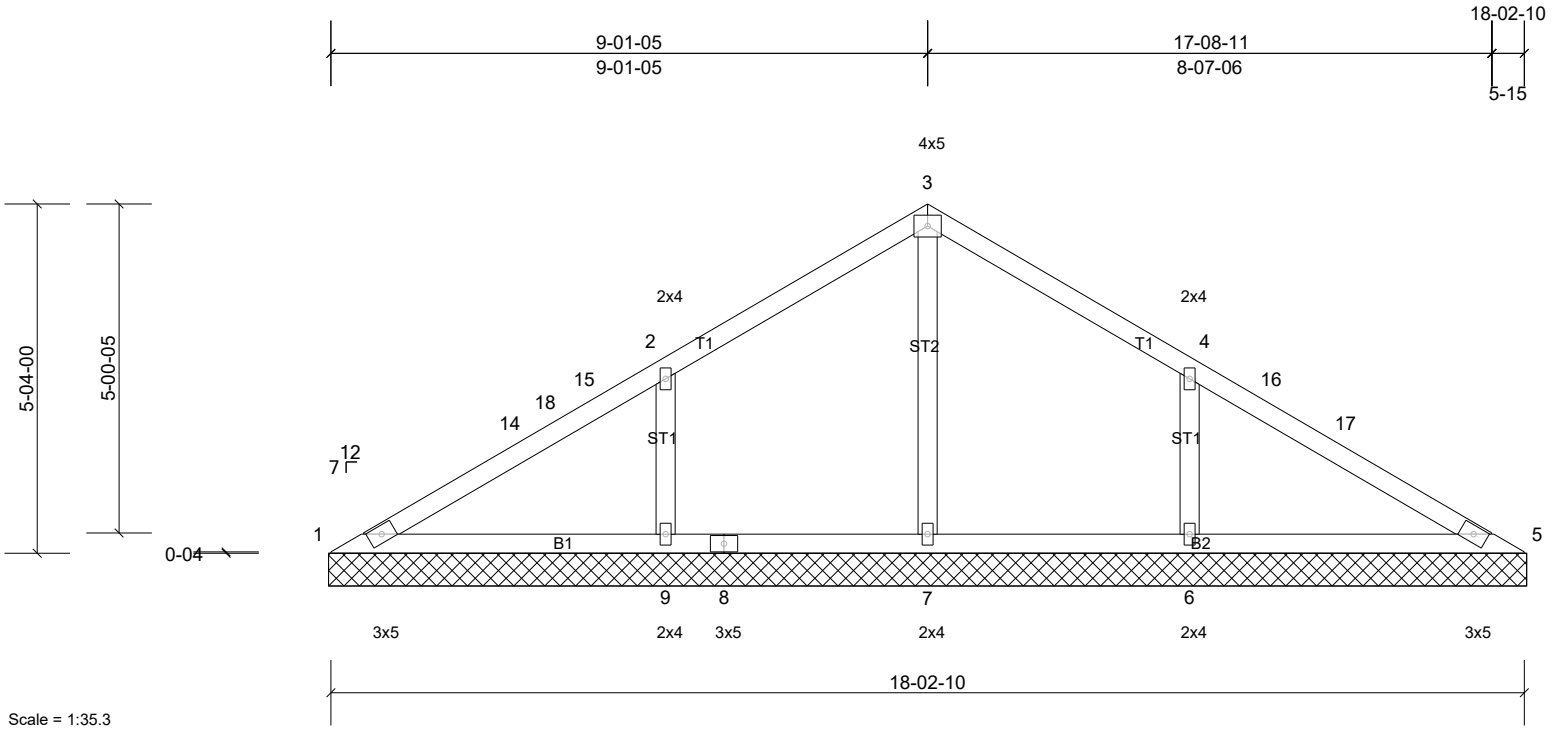
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 2-10-5, Exterior(2N) 2-10-5 to 10-10-5, Corner(3R) 10-10-5 to 13-10-5, Exterior(2N) 13-10-5 to 21-8-10 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 11=207, 13=152, 9=207, 8=149.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 7.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V4	Valley	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:15 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-us4a?KeP6y702AYLfKCoBne6LA3zGLr3yYaPlozegkF



Scale = 1:35.3

Loading	(psf)	Spacing	2-00-00	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)	20.8/30.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 71 lb	FT = 20%

LUMBER

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

BRACING

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 18-03-08.

(lb) - Max Horiz 1=-172 (LC 11)

Max Uplift All uplift 100 (lb) or less at joint(s) 1, 5, 7 except 6=-247 (LC 16), 9=-249 (LC 15)

Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=576 (LC 22), 7=438 (LC 1), 9=576 (LC 21)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-14=-156/256, 14-18=-144/268, 15-18=-141/282, 2-15=-134/323, 4-16=-127/305

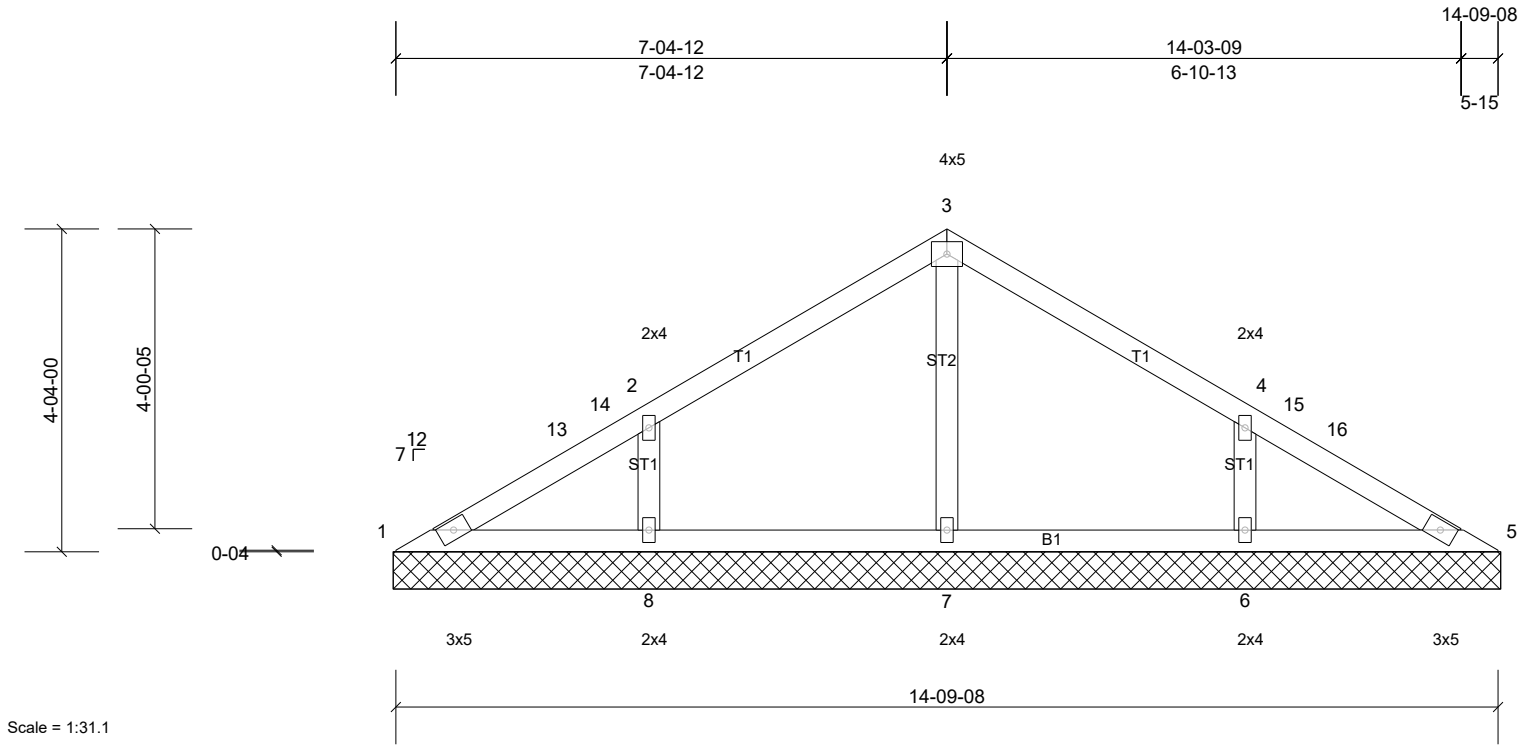
WEBS 3-7=-404/110, 2-9=-445/313, 4-6=-445/313

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 9-1-12, Corner(3R) 9-1-12 to 12-1-12, Exterior(2N) 12-1-12 to 18-3-8 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) * 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 7 except (jt=lb) 9=248, 6=247.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V5	Valley	1	1	Job Reference (optional)



Scale = 1:31.1

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 56 lb	FT = 20%

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

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 14-10-06.
(lb) - Max Horiz 1=-139 (LC 13)
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 5 except 6=-196 (LC 16), 8=-198 (LC 15)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=488 (LC 22), 7=338 (LC 22), 8=488 (LC 21)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-7=-266/85, 2-8=-400/301, 4-6=-400/301

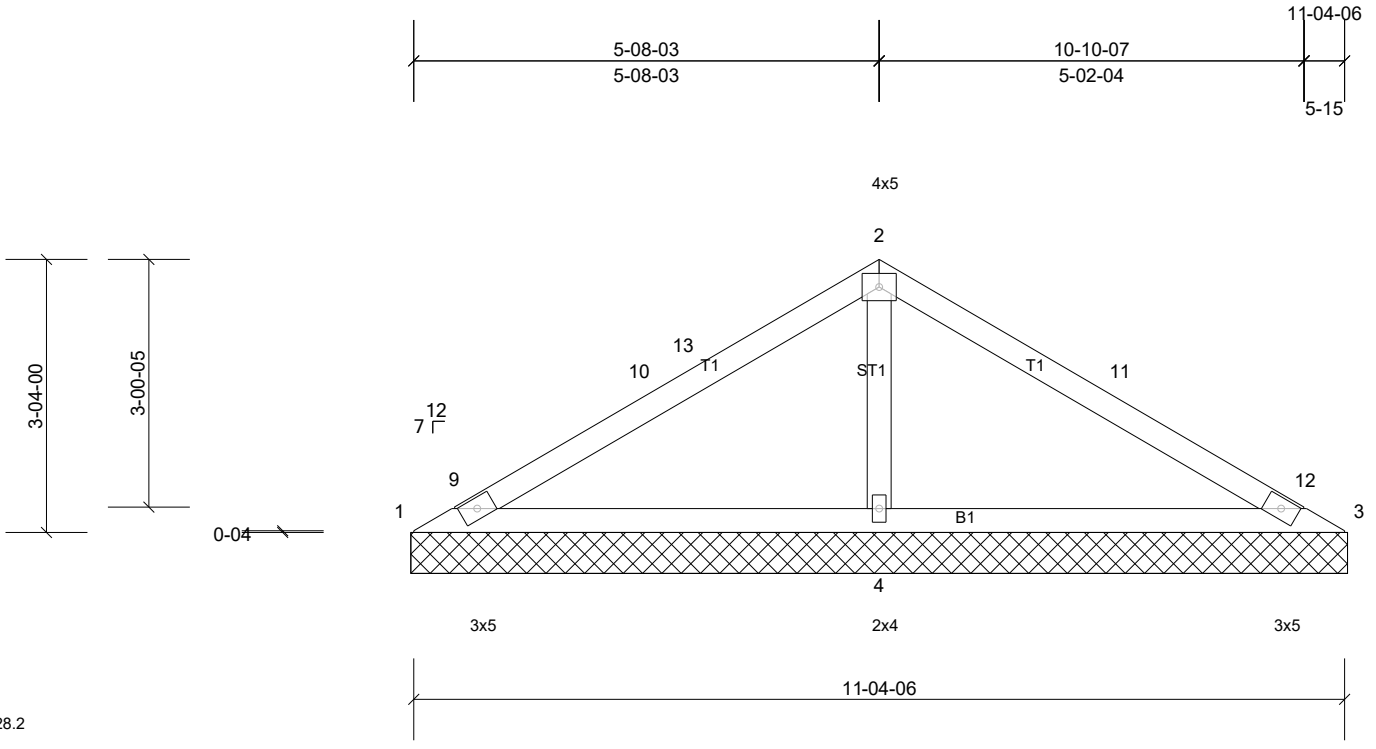
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 7-5-3, Corner(3R) 7-5-3 to 10-5-3, Exterior(2N) 10-5-3 to 14-10-6 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) * 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=197, 6=196.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V6	Valley	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:15 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-M2eyCgf2tFFtgK7YC1j1k?BEyaK1?pGCBCKyHEzegkE



Scale = 1:28.2

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.55	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.01	4	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 39 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 9-4-6 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 1=14/11-05-03, (min. 1-08), 3=14/11-05-03, (min. 1-08), 4=905/11-05-03, (min. 1-08)
Max Horiz 1=106 (LC 14)
Max Uplift 1=-80 (LC 22), 3=-80 (LC 21), 4=-243 (LC 15)
Max Grav 1=89 (LC 21), 3=90 (LC 22), 4=953 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

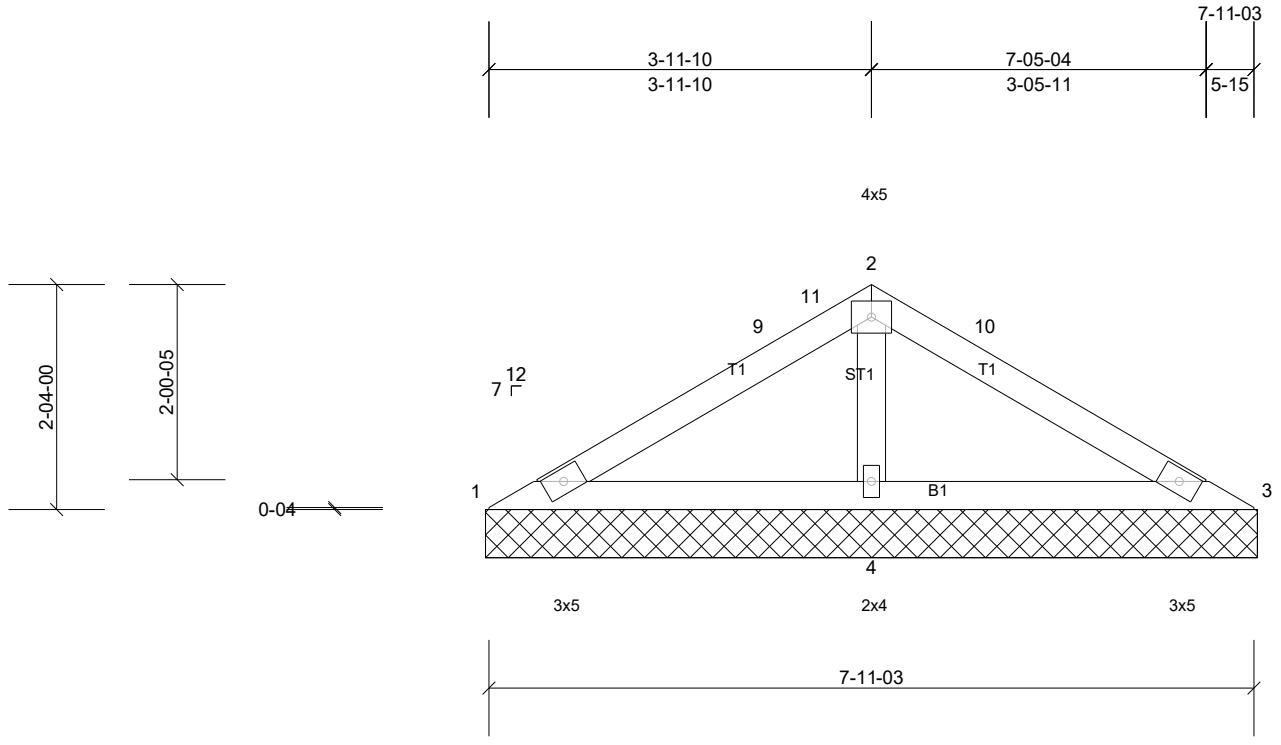
TOP CHORD	1-10=-323/485, 10-13=-310/490, 2-13=-308/555, 2-11=-305/555, 3-11=-319/485
BOT CHORD	1-4=-468/403, 3-4=-468/403
WEBS	2-4=-880/594

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 5-8-10, Corner(3R) 5-8-10 to 8-8-10, Exterior(2N) 8-8-10 to 11-5-3 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) * 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 80 lb uplift at joint 1, 80 lb uplift at joint 3 and 243 lb uplift at joint 4.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V7	Valley	1	1	Job Reference (optional)



Scale = 1:24

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.30	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 26 lb	FT = 20%

LUMBER

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

REACTIONS (lb/size) 1=43/8-00-01, (min. 1-08), 3=43/8-00-01, (min. 1-08), 4=567/8-00-01, (min. 1-08)
Max Horiz 1=-72 (LC 11)
Max Uplift 1=-20 (LC 22), 3=-23 (LC 11), 4=-147 (LC 15)
Max Grav 1=109 (LC 21), 3=109 (LC 22), 4=589 (LC 21)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-222/293, 9-11=-210/303, 2-11=-207/321, 2-10=-202/321, 3-10=-214/293
BOT CHORD 1-4=-294/307, 3-4=-294/307
WEBS 2-4=-518/399

BRACING

TOP CHORD	Structural wood sheathing directly applied or 7-11-3 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

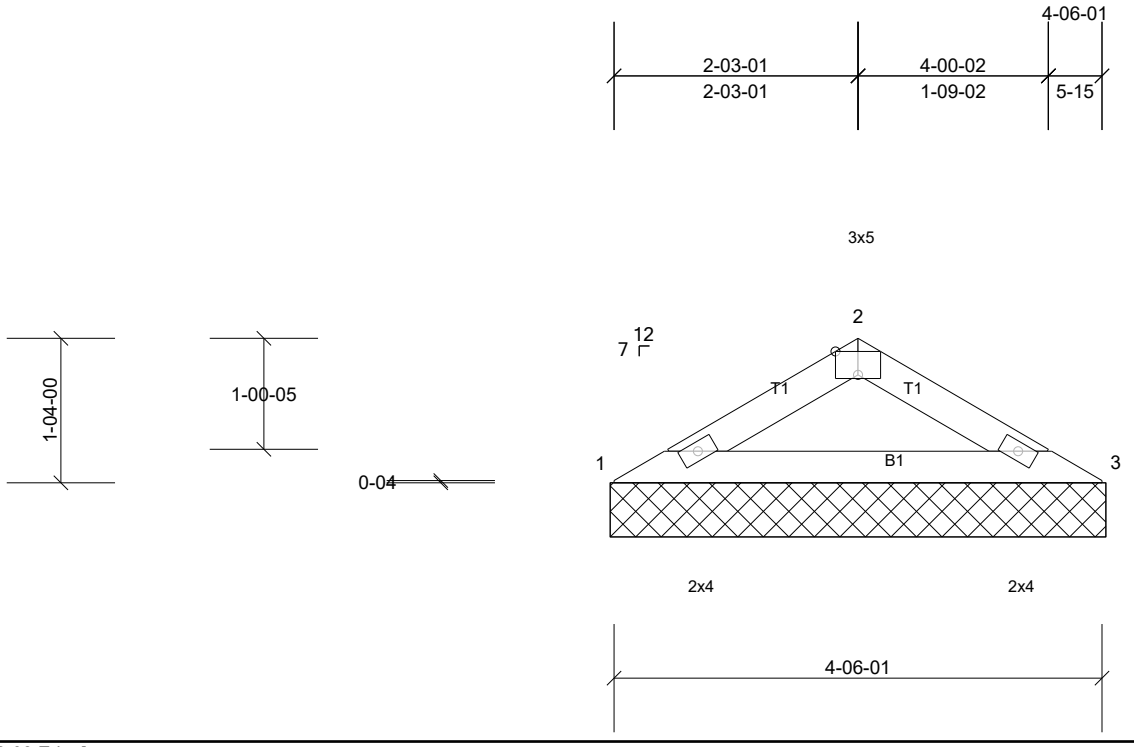
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 4-0-1, Corner(3R) 4-0-1 to 6-11-2, Exterior(2N) 6-11-2 to 8-0-1 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) * 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1, 23 lb uplift at joint 3 and 147 lb uplift at joint 4.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V8	Valley	1	1	Job Reference (optional)



Scale = 1:21.4

Plate Offsets (X, Y): [2:2-08,Edge]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.15	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	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 13 lb	FT = 20%

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

REACTIONS (lb/size) 1=187/4-06-15, (min. 1-08), 3=187/4-06-15, (min. 1-08)
Max Horiz 1=39 (LC 14)
Max Uplift 1=-48 (LC 15), 3=-48 (LC 16)
Max Grav 1=216 (LC 21), 3=216 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-397/332
BOT CHORD 1-3=-265/332

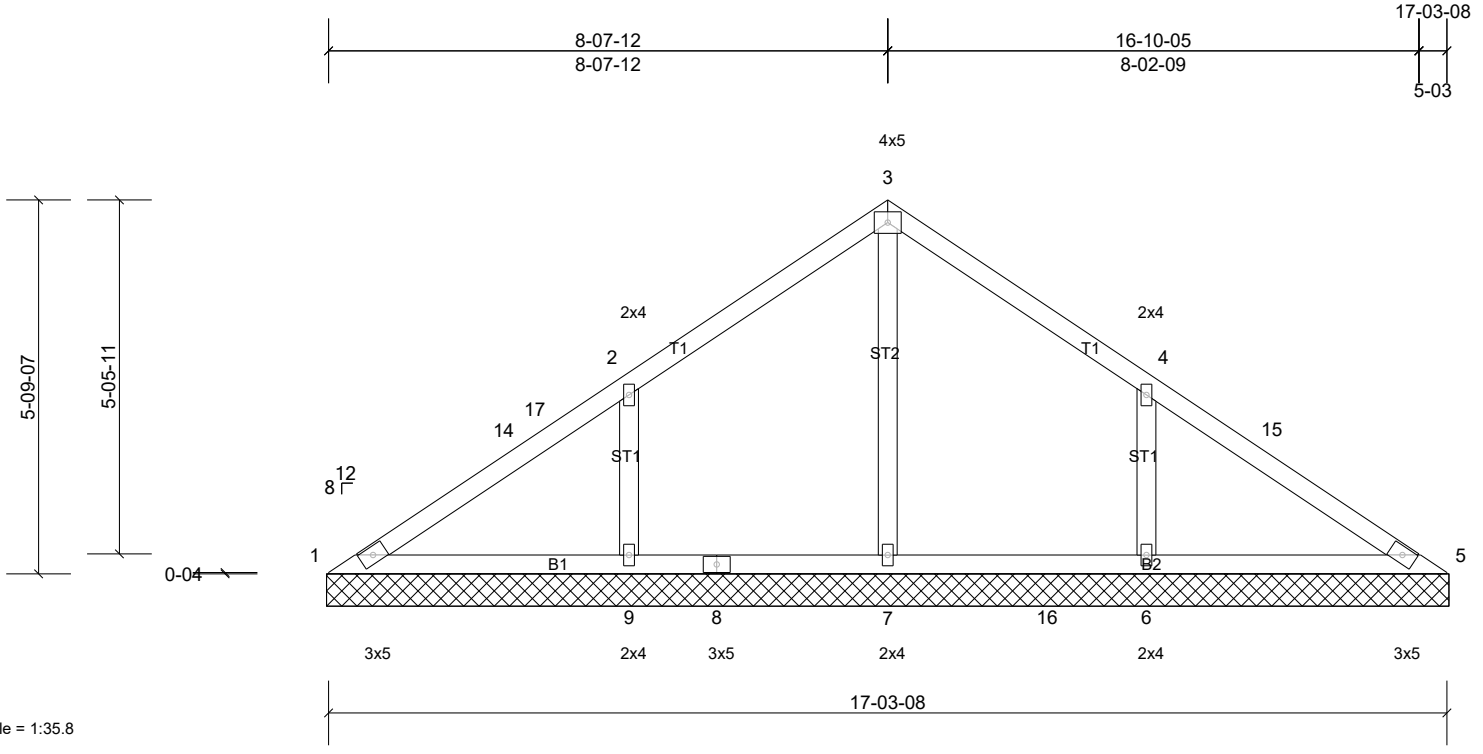
BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) * 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 1 and 48 lb uplift at joint 3.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V9	Valley	1	1	Job Reference (optional)



Scale = 1:35.8

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 70 lb	FT = 20%

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

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 17-04-04.
(lb) - Max Horiz 1=187 (LC 10)
Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 6=-257 (LC 14), 9=-260 (LC 13)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=546 (LC 23), 7=531 (LC 22), 9=551 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 14-17=-149/258, 2-17=-140/305, 4-15=-121/269
WEBS 3-7=-377/79, 2-9=-388/336, 4-6=-388/336

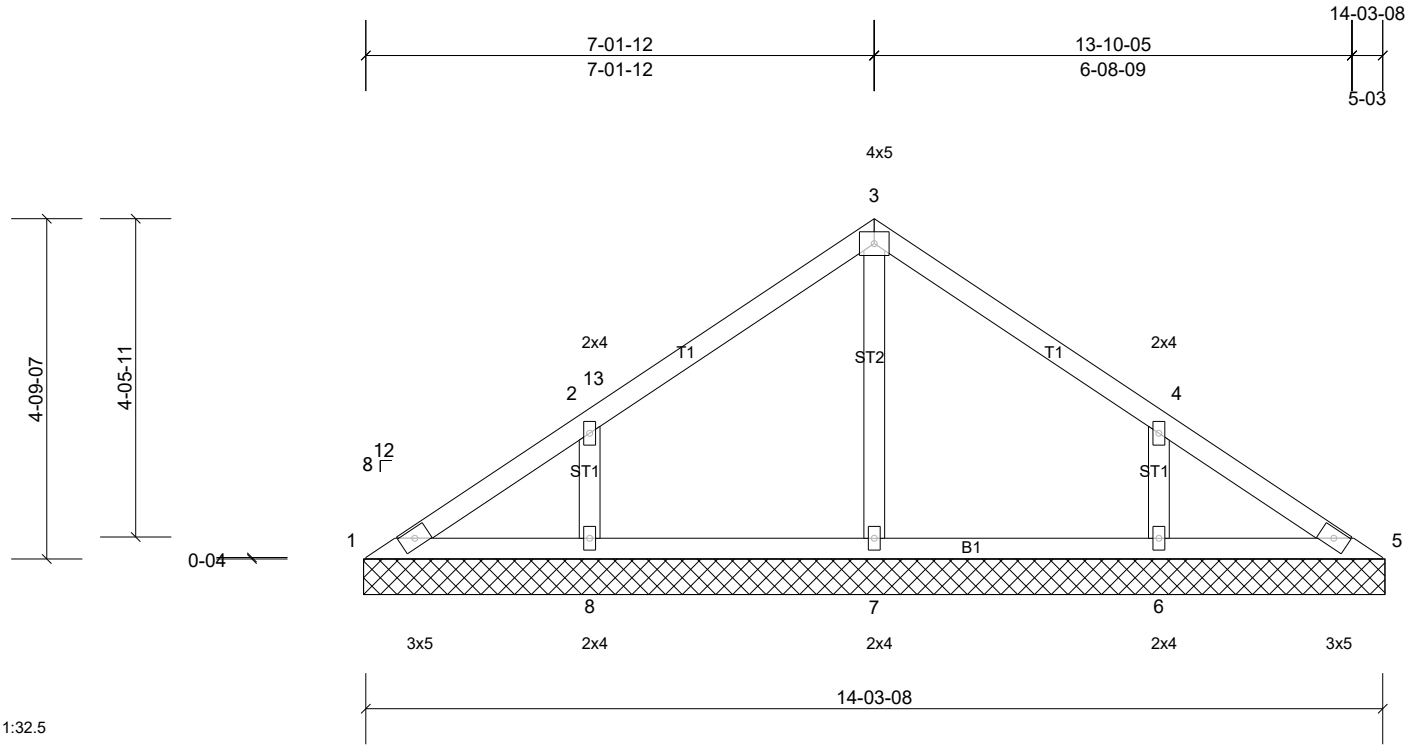
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 8-8-2, Corner(3R) 8-8-2 to 11-8-2, Exterior(2N) 11-8-2 to 17-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=259, 6=257.
7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V10	Valley	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:17 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-JQmjdMhIOtWbveHwKSmVpQGg?N6sTk9VeWp3M7zegkC



Scale = 1:32.5

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 56 lb	FT = 20%

LUMBER

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

BRACING

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 14-04-04.

(lb) - Max Horiz 1=-154 (LC 9)

Max Uplift All uplift 100 (lb) or less at joint(s) 1, 5 except 6=-210 (LC 14), 8=-213 (LC 13)

Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=381 (LC 23), 7=314 (LC 1), 8=383 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

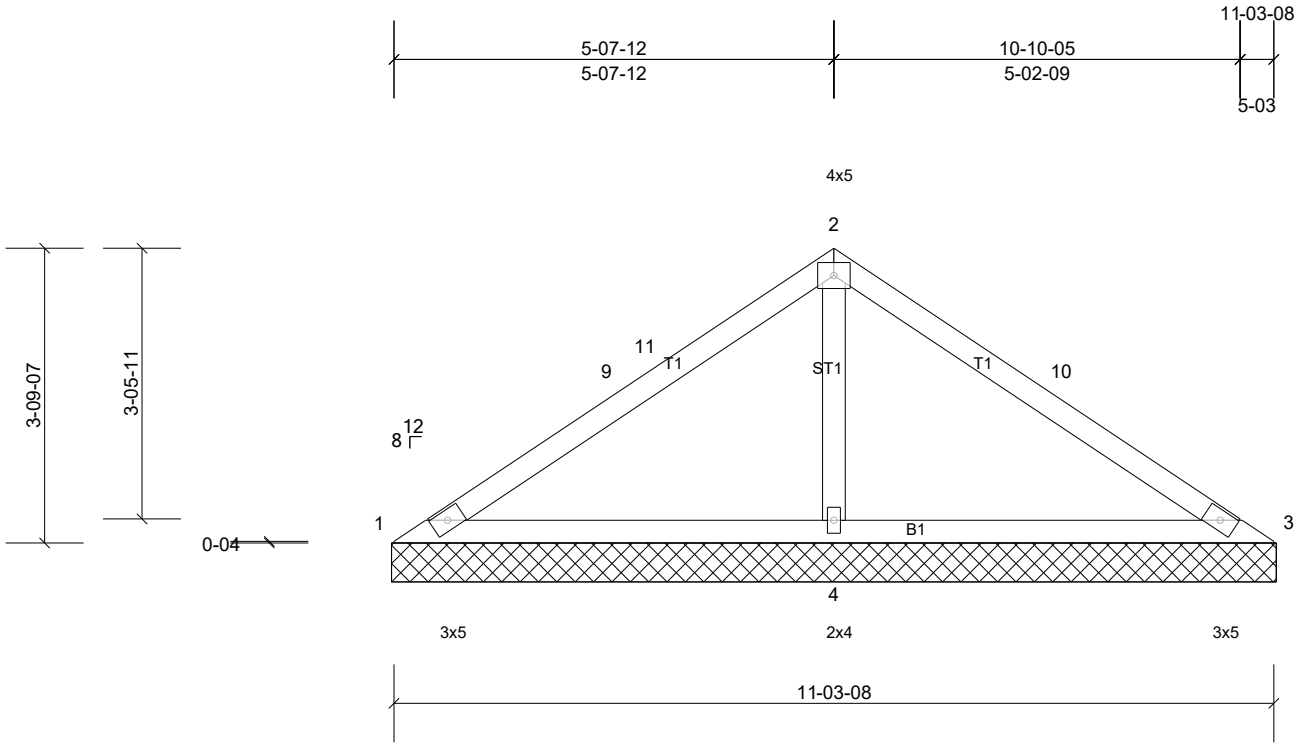
WEBS 2-8=-339/333, 4-6=-339/333

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-2-2, Exterior(2N) 3-2-2 to 7-2-2, Corner(3R) 7-2-2 to 10-2-2, Exterior(2N) 10-2-2 to 14-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=212, 6=210.
7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V11	Valley	1	1	Job Reference (optional)



Scale = 1:29.7

Loading	(psf)	Spacing	2-00-00	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)	20.8/30.0	Lumber DOL	1.15	BC	0.41	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 40 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 9-0-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 1=5/11-04-04, (min. 1-08), 3=5/11-04-04, (min. 1-08), 4=917/11-04-04, (min. 1-08)
Max Horiz 1=-120 (LC 9)
Max Uplift 1=-53 (LC 35), 3=-53 (LC 34), 4=-269 (LC 13)
Max Grav 1=60 (LC 34), 3=60 (LC 35), 4=917 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-334/464, 9-11=-320/469, 2-11=-318/540, 2-10=-314/540, 3-10=-329/464
BOT CHORD 1-4=-441/421, 3-4=-441/421
WEBS 2-4=-907/638

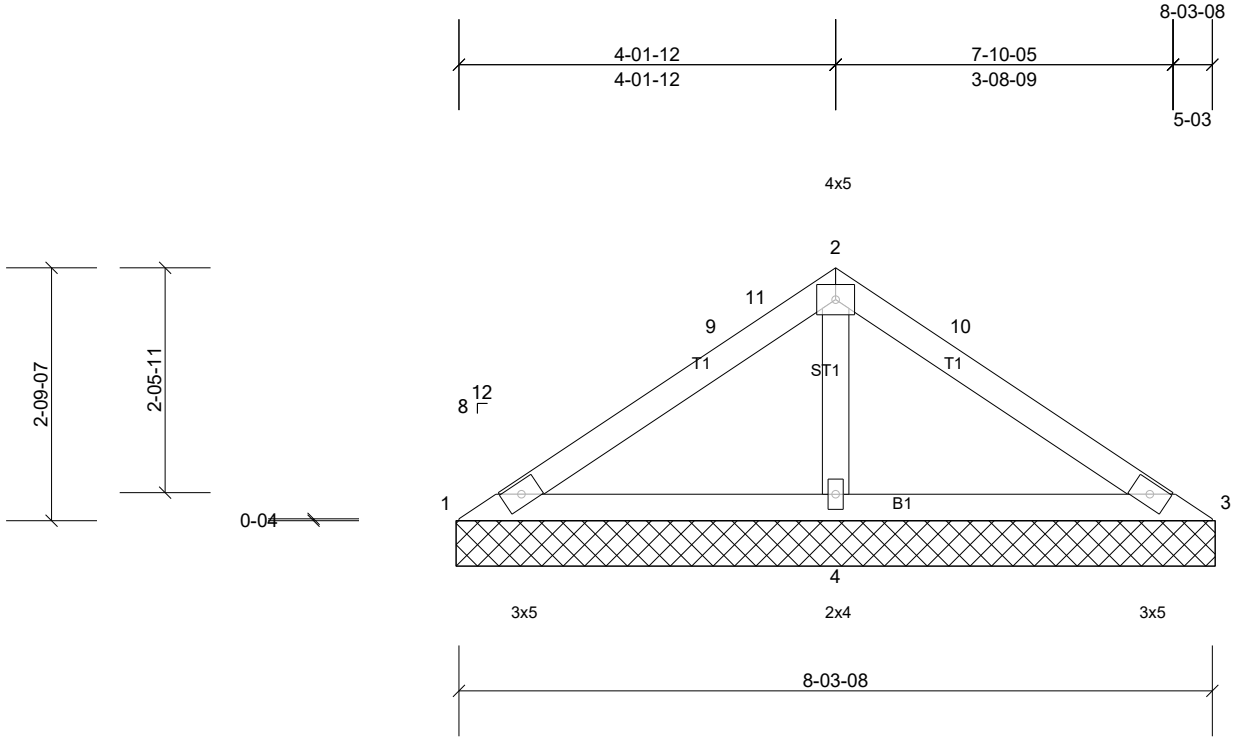
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 5-8-2, Corner(3R) 5-8-2 to 8-8-2, Exterior(2N) 8-8-2 to 11-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 1, 53 lb uplift at joint 3 and 269 lb uplift at joint 4.
7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V12	Valley	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:18 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-JQmjdMhIOtWbveHwKSmVpQGgXN3FTjXVeWp3M7zegkC



Scale = 1:25.5

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.31	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 29 lb	FT = 20%

LUMBER

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

REACTIONS (lb/size) 1=32/8-04-04, (min. 1-08), 3=32/8-04-04, (min. 1-08), 4=618/8-04-04, (min. 1-08)
Max Horiz 1=-87 (LC 9)
Max Uplift 1=-18 (LC 35), 3=-22 (LC 9), 4=-176 (LC 13)
Max Grav 1=66 (LC 34), 3=66 (LC 35), 4=618 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-251/312, 9-11=-237/320, 2-11=-234/344, 2-10=-228/344, 3-10=-242/312
BOT CHORD 1-4=-307/344, 3-4=-307/344
WEBS 2-4=-583/460

BRACING
TOP CHORD Structural wood sheathing directly applied or 8-3-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

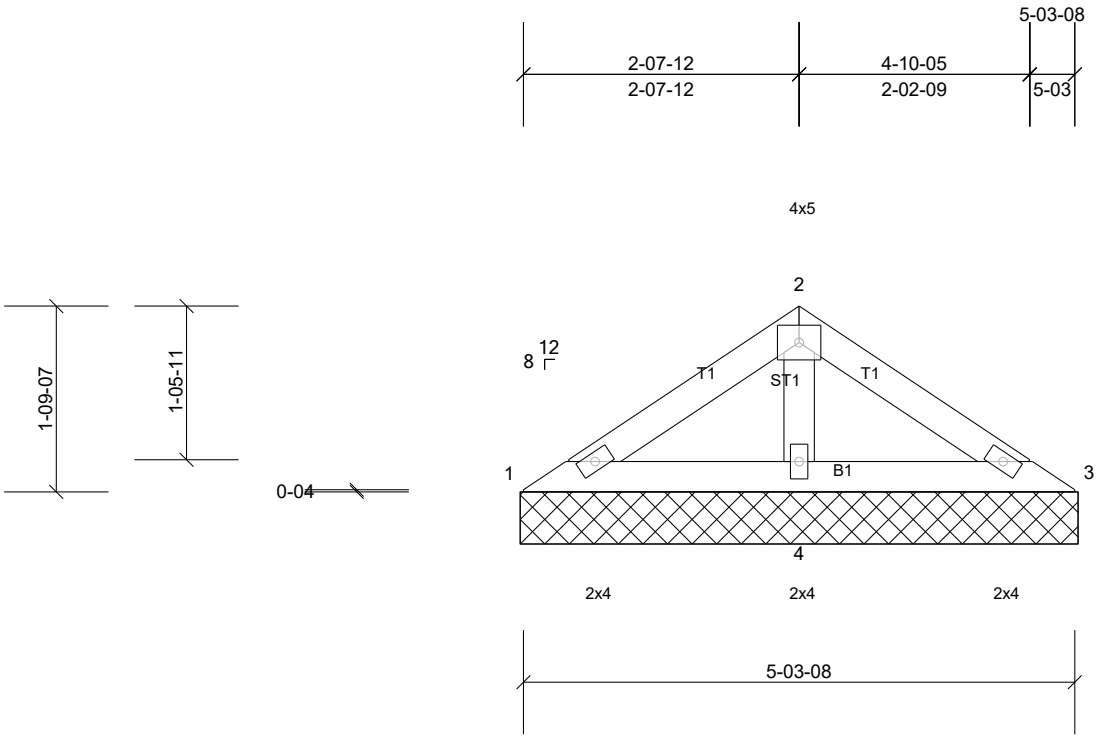
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 4-2-2, Corner(3R) 4-2-2 to 7-4-11, Exterior(2N) 7-4-11 to 8-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1, 22 lb uplift at joint 3 and 176 lb uplift at joint 4.
7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V13	Valley	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:18 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-ndJ5rihw9AeRXos7uAHkMdptenR8CBkftAYduZzegkB



Scale = 1:22.2

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	n/a	-	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 17 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-3-8 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 1=52/5-04-04, (min. 1-08), 3=52/5-04-04, (min. 1-08), 4=333/5-04-04, (min. 1-08)
Max Horiz 1=-54 (LC 9)
Max Uplift 1=-13 (LC 13), 3=-22 (LC 14), 4=-83 (LC 13)
Max Grav 1=65 (LC 34), 3=65 (LC 35), 4=333 (LC 1)

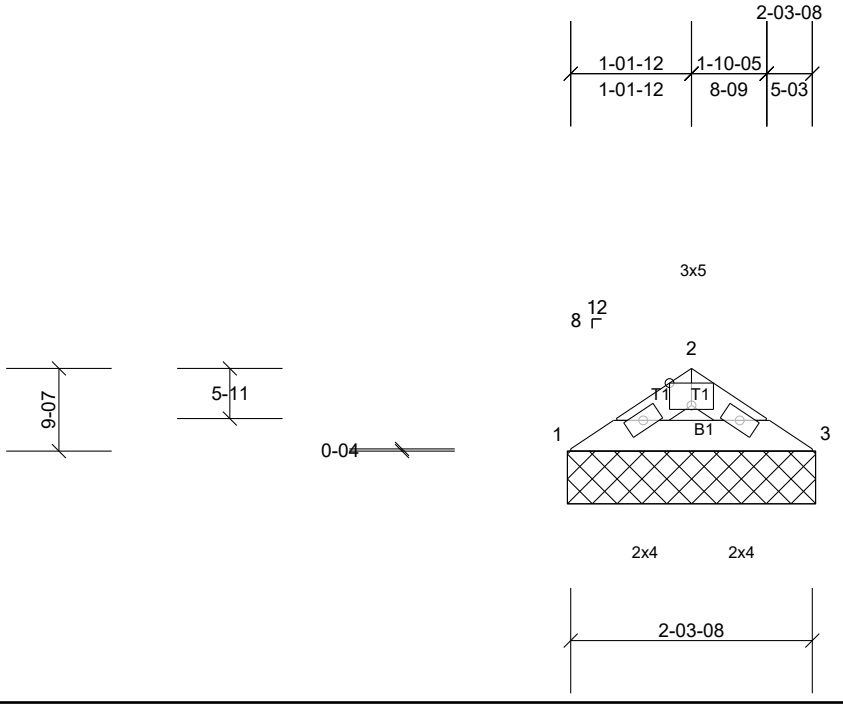
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-274/255

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1, 22 lb uplift at joint 3 and 83 lb uplift at joint 4.
7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V14	Valley	1	1	Job Reference (optional)



Scale = 1:21.9

Plate Offsets (X, Y): [2:2-08,Edge]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 6 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-3-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 1=96/2-04-04, (min. 1-08), 3=96/2-04-04, (min. 1-08)
Max Horiz 1=-20 (LC 11)
Max Uplift 1=-25 (LC 13), 3=-25 (LC 14)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

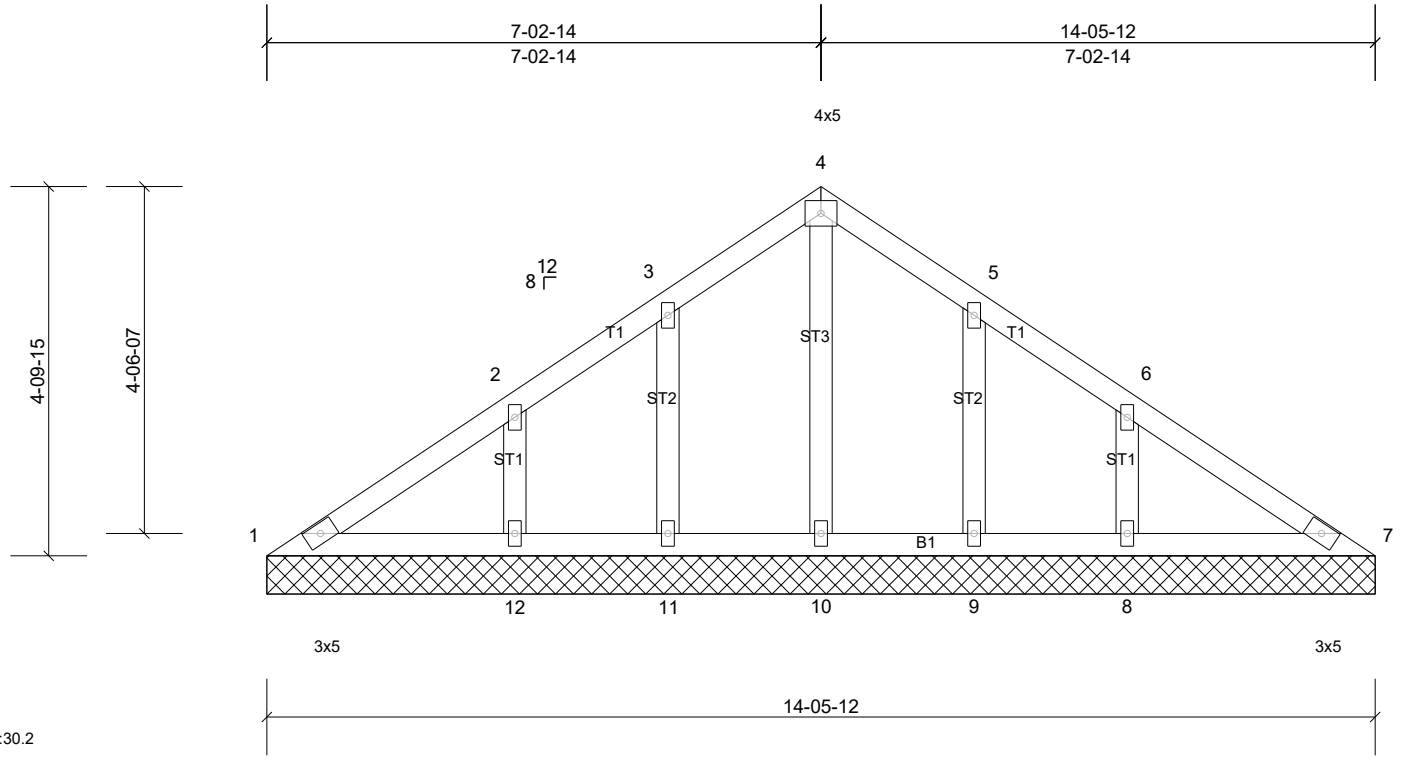
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1 and 25 lb uplift at joint 3.
7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V15G	Valley	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:19 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-ndJ5rihw9AeRXos7uAHkMdptAnSdCBtftAYduZzegkB



Scale = 1:30.2

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 66 lb	FT = 20%

LUMBER

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

BRACING

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 14-05-12.

(lb) - Max Horiz 1=155 (LC 10)

Max Uplift All uplift 100 (lb) or less at joint(s) 1, 9, 11 except 8=-145 (LC 14), 12=-147 (LC 13)

Max Grav All reactions 250 (lb) or less at joint(s) 1, 7, 9, 10, 11 except 8=284 (LC 23), 12=286 (LC 22)

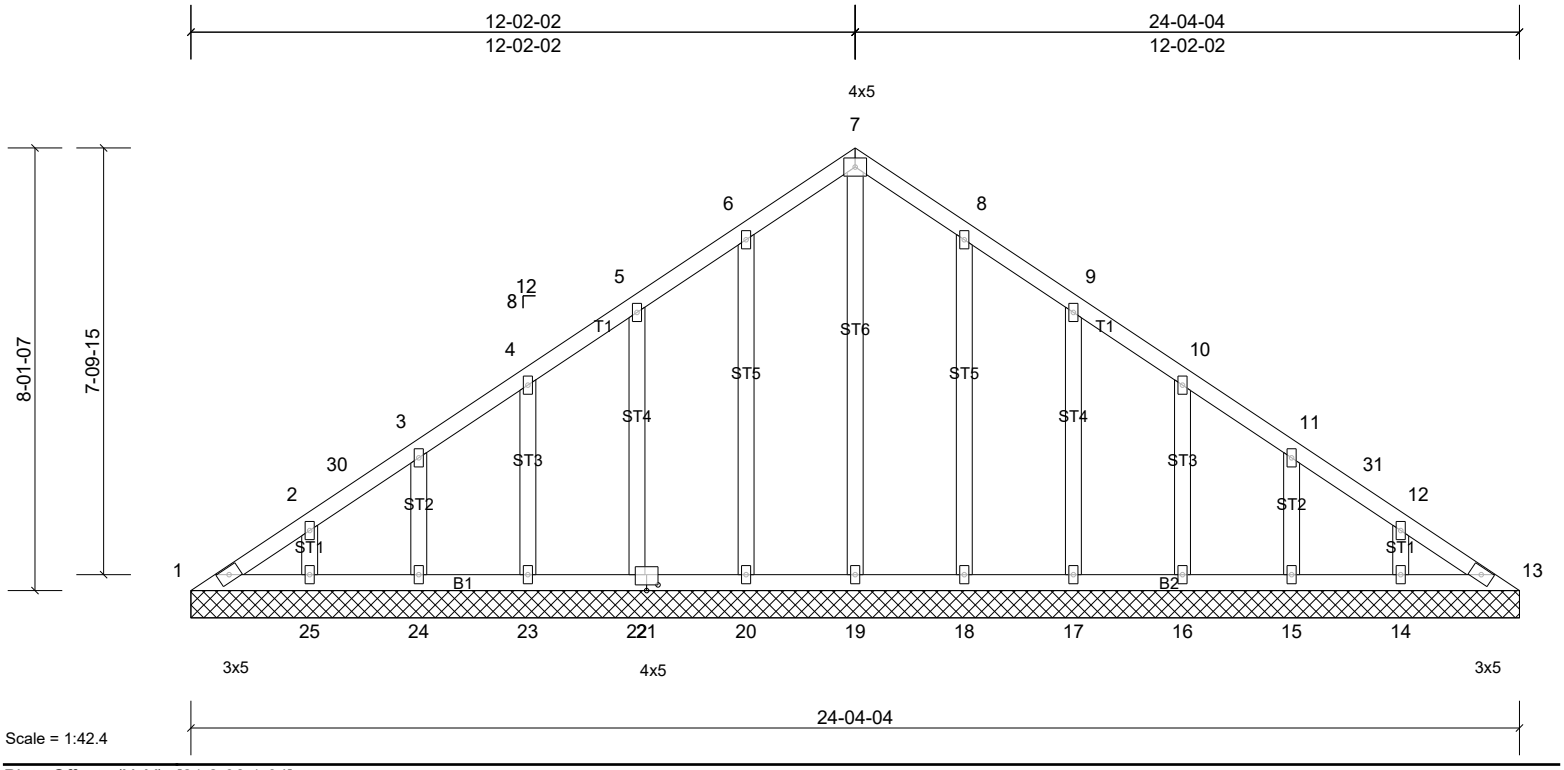
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-2-14, Exterior(2N) 3-2-14 to 7-2-14, Corner(3R) 7-2-14 to 10-2-14, Exterior(2N) 10-2-14 to 14-5-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 11, 9 except (jt=lb) 12=147, 8=145.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V16G	Valley	1	1	Job Reference (optional)



Scale = 1:42.4

Plate Offsets (X, Y): [21:2-08,1-04]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.01	13	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 142 lb	FT = 20%

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

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

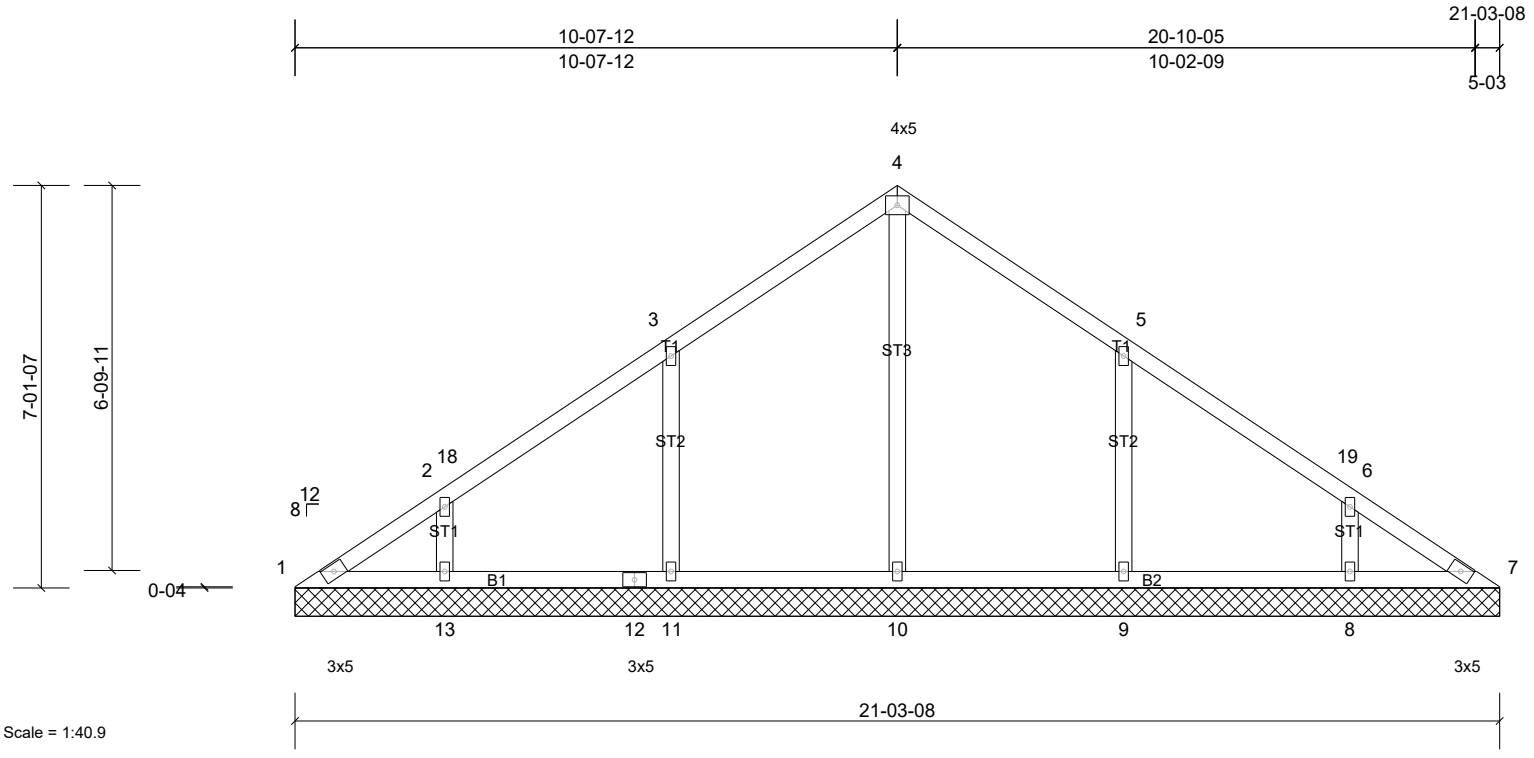
REACTIONS All bearings 24-04-04.
(lb) - Max Horiz 1=-265 (LC 9)
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 14, 18, 25 except 15=-110 (LC 14), 16=-101 (LC 14), 17=-107 (LC 14), 20=-102 (LC 13), 22=-106 (LC 13), 23=-101 (LC 13), 24=-109 (LC 13)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-250/213, 6-7=-152/253, 7-8=-152/253

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 12-2-2, Corner(3R) 12-2-2 to 15-2-2, Exterior(2N) 15-2-2 to 24-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 25, 18, 14 except (jt=lb) 20=102, 22=105, 23=101, 24=108, 17=107, 16=100, 15=110.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V17	Valley	1	1	Job Reference (optional)



Scale = 1:40.9

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.01	7	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 93 lb	FT = 20%

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

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

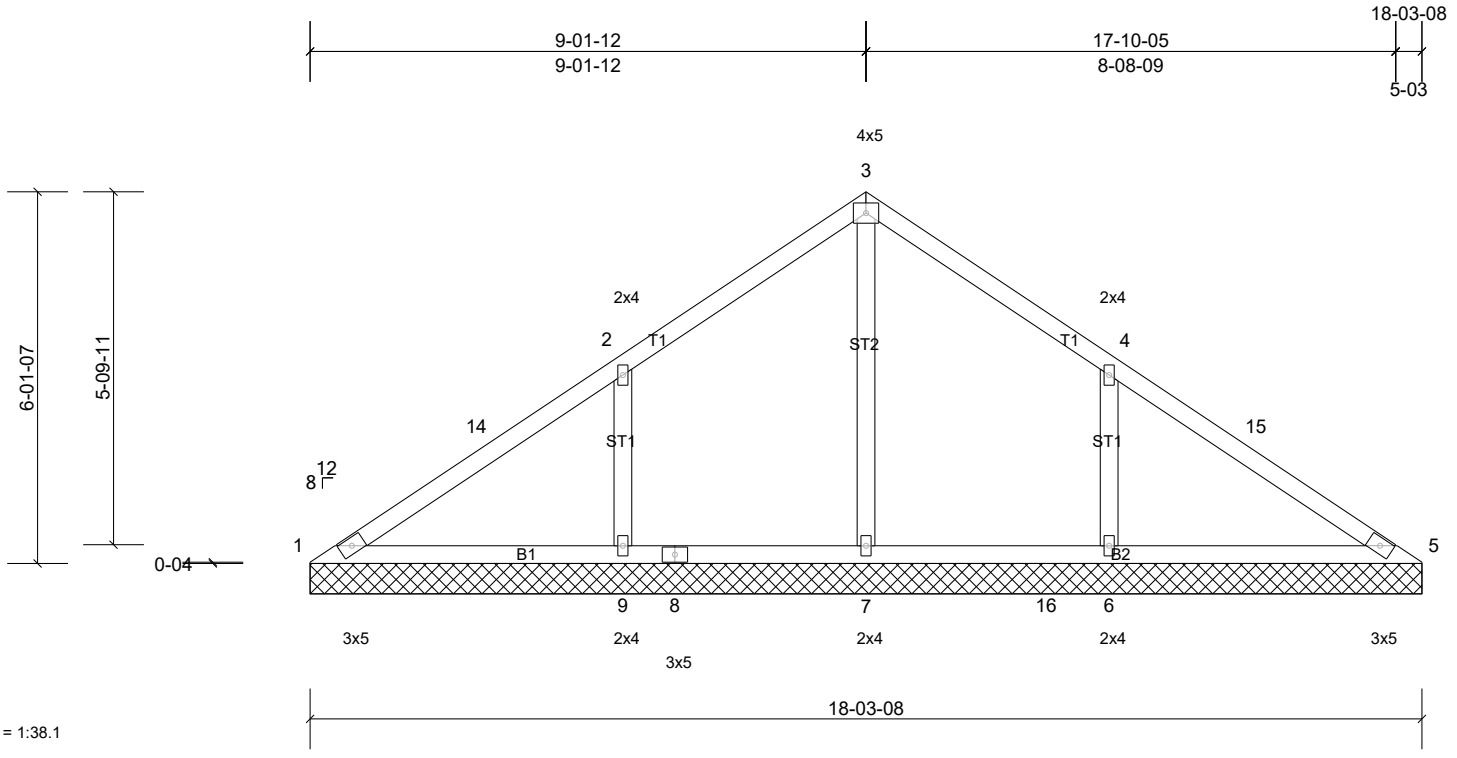
REACTIONS All bearings 21-03-08.
(lb) - Max Horiz 1=232 (LC 10)
Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 8=-160 (LC 14), 9=-232 (LC 14), 11=-232 (LC 13), 13=-164 (LC 13)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 7 except 8=371 (LC 23), 9=489 (LC 23), 10=413 (LC 25), 11=489 (LC 22), 13=376 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-11=-356/282, 2-13=-283/231, 5-9=-356/282, 6-8=-283/231

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-6 to 3-0-6, Exterior(2N) 3-0-6 to 10-8-2, Corner(3R) 10-8-2 to 13-8-2, Exterior(2N) 13-8-2 to 21-3-14 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) * 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 11=231, 13=164, 9=232, 8=160.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V18	Valley	1	1	Job Reference (optional)



Scale = 1:38.1

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 75 lb	FT = 20%

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

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

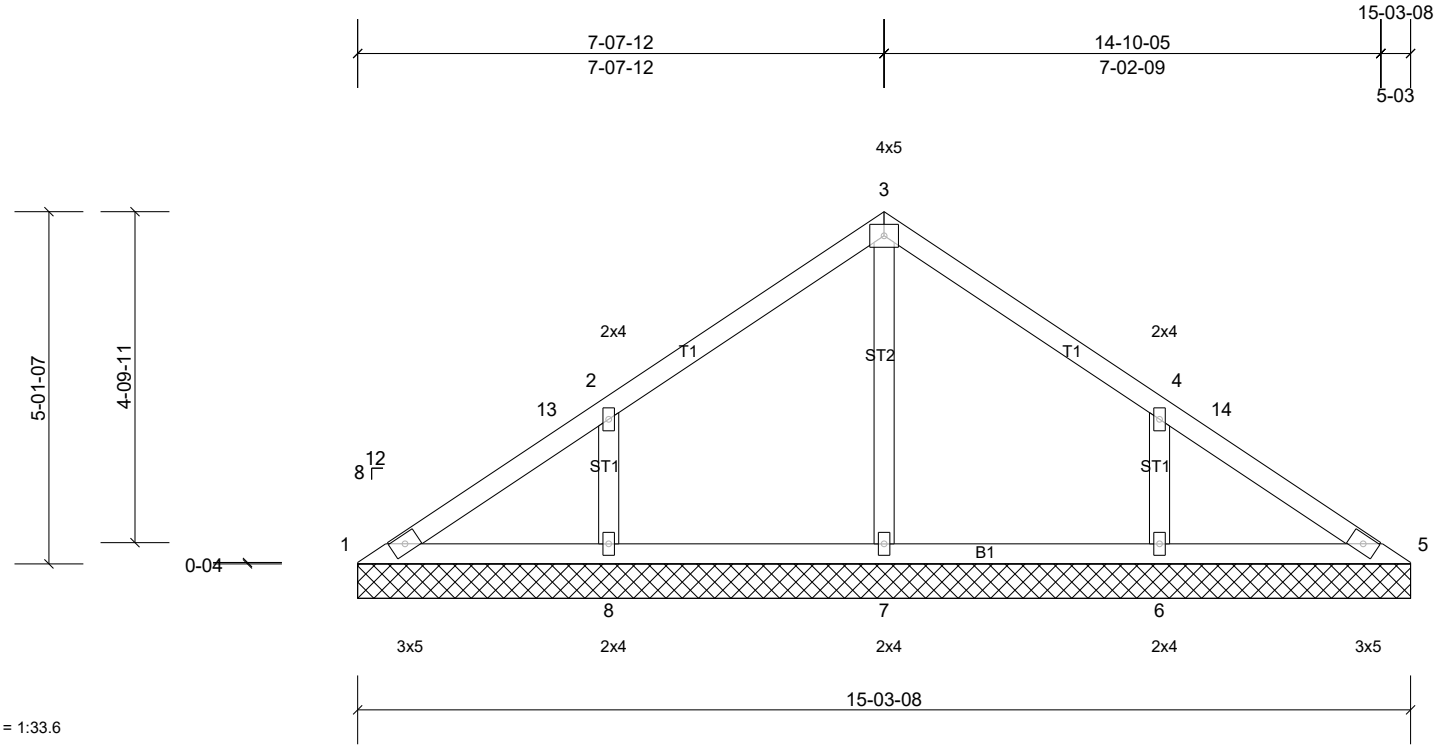
REACTIONS All bearings 18-03-08.
(lb) - Max Horiz 1=-198 (LC 11)
Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 6=-276 (LC 14), 9=-279 (LC 13)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=591 (LC 23), 7=564 (LC 22), 9=596 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-14=-183/282, 2-14=-169/359, 2-3=-17/268, 4-15=-154/331, 5-15=-167/256
WEBS 3-7=-420/84, 2-9=-413/344, 4-6=-413/344

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-6 to 3-0-6, Exterior(2N) 3-0-6 to 9-2-2, Corner(3R) 9-2-2 to 12-2-2, Exterior(2N) 12-2-2 to 18-3-14 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=278, 6=276.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V19	Valley	1	1	Job Reference (optional)



Scale = 1:33.6

Loading	(psf)	Spacing	2-00-00	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)	20.8/30.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 61 lb	FT = 20%

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

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 15-03-08.
(lb) - Max Horiz 1=-165 (LC 9)
Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 6=-225 (LC 14), 8=-227 (LC 13)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=406 (LC 23), 7=336 (LC 1), 8=408 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-7=-264/57, 2-8=-350/328, 4-6=-350/328

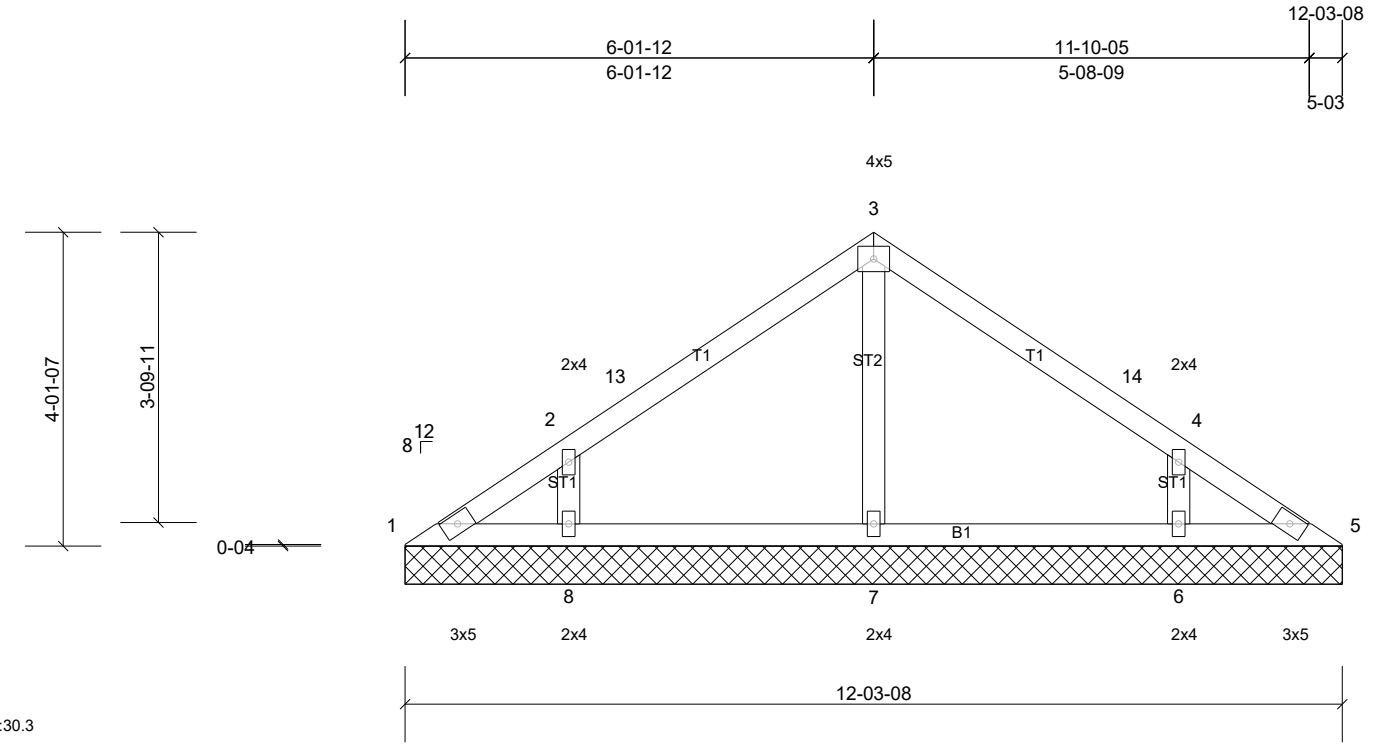
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-6 to 3-0-6, Exterior(2N) 3-0-6 to 7-8-2, Corner(3R) 7-8-2 to 10-8-2, Exterior(2N) 10-8-2 to 15-3-14 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=227, 6=224.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V20	Valley	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:21 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-BC?DTkkoS500OFaiZIqRzGRNA_UdPY?5Z8nHVuzegk8



Scale = 1:30.3

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 47 lb	FT = 20%

LUMBER

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

BRACING

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 12-03-08.

(lb) - Max Horiz 1=-132 (LC 11)

Max Uplift All uplift 100 (lb) or less at joint(s) 1, 5 except 6=-190 (LC 14), 8=-193 (LC 13)

Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=344 (LC 23), 7=270 (LC 1), 8=347 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

WEBS 2-8=-343/370, 4-6=-343/370

NOTES

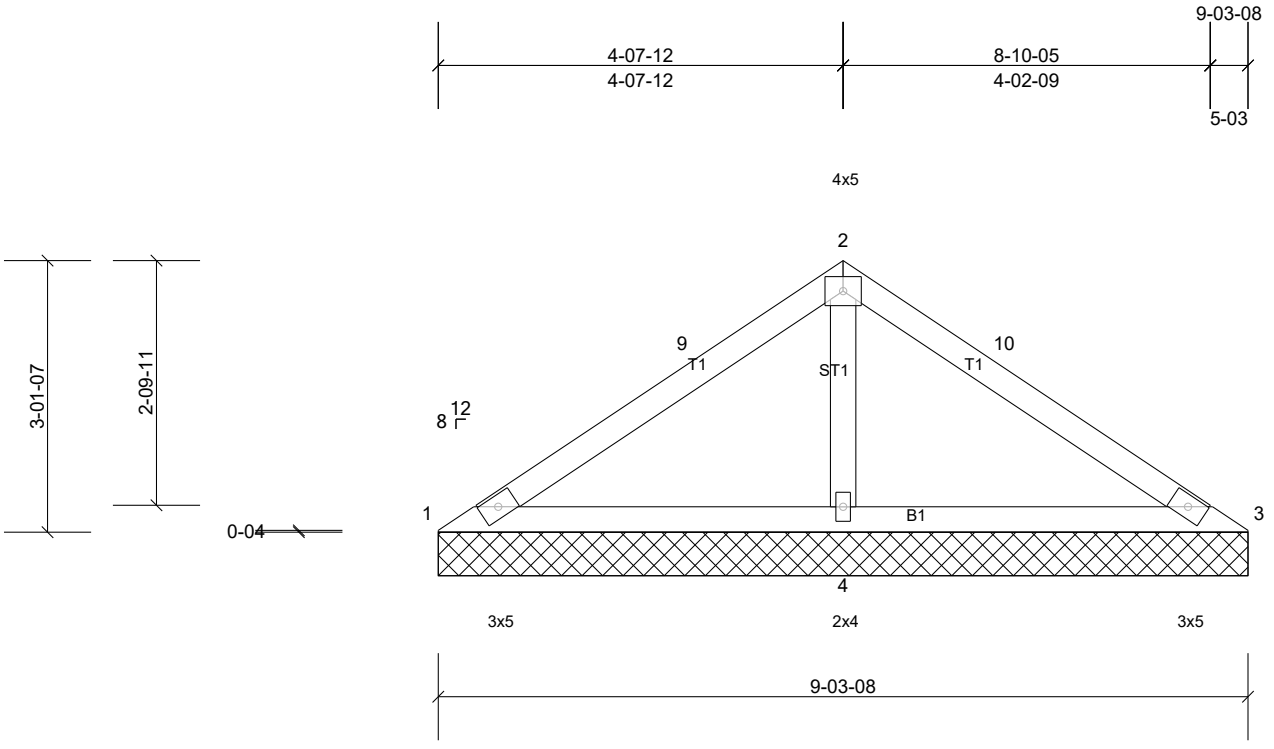
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-6 to 3-0-6, Exterior(2N) 3-0-6 to 6-2-2, Corner(3R) 6-2-2 to 9-2-2, Exterior(2N) 9-2-2 to 12-3-14 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=192, 6=189.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V21	Valley	1	1	Job Reference (optional)

Carter Components, jon.rife — Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:21 — Page: 1

ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-BC?DTkkoS500OFaiZlqRzGRMO_RBPXM5Z8nHVuzegk8



Scale = 1:26.6

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.31	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 33 lb	FT = 20%

LUMBER

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

REACTIONS (lb/size) 1=39/9-03-08, (min. 1-08), 3=39/9-03-08, (min. 1-08), 4=680/9-03-08, (min. 1-08)
Max Horiz 1=-98 (LC 9)
Max Uplift 1=-18 (LC 35), 3=-25 (LC 9), 4=-189 (LC 13)
Max Grav 1=75 (LC 34), 3=75 (LC 35), 4=680 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-9=-229/301, 2-9=-215/359, 2-10=-207/359, 3-10=-221/301
BOT CHORD	1-4=-295/319, 3-4=-295/319
WEBS	2-4=-655/493

BRACING

TOP CHORD	Structural wood sheathing directly applied or 9-3-8 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

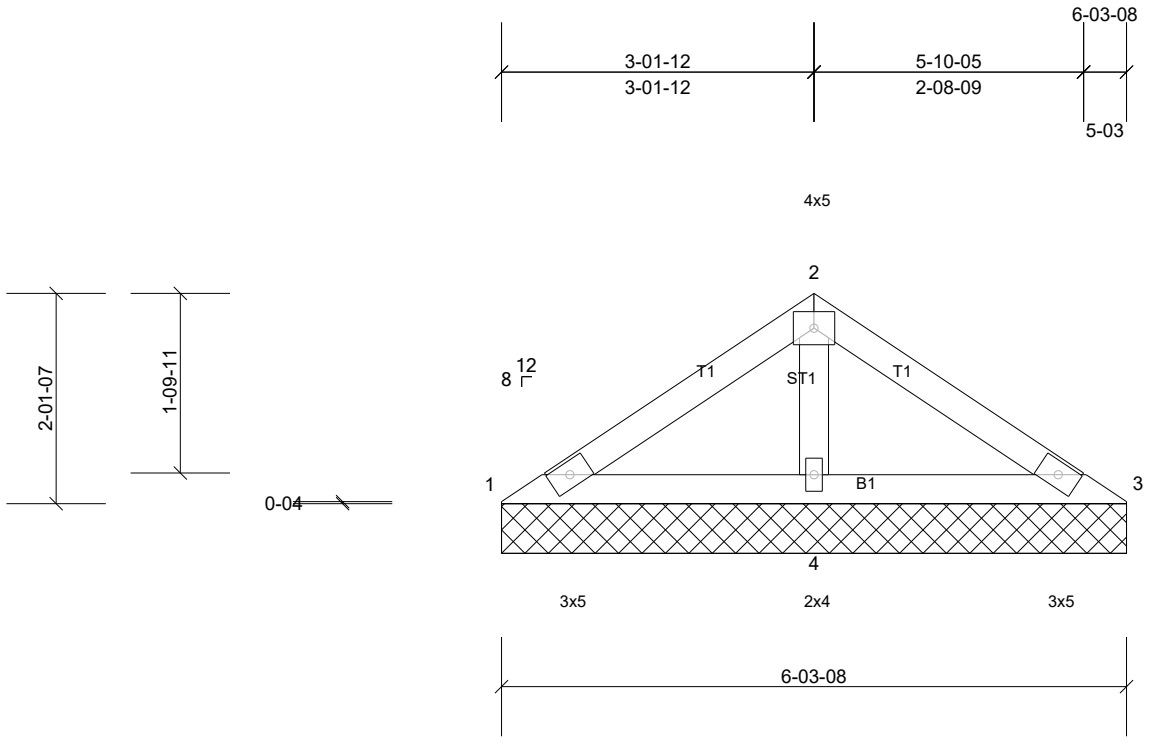
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-6 to 3-0-6, Exterior(2N) 3-0-6 to 4-8-2, Corner(3R) 4-8-2 to 7-8-2, Exterior(2N) 7-8-2 to 9-3-14 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1, 25 lb uplift at joint 3 and 189 lb uplift at joint 4.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V22	Valley	1	1	Job Reference (optional)



Scale = 1:23.3

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 21 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-3-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

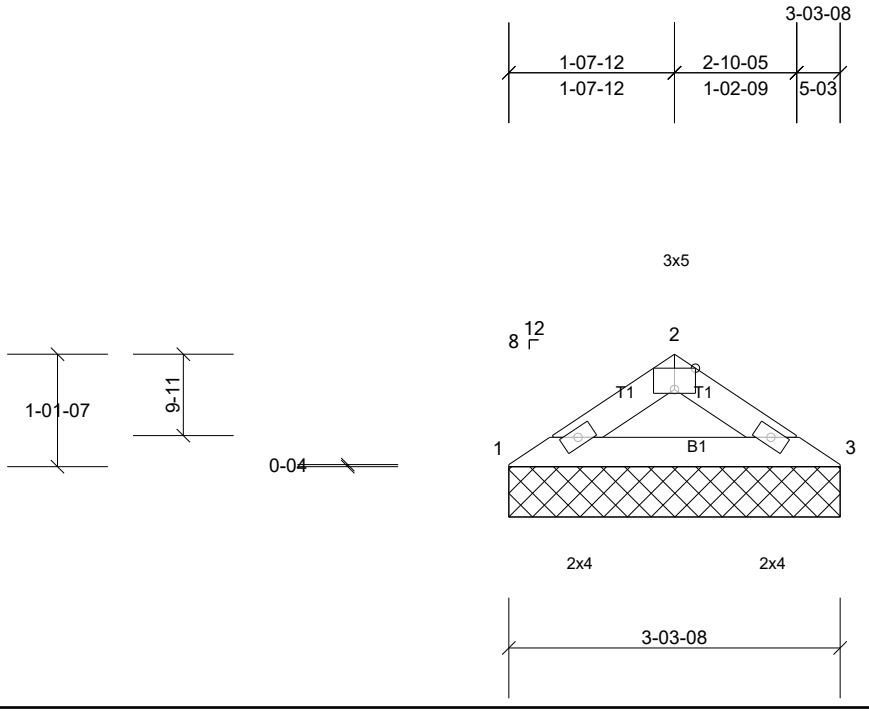
REACTIONS (lb/size) 1=51/6-03-08, (min. 1-08), 3=51/6-03-08, (min. 1-08), 4=411/6-03-08, (min. 1-08)
Max Horiz 1=-65 (LC 9)
Max Uplift 1=-10 (LC 13), 3=-21 (LC 14), 4=-108 (LC 13)
Max Grav 1=69 (LC 34), 3=69 (LC 35), 4=411 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-360/337

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1, 21 lb uplift at joint 3 and 108 lb uplift at joint 4.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V23	Valley	1	1	Job Reference (optional)



Scale = 1:23

Plate Offsets (X, Y): [2:2-08,Edge]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 9 lb	FT = 20%

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

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 1=134/3-03-08, (min. 1-08), 3=134/3-03-08, (min. 1-08)
Max Horiz 1=-31 (LC 9)
Max Uplift 1=-34 (LC 13), 3=-34 (LC 14)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 1 and 34 lb uplift at joint 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard