

# Mark Morris, P.E.

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The truss drawing(s) listed below have been prepared by **Atlantic Building Components** under my direct supervision based on the parameters provided by the truss designers.

AST #: 40568

JOB: 23-5648-R01

JOB NAME: LOT 6 PROVIDENCE CREEK

Wind Code: 37

Wind Speed: Vult= 120mph

Exposure Category: B

Mean Roof Height (feet): 23

These truss designs comply with IRC 2015 as well as IRC 2018.

*29 Truss Design(s)*

Trusses:

PB01, PB02, R01, R02, R03, R04, R05, R06, R07, R08, R09, R10, R11, R12, SP01, SP02, SPJ01, SPJ02, SPJ03, VS01, VS02, VT01, VT02, VT03, VT04, VT05, VT06, VT07, VT08



**8/9/2023**

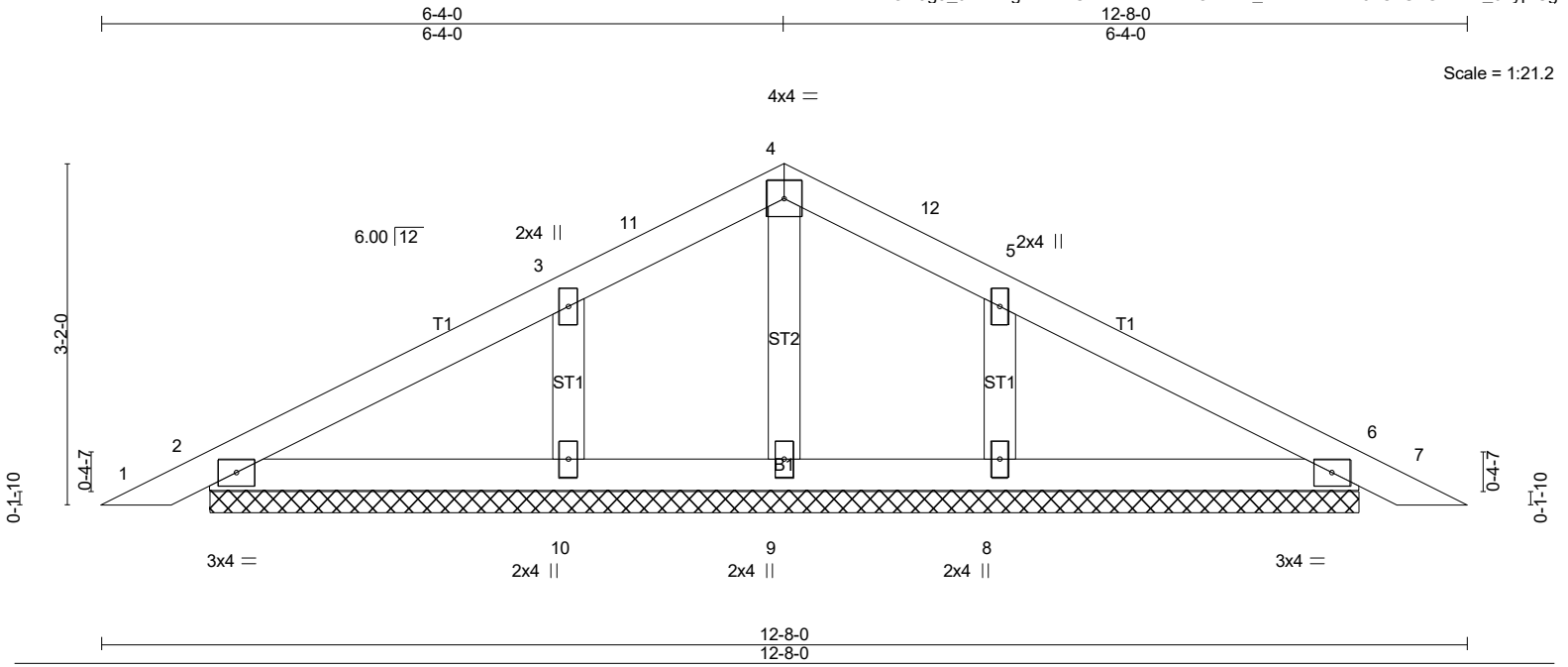
**Mark Morris**

***Warning !—Verify design parameters and read notes before use.***

This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D’Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	PB01	GABLE	2	1	
Job Reference (optional)					# 40568

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<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.17	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.16	Vert(LL) 0.00 7 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Vert(CT) 0.00 7 n/r 80		
BCDL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 6 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 45 lb	FT = 20%

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

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

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

**REACTIONS.** All bearings 10-7-14.  
 (lb) - Max Horz 2=40(LC 15)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8  
 Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9 except 10=390(LC 21), 8=390(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-10=299/114, 5-8=299/114

- NOTES-** (13-16)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 5-1-8, Exterior(2R) 5-1-8 to 7-6-8, Exterior(2E) 7-6-8 to 12-4-1 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) 2, 6, 10, 8.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



8/9/2023

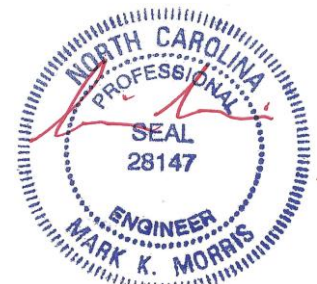
**Warning!**—Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	PB01	GABLE	2	1	Job Reference (optional) # 40568

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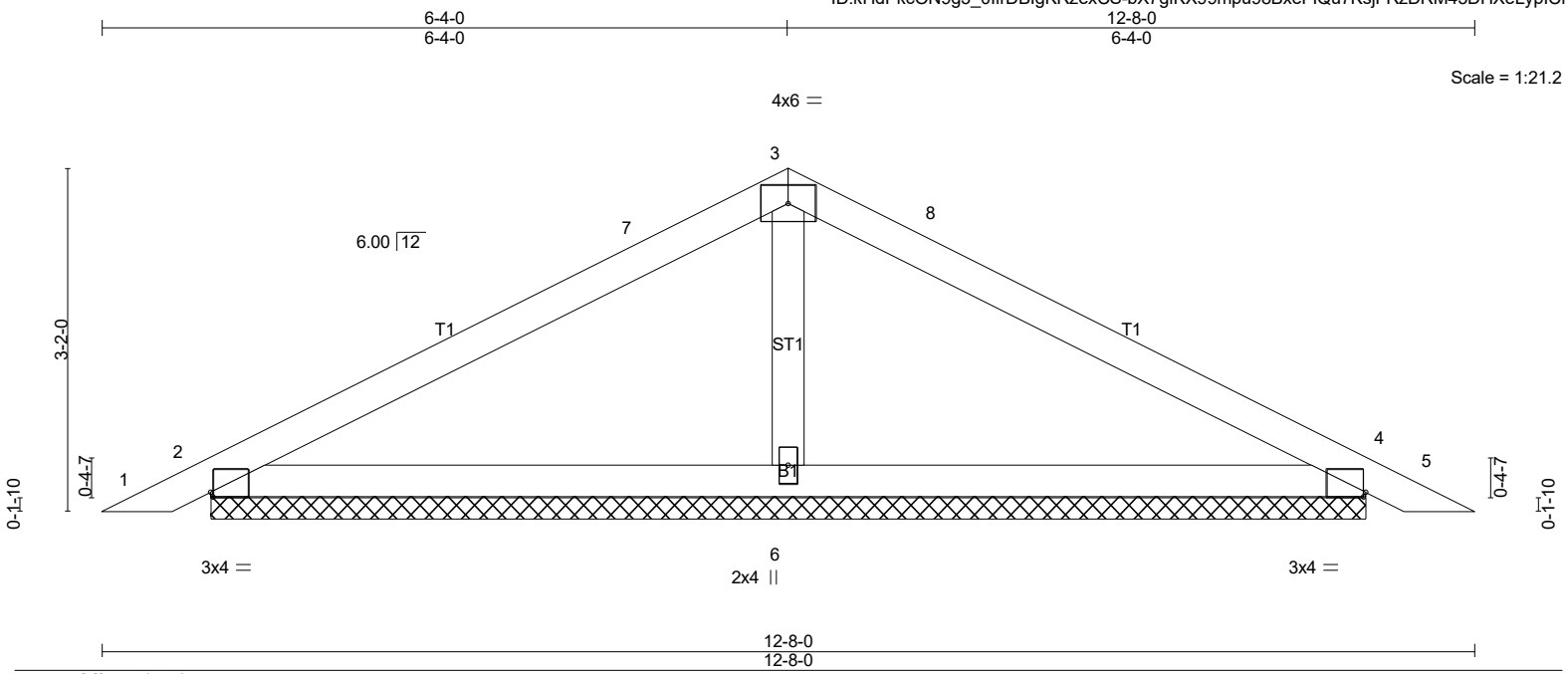
- 13) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 15) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 16) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



8/9/2023

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LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP			
TCLL (roof)	20.0	Plate Grip DOL	2-0-0	TC	0.56	Vert(LL)	0.01	in (loc)	5	l/defl	n/r	180	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	0.02		5	n/r	80			
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00		4	n/a	n/a			
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH									Weight: 40 lb	FT = 20%
BCDL	10.0													

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

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

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

**REACTIONS.** (lb/size) 2=236/10-7-14 (min. 0-1-8), 4=236/10-7-14 (min. 0-1-8), 6=463/10-7-14 (min. 0-1-8)  
Max Horz 2=40(LC 15)  
Max Uplift 2=40(LC 14), 4=47(LC 15), 6=11(LC 14)  
Max Grav 2=324(LC 21), 4=324(LC 22), 6=480(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-6=305/122

- NOTES-** (11-14)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 5-1-8, Exterior(2R) 5-1-8 to 7-6-8, Exterior(2E) 7-6-8 to 12-4-1 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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, 6.
  - 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - 11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - 12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - 13) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - 14) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

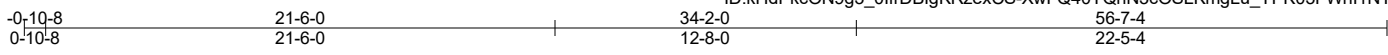


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Job 23-5648-R01	Truss R01	Truss Type Piggyback Base Supported Gable	Qty 2	Ply 1	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN Job Reference (optional) <b># 40568</b>
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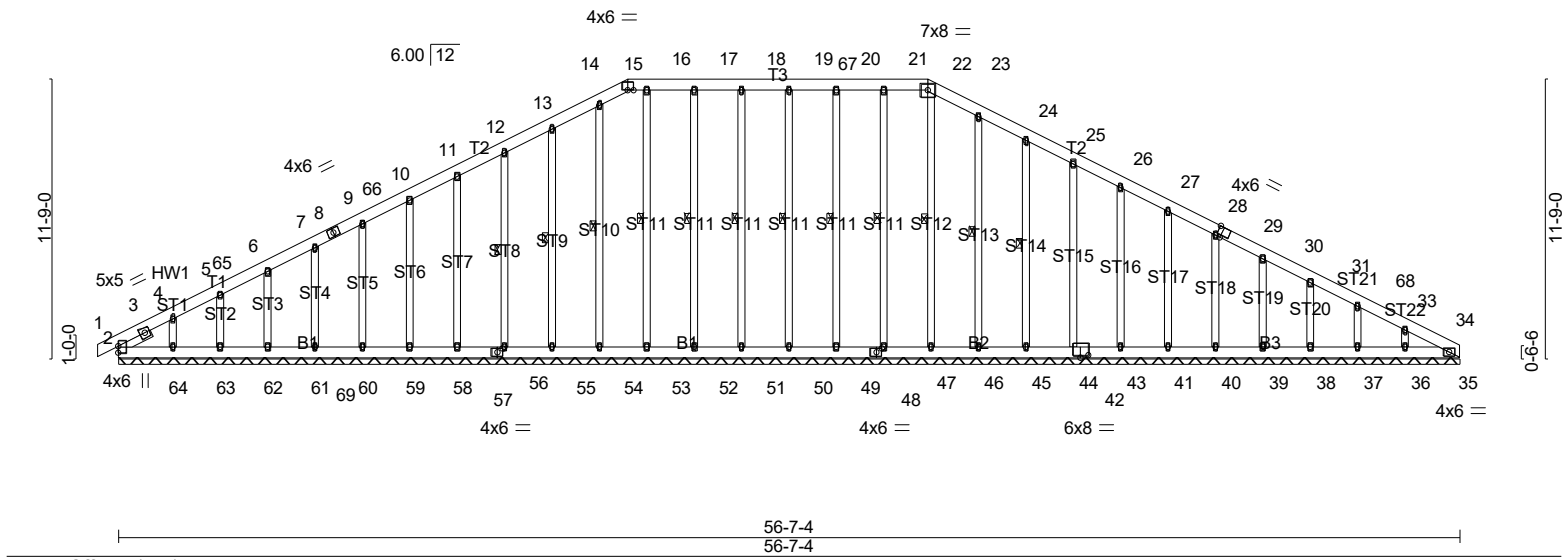


Plate Offsets (X,Y)-- [29:0-2-1,Edge], [43:0-4-0,0-1-4], [48:0-2-10,0-2-0], [57:0-2-10,0-2-0]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) -0.00 1 n/r 180	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.03	Vert(CT) 0.00 1 n/r 80		
TCDL 10.0	Rep Stress Incr YES	WB 0.25	Horz(CT) 0.01 34 n/a n/a		
BCLL 0.0 *	Code IRC2021/TPI2014	Matrix-SH			
BCDL 10.0					Weight: 559 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	WEBS 1 Row at midpt 19-50, 18-51, 17-52, 16-53, 14-54, 13-55, 12-56, 20-49, 21-47, 22-46, 23-45, 24-44
SLIDER Left 2x4 SP No.3 -° 1-6-4	

**REACTIONS.** All bearings 56-7-4.  
 (lb) - Max Horz 2=-150(LC 15)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 50, 51, 52, 55, 56, 58, 59, 60, 61, 62, 63, 64, 49, 47, 45, 44, 43, 41, 40, 39, 38, 37, 36, 35  
 Max Grav All reactions 50 lb or less at joint(s) 2, 61, 62, 63, 64, 46, 38, 37, 36, 35, 34 except 50=292(LC 44), 51=293(LC 44), 52=295(LC 44), 53=284(LC 52), 54=284(LC 53), 55=296(LC 45), 56=293(LC 45), 58=292(LC 45), 59=294(LC 45), 60=287(LC 45), 49=295(LC 44), 47=287(LC 44), 45=302(LC 49), 44=294(LC 45), 43=291(LC 45), 41=293(LC 45), 40=293(LC 45), 39=275(LC 45)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 13-14=-124/261, 14-15=-129/268, 15-16=-124/265, 16-17=-124/265, 17-18=-124/265, 18-19=-124/265, 19-67=-124/265, 20-67=-124/265, 20-21=-124/265, 21-22=-124/265, 22-23=-132/277

- NOTES-** (14-17)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 4-9-7, Exterior(2N) 4-9-7 to 15-10-1, Corner(3R) 15-10-1 to 27-1-15, Exterior(2N) 27-1-15 to 28-3-10, Corner(3R) 28-3-10 to 39-9-15, Exterior(2N) 39-9-15 to 50-11-5, Corner(3E) 50-11-5 to 56-7-4 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 50, 51, 52, 55, 56,



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Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	R01	Piggyback Base Supported Gable	2	1	Job Reference (optional) # 40568

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- 14) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
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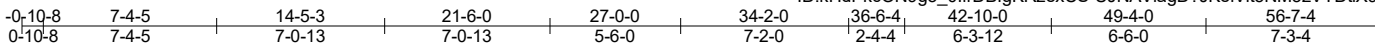
**LOAD CASE(S)** Standard



8/9/2023

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Scale = 1:97.9

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	2.0-0	TC	0.53	Vert(LL)	-0.25 19-20 >999 240	MT20		244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.37 19-20 >999 180				
TCDL	10.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.05 14 n/a n/a				
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 471 lb FT = 20%
BCDL	10.0										

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-2-0 oc purlins.
BOT CHORD	2x6 SP No.2 *Except* B4: 2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 6-0-0 oc bracing: 19-21
WEBS	2x4 SP No.3 *Except* W7: 2x4 SP No.2, W9: 2x6 SP No.1	WEBS	1 Row at midpt 6-24, 7-22, 8-22, 10-17, 11-17 2 Rows at 1/3 pts 9-19
SLIDER	Left 2x4 SP No.3 -° 4-0-11		

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

**REACTIONS.** (lb/size) 2=1377/0-3-8 (min. 0-1-14), 14=511/Mechanical, 17=2860/0-3-8 (min. 0-2-9)  
 Max Horz 2=-150(LC 19)  
 Max Uplift 2=-126(LC 14), 14=-76(LC 15), 17=-34(LC 15)  
 Max Grav 2=1614(LC 92), 14=576(LC 41), 17=3755(LC 43)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 2-3=-2669/178, 3-4=-2571/209, 4-5=-2477/215, 5-27=-2410/226, 6-27=-2378/244,  
 6-28=-1805/243, 7-28=-1666/272, 7-29=-1038/216, 8-29=-1037/216, 8-30=-1037/216,  
 30-31=-1037/216, 9-31=-1038/216, 9-10=0/753, 10-32=0/938, 11-32=0/785, 11-33=-287/120,  
 12-33=-368/106, 12-13=-458/94, 13-14=-756/145  
**BOT CHORD** 2-26=-237/2243, 26-34=-121/1878, 25-34=-121/1878, 24-25=-121/1878, 24-35=-31/1249,  
 35-36=-31/1249, 23-36=-31/1249, 22-23=-31/1249, 22-37=-131/358, 37-38=-131/358,  
 38-39=-131/358, 18-39=-131/358, 18-40=-131/358, 40-41=-131/358, 41-42=-131/358,  
 17-42=-131/358, 14-15=-60/620  
**WEBS** 4-26=-294/171, 6-26=-78/541, 6-24=-1002/235, 7-24=-135/1228, 7-22=-867/149,  
 8-22=-744/151, 21-22=-134/1727, 9-21=-114/1892, 9-19=-2031/135, 17-19=-2103/104,  
 10-17=-628/146, 11-17=-976/198, 11-15=-29/652, 13-15=-455/178, 18-20=-263/0

- NOTES-** (17-20)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Hip Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 4-9-7, Interior(1) 4-9-7 to 15-10-1, Exterior(2R) 15-10-1 to 27-0-0, Interior(1) 27-0-0 to 28-6-1, Exterior(2R) 28-6-1 to 39-9-15, Interior(1) 39-9-15 to 50-10-9, Exterior(2E) 50-10-9 to 56-6-8 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 5x5 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



8/9/2023

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Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	R02	Piggyback Base	10	1	Job Reference (optional) # 40568

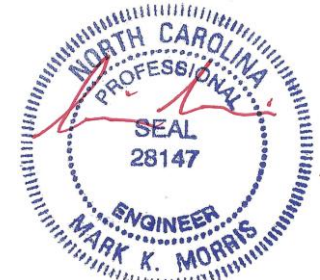
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**NOTES-** (17-20)

- 9) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) Refer to girder(s) for truss to truss connections.
- 11) 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.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 17 except (jt=lb) 2=126.
- 13) Load case(s) 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 14) MULTIPLE LOADCASES – This design is the composite result of multiple load cases.
- 15) User moving load cases exist: Review the load cases for details.
- 16) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- 17) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 18) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 19) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 20) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard Except:

- 86) 1st User Defined Moving Load - Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-7=-60(F), 7-9=-60(F), 9-14=-60(F), 2-14=-20(F), 19-21=-20(F)  
Concentrated Loads (lb)  
Vert: 22=-150 37=-150
- 87) 2nd User Defined Moving Load - Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-7=-60(F), 7-9=-60(F), 9-14=-60(F), 2-14=-20(F), 19-21=-20(F)  
Concentrated Loads (lb)  
Vert: 37=-150 39=-150
- 88) 3rd User Defined Moving Load - Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-7=-60(F), 7-9=-60(F), 9-14=-60(F), 2-14=-20(F), 19-21=-20(F)  
Concentrated Loads (lb)  
Vert: 39=-150 40=-150
- 89) 4th User Defined Moving Load - Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-7=-60(F), 7-9=-60(F), 9-14=-60(F), 2-14=-20(F), 19-21=-20(F)  
Concentrated Loads (lb)  
Vert: 40=-150 42=-150
- 90) 5th User Defined Moving Load - Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-7=-60(F), 7-9=-60(F), 9-14=-60(F), 2-14=-20(F), 19-21=-20(F)  
Concentrated Loads (lb)  
Vert: 17=-150 41=-150
- 91) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-14=-32(F=-20), 2-14=-20(F), 19-21=-20(F)  
Concentrated Loads (lb)  
Vert: 22=-150 37=-150
- 92) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-12=-101(F=-20), 12-14=-60(F=-20), 2-14=-20(F), 19-21=-20(F)  
Concentrated Loads (lb)  
Vert: 22=-150 37=-150
- 93) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-14=-32(F=-20), 2-14=-20(F), 19-21=-20(F)  
Concentrated Loads (lb)  
Vert: 22=-150 37=-150
- 94) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-12=-101(F=-20), 12-14=-60(F=-20), 2-14=-20(F), 19-21=-20(F)  
Concentrated Loads (lb)  
Vert: 22=-150 37=-150
- 95) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-14=-32(F=-20), 2-14=-20(F), 19-21=-20(F)  
Concentrated Loads (lb)  
Vert: 22=-150 37=-150
- 96) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-12=-101(F=-20), 12-14=-60(F=-20), 2-14=-20(F), 19-21=-20(F)  
Concentrated Loads (lb)  
Vert: 22=-150 37=-150
- 97) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-14=-32(F=-20), 2-14=-20(F), 19-21=-20(F)



8/9/2023

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Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	R02	Piggyback Base	10	1	
					# 40568

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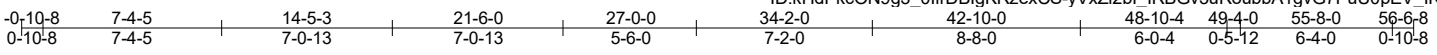
**LOAD CASE(S)**

- Concentrated Loads (lb)  
 Vert: 22=-150 37=-150
- 98) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-12=-101(F=-20), 12-14=-60(F=-20), 2-14=-20(F), 19-21=-20(F)  
 Concentrated Loads (lb)  
 Vert: 22=-150 37=-150
- 99) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-14=-32(F=-20), 2-14=-20(F), 19-21=-20(F)  
 Concentrated Loads (lb)  
 Vert: 22=-150 37=-150
- 100) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-12=-101(F=-20), 12-14=-60(F=-20), 2-14=-20(F), 19-21=-20(F)  
 Concentrated Loads (lb)  
 Vert: 22=-150 37=-150
- 101) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-14=-32(F=-20), 2-14=-20(F), 19-21=-20(F)  
 Concentrated Loads (lb)  
 Vert: 22=-150 37=-150
- 102) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-12=-101(F=-20), 12-14=-60(F=-20), 2-14=-20(F), 19-21=-20(F)  
 Concentrated Loads (lb)  
 Vert: 22=-150 37=-150
- 103) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-14=-32(F=-20), 2-14=-20(F), 19-21=-20(F)  
 Concentrated Loads (lb)  
 Vert: 22=-150 37=-150
- 104) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-12=-101(F=-20), 12-14=-60(F=-20), 2-14=-20(F), 19-21=-20(F)  
 Concentrated Loads (lb)  
 Vert: 22=-150 37=-150
- 105) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-14=-32(F=-20), 2-14=-20(F), 19-21=-20(F)  
 Concentrated Loads (lb)  
 Vert: 22=-150 37=-150
- 106) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-12=-101(F=-20), 12-14=-60(F=-20), 2-14=-20(F), 19-21=-20(F)  
 Concentrated Loads (lb)  
 Vert: 22=-150 37=-150



8/9/2023

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Scale = 1:95.0

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.72	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.66	Vert(LL) -0.17 22-24 >999 240		
TCDL 10.0	Rep Stress Incr YES	WB 0.94	Vert(CT) -0.26 22-24 >999 180		
BCLL 0.0 *	Code IRC2021/TPI2014	Matrix-SH	Horz(CT) 0.05 19 n/a n/a		
BCDL 10.0				Weight: 442 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-1-14 oc purlins.
BOT CHORD 2x6 SP No.2 *Except* B2: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* W8: 2x4 SP No.2	WEBS 1 Row at midpt 6-22, 7-21, 8-21, 10-19 2 Rows at 1/3 pts 9-19
SLIDER Left 2x4 SP No.3 -° 4-0-11, Right 2x4 SP No.3 -° 3-4-13	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 0-3-8 except (jt=length) 14=0-3-0.  
 (lb) - Max Horz 2=148(LC 14)  
 Max Uplift All uplift 100 lb or less at joint(s) 19, 14, 16 except 2=136(LC 14)  
 Max Grav All reactions 250 lb or less at joint(s) except 2=1592(LC 39), 19=3095(LC 45), 14=364(LC 43), 16=576(LC 43)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2672/222, 3-4=-2578/253, 4-5=-2500/264, 5-25=-2415/270, 6-25=-2386/288,  
 6-26=-1824/290, 7-26=-1676/318, 7-27=-916/271, 8-27=-915/271, 8-28=-915/271,  
 28-29=-915/271, 9-29=-916/271, 9-30=0/790, 10-30=0/588, 11-12=-260/106, 13-14=-274/68  
 BOT CHORD 2-24=-256/2251, 24-32=-137/1864, 23-32=-137/1864, 22-23=-137/1864, 22-33=-35/1169,  
 33-34=-35/1169, 21-34=-35/1169  
 WEBS 4-24=-307/172, 6-24=-81/537, 6-22=-999/236, 7-22=-130/1269, 7-21=-917/132,  
 8-21=-733/150, 9-21=-133/1632, 9-19=-2115/258, 10-19=-834/193, 10-17=-27/291,  
 12-16=-458/113

- NOTES-** (11-14)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Hip Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 4-8-5, Interior(1) 4-8-5 to 15-11-3, Exterior(2R) 15-11-3 to 27-0-0, Interior(1) 27-0-0 to 28-7-3, Exterior(2R) 28-7-3 to 39-8-13, Interior(1) 39-8-13 to 50-11-11, Exterior(2E) 50-11-11 to 56-6-8 zone; cantilever right exposed; end vertical left and right exposed; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 5x5 MT20 unless otherwise indicated.
  - 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 14, 16 except (jt=lb) 2=136.



8/9/2023

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Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
23-5648-R01	R03	Piggyback Base	5	1	# 40568

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- 11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 13) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 14) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



8/9/2023

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Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	R04	Piggyback Base	5	1	Job Reference (optional) # 40568

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- 11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 13) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 14) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

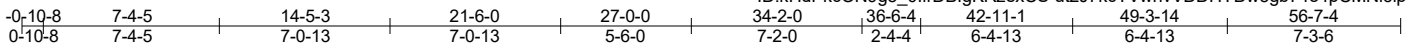
**LOAD CASE(S)** Standard



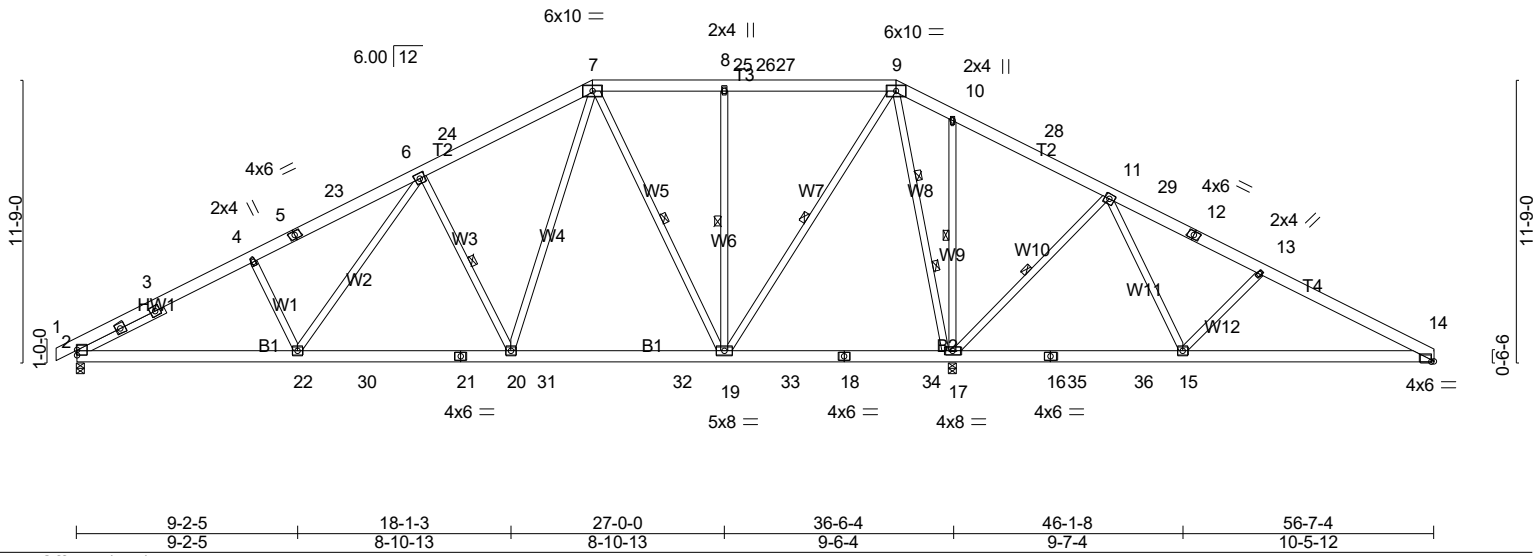
8/9/2023

**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.





Scale: 1/8"=1'



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.16 20-22 >999 240	MT20		244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.25 20-22 >999 180				
TCDL	10.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.05 14 n/a n/a				
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH							Weight: 449 lb FT = 20%
BCDL	10.0										

**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2 \*Except\*  
 B2: 2x6 SP DSS  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 -° 4-0-11

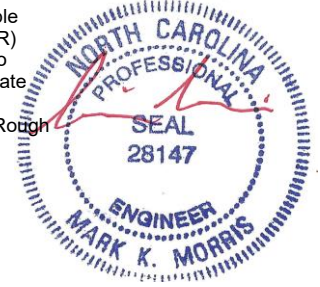
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-4-4 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 6-20, 7-19, 8-19, 9-19, 10-17, 11-17  
 2 Rows at 1/3 pts 9-17

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

**REACTIONS.** (lb/size) 2=1335/0-3-8 (min. 0-1-12), 17=2766/0-3-8 (min. 0-3-8), 14=475/Mechanical  
 Max Horz2=-150(LC 15)  
 Max Uplift2=-136(LC 14), 17=-108(LC 15), 14=-77(LC 15)  
 Max Grav2=1502(LC 39), 17=3481(LC 45), 14=550(LC 43)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2523/198, 3-4=-2430/227, 4-5=-2352/238, 5-23=-2269/243, 6-23=-2237/261,  
 6-24=-1666/260, 7-24=-1529/289, 7-25=-825/241, 8-25=-824/241, 8-26=-825/241,  
 26-27=-825/241, 9-27=-826/241, 9-10=0/842, 10-28=0/1014, 11-28=0/863, 12-29=-323/110,  
 12-13=-411/99, 13-14=-698/145  
 BOT CHORD 2-22=-255/2121, 22-30=-140/1753, 21-30=-140/1753, 20-21=-140/1753, 20-31=-52/1114,  
 31-32=-52/1114, 19-32=-52/1114, 19-33=-406/229, 18-33=-406/229, 18-34=-406/229,  
 17-34=-406/229, 14-15=-60/568  
 WEBS 4-22=-310/170, 6-22=-79/542, 6-20=-1004/235, 7-20=-128/1268, 7-19=-1001/131,  
 8-19=-742/151, 9-19=-161/1721, 9-17=-1966/181, 10-17=-599/149, 11-17=-983/199,  
 11-15=-33/635, 13-15=-444/175

- NOTES-** (12-15)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Hip Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-10-8 to 4-9-7, Interior(1) 4-9-7 to 15-10-1, Exterior(2R) 15-10-1 to 27-0-0, Interior(1) 27-0-0 to 28-6-1, Exterior(2R) 28-6-1 to 39-9-15, Interior(1) 39-9-15 to 50-10-9, Exterior(2E) 50-10-9 to 56-6-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TC LL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.0
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 5x5 MT20 unless otherwise indicated.
  - 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



8/9/2023

10) Refer to order for truss connections before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI 1-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	R05	Piggyback Base	4	1	Job Reference (optional) # 40568

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**NOTES-** (12-15)

- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14 except (jt=lb) 2=136, 17=108.
- 12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 14) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 15) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

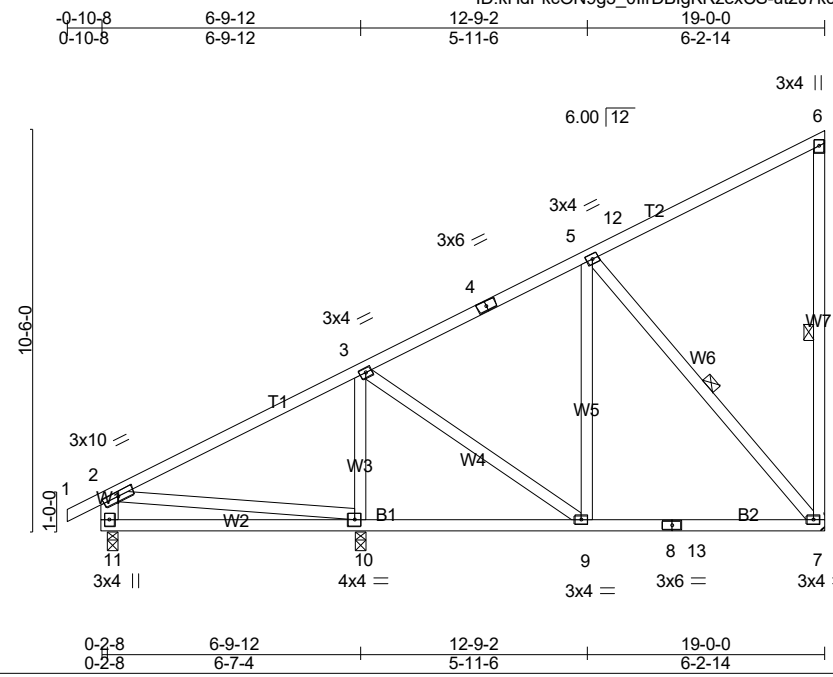


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Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	R06	Monopitch	3	1	
					<b># 40568</b>

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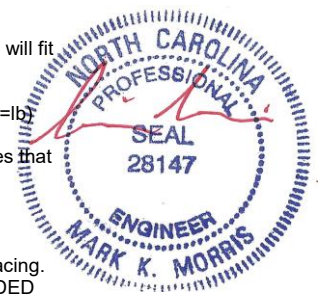
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.70	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.38	Vert(LL) 0.09 10-11 >882 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.21	Vert(CT) -0.11 7-9 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) -0.01 7 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014				Weight: 126 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 7-10-14 oc bracing.
WEBS 2x4 SP No.3 *Except* W1: 2x6 SP No.2	WEBS 1 Row at midpt 6-7, 5-7
	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 7=493/Mechanical, 11=356/0-3-0 (min. 0-1-8), 10=707/0-3-8 (min. 0-1-8)  
 Max Horz 11=290(LC 14)  
 Max Uplift 7=-162(LC 14), 11=-14(LC 11), 10=-54(LC 14)  
 Max Grav 7=631(LC 21), 11=362(LC 21), 10=734(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-404/0, 4-5=-277/0, 2-11=-303/51  
 BOT CHORD 10-11=-472/271, 8-9=-101/301, 8-13=-101/301, 7-13=-101/301  
 WEBS 3-10=-579/94, 3-9=0/266, 5-7=-447/152, 2-10=-167/282

- NOTES-** (9-12)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 14-0-10, Exterior(2E) 14-0-10 to 18-10-4 zone; cantilever left exposed; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.00; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 10 except (it=lb) 7=162.
  - 9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - 10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - 11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - 12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING



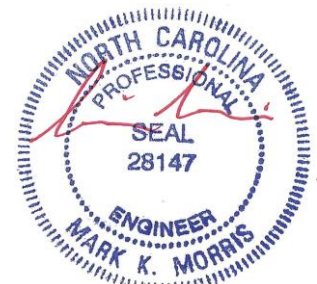
8/9/2023

**CONSIDERATIONS** parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI I-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	R06	Monopitch	3	1	Job Reference (optional) # 40568

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LOAD CASE(S) Standard



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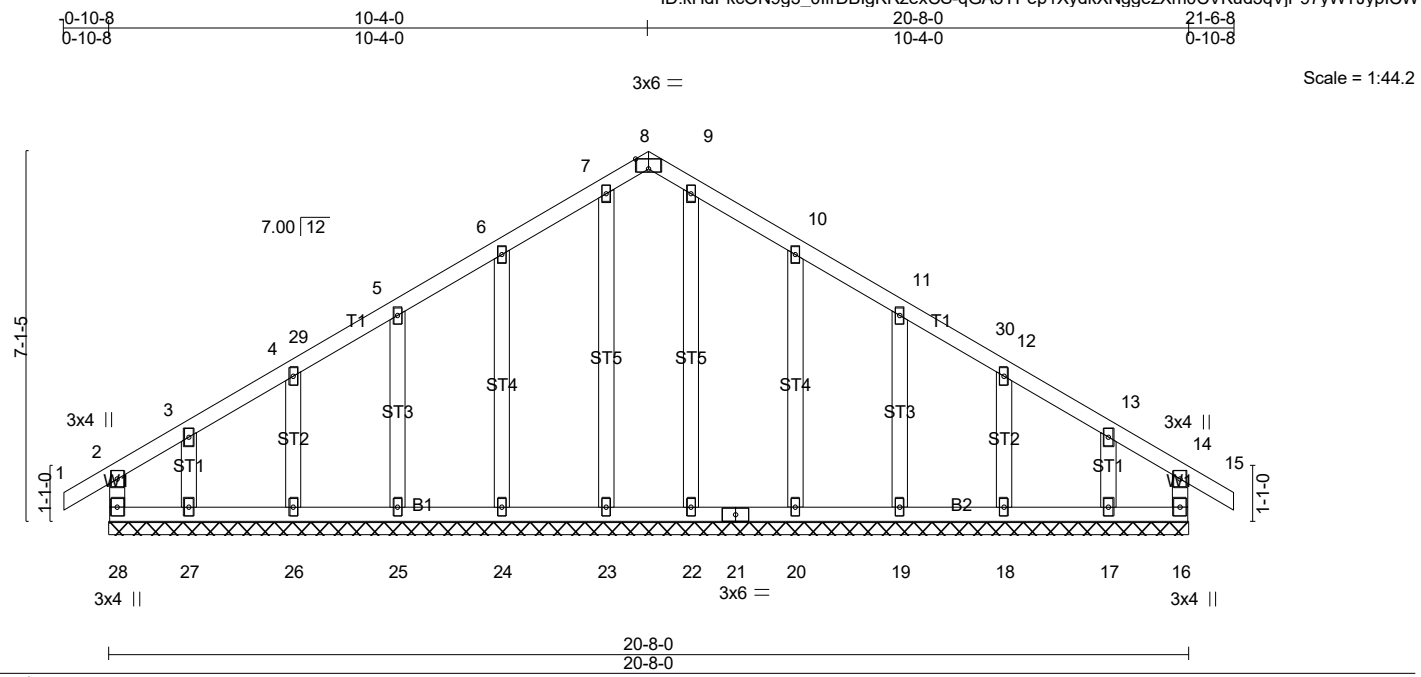
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Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	R08	GABLE	1	1	
Job Reference (optional)					# 40568

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Scale = 1:44.2

Plate Offsets (X,Y)-- [8:0-3-0,Edge]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.12	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.10	Vert(LL) -0.00 15 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.13	Vert(CT) -0.00 15 n/r 80		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 16 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 128 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 20-8-0.  
 (lb) - Max Horz 28=152(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 28, 16, 24, 25, 26, 27, 20, 19, 18, 17  
 Max Grav All reactions 250 lb or less at joint(s) 28, 16, 23, 25, 26, 27, 22, 19, 18, 17 except 24=302(LC 5), 20=302(LC 6)

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

- NOTES-** (14-17)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-11-2, Exterior(2N) 3-11-2 to 5-6-4, Corner(3R) 5-6-4 to 15-1-12, Exterior(2N) 15-1-12 to 16-8-14, Corner(3E) 16-8-14 to 21-6-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - All plates are 2x4 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 28, 16, 24, 25, 26, 27, 20, 19, 18, 17.



8/9/2023

**Warning!**—Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	R08	GABLE	1	1	Job Reference (optional) # 40568

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- 14) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 15) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 16) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 17) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



8/9/2023

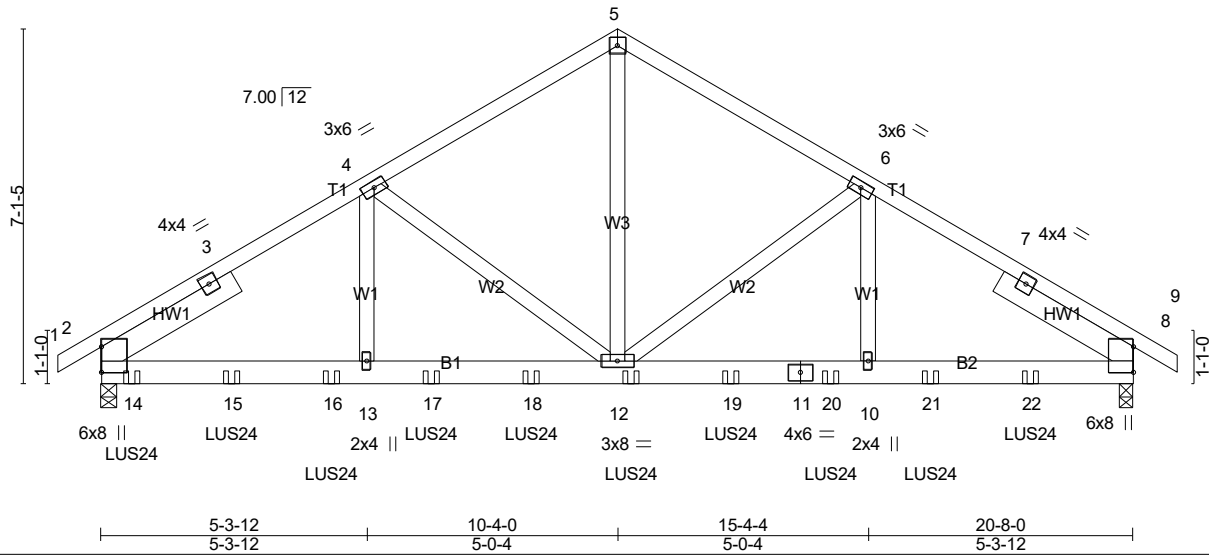
**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	R09	Common Girder	1	3	# 40568

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Scale = 1:46.1



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.56	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.68	Vert(LL) -0.06 12-13 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.42	Vert(CT) -0.10 12-13 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-SH	Horz(CT) 0.03 8 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014				Weight: 418 lb FT = 20%

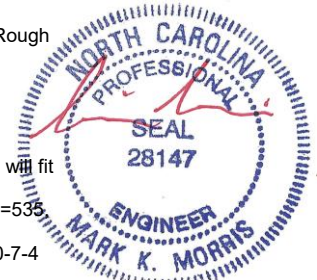
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 -° 3-1-10, Right 2x6 SP No.2 -° 3-1-10

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

**REACTIONS.** (lb/size) 2=3866/0-3-8 (min. 0-1-9), 8=3455/0-3-8 (min. 0-1-8)  
 Max Horz 2=130(LC 37)  
 Max Uplift 2=-535(LC 12), 8=-474(LC 13)  
 Max Grav 2=3906(LC 19), 8=3496(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-4827/628, 3-4=-4760/659, 4-5=-3509/523, 5-6=-3509/523, 6-7=-4702/651, 7-8=-4771/620  
 BOT CHORD 2-14=-565/3981, 14-15=-565/3981, 15-16=-565/3981, 13-16=-565/3981, 13-17=-565/3981, 17-18=-565/3981, 12-18=-565/3981, 12-19=-474/3927, 11-19=-474/3927, 11-20=-474/3927, 10-20=-474/3927, 10-21=-474/3927, 21-22=-474/3927, 8-22=-474/3927  
 WEBS 5-12=-431/3053, 6-12=-1203/253, 6-10=-150/1251, 4-12=-1270/262, 4-13=-158/1313

- NOTES-** (13-16)
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) except (jt=lb) 2=535, 8=474.
  - Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 0-7-4 from the left end to 18-7-4 to connect truss(es) R02 (1 ply 2x6 SP) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.



8/9/2023

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Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	R09	Common Girder	1	3	Job Reference (optional) # 40568

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- 13) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 15) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 16) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-5=-60, 5-9=-60, 2-8=-20

Concentrated Loads (lb)

Vert: 12=-556(B) 14=-560(B) 15=-556(B) 16=-556(B) 17=-556(B) 18=-556(B) 19=-556(B) 20=-556(B) 21=-556(B) 22=-556(B)

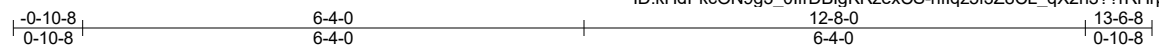


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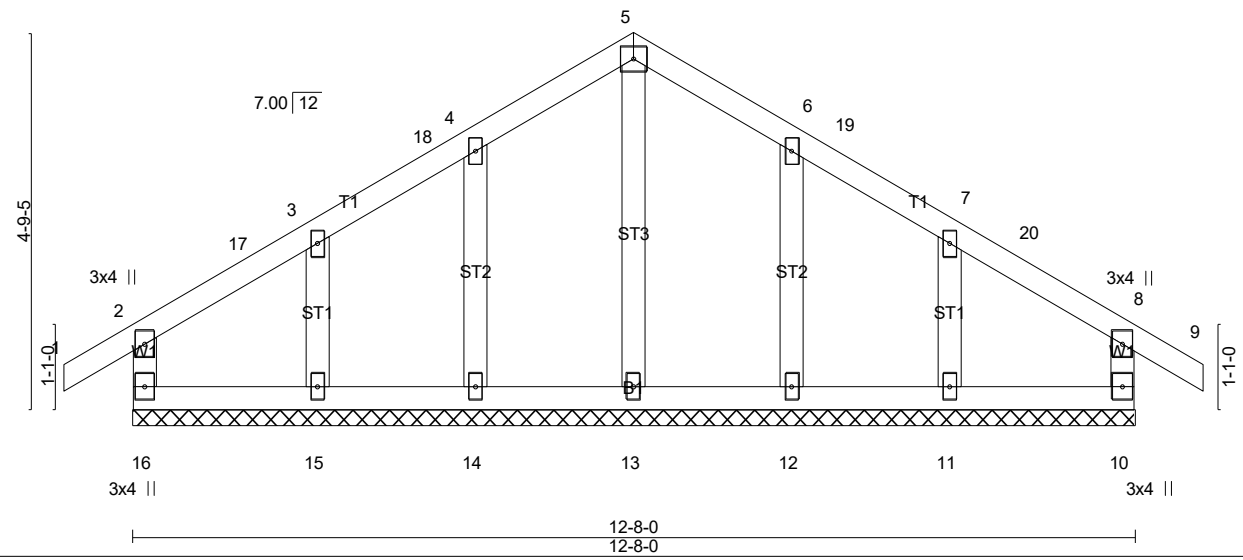
**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	R10	Common Supported Gable	1	1	
Job Reference (optional)					# 40568

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Scale = 1:29.2



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.12	in (loc) l/def L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.06	Vert(LL) -0.00 9 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Vert(CT) -0.00 9 n/r 80		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 10 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 67 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 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 12-8-0.  
 (lb) - Max Horz 16=107(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 15, 12, 11  
 Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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

- NOTES-** (14-17)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-11-2, Corner(3R) 3-11-2 to 8-8-14, Corner(3E) 8-8-14 to 13-6-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - All plates are 2x4 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) 16, 10, 14, 15, 12, 11.



8/9/2023

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Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	R10	Common Supported Gable	1	1	Job Reference (optional) # 40568

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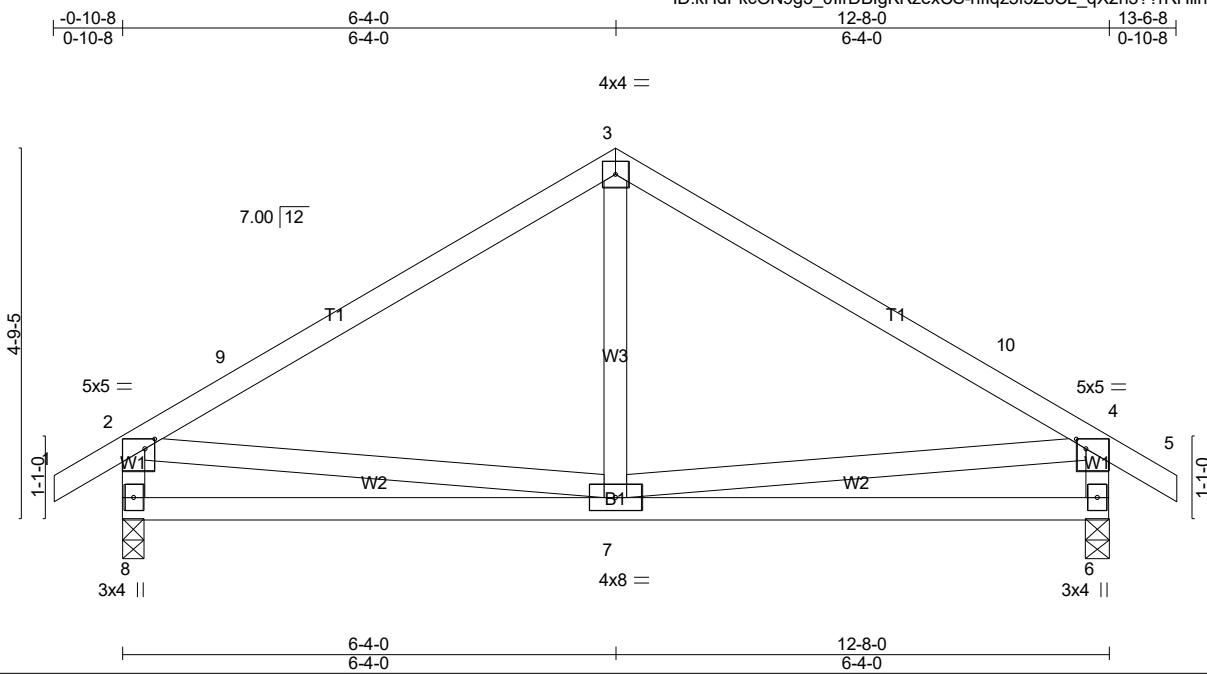
- 14) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 15) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 16) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 17) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



8/9/2023

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Scale = 1:29.6

Plate Offsets (X,Y)-- [2:0-1-8,0-1-8], [4:0-1-8,0-1-8]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.70	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.34	Vert(LL) -0.03 7-8 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.11	Vert(CT) -0.06 7-8 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 6 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 70 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except*	
W1: 2x4 SP No.2	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 8=556/0-3-8 (min. 0-1-8), 6=556/0-3-8 (min. 0-1-8)  
 Max Horz 8=-107(LC 12)  
 Max Uplift 8=-52(LC 14), 6=-52(LC 15)  
 Max Grav 8=632(LC 21), 6=632(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-9=-597/61, 3-9=-454/90, 3-10=-454/90, 4-10=-597/61, 2-8=-577/128, 4-6=-577/128  
 BOT CHORD 7-8=-126/368, 6-7=-93/368  
 WEBS 2-7=-36/272, 4-7=-40/272

- NOTES-** (9-12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-10-8 to 3-11-2, Exterior(2R) 3-11-2 to 8-8-14, Exterior(2E) 8-8-14 to 13-6-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) 8, 6.
  - 9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - 10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - 11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - 12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING

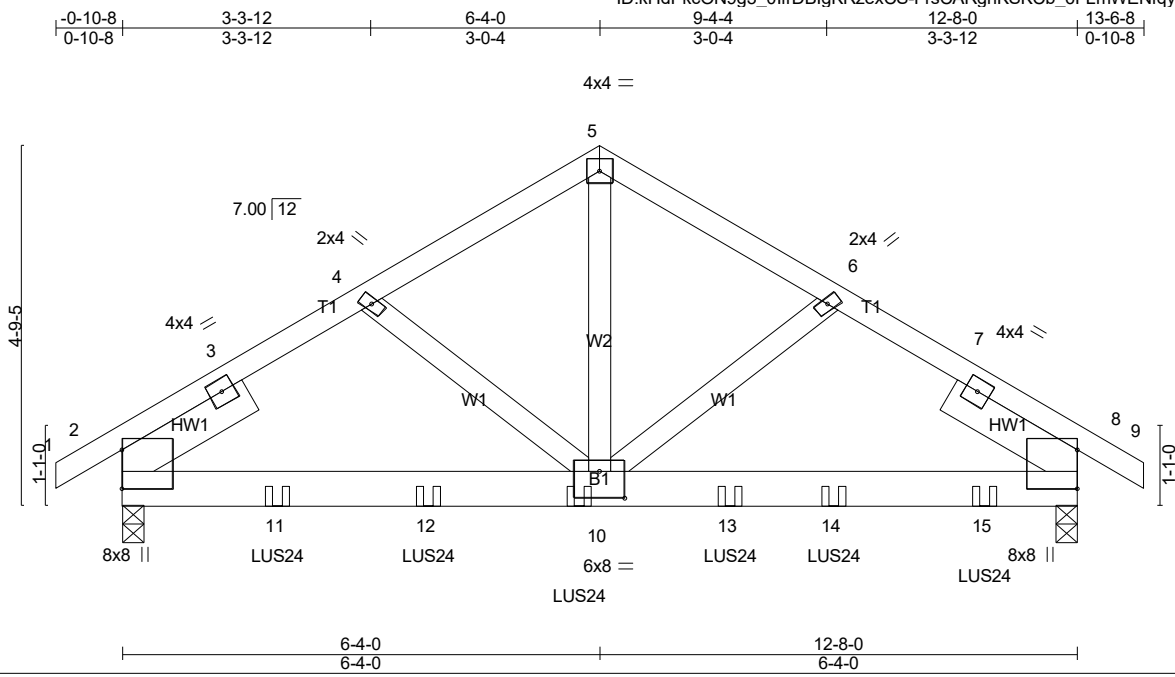


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Job 23-5648-R01	Truss R12	Truss Type Common Girder	Qty 1	Ply 2	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN	# 40568
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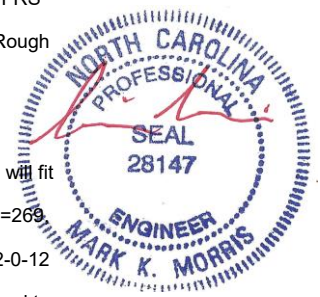
Plate Offsets (X,Y)-- [10:0-4-0,0-4-4]	
<b>LOADING</b> (psf)	<b>SPACING-</b>
TCLL (roof) 20.0	2-0-0
Snow (Pf) 20.0	Plate Grip DOL 1.15
TCDL 10.0	Lumber DOL 1.15
BCLL 0.0 *	Rep Stress Incr NO
BCDL 10.0	Code IRC2021/TPI2014
	<b>CSI.</b>
	TC 0.37
	BC 0.94
	WB 0.44
	Matrix-SH
	<b>DEFL.</b>
	in (loc) l/defl L/d
	Vert(LL) -0.06 8-10 >999 240
	Vert(CT) -0.11 8-10 >999 180
	Horz(CT) 0.01 8 n/a n/a
	<b>PLATES</b>
	MT20
	<b>GRIP</b>
	244/190
	Weight: 162 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
SLIDER Left 2x6 SP No.2 -° 1-11-13, Right 2x6 SP No.2 -° 1-11-13	

**REACTIONS.** (lb/size) 2=2100/0-3-8 (min. 0-1-8), 8=2723/0-3-8 (min. 0-1-10)  
 Max Horz 2=-85(LC 8)  
 Max Uplift 2=-269(LC 12), 8=-248(LC 13)  
 Max Grav 2=2176(LC 19), 8=2799(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2563/283, 3-4=-2530/307, 4-5=-2430/307, 5-6=-2460/306, 6-7=-2559/303,  
 7-8=-2604/281  
 BOT CHORD 2-11=-262/2071, 11-12=-262/2071, 10-12=-262/2071, 10-13=-207/2240, 13-14=-207/2240,  
 14-15=-207/2240, 8-15=-207/2240  
 WEBS 5-10=-248/2149

- NOTES-** (14-17)
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; 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); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) except (jt=lb) 2=269, 8=248.
  - Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 8-0-12 to connect truss(es) R05 (1 ply 2x6 SP) to back face of bottom chord.
  - Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 9-5-4 from the left end to 11-5-4 to connect truss(es) R07 (1 ply 2x4 SP) to back face of bottom chord.



13) Final manufacturer's instructions and product literature. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI 1-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	R12	Common Girder	1	2	Job Reference (optional) # 40568

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Aug 10 10:19:12 2023 Page 2  
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- 14) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 15) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 16) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 17) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

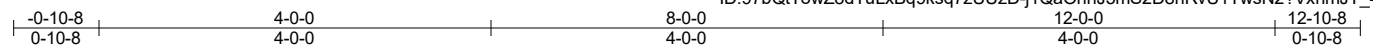
**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-5=-60, 5-9=-60, 2-8=-20
  - Concentrated Loads (lb)
    - Vert: 10=-530(B) 11=-530(B) 12=-530(B) 13=-530(B) 14=-791(B) 15=-791(B)



8/9/2023

**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



Scale = 1:23.5

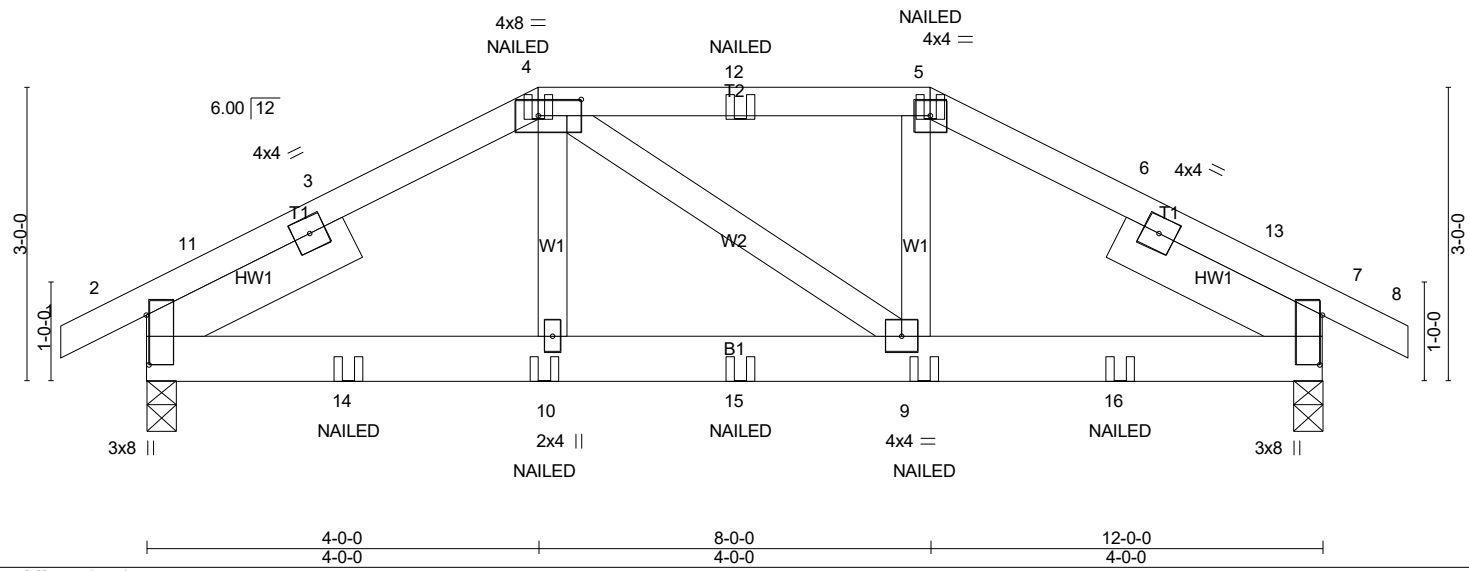


Plate Offsets (X,Y)-- [2:0-6-1,0-0-5], [4:0-5-4,0-2-0], [7:0-6-1,0-0-5]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.65	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.37	Vert(LL) -0.02 9-10 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.08	Vert(CT) -0.04 9-10 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-SH	Horz(CT) 0.01 7 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 74 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-11-13 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
SLIDER Left 2x6 SP No.2 -° 2-4-0, Right 2x6 SP No.2 -° 2-4-0	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=795/0-3-8 (min. 0-1-8), 7=796/0-3-8 (min. 0-1-8)  
 Max Horz 2=26(LC 60)  
 Max Uplift 2=-115(LC 9), 7=-115(LC 8)  
 Max Grav 2=949(LC 37), 7=951(LC 37)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-11=-1144/164, 3-11=-1114/174, 3-4=-1044/185, 4-12=-896/168, 5-12=-896/168,  
 5-6=-1045/185, 6-13=-1115/174, 7-13=-1145/164  
 BOT CHORD 2-14=-151/890, 10-14=-151/890, 10-15=-152/897, 9-15=-152/897, 9-16=-138/890,  
 7-16=-138/890

- NOTES-** (12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=11ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 6) Provide adequate drainage to prevent water ponding.
  - 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) except (jt=lb) 2=115, 7=115.
  - 10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-5=-60, 5-8=-60, 2-7=-20

Concentrated Loads (lb)

Vert: 4=-94(B) 5=-94(B) 10=-27(B) 9=-27(B) 12=-94(B) 14=-81(B) 15=-27(B) 16=-81(B)



8/9/2023

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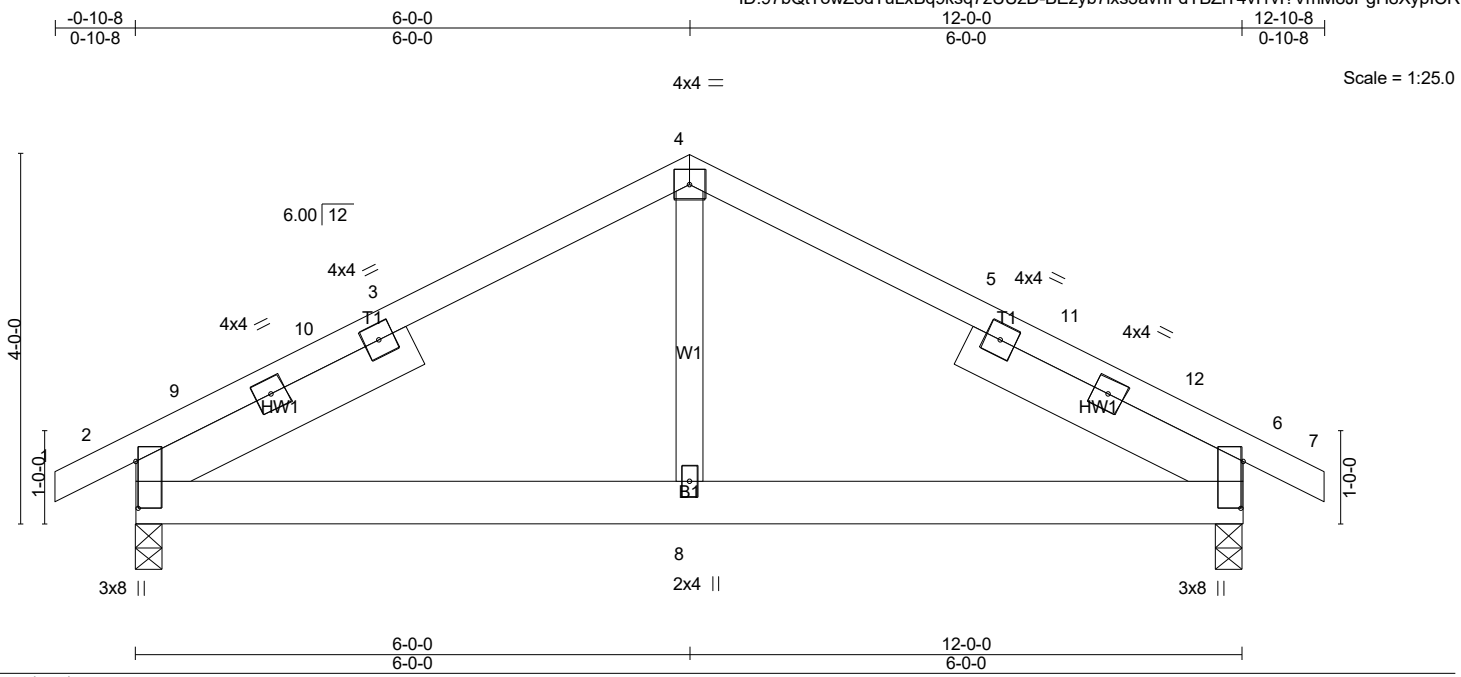


Plate Offsets (X,Y)-- [2:0-6-1,0-0-5], [6:0-6-1,0-0-5]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.38	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.31	Vert(LL) -0.02 6-8 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.10	Vert(CT) -0.03 6-8 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.01 6 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 72 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
SLIDER Left 2x6 SP No.2 -° 3-4-7, Right 2x6 SP No.2 -° 3-4-7	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=533/0-3-8 (min. 0-1-8), 6=532/0-3-8 (min. 0-1-8)  
 Max Horz 2=37(LC 14)  
 Max Uplift 2=17(LC 14), 6=17(LC 15)  
 Max Grav 2=613(LC 21), 6=613(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-9=-698/119, 9-10=-600/121, 3-10=-565/133, 3-4=-514/144, 4-5=-514/144, 5-11=-565/133,  
 11-12=-600/121, 6-12=-698/119  
 BOT CHORD 2-8=-46/460, 6-8=-46/460  
 WEBS 4-8=0/264

- NOTES-** (9)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=11ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-0-0, Exterior(2R) 3-0-0 to 9-0-0, Interior(1) 9-0-0 to 9-10-8, Exterior(2E) 9-10-8 to 12-10-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) 2, 6.

**LOAD CASE(S)** Standard



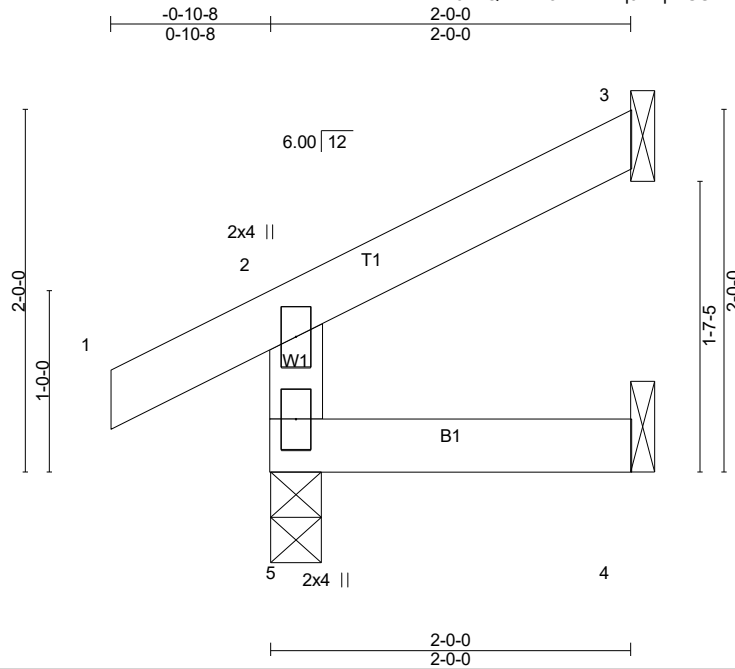
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Job 23-5648-R01	Truss SPJ01	Truss Type Jack-Open	Qty 2	Ply 1	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN Job Reference (optional) <b># 40568</b>
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Scale = 1:12.7

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.12	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.05	Vert(LL) 0.00 5 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.00 4-5 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R	Horz(CT) -0.00 3 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 9 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 2-0-0 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) 5=152/0-3-8 (min. 0-1-8), 3=41/Mechanical, 4=16/Mechanical  
Max Horz 5=30(LC 11)  
Max Uplift 5=-2(LC 14), 3=-20(LC 14), 4=-7(LC 11)  
Max Grav 5=208(LC 21), 3=57(LC 21), 4=34(LC 7)

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

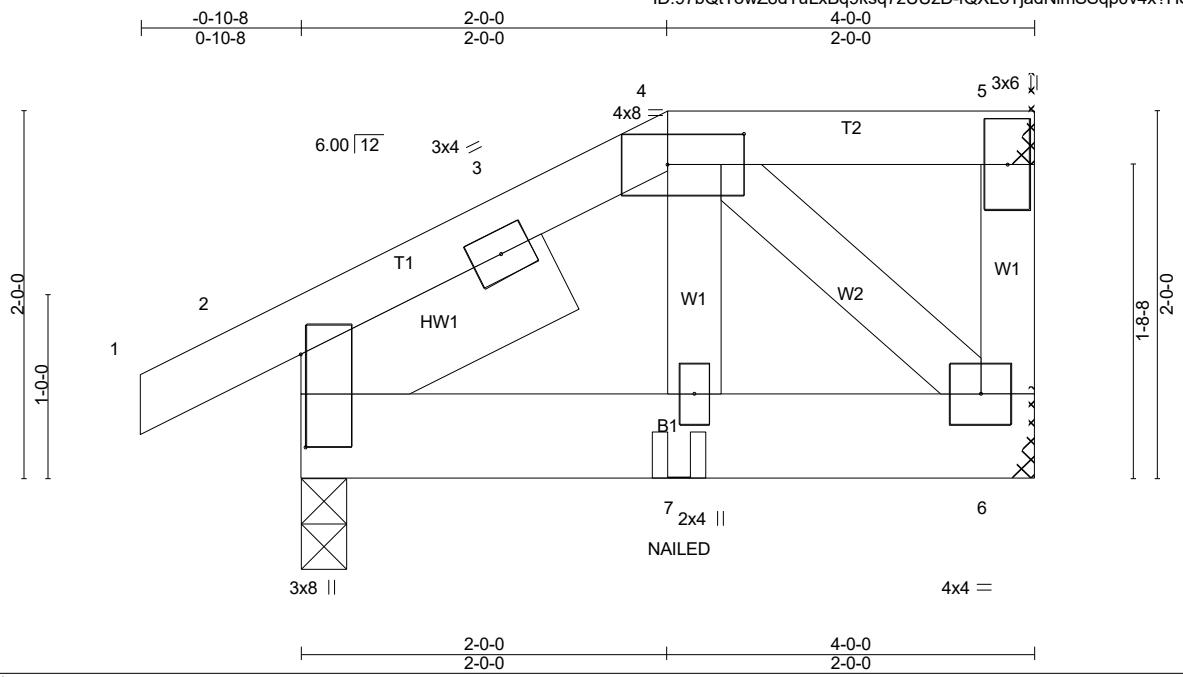
- NOTES-** (9)
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=10ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.

**LOAD CASE(S)** Standard



8/9/2023

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Scale = 1:12.6

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.11	Vert(LL) -0.00	2	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT) -0.00	7	>999	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.03	Horz(CT) 0.00	5	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-P						
BCDL 10.0	Code IRC2021/TPI2014						Weight: 27 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 -° 1-6-12

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-0-0 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) 5=56/Mechanical, 6=92/Mechanical, 2=213/0-3-0 (min. 0-1-8)  
 Max Horz 2=37(LC 12)  
 Max Uplift 5=-14(LC 8), 6=-6(LC 12), 2=-14(LC 12)  
 Max Grav 5=94(LC 33), 6=101(LC 33), 2=302(LC 34)

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

- NOTES-** (13)
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=11ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6, 2.
  - 10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
  - 11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 4-5=-60, 2-6=-20  
 Concentrated Loads (lb)  
 Vert: 7=0(F)

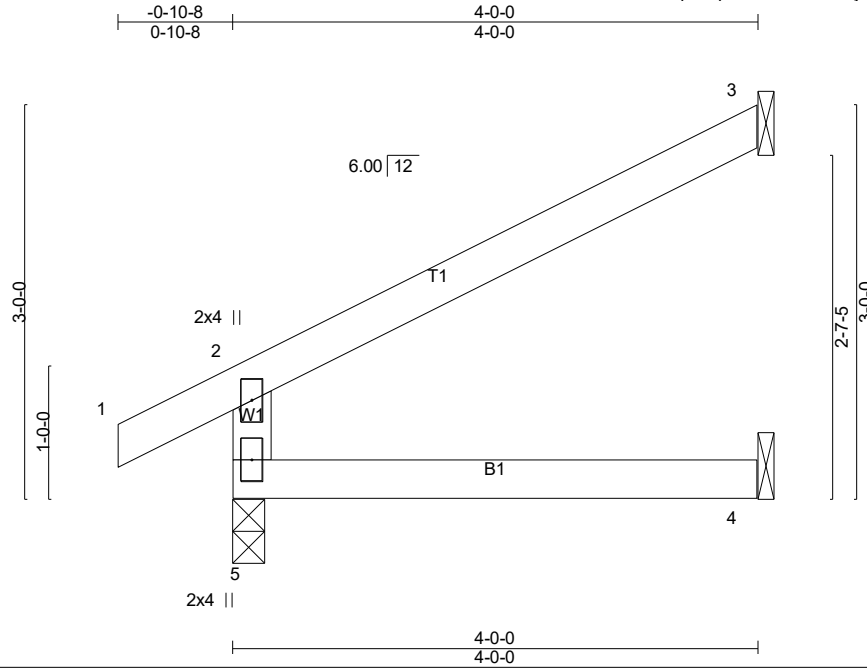


8/9/2023

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Job 23-5648-R01	Truss SPJ03	Truss Type Jack-Open	Qty 3	Ply 1	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN Job Reference (optional) <b># 40568</b>
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Scale = 1:17.6

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.32	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.17	Vert(LL) 0.03 4-5 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.02 4-5 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R	Horz(CT) -0.02 3 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 15 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-0-0 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) 5=221/0-3-0 (min. 0-1-8), 3=101/Mechanical, 4=43/Mechanical  
Max Horz 5=51(LC 14)  
Max Uplift 3=-38(LC 14), 4=-9(LC 11)  
Max Grav 5=322(LC 21), 3=154(LC 21), 4=72(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-5=-293/78

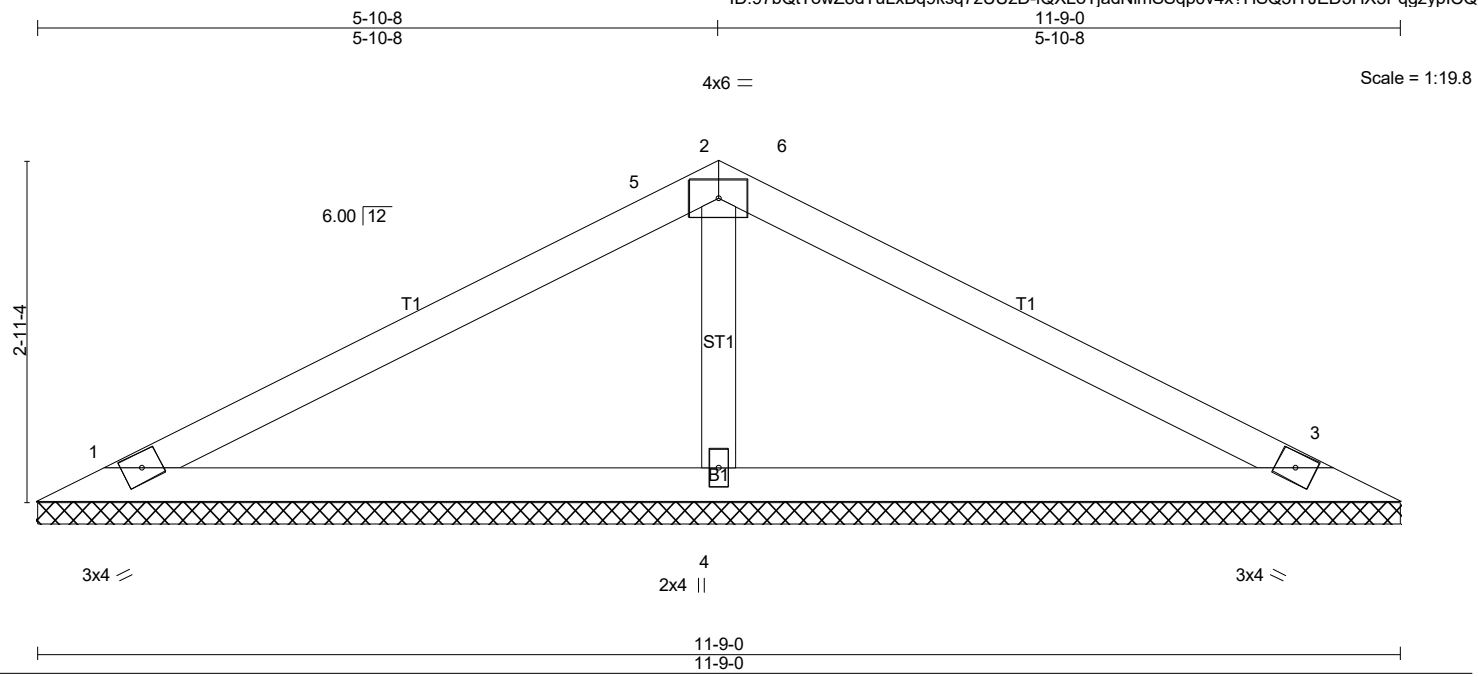
- NOTES-** (9)
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=11ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4.

**LOAD CASE(S)** Standard



8/9/2023

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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.55	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.63	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 39 lb	FT = 20%

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

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

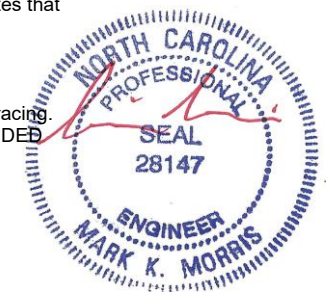
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=188/11-9-0 (min. 0-1-8), 3=188/11-9-0 (min. 0-1-8), 4=465/11-9-0 (min. 0-1-8)  
 Max Horz 1=-32(LC 19)  
 Max Uplift 1=-21(LC 14), 3=-27(LC 15), 4=-3(LC 14)  
 Max Grav 1=275(LC 20), 3=275(LC 21), 4=480(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-4=-305/111

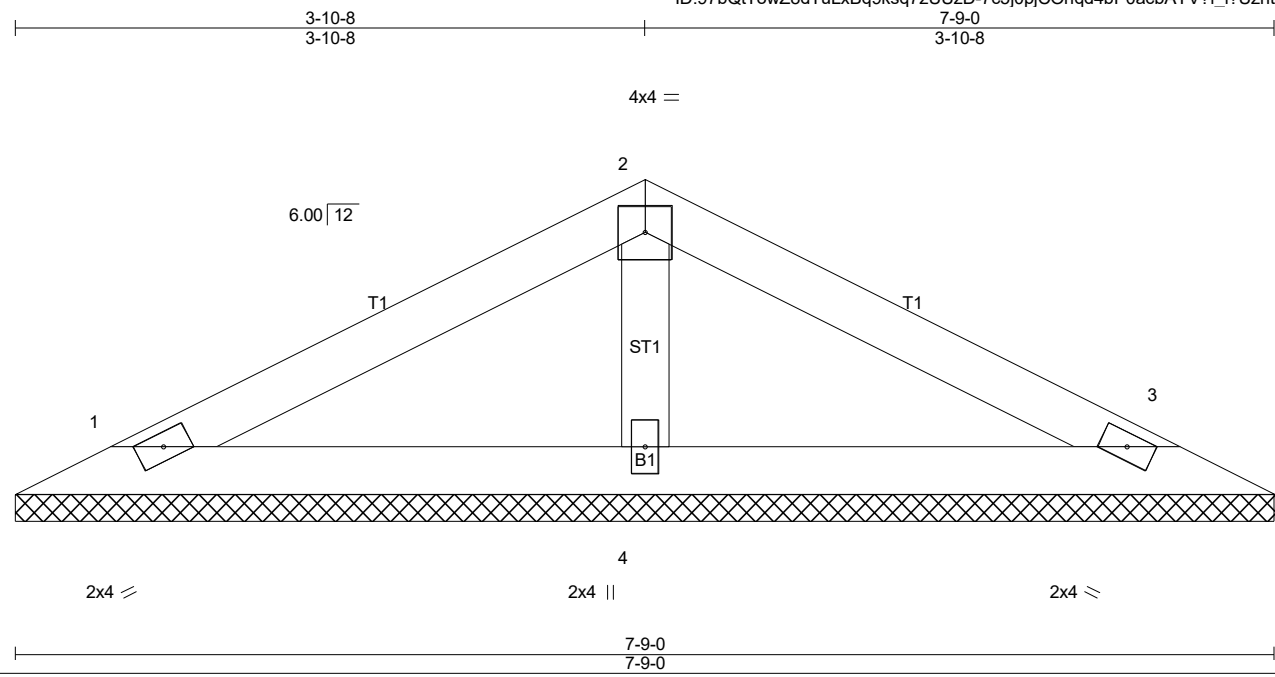
- NOTES-** (9-12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=5.0psf; BC DL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-7 to 5-5-0, Exterior(2R) 5-5-0 to 6-4-0, Exterior(2E) 6-4-0 to 11-1-9 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 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) Gable requires continuous bottom chord bearing.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) 1, 3, 4.
  - 9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - 10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - 11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - 12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



8/9/2023

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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.28	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.18	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 24 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 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=132/7-9-0 (min. 0-1-8), 3=132/7-9-0 (min. 0-1-8), 4=258/7-9-0 (min. 0-1-8)  
 Max Horz 1=20(LC 18)  
 Max Uplift1=-18(LC 14), 3=-22(LC 15)  
 Max Grav 1=176(LC 20), 3=176(LC 21), 4=258(LC 1)

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

**NOTES-** (9-12)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 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) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) 1, 3.
- 9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

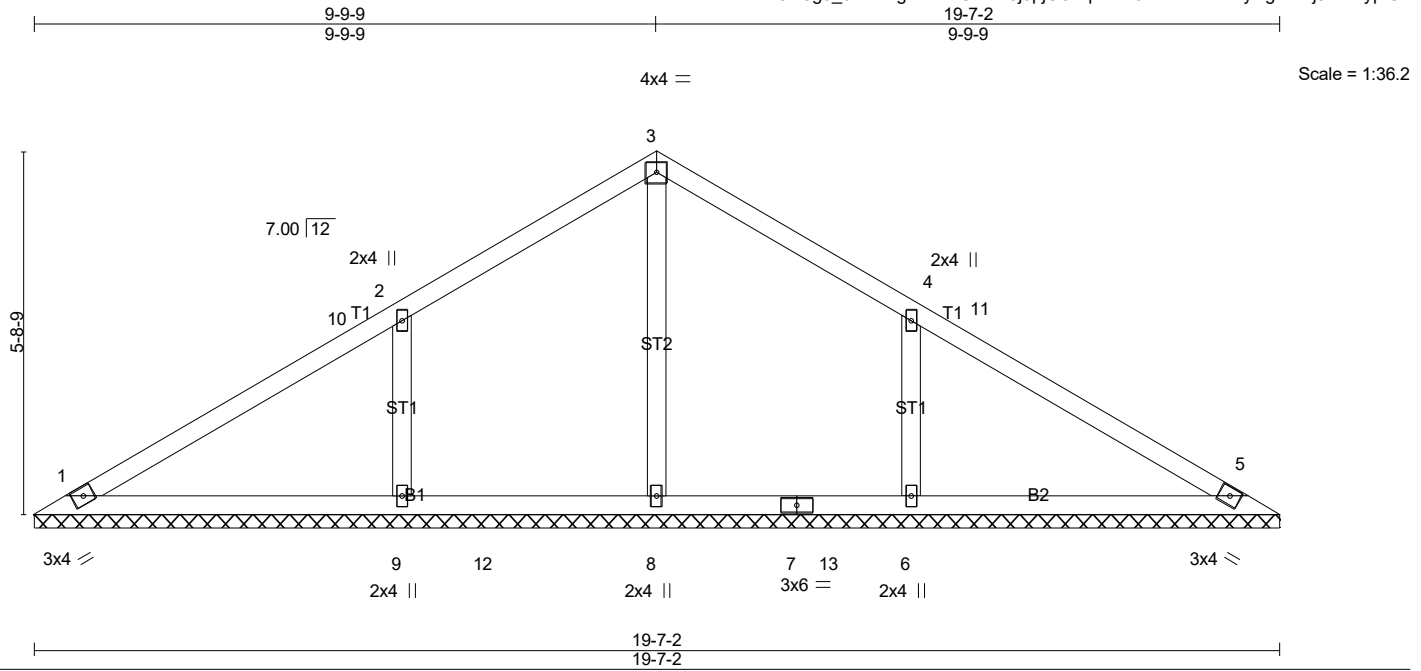
**LOAD CASE(S)** Standard



8/9/2023

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<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>		<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	2-0-0 1.15	TC	0.40	Vert(LL)	n/a - n/a	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	n/a - n/a		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00 5 n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH					
BCDL	10.0							Weight: 77 lb	FT = 20%

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

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

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

**REACTIONS.** All bearings 19-7-2.  
 (lb) - Max Horz 1=-105(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=-123(LC 14), 6=-123(LC 15)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=388(LC 6), 9=567(LC 20), 6=567(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-9=-438/161, 4-6=-438/161

- NOTES-** (9-12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 5-4-1, Exterior(2R) 5-4-1 to 14-3-1, Exterior(2E) 14-3-1 to 19-0-11 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 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) Gable requires continuous bottom chord bearing.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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, 5 except (jt=lb) 9=123, 6=123.
  - 9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - 10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - 11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - 12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



8/9/2023

**LOAD CASE(S)** Standard

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Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	VT02	Valley	1	1	
					<b># 40568</b>

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Aug 10 10:19:17 2023 Page 1  
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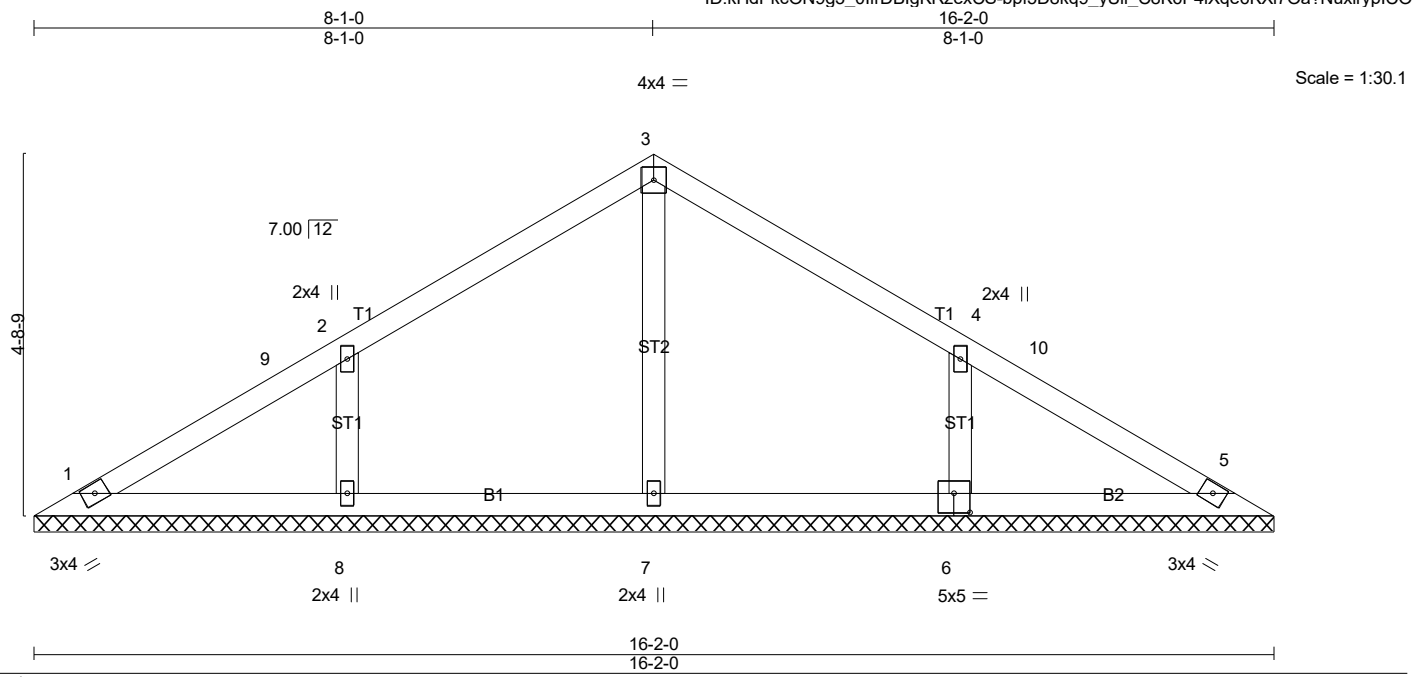


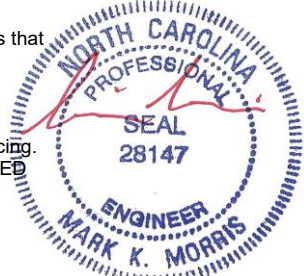
Plate Offsets (X,Y)-- [6:0-2-8,0-3-0]	
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0
TCLL (roof) 20.0	Plate Grip DOL 1.15
Snow (Pf) 20.0	Lumber DOL 1.15
TCDL 10.0	Rep Stress Incr YES
BCLL 0.0 *	Code IRC2021/TPI2014
BCDL 10.0	
<b>CSI.</b>	<b>DEFL.</b>
TC 0.29	in (loc) l/defl L/d
BC 0.19	Vert(LL) n/a - n/a 999
WB 0.08	Vert(CT) n/a - n/a 999
Matrix-SH	Horz(CT) 0.00 5 n/a n/a
<b>PLATES</b>	<b>GRIP</b>
MT20	244/190
Weight: 62 lb FT = 20%	

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 16-2-0.  
 (lb) - Max Horz 1=-86(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 6  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=280(LC 21), 8=469(LC 20), 6=460(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-379/132, 4-6=-371/129

- NOTES-** (9-12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 5-4-1, Exterior(2R) 5-4-1 to 10-9-15, Exterior(2E) 10-9-15 to 15-7-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 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) Gable requires continuous bottom chord bearing.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) 1, 8, 6.
  - 9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - 10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - 11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - 12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



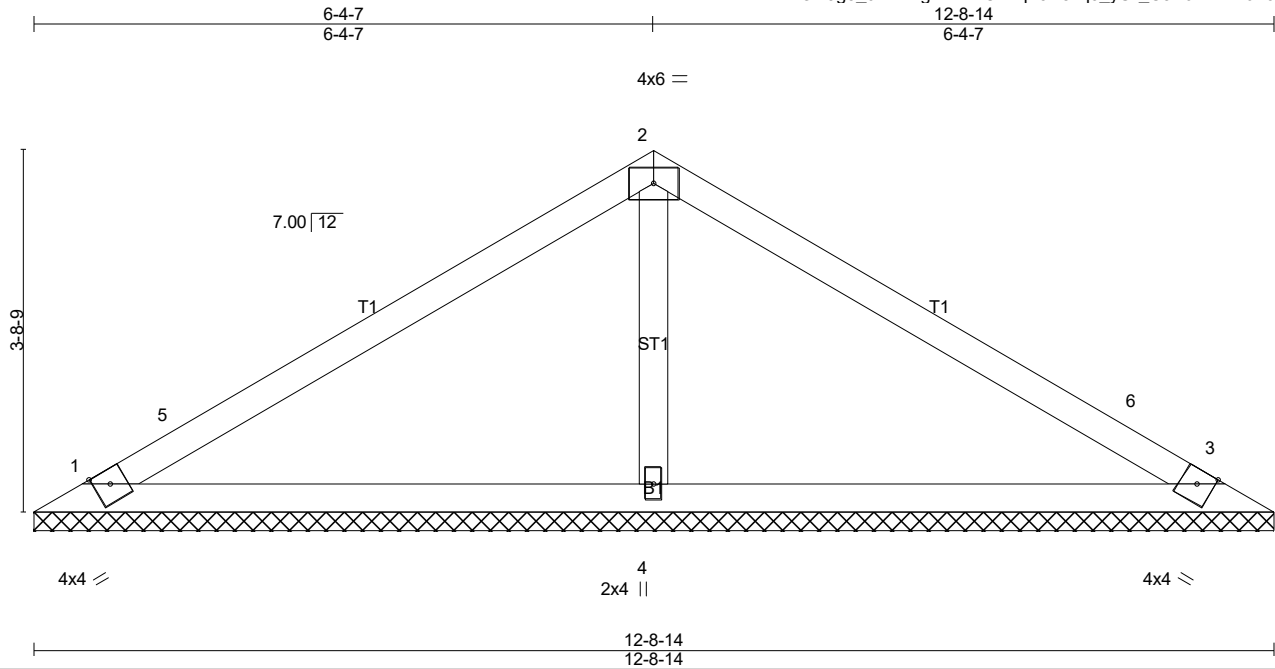
8/9/2023

**LOAD CASE(S)** Standard

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Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	VT03	Valley	1	1	
					<b># 40568</b>

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Aug 10 10:19:17 2023 Page 1  
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Scale = 1:23.7

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.70	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.78	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.09	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 44 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD  
 BOT CHORD

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

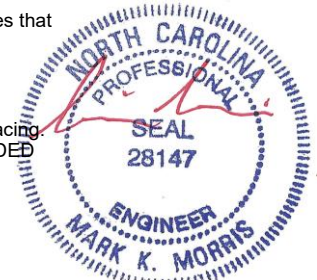
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=216/12-8-14 (min. 0-1-8), 3=216/12-8-14 (min. 0-1-8), 4=501/12-8-14 (min. 0-1-8)  
 Max Horz 1=66(LC 11)  
 Max Uplift 1=-29(LC 14), 3=-38(LC 15), 4=-14(LC 14)  
 Max Grav 1=286(LC 20), 3=286(LC 21), 4=520(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-4=-325/76

**NOTES-** (9-12)

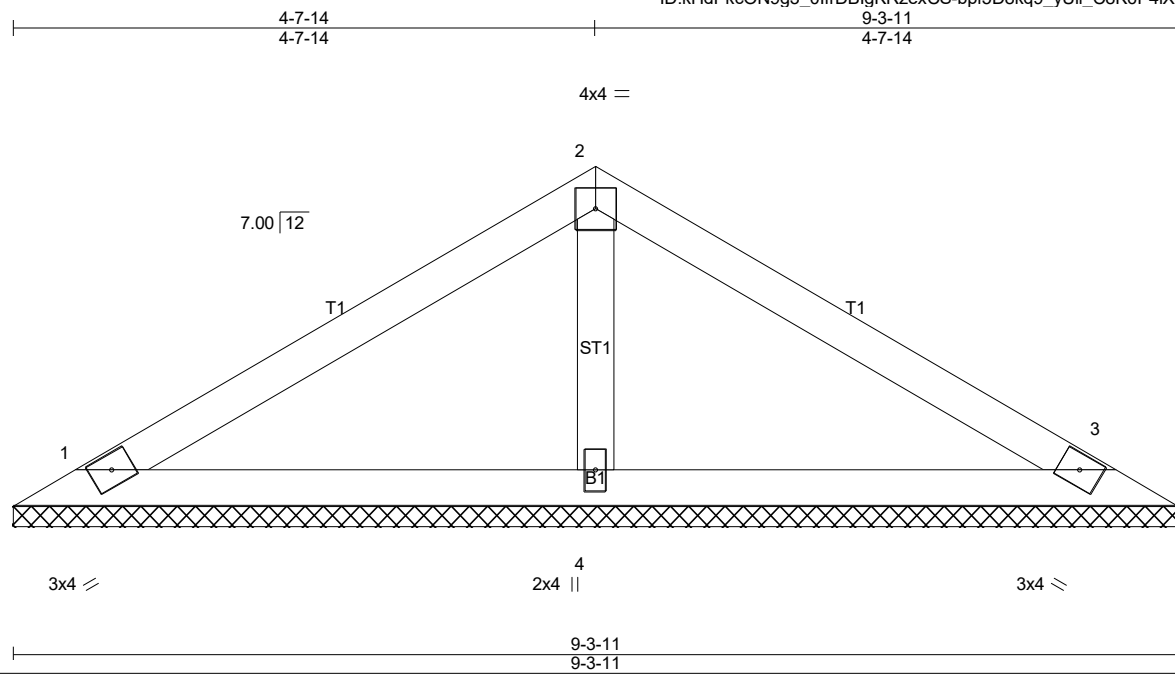
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 5-4-1, Exterior(2R) 5-4-1 to 7-4-13, Exterior(2E) 7-4-13 to 12-2-6 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 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.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) 1, 3, 4.
- Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



8/9/2023

**LOAD CASE(S)** Standard

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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.32	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.38	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.05	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 31 lb	FT = 20%

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

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

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

**REACTIONS.** (lb/size) 1=152/9-3-11 (min. 0-1-8), 3=152/9-3-11 (min. 0-1-8), 4=353/9-3-11 (min. 0-1-8)  
 Max Horz 1=-47(LC 12)  
 Max Uplift 1=-20(LC 14), 3=-27(LC 15), 4=-10(LC 14)  
 Max Grav 1=220(LC 20), 3=220(LC 21), 4=364(LC 21)

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

**NOTES-** (9-12)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 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) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) 1, 3, 4.
- 9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

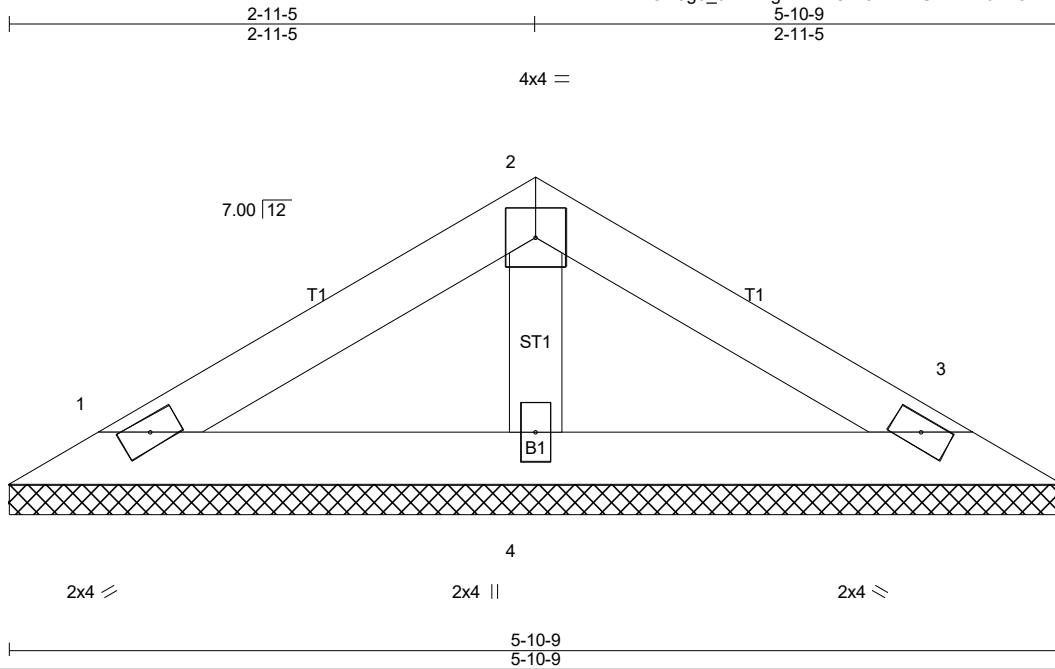


8/9/2023

**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job 23-5648-R01	Truss VT05	Truss Type Valley	Qty 1	Ply 1	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN Job Reference (optional) <b># 40568</b>
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.14	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.10	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.02	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 19 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-10-9 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=100/5-10-9 (min. 0-1-8), 3=100/5-10-9 (min. 0-1-8), 4=184/5-10-9 (min. 0-1-8)  
Max Horz 1=27(LC 13)  
Max Uplift 1=-17(LC 14), 3=-21(LC 15)  
Max Grav 1=130(LC 20), 3=130(LC 21), 4=184(LC 1)

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

**NOTES-** (9-12)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 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.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) 1, 3.
- Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

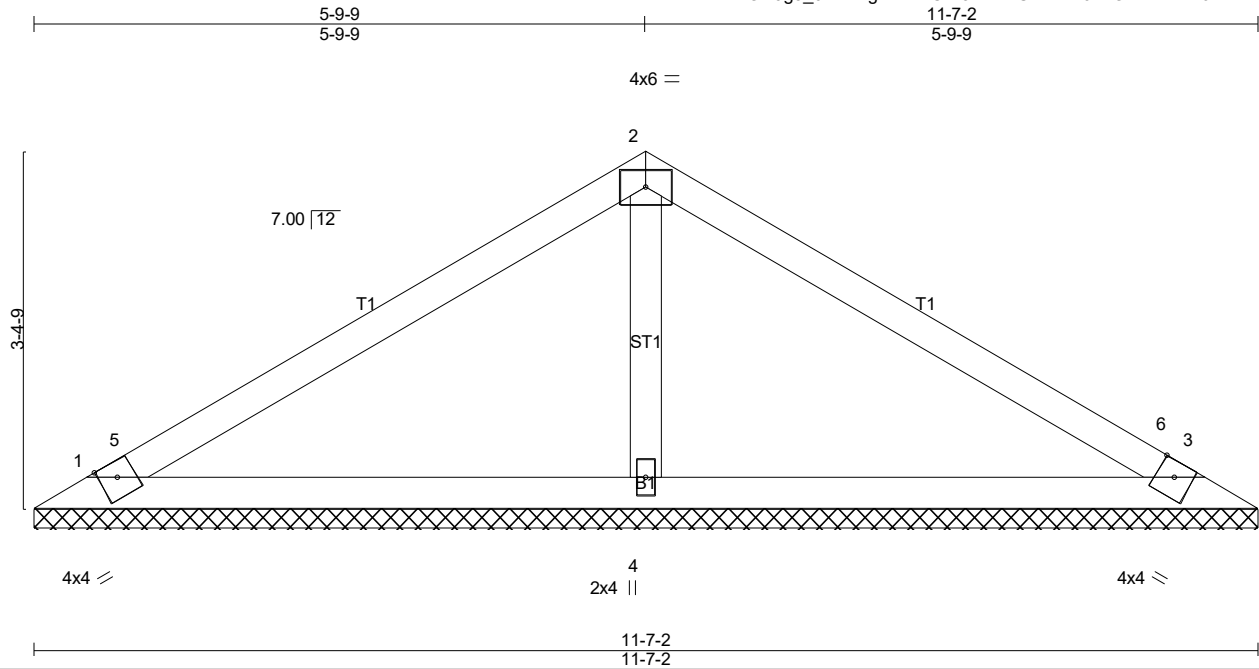


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Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	VT06	Valley	1	1	
					<b># 40568</b>

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Scale = 1:21.8

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.56	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.65	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 40 lb	FT = 20%

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

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

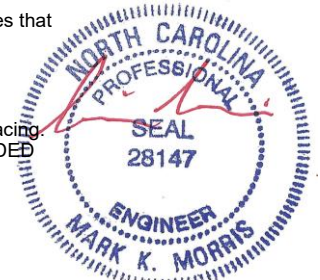
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=195/11-7-2 (min. 0-1-8), 3=195/11-7-2 (min. 0-1-8), 4=452/11-7-2 (min. 0-1-8)  
 Max Horz 1=-60(LC 12)  
 Max Uplift 1=-26(LC 14), 3=-34(LC 15), 4=-12(LC 14)  
 Max Grav 1=272(LC 20), 3=272(LC 21), 4=472(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-4=-295/77

**NOTES-** (9-12)

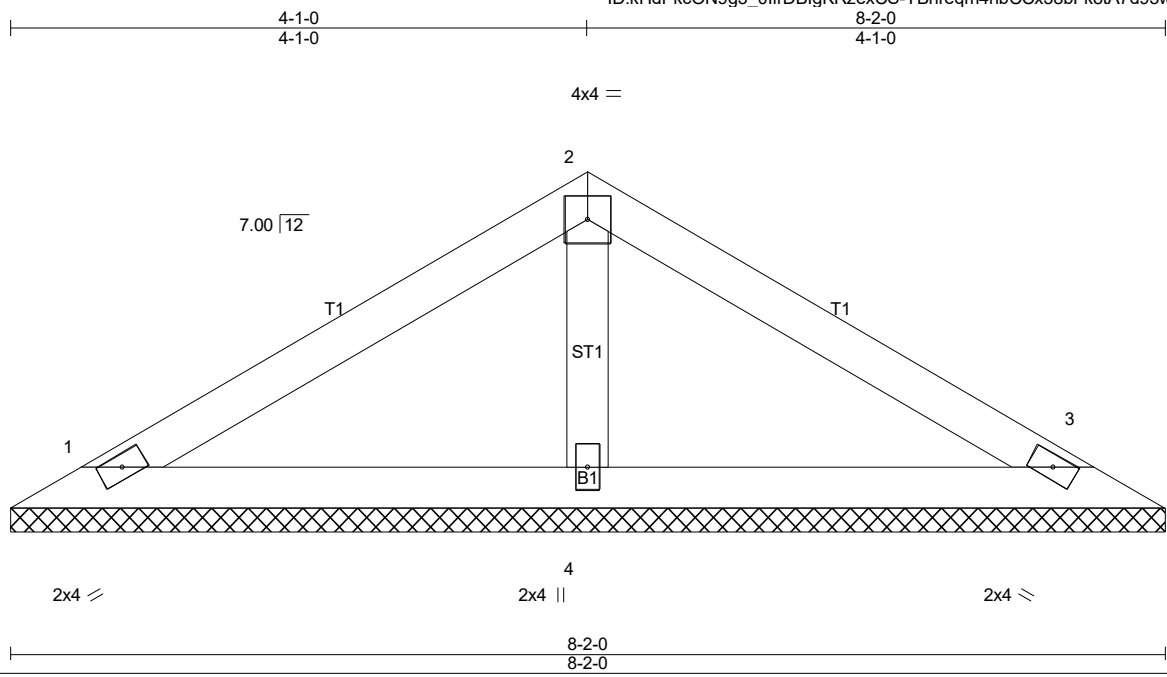
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 5-4-1, Exterior(2R) 5-4-1 to 6-3-1, Exterior(2E) 6-3-1 to 11-0-11 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 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.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) 1, 3, 4.
- Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.36	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.21	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 27 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 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=148/8-2-0 (min. 0-1-8), 3=148/8-2-0 (min. 0-1-8), 4=271/8-2-0 (min. 0-1-8)  
 Max Horz 1=-40(LC 12)  
 Max Uplift 1=-25(LC 14), 3=-30(LC 15)  
 Max Grav 1=202(LC 20), 3=202(LC 21), 4=275(LC 21)

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

**NOTES-** (9-12)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 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) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) 1, 3.
- 9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
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- 12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



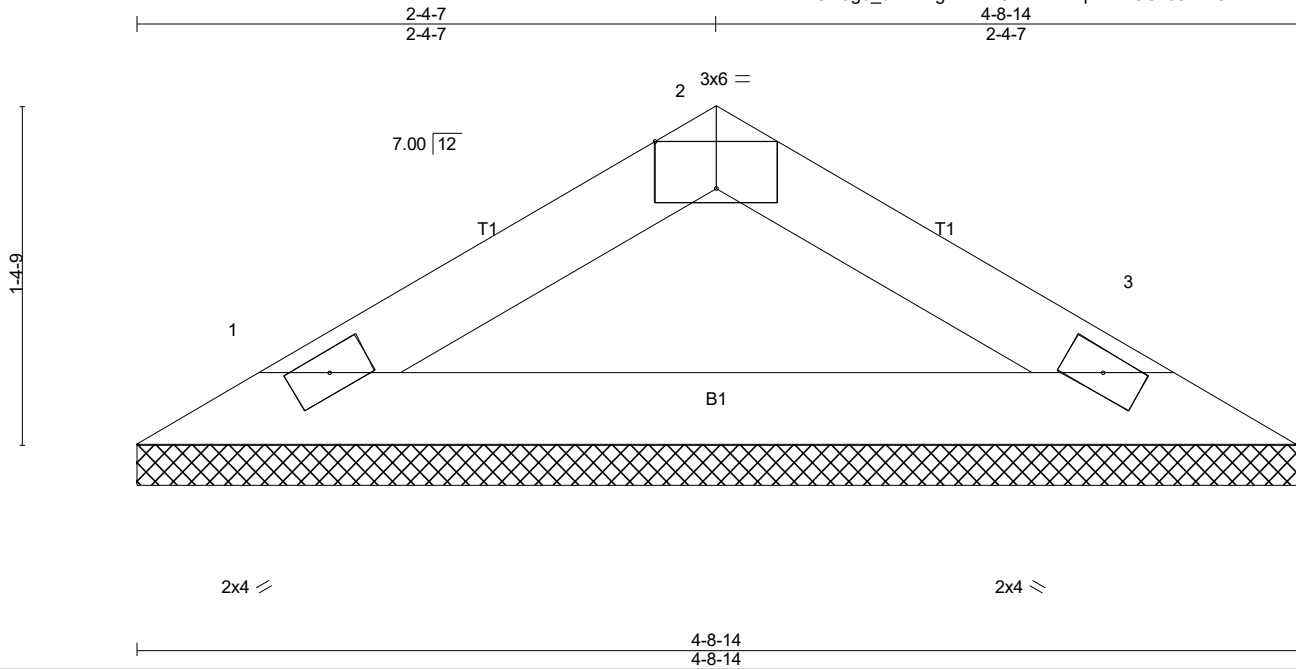
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Job	Truss	Truss Type	Qty	Ply	LOT 6 PROVIDENCE CREEK   153 PROVIDENCE CREEK DRIVE FUQUAY-VARIN
23-5648-R01	VT08	Valley	1	1	
					<b># 40568</b>

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Scale = 1:9.4

LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP	
TCLL (roof)	20.0	2-0-0	Plate Grip DOL	1.15	TC	0.08	in	(loc)	l/defl	L/d	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.28	Vert(LL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P		Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0										Weight: 13 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-8-14 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.

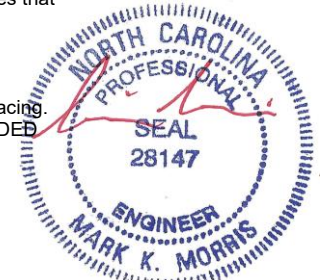
**REACTIONS.** (lb/size) 1=146/4-8-14 (min. 0-1-8), 3=146/4-8-14 (min. 0-1-8)  
 Max Horz 1=-21(LC 12)  
 Max Uplift 1=-11(LC 14), 3=-11(LC 15)  
 Max Grav 1=164(LC 20), 3=164(LC 21)

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

**NOTES-** (9-12)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 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.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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) 1, 3.
- Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



8/9/2023

**Warning!**—Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.