

# Mark Morris, P.E.

#126, 1317-M, Summerville, SC 29483

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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 #: 27092

JOB: 20-4569-R01

JOB NAME: LOT 1114 ANDERSON CREEK

Wind Code: 37

Wind Speed: Vult= 130mph

Exposure Category: B

Mean Roof Height (feet): 23

## *35 Truss Design(s)*

### Trusses:

J06, M01, M02, PB01, PB02, PB03, PB04, PB05, PB06, R01, R02, R03, R04, R05, R06, R07, R08, R09, R12, R13, R14, R15, R18, R19, R21, R22, R23, R24, VT01, VT02, VT03, VT04, VT05, VT06, VT07



**6/21/2021**

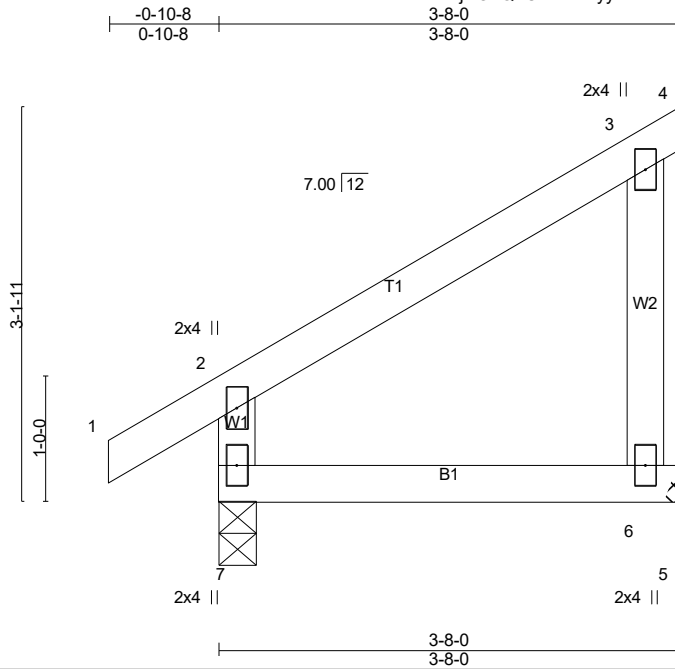
**Mark Morris**

***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*

Job 20-4569-R01	Truss J06	Truss Type Monopitch	Qty 4	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC # 27092
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ID: jROaQZCa7AXr4yywaPFSiTyJIBf-YqGX\_t60KtW06X8z1aM3JdKuoBh?qrutGq8cEKz3jDX  
8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:04 2021 Page 1



Scale = 1:18.3

<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 0.23	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.13	Vert(LL) 0.01 6-7 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.01 6-7 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R	Horz(CT) -0.00 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 18 lb	FT = 0%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-8-0 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.

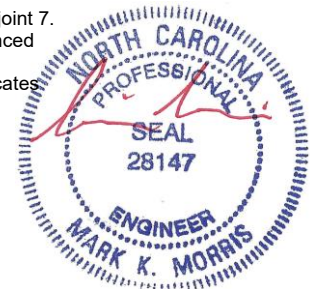
**REACTIONS.** (lb/size) 6=143/Mechanical, 7=200/0-3-8 (min. 0-1-8)  
Max Horz 7=91(LC 14)  
Max Uplift 6=-68(LC 14), 7=-7(LC 14)  
Max Grav 6=203(LC 21), 7=297(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-7=-272/115

**NOTES-** (10-11)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; 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 68 lb uplift at joint 6 and 7 lb uplift at joint 7.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 11) 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.

**LOAD CASE(S)** Standard

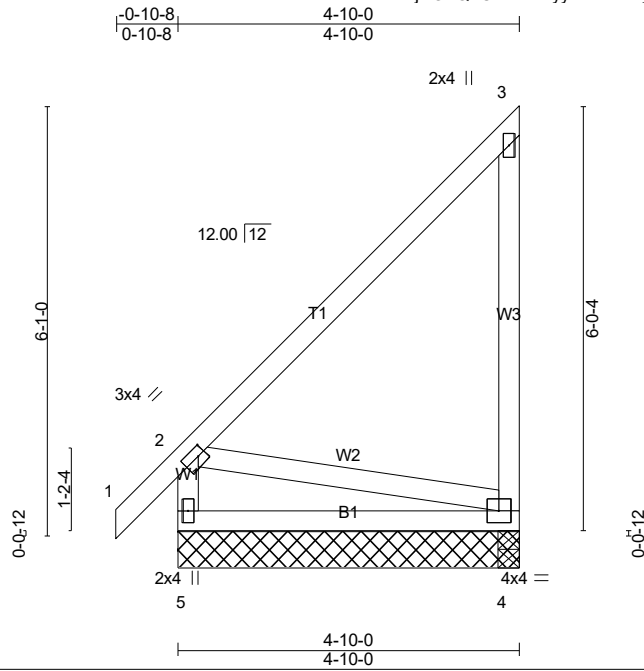


6/21/2021

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Job 20-4569-R01	Truss M01	Truss Type Monopitch	Qty 2	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC Job Reference (optional) # 27092
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:05 2021 Page 1  
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Scale = 1:32.6

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.48	Vert(LL) -0.03	4-5	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.25	Vert(CT) -0.05	4-5	>999	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.11	Horz(CT) -0.00	4	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 35 lb	FT = 0%

**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 4-10-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 9-8-14 oc bracing.

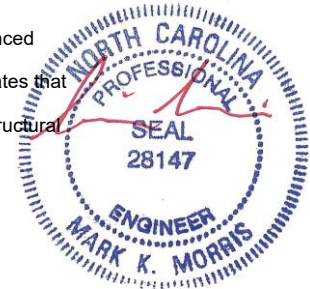
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 4=175/4-10-0 (min. 0-1-8), 4=175/4-10-0 (min. 0-1-8), 5=250/4-10-0 (min. 0-1-8)  
Max Horz 5=182(LC 12)  
Max Uplift 4=-152(LC 12)  
Max Grav 4=209(LC 20), 4=175(LC 1), 5=250(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
BOT CHORD 4-5=-361/131  
WEBS 2-4=-134/369

- NOTES-** (8-9)
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCDL: 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) 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.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* 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.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 152 lb uplift at joint 4.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - 9) 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.

**LOAD CASE(S)** Standard

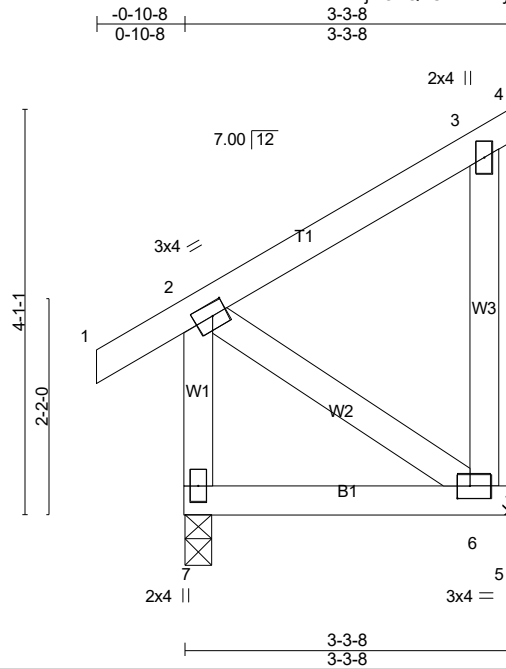


6/21/2021

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Job 20-4569-R01	Truss M02	Truss Type Monopitch	Qty 11	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC # 27092
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Scale = 1:23.2

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.17	Vert(LL)	-0.00	6-7	>999	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT)	-0.01	6-7	>999		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Horz(CT)	-0.00	6	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 24 lb	FT = 0%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-3-8 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.

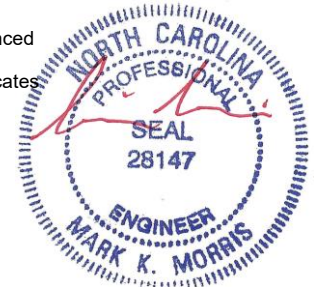
**REACTIONS.** (lb/size) 6=127/Mechanical, 7=186/0-3-8 (min. 0-1-8)  
Max Horz 7=82(LC 11)  
Max Uplift 6=-89(LC 14)  
Max Grav 6=178(LC 21), 7=273(LC 21)

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

**NOTES-** (10-11)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical 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 89 lb uplift at joint 6.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 11) 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.

