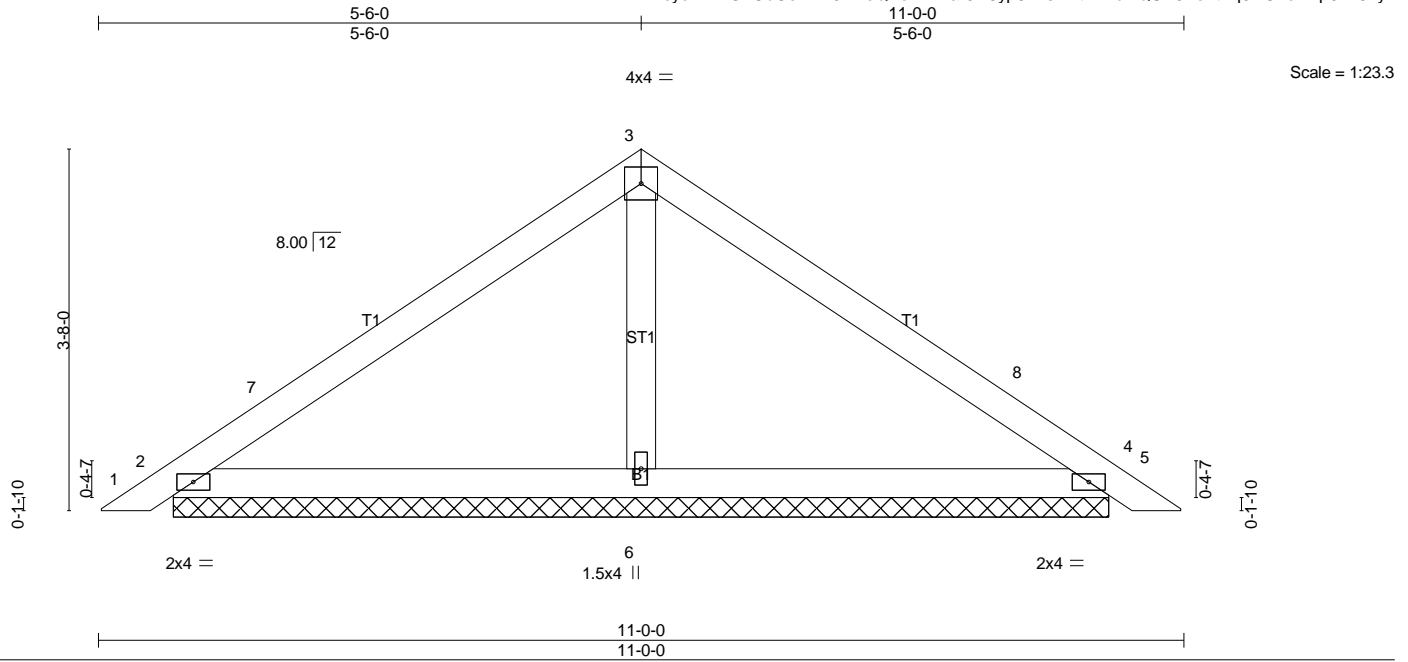


Job	Truss	Truss Type	Qty	Ply	MIKE SAYRE
P23-05036	PB01	Piggyback	32	1	Job Reference (optional)

Longleaf Truss Company, West End, N.C.

Run: 8.430 s Nov 30 2020 Print: 8.630 s Feb 9 2023 MiTek Industries, Inc. Thu Jun 15 12:07:28 2023 Page 1  
 ID:cyukWPG7CbCoXXB0HFcQYozFmra-3R5yp8L?sxnftLELuKQUY0Zo4tYq6wCXa2Ep0?z62yz



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.26	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.16	Vert(LL) 0.01 5 n/r 120		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Vert(CT) 0.01 5 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 38 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Sheathed 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.** (lb/size) 2=168/9-5-12 (min. 0-1-8), 4=168/9-5-12 (min. 0-1-8), 6=303/9-5-12 (min. 0-1-8)  
 Max Horz 2=-66(LC 10)  
 Max Uplift 2=-26(LC 12), 4=-26(LC 12)  
 Max Grav 2=220(LC 2), 4=220(LC 2), 6=377(LC 2)

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

**NOTES-**

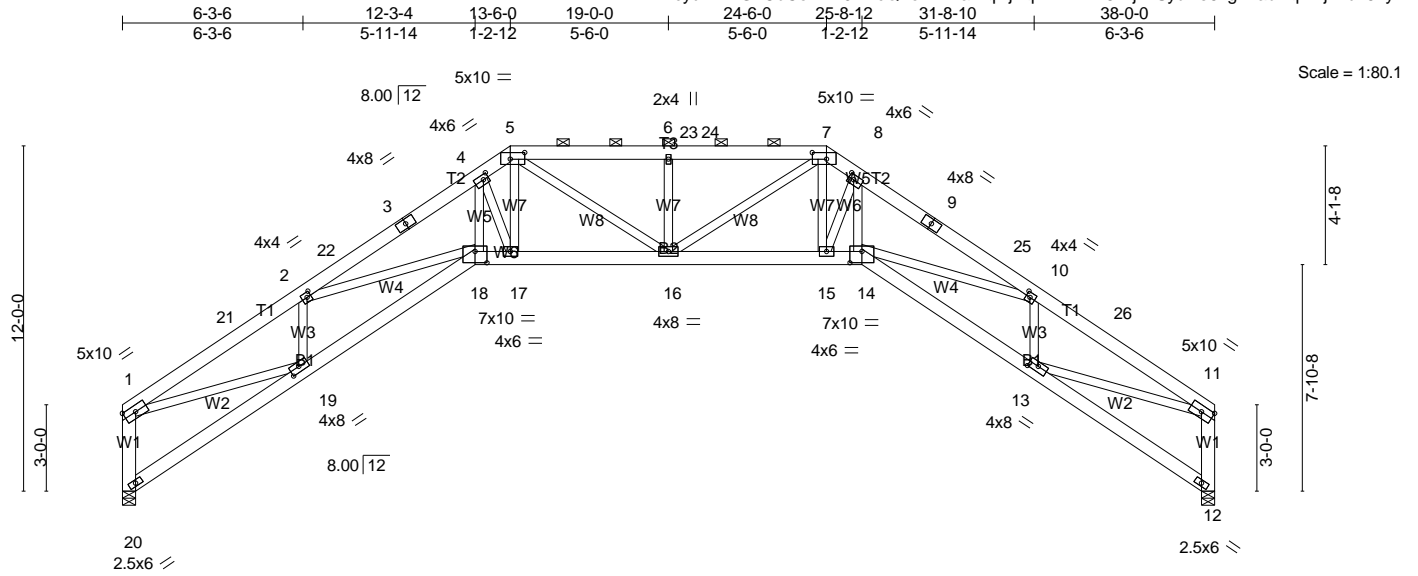
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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) 2, 4.
- 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.
- 11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

Job	Truss	Truss Type	Qty	Ply	MIKE SAYRE
P23-05036	T01	Piggyback Base	32	1	Job Reference (optional)

Longleaf Truss Company, West End, N.C.

Run: 8.430 s Nov 30 2020 Print: 8.630 s Feb 9 2023 MiTek Industries, Inc. Thu Jun 15 12:07:30 2023 Page 1  
 ID:cyukWPG7CbCoXXB0HFcQYozFmra-?qDJEqNFNY1N6fNj?kSydRe6xg77adwq2Mjv4uz62yx



Scale = 1:80.1

Plate Offsets (X,Y)--	[2:0-1-12,0-2-0], [4:0-2-4,0-2-0], [5:0-6-0,0-2-12], [7:0-6-0,0-2-12], [8:0-2-4,0-2-0], [10:0-1-12,0-2-0], [13:0-4-0,0-2-4], [14:0-5-0,0-4-12], [18:0-5-0,0-4-12], [19:0-4-0,0-2-4]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.43	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.56	Vert(LL) -0.34 16 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.88	Vert(CT) -0.68 16 >667 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.97 12 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 306 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.3 \*Except\*  
 W1: 2x6 SP No.1, W2: 2x4 SP No.2

**BRACING-**  
 TOP CHORD Sheathed or 3-0-15 oc purlins, except end verticals, and 2-0-0 oc purlins (3-11-0 max.): 5-7.  
 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) 20=1239/0-5-8 (min. 0-2-6), 12=1239/0-5-8 (min. 0-2-6)  
 Max Horz 20=258(LC 10)  
 Max Grav 20=1502(LC 2), 12=1502(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-20=-1477/15, 1-21=-3503/0, 2-21=-3376/0, 2-22=-5323/0, 3-22=-5204/0, 3-4=-5194/0, 4-5=-4171/0, 5-23=-3858/0, 6-23=-3856/0, 6-24=-3856/0, 7-24=-3858/0, 7-8=-4171/0, 8-9=-5194/0, 9-25=-5204/0, 10-25=-5322/0, 10-26=-3376/0, 11-26=-3503/0, 11-12=-1477/15  
 BOT CHORD 19-20=-301/360, 18-19=0/3521, 17-18=0/4212, 16-17=0/3614, 15-16=0/3614, 14-15=0/4211, 13-14=0/3414  
 WEBS 1-19=0/2829, 2-19=-1112/22, 2-18=0/1516, 4-18=0/2160, 4-17=-1869/0, 5-17=0/1910, 5-16=-70/480, 6-16=-408/79, 7-16=-56/480, 7-15=0/1888, 8-15=-1841/0, 8-14=0/2121, 10-14=0/1516, 10-13=-1112/22, 11-13=0/2829

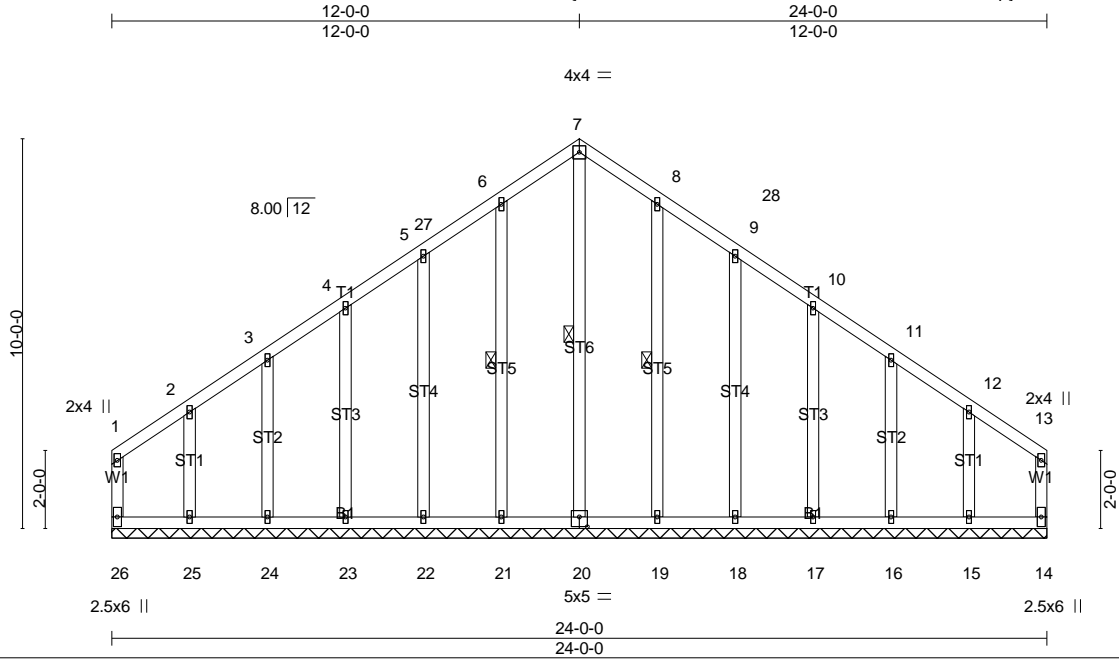
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=38ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 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.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

Job	Truss	Truss Type	Qty	Ply	MIKE SAYRE
P23-05036	T01GE	Common Supported Gable	2	1	Job Reference (optional)

Longleaf Truss Company, West End, N.C.

Run: 8.430 s Nov 30 2020 Print: 8.630 s Feb 9 2023 MiTek Industries, Inc. Thu Jun 15 12:07:31 2023 Page 1  
 ID:cyukWPG7CbCoXXB0HFcQYozFmra-T0n5SANT8sAEkpywZSzB9fBKX4aKJG7zG0StDKz62yw



Scale = 1:59.1

Plate Offsets (X,Y)-- [20:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.25	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	WB 0.11	Horz(CT)	-0.00	14	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 179 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Sheathed 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 7-20, 6-21, 8-19

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

**REACTIONS.** All bearings 24-0-0.  
 (lb) - Max Horz 26=199(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 21, 22, 23, 24, 25, 19, 18, 17, 16, 15 except 26=-110(LC 10), 14=-101(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 26, 14, 20, 21, 22, 23, 24, 19, 18, 17, 16 except 25=267(LC 23), 15=262(LC 24)

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

**NOTES-**

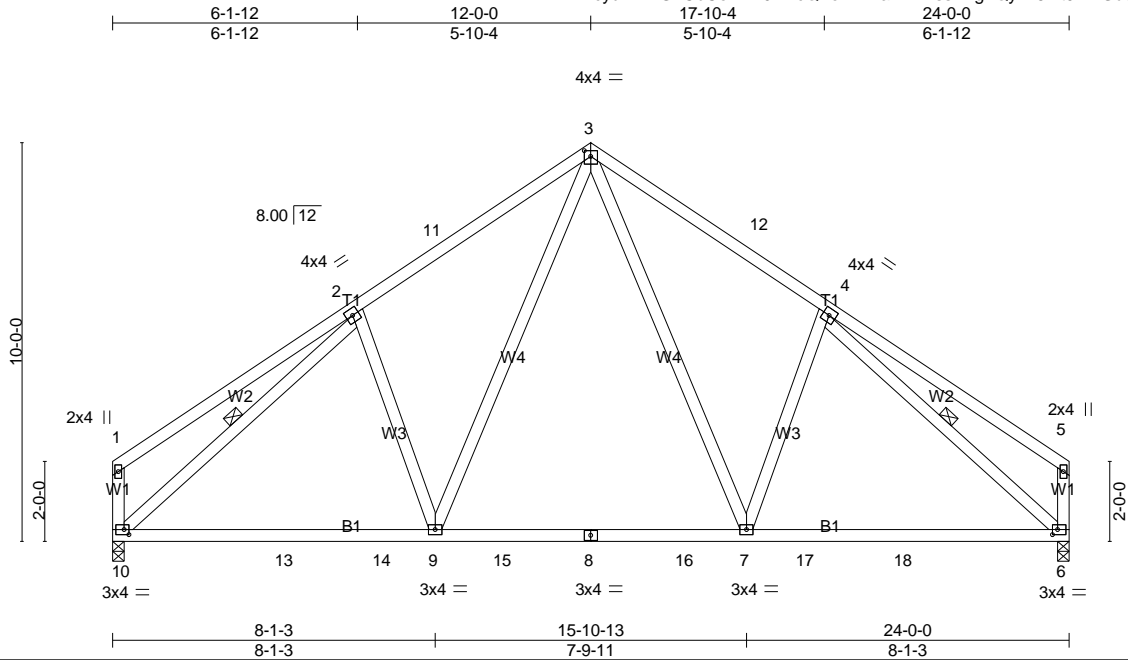
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 21, 22, 23, 24, 25, 19, 18, 17, 16, 15 except (jt=lb) 26=110, 14=101.
- 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	MIKE SAYRE
P23-05036	T02	Common	20	1	Job Reference (optional)

Longleaf Truss Company, West End, N.C.

Run: 8.430 s Nov 30 2020 Print: 8.630 s Feb 9 2023 MiTek Industries, Inc. Thu Jun 15 12:07:33 2023 Page 1  
 ID:cyukWPG7CbCoXXB0HFcQYozFmra-PPvrssP7gTQyz76lht0F4Gduu98n56GkKxahDz62yu



Scale = 1:57.8

Plate Offsets (X,Y)-- [3:0-2-0,0-1-12], [6:0-1-8,0-1-8], [10:0-1-8,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.39	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.54	Vert(LL) -0.11 9-10 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.40	Vert(CT) -0.20 9-10 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 155 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Sheathed or 5-8-4 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 2-10, 4-6

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

**REACTIONS.** (lb/size) 10=748/0-3-8 (min. 0-1-12), 6=748/0-3-8 (min. 0-1-12)  
 Max Horz 10=-199(LC 10)  
 Max Grav 10=1101(LC 23), 6=1101(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-11=-1139/93, 3-11=-1047/128, 3-12=-1047/128, 4-12=-1139/93  
 BOT CHORD 10-13=0/994, 13-14=0/994, 9-14=0/994, 9-15=0/740, 8-15=0/740, 8-16=0/740,  
 7-16=0/740, 7-17=0/897, 17-18=0/897, 6-18=0/897  
 WEBS 3-7=-33/541, 3-9=-33/541, 2-10=-1111/0, 4-6=-1110/0

- 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=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 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