**LOAD CASE(S)** Standard

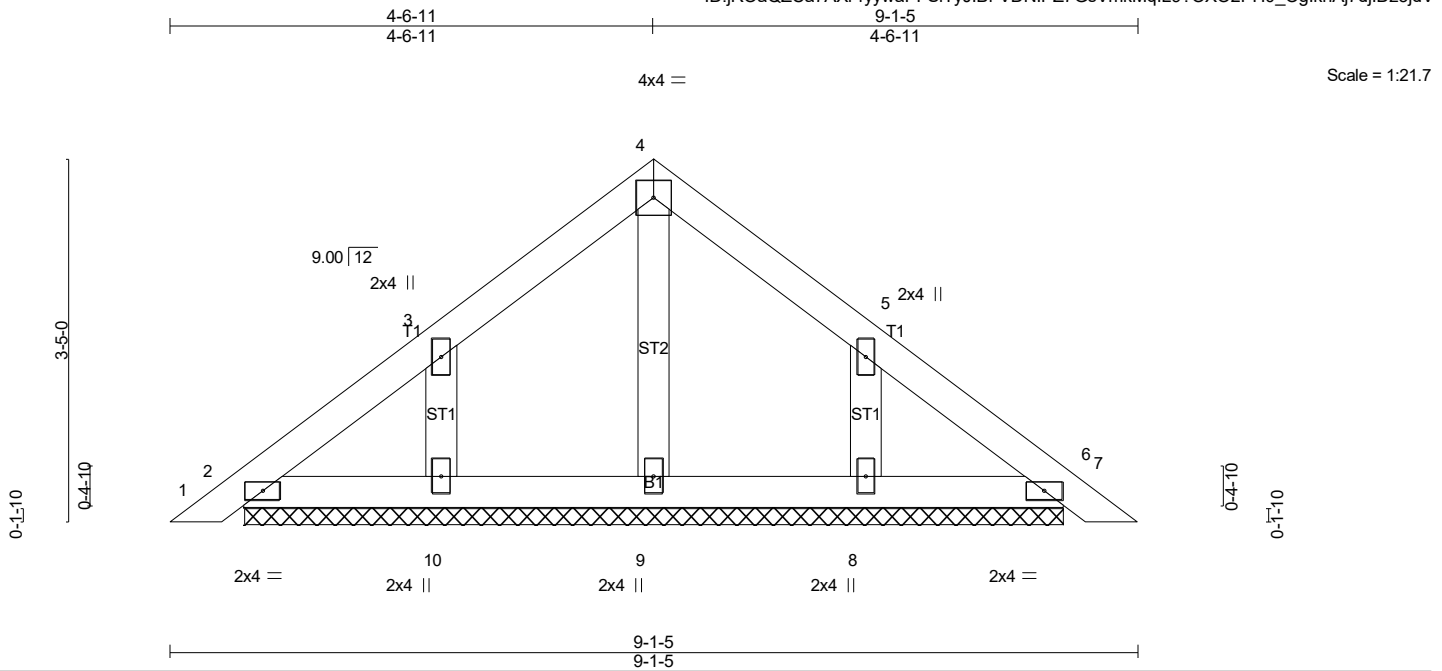


6/21/2021

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Job 20-4569-R01	Truss PB01	Truss Type GABLE	Qty 2	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC # 27092
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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 0.05	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 6 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.05	Vert(CT) 0.00 6 n/r 80		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 36 lb	FT = 0%

**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.

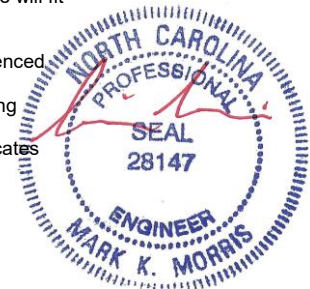
**REACTIONS.** All bearings 7-8-11.  
(lb) - Max Horz 2=-74(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8  
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

**NOTES-** (13-14)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=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
- 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
- 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.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

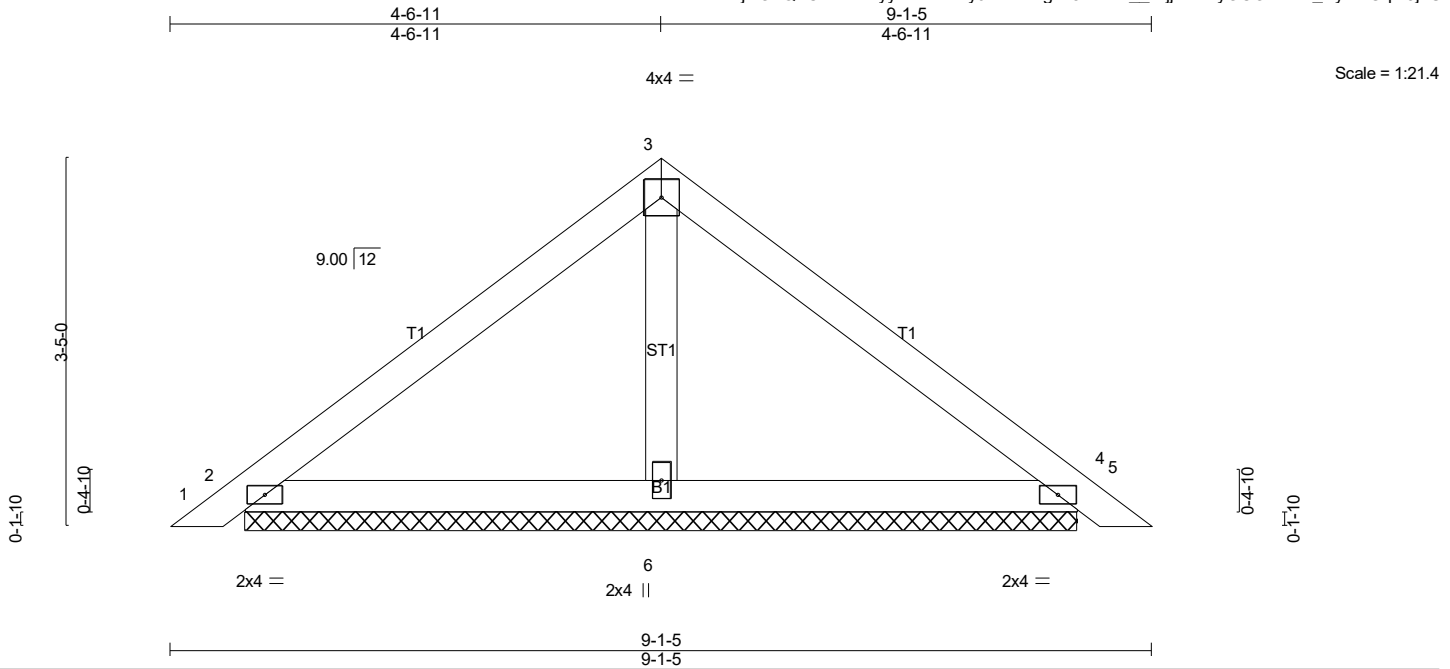


6/21/2021

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Job 20-4569-R01	Truss PB02	Truss Type Piggyback	Qty 21	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC Job Reference (optional) <b># 27092</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:07 2021 Page 1  
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Scale = 1:21.4

<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 0.28	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.26	Vert(LL) 0.01 5 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Vert(CT) 0.01 5 n/r 80		
BCDL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 32 lb	FT = 0%

**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.

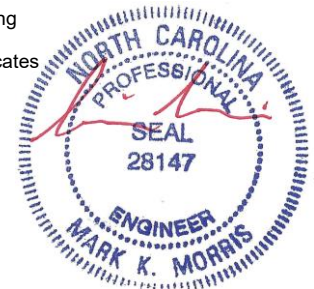
**REACTIONS.** (lb/size) 2=200/7-8-11 (min. 0-1-8), 4=200/7-8-11 (min. 0-1-8), 6=271/7-8-11 (min. 0-1-8)  
Max Horz 2=-74(LC 10)  
Max Uplift 2=-50(LC 12), 4=-60(LC 13)

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

**NOTES-** (11-12)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=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
- 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
- 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.
- 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, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard



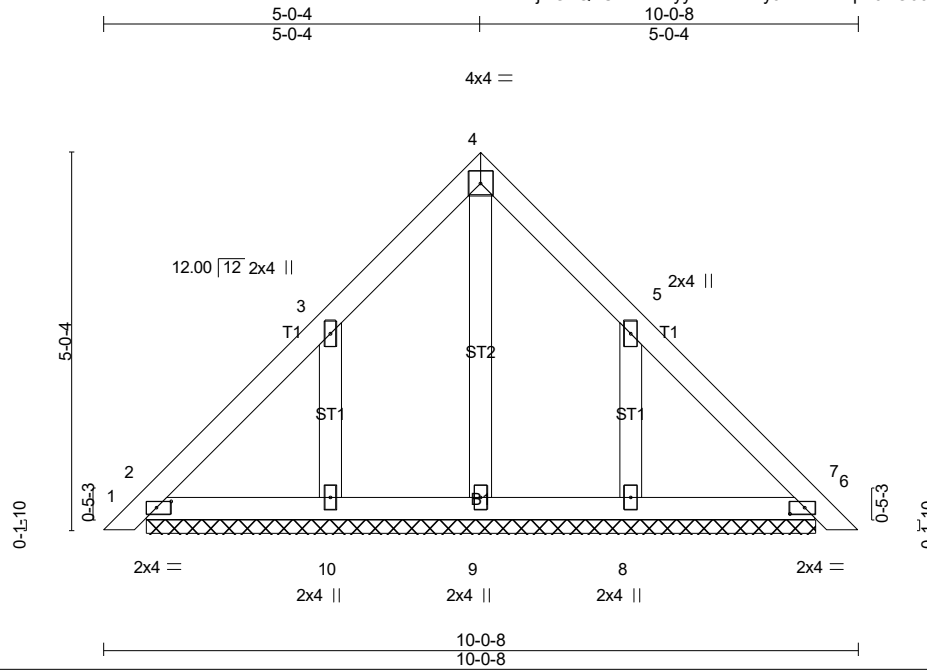
6/21/2021

**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 20-4569-R01	Truss PB03	Truss Type GABLE	Qty 1	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC Job Reference (optional) # 27092
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:08 2021 Page 1  
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Scale = 1:30.7

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.09	Vert(LL) 0.00	7	n/r	180	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15		BC 0.08	Vert(CT) 0.00	7	n/r	80		
TCDL 10.0	Rep Stress Incr YES		WB 0.07	Horz(CT) 0.00	6	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-P						
BCDL 10.0								Weight: 47 lb	FT = 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.** All bearings 8-10-14.  
(lb) - Max Horz 2=-110(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 2 except 10=-147(LC 12), 8=-146(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

**NOTES-** (13-14)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=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
- 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
- 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 except (jt=lb) 10=147, 8=146.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

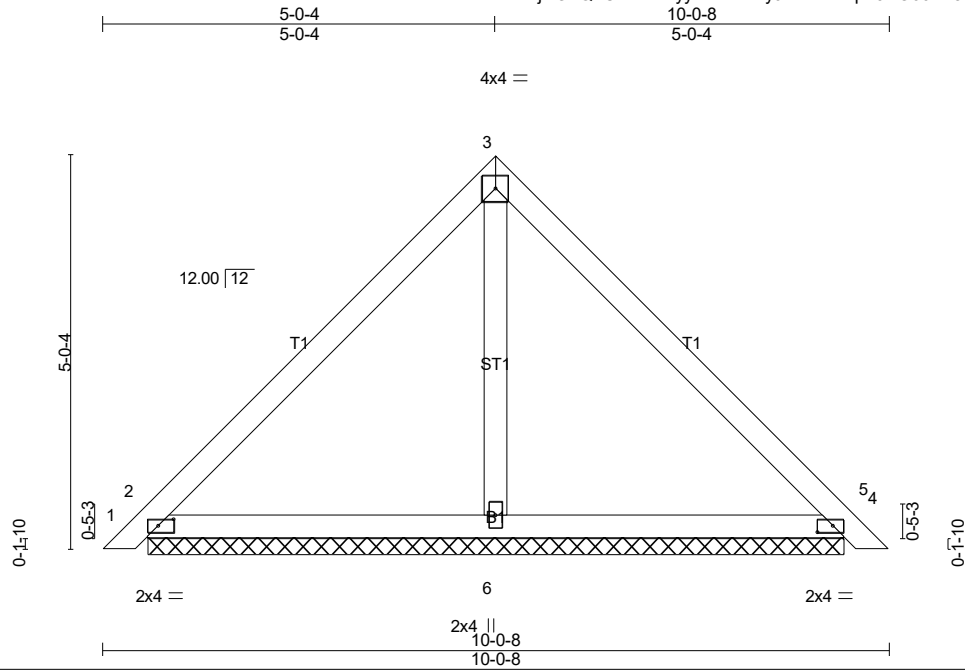


6/21/2021

**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 20-4569-R01	Truss PB04	Truss Type Piggyback	Qty 1	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC # 27092
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:08 2021 Page 1  
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Scale = 1:29.5

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.40	Vert(LL) 0.01	5	n/r	180		MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15		BC 0.34	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 IRC2018/TPI2014		Matrix-P							
BCDL 10.0									Weight: 41 lb	FT = 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" oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

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

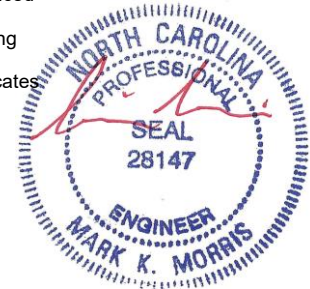
**REACTIONS.** (lb/size) 2=238/8-10-14 (min. 0-1-8), 4=238/8-10-14 (min. 0-1-8), 6=281/8-10-14 (min. 0-1-8)  
Max Horz 2=110(LC 11)  
Max Uplift 2=-59(LC 13), 4=-64(LC 13)

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

**NOTES-** (11-12)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=5.0psf; BCDL=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
- 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
- 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.
- 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" tall by 1'-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, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard



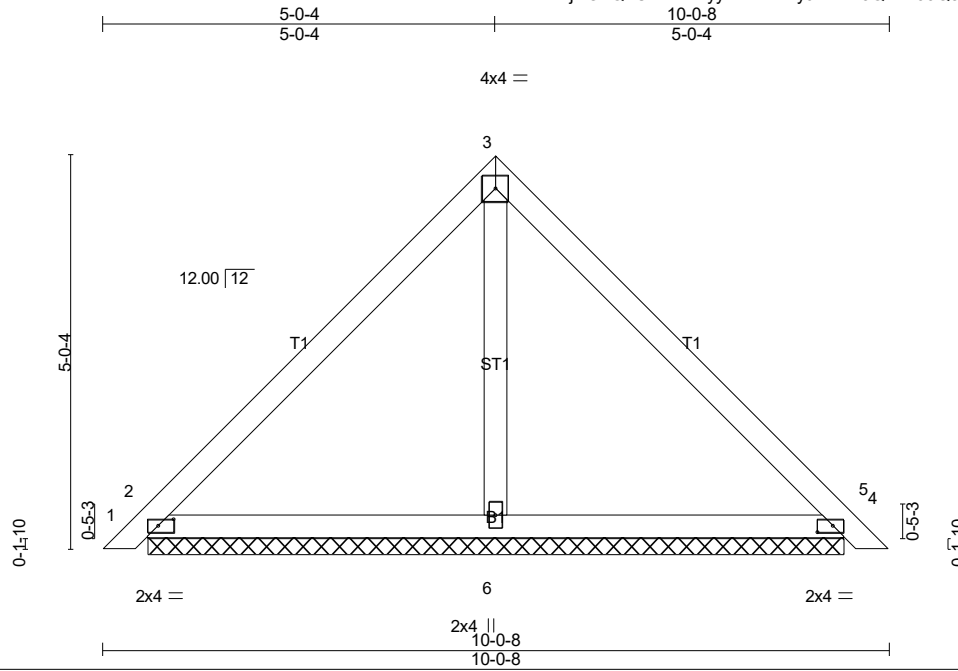
6/21/2021

**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 20-4569-R01	Truss PB05	Truss Type Piggyback	Qty 1	Ply 2	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC # 27092
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Scale = 1:29.5

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.20	Vert(LL) 0.01	5	n/r	180	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15		BC 0.17	Vert(CT) 0.01	5	n/r	80		
TCDL 10.0	Rep Stress Incr YES		WB 0.02	Horz(CT) 0.00	4	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-P						
BCDL 10.0								Weight: 81 lb	FT = 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" oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

**REACTIONS.** (lb/size) 2=238/8-10-14 (min. 0-1-8), 4=238/8-10-14 (min. 0-1-8), 6=281/8-10-14 (min. 0-1-8)  
Max Horz 2=110(LC 11)  
Max Uplift 2=-59(LC 13), 4=-64(LC 13)

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

**NOTES-** (13-14)

- 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: 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=130mph (3-second gust) Vasd=103mph; TC DL=5.0psf; BCDL=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
- 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
- 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.
- 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, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

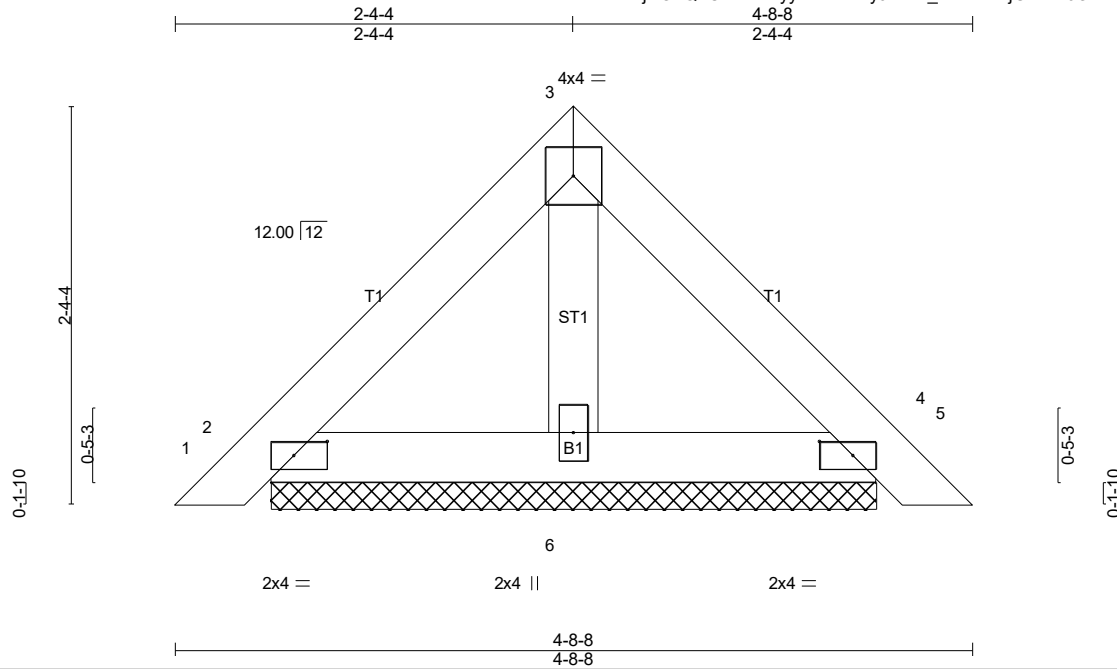


6/21/2021

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Job 20-4569-R01	Truss PB06	Truss Type Piggyback	Qty 1	Ply 2	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC # 27092
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:10 2021 Page 1  
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Scale = 1:13.6

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.04	Vert(LL) 0.00	4	n/r	180	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15		BC 0.03	Vert(CT) 0.00	4	n/r	80		
TCDL 10.0	Rep Stress Incr YES		WB 0.01	Horz(CT) 0.00	4	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-P						
BCDL 10.0								Weight: 35 lb	FT = 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 4-8-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=110/3-6-14 (min. 0-1-8), 4=110/3-6-14 (min. 0-1-8), 6=110/3-6-14 (min. 0-1-8)  
Max Horz 2=49(LC 11)  
Max Uplift 2=-26(LC 13), 4=-32(LC 13)  
Max Grav 2=110(LC 1), 4=110(LC 1), 6=111(LC 5)

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

**NOTES-** (13-14)

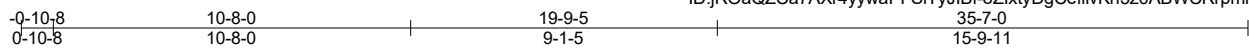
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face 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=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=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
- 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
- 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.
- 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, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard



6/21/2021

**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 = 1:68.6

LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP		
TCLL (roof)	20.0	Plate Grip DOL	2.0-0	TC	0.14	Vert(LL)	0.00	in (loc)	1	l/defl	n/r	180	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.00	1	n/r	80				
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	21	n/a	n/a				
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-SH										
BCDL	10.0												Weight: 303 lb	FT = 0%

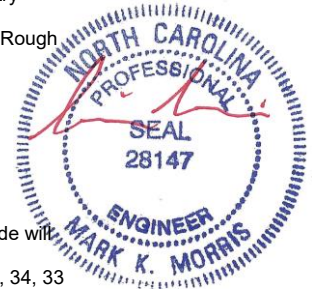
LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2 *Except* T3: 2x8 SP No.2, T4: 2x10 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 7-32, 9-31, 10-30, 11-29, 12-28, 14-27
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 35-7-0.  
 (lb) - Max Horz 37=-285(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 37, 21, 20, 35, 34, 33, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22 except 36=-115(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 37, 21, 36, 35, 30, 29, 28, 24, 23, 22 except 20=370(LC 20), 34=266(LC 20), 33=268(LC 20), 32=255(LC 22), 31=255(LC 22), 27=308(LC 22), 26=258(LC 21), 25=268(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 5-6=-144/259, 6-7=-190/340, 7-8=-167/284, 8-9=-161/299, 9-10=-161/299, 10-11=-161/299, 11-12=-161/299, 12-13=-161/299, 14-15=-192/347, 15-16=-169/275, 19-20=-270/227

- NOTES-** (16-17)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 4-0-0, Exterior(2N) 4-0-0 to 5-10-6, Corner(3R) 5-10-6 to 24-6-15, Exterior(2N) 24-6-15 to 30-7-10, Corner(3E) 30-7-10 to 35-5-4 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) 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
  - 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) All plates are 2x4 MT20 unless otherwise indicated.
  - 8) Gable requires continuous bottom chord bearing.
  - 9) Gable studs spaced at 2-0-0 oc.
  - 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 11) \* This truss has been designed for a live load of 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.
  - 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 37, 21, 20, 35, 34, 33, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22 except (jt=lb) 36=115.
  - 13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 37, 20, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26



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Continued on Page 2 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 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC
20-4569-R01	R01	GABLE	1	1	Job Reference (optional) # 27092

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:14 2021 Page 2  
ID:jROaQZCa7AXr4yywaPFSiTyJIBf-GlsJ4IDlzynbJ3vudhXPjklcaD64AKxMZNZ8alz3jdN

**NOTES-** (16-17)

- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- 16) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 17) 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.

**LOAD CASE(S)** Standard



6/21/2021

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Job	Truss	Truss Type	Qty	Ply	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC
20-4569-R01	R02	Piggyback Base	4	1	Job Reference (optional) # 27092

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:15 2021 Page 2  
 ID:jROaQZCa7AXr4yywaPFSiTyJIBf-kxQhleEwkGvSxDU4BO2eGxHexcF3vfdVo1lh6Cz3jdM

**NOTES-** (12-13)

- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard



6/21/2021

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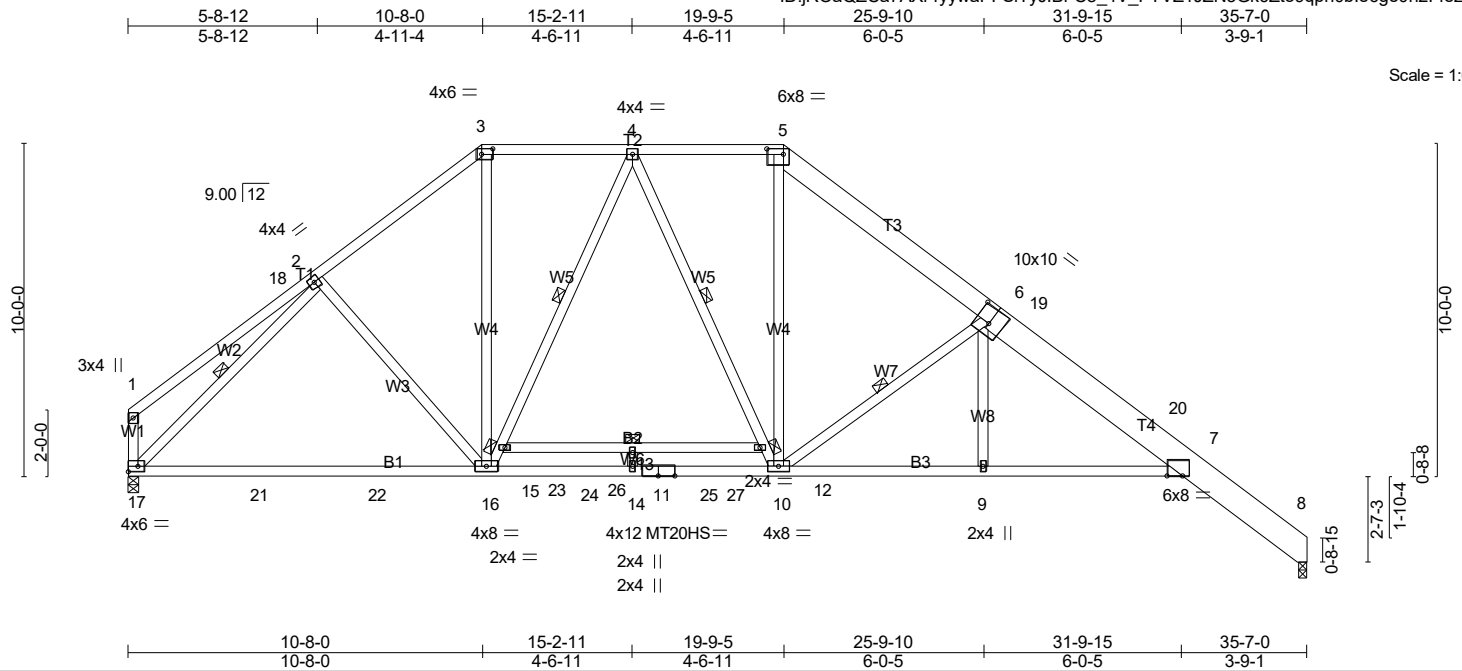


Plate Offsets (X,Y)-- [3:0-4-0,0-2-0], [5:0-6-0,0-2-0], [6:0-5-0,0-6-0], [7:0-5-9,Edge], [17:Edge,0-2-0]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.74	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.93	Vert(LL) -0.45 10-14 >937 240	MT20HS	187/143
TCDL 10.0	Lumber DOL 1.15	WB 0.65	Vert(CT) -0.78 10-14 >543 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.47 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 267 lb	FT = 0%

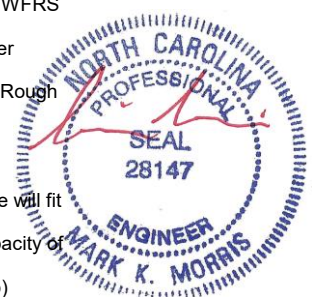
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* T3: 2x8 SP No.2, T4: 2x10 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 4-0-14 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 *Except* B1: 2x4 SP SS, B3: 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 10-14. 6-0-0 oc bracing: 12-15
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 4-15, 4-12, 6-10, 2-17

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

**REACTIONS.** (lb/size) 17=1504/0-3-8 (min. 0-2-0), 8=1494/0-3-8 (min. 0-1-8)  
 Max Horz 17=-293(LC 8)  
 Max Uplift 17=-78(LC 12), 8=-136(LC 13)  
 Max Grav 17=1690(LC 3), 8=1521(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-18=-301/89, 2-3=-1849/272, 3-4=-1423/263, 4-5=-1592/285, 5-6=-2142/283,  
 6-19=-2508/285, 19-20=-2651/283, 7-20=-2688/253, 7-8=-821/120, 1-17=-286/103  
 BOT CHORD 17-21=-121/1439, 21-22=-121/1439, 16-22=-121/1439, 16-23=-16/1605, 23-24=-16/1605,  
 14-24=-16/1605, 11-14=-16/1605, 11-25=-16/1605, 10-25=-16/1605, 9-10=-126/2483,  
 7-9=-130/2474  
 WEBS 3-16=-51/839, 15-16=-518/138, 4-15=-459/163, 5-10=-47/1004, 6-10=-1213/290,  
 2-17=-1784/148, 6-9=0/252

- NOTES-** (11-12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-11-6, Exterior(2R) 4-11-6 to 26-6-13, Interior(1) 26-6-13 to 30-7-10, Exterior(2E) 30-7-10 to 35-5-4 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); 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) Provide adequate drainage to prevent water ponding.
  - 5) All plates are MT20 plates unless otherwise indicated.
  - 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) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17 except (jt=lb) 8=136.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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Continued on page 2 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 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC
20-4569-R01	R03	PIGGYBACK BASE	2	1	Job Reference (optional) # 27092

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:17 2021 Page 2

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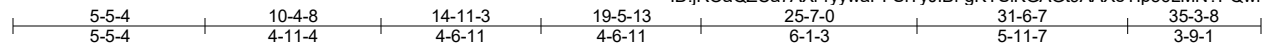
- 11) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



6/21/2021

**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 = 1:65.2

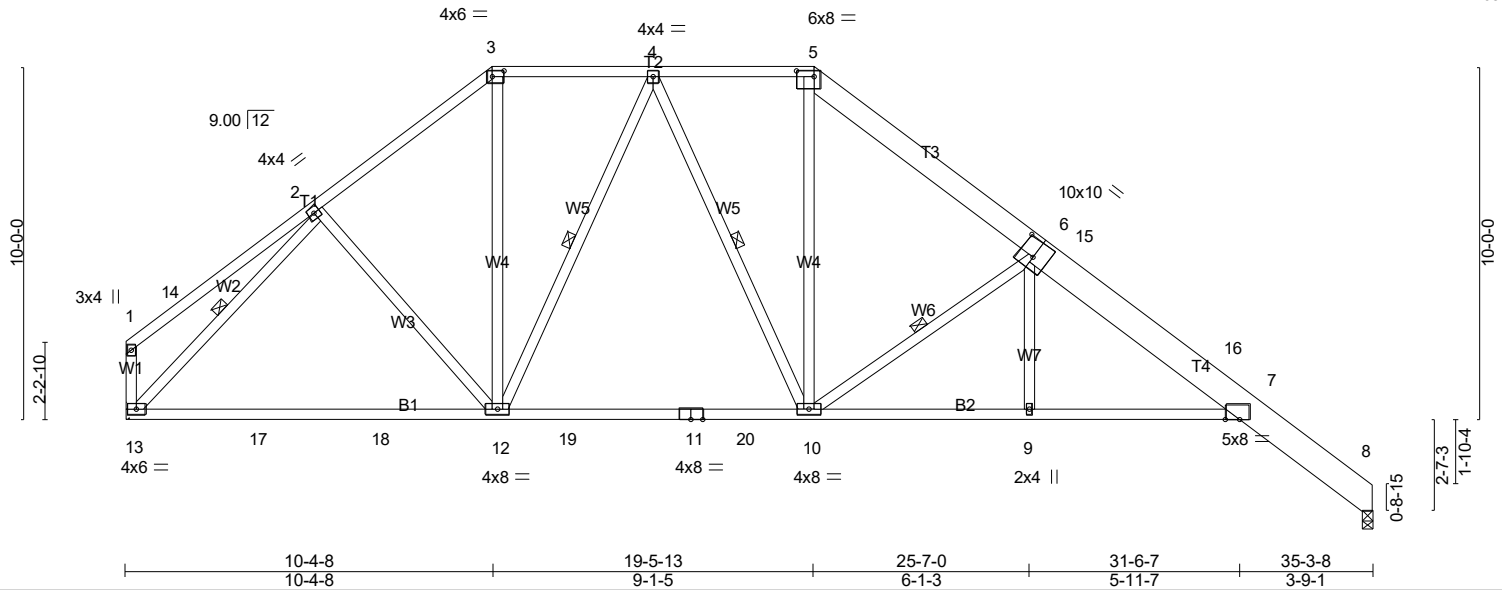


Plate Offsets (X,Y)-- [3:0-4-0,0-2-0], [5:0-6-0,0-2-0], [6:0-5-0,0-6-0], [7:0-4-13,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.68	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.98	Vert(LL) -0.38 10-12 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.53	Vert(CT) -0.66 7-9 >639 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.43 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 254 lb	FT = 0%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2 \*Except\*  
 T3: 2x8 SP No.2, T4: 2x10 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 B1: 2x4 SP No.1  
 WEBS 2x4 SP No.3

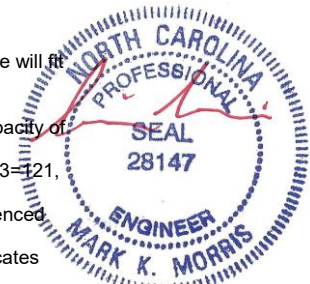
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-5-13 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
 WEBS 1 Row at midpt 4-12, 4-10, 2-13, 6-10

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

**REACTIONS.** (lb/size) 13=1401/Mechanical, 8=1413/0-3-8 (min. 0-1-8)  
 Max Horz 13=-274(LC 13)  
 Max Uplift 13=-121(LC 12), 8=-169(LC 13)  
 Max Grav 13=1489(LC 3), 8=1413(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1541/324, 3-4=-1174/306, 4-5=-1331/337, 5-6=-1810/354, 6-15=-2178/351, 15-16=-2350/348, 7-16=-2395/318, 7-8=-759/137  
 BOT CHORD 13-17=-159/1194, 17-18=-159/1194, 12-18=-159/1194, 12-19=-77/1298, 11-19=-77/1298, 11-20=-77/1298, 10-20=-77/1298, 9-10=-188/2208, 7-9=-190/2199  
 WEBS 3-12=-81/654, 4-12=-457/168, 5-10=-87/803, 2-13=-1503/242, 6-10=-1158/303, 6-9=0/271

- NOTES-** (11-12)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-11-6, Exterior(2R) 4-11-6 to 26-3-5, Interior(1) 26-3-5 to 30-4-2, Exterior(2E) 30-4-2 to 35-1-12 zone; 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=1.00; Cs=1.00; Ct=1.10
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 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.
  - Refer to girder(s) for truss to truss connections.
  - Bearing at joint(s) 8 considers parallel to grain value using ANS/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=121, 8=169.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANS/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.



6/21/2021

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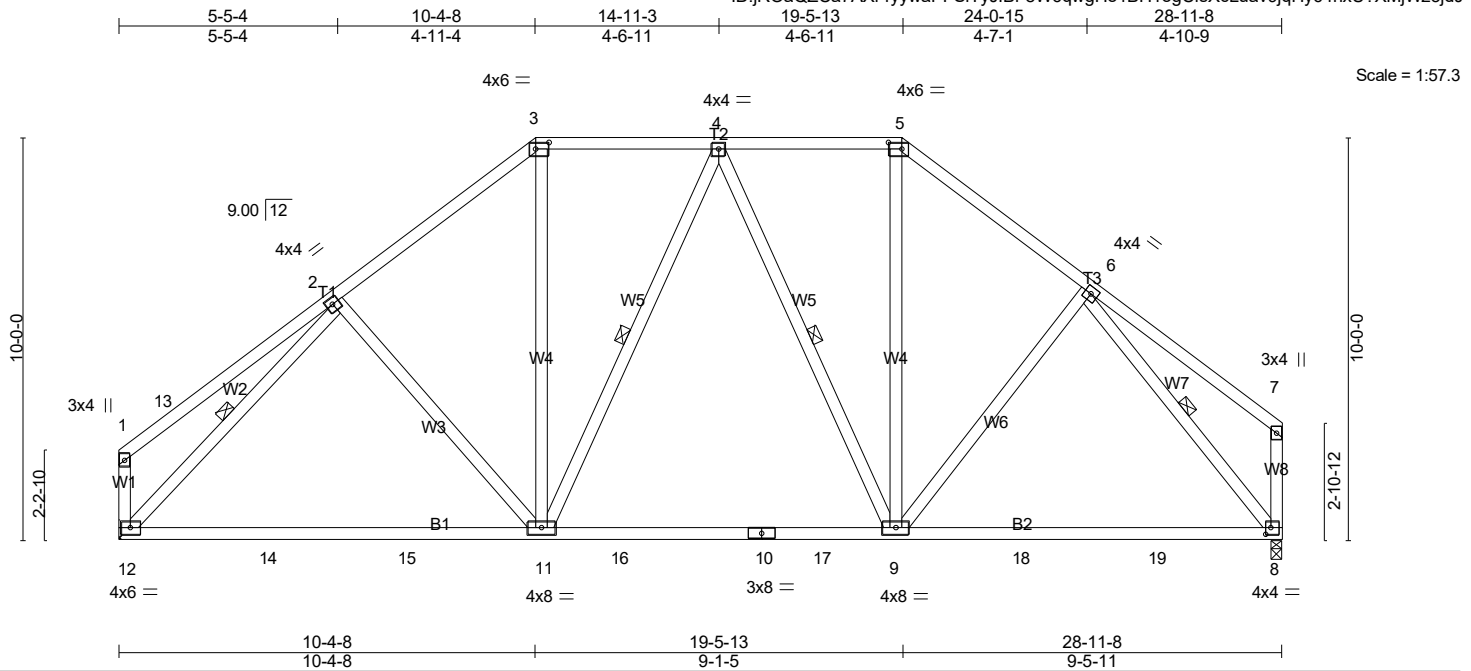


Plate Offsets (X,Y)-- [3:0-4-0,0-2-0], [5:0-4-0,0-2-0], [8:0-1-8,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.			PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.71	in (loc)	l/defl	L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.92	Vert(LL) -0.36 11-12	>955	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.42	Vert(CT) -0.63 11-12	>548	180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.04 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014					Weight: 204 lb	FT = 0%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-0-6 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
 WEBS 1 Row at midpt 4-11, 4-9, 2-12, 6-8

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

**REACTIONS.** (lb/size) 12=1147/Mechanical, 8=1147/0-3-8 (min. 0-1-8)  
 Max Horz 12=175(LC 9)  
 Max Uplift 12=-110(LC 12), 8=-104(LC 13)  
 Max Grav 12=1265(LC 3), 8=1276(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1240/279, 3-4=-930/269, 4-5=-891/263, 5-6=-1183/274  
 BOT CHORD 12-14=-181/976, 14-15=-181/976, 11-15=-181/976, 11-16=-104/964, 10-16=-104/964,  
 10-17=-104/964, 9-17=-104/964, 9-18=-113/802, 18-19=-113/802, 8-19=-113/802  
 WEBS 3-11=-53/475, 4-9=-277/156, 5-9=-55/452, 2-12=-1197/198, 6-8=-1215/197

- NOTES-** (10-11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-11-6, Exterior(2R) 4-11-6 to 24-2-0, Exterior(2E) 24-2-0 to 28-9-12 zone; 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
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 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.
  - Refer to girder(s) for truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=110, 8=104.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.



6/21/2021

**LOAD CASE(S)** Standard

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Job 20-4569-R01	Truss R07	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC Job Reference (optional) <b># 27092</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:20 2021 Page 1  
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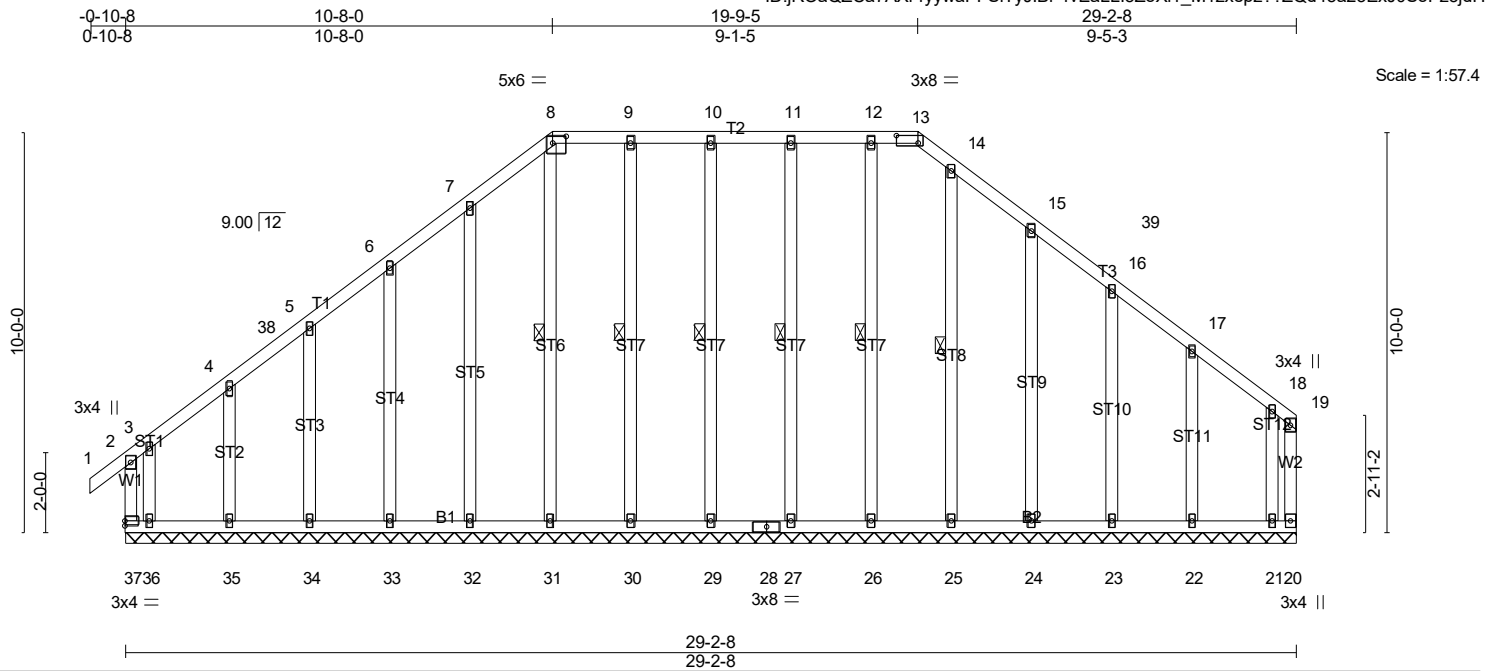


Plate Offsets (X,Y)-- [8:0-4-0,0-2-0], [13:0-6-8,0-2-4]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.51	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.43	Vert(LL) 0.00 1 n/r 180		
TCDL 10.0	Rep Stress Incr YES	WB 0.18	Vert(CT) -0.00 1 n/r 80		
BCLL 0.0 *	Code IRC2018/TPI2014	Matrix-R	Horz(CT) -0.00 20 n/a n/a		
BCDL 10.0				Weight: 252 lb	FT = 0%

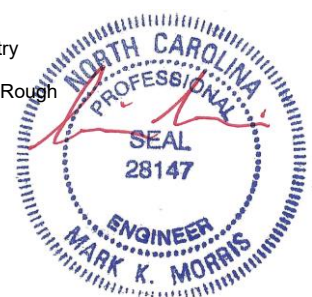
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 10-29, 9-30, 8-31, 11-27, 12-26, 14-25
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 29-2-8.  
 (lb) - Max Horz 37=265(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 29, 30, 31, 32, 33, 34, 35, 27, 26, 24, 23, 22 except 37=-696(LC 10), 20=-349(LC 11), 36=-700(LC 9), 21=-308(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 29, 30, 35, 27, 25, 22 except 37=787(LC 9), 20=311(LC 10), 31=271(LC 23), 32=273(LC 20), 33=256(LC 20), 34=266(LC 20), 36=711(LC 10), 26=251(LC 23), 24=266(LC 21), 23=263(LC 21), 21=418(LC 11)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-37=-405/357, 2-3=-360/328, 6-7=-163/260, 7-8=-202/324, 8-9=-166/280, 9-10=-166/280, 10-11=-166/280, 11-12=-166/280, 12-13=-166/280, 13-14=-177/277, 14-15=-194/311  
 WEBS 3-36=-303/314

- NOTES-** (15-16)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-11-2, Exterior(2N) 3-11-2 to 5-10-6, Corner(3R) 5-10-6 to 24-3-2, Corner(3E) 24-3-2 to 29-0-12 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
  - 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.
  - 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.



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**Continued on Page 2** 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 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC
20-4569-R01	R07	Piggyback Base Supported Gable	1	1	Job Reference (optional) # 27092

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:21 2021 Page 2  
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**NOTES-** (15-16)

- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29, 30, 31, 32, 33, 34, 35, 27, 26, 24, 23, 22 except (jt=lb) 37=696, 20=349, 36=700, 21=308.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 16) 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.

**LOAD CASE(S)** Standard

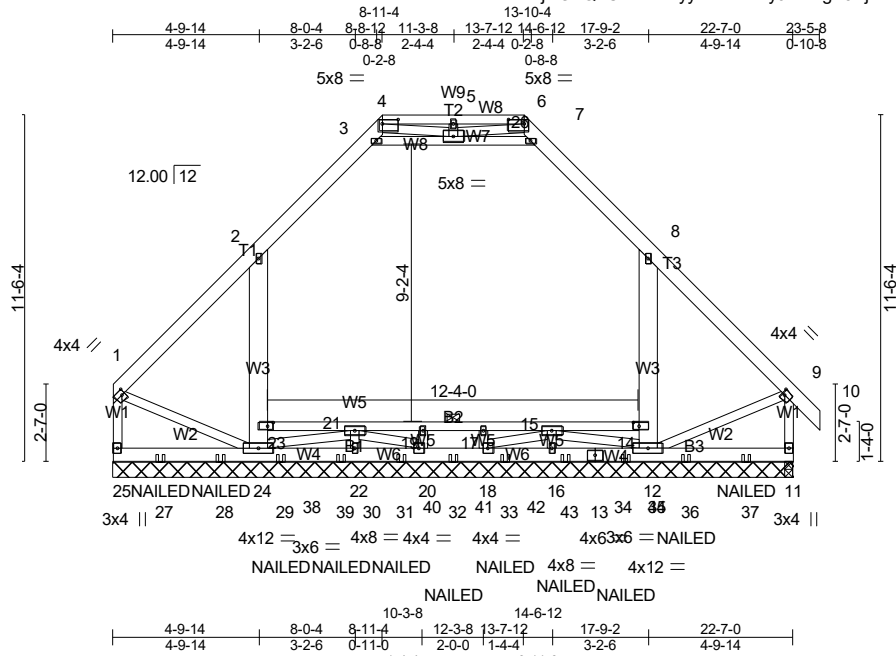


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**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation 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 20-4569-R01	Truss R08	Truss Type Piggyback Base Girder	Qty 1	Ply 2	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC # 27092
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:24 2021 Page 1  
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Scale = 1:76.5

Plate Offsets (X,Y)-- [1:0-1-4,0-2-0], [4:0-6-4,0-1-12], [6:0-6-4,0-1-12], [9:0-1-4,0-2-0], [14:0-2-4,0-1-8], [23:0-2-4,0-1-8]

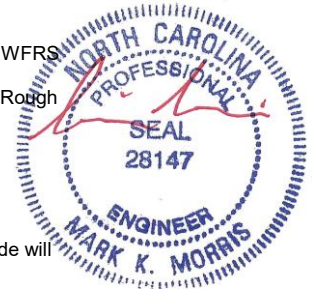
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.10	Vert(LL)	-0.01 21-23	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.23	Vert(CT)	-0.01 21-23	>999	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Horz(CT)	-0.00 11	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 470 lb	FT = 0%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* T2: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2 *Except* B2: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 14-23
WEBS 2x4 SP No.3 *Except* W3: 2x8 SP No.2, W7: 2x4 SP No.2	

**REACTIONS.** All bearings 22-7-0.  
(lb) - Max Horz 25=-294(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) 18, 20, 22, 16 except 25=-154(LC 6), 11=-144(LC 7)  
Max Grav All reactions 250 lb or less at joint(s) except 25=697(LC 1), 24=2829(LC 43), 12=2842(LC 44), 11=765(LC 1), 11=765(LC 1), 18=348(LC 44), 20=344(LC 44), 22=492(LC 46), 16=491(LC 46)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-514/128, 2-3=-532/80, 4-5=-371/111, 5-6=-371/111, 7-8=-531/78, 8-9=-513/123, 1-25=-534/102, 9-11=-602/93  
BOT CHORD 25-27=-281/290, 27-28=-281/290, 24-28=-281/290  
WEBS 23-24=-498/293, 2-23=-394/306, 12-14=-486/284, 8-14=-382/297, 1-24=-116/367, 9-12=-105/390, 21-22=-337/0, 15-16=-337/0, 4-26=-144/331, 6-26=-145/329

- NOTES-** (19-20)
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Webs connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 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; Vu1t=130mph (3-second gust) Vasd=103mph; 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
  - 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.
  - 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.
  - Ceiling dead load (5.0 psf) on member(s). 2-3, 7-8, 3-26, 7-26
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 21-23, 19-21, 17-19, 15-17,



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Continued on Page 2 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 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC
20-4569-R01	R08	Piggyback Base Girder	1	2	# 27092

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:25 2021 Page 2

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**NOTES-** (19-20)

- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 20, 22, 16 except (jt=lb) 25=154, 11=144.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 16) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 17) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2000 lb down at 4-9-14, and 2000 lb down at 17-9-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 18) Attic room checked for L/360 deflection.
- 19) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 20) 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.

**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-60, 2-3=-70, 3-4=-60, 4-6=-60, 6-7=-60, 7-8=-70, 8-9=-60, 9-10=-60, 11-25=-20, 14-23=-20, 3-7=-10  
Concentrated Loads (lb)  
Vert: 24=-2000(B) 12=-2000(B) 27=-158(F) 28=-158(F) 29=-158(F) 30=-158(F) 31=-158(F) 32=-158(F) 33=-158(F) 34=-158(F) 35=-158(F) 36=-158(F) 37=-158(F)
- 2) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-60, 2-3=-70, 3-4=-60, 4-6=-60, 6-7=-60, 7-8=-70, 8-9=-60, 9-10=-60, 11-25=-20, 14-23=-20, 3-7=-10  
Concentrated Loads (lb)  
Vert: 24=-2000(B) 12=-2000(B) 27=-95(F) 28=-95(F) 29=-95(F) 30=-95(F) 31=-95(F) 32=-95(F) 33=-95(F) 34=-95(F) 35=-95(F) 36=-95(F) 37=-95(F)
- 3) Dead + 0.75 Roof Live (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-50, 2-3=-60, 3-4=-50, 4-6=-50, 6-7=-50, 7-8=-60, 8-9=-50, 9-10=-50, 11-25=-20, 14-23=-80, 3-7=-10  
Concentrated Loads (lb)  
Vert: 24=-2000(B) 12=-2000(B) 27=-83(F) 28=-83(F) 29=-83(F) 30=-83(F) 31=-83(F) 32=-83(F) 33=-83(F) 34=-83(F) 35=-83(F) 36=-83(F) 37=-83(F)
- 4) Dead + 0.75 Snow (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-50, 2-3=-60, 3-4=-50, 4-6=-50, 6-7=-50, 7-8=-60, 8-9=-50, 9-10=-50, 11-25=-20, 14-23=-80, 3-7=-10  
Concentrated Loads (lb)  
Vert: 24=-2000(B) 12=-2000(B) 27=-130(F) 28=-130(F) 29=-130(F) 30=-130(F) 31=-130(F) 32=-130(F) 33=-130(F) 34=-130(F) 35=-130(F) 36=-130(F) 37=-130(F)
- 5) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-20, 2-3=-30, 3-4=-20, 4-6=-20, 6-7=-20, 7-8=-30, 8-9=-20, 9-10=-20, 11-25=-40, 14-23=-20, 3-7=-10  
Concentrated Loads (lb)  
Vert: 24=-2000(B) 12=-2000(B) 27=-80(F) 28=-80(F) 29=-80(F) 30=-80(F) 31=-80(F) 32=-80(F) 33=-80(F) 34=-80(F) 35=-80(F) 36=-80(F) 37=-80(F)
- 6) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-13, 2-3=-19, 3-4=-13, 4-6=26, 6-7=10, 7-8=4, 8-9=10, 9-10=5, 11-25=-10, 14-23=-10, 3-7=-6  
Horz: 1-4=3, 6-9=20, 9-10=15, 1-25=15, 9-11=19  
Drag: 1-25=0, 9-11=0  
Concentrated Loads (lb)  
Vert: 24=-2000(B) 12=-2000(B) 27=99(F) 28=99(F) 29=99(F) 30=99(F) 31=99(F) 32=99(F) 33=99(F) 34=99(F) 35=99(F) 36=99(F) 37=99(F)
- 7) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=10, 2-3=4, 3-4=10, 4-6=26, 6-7=-13, 7-8=-19, 8-9=-13, 9-10=-1, 11-25=-10, 14-23=-10, 3-7=-6  
Horz: 1-4=-20, 6-9=-3, 9-10=9, 1-25=-19, 9-11=-15  
Drag: 1-25=0, 9-11=0  
Concentrated Loads (lb)  
Vert: 24=-2000(B) 12=-2000(B) 27=99(F) 28=99(F) 29=99(F) 30=99(F) 31=99(F) 32=99(F) 33=99(F) 34=99(F) 35=99(F) 36=99(F) 37=99(F)
- 8) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-33, 2-3=-43, 3-4=-33, 4-6=6, 6-7=-10, 7-8=-20, 8-9=-10, 9-10=-5, 11-25=-20, 14-23=-20, 3-7=-10  
Horz: 1-4=13, 6-9=10, 9-10=15, 1-25=25, 9-11=9  
Drag: 1-25=0, 9-11=-0  
Concentrated Loads (lb)  
Vert: 24=-2000(B) 12=-2000(B) 27=109(F) 28=109(F) 29=109(F) 30=109(F) 31=109(F) 32=109(F) 33=109(F) 34=109(F) 35=109(F) 36=109(F) 37=109(F)
- 9) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-10, 2-3=-20, 3-4=-10, 4-6=6, 6-7=-33, 7-8=-43, 8-9=-33, 9-10=-28, 11-25=-20, 14-23=-20, 3-7=-10  
Horz: 1-4=-10, 6-9=-13, 9-10=-8, 1-25=-9, 9-11=-25  
Drag: 1-25=0, 9-11=0  
Concentrated Loads (lb)  
Vert: 24=-2000(B) 12=-2000(B) 27=109(F) 28=109(F) 29=109(F) 30=109(F) 31=109(F) 32=109(F) 33=109(F) 34=109(F) 35=109(F) 36=109(F) 37=109(F)
- 10) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=26, 2-3=20, 3-4=26, 4-6=10, 6-7=10, 7-8=4, 8-9=10, 9-10=5, 11-25=-10, 14-23=-10, 3-7=-6  
Horz: 1-4=-36, 6-9=20, 9-10=15, 1-25=12, 9-11=17  
Drag: 1-25=0, 9-11=-0  
Concentrated Loads (lb)  
Vert: 24=-2000(B) 12=-2000(B) 27=99(F) 28=99(F) 29=99(F) 30=99(F) 31=99(F) 32=99(F) 33=99(F) 34=99(F) 35=99(F) 36=99(F) 37=99(F)
- 11) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60



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Continued on Page 3  
**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 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC
20-4569-R01	R08	Piggyback Base Girder	1	2	Job Reference (optional) # 27092

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:25 2021 Page 3  
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**LOAD CASE(S)** Standard

- Uniform Loads (plf)  
 Vert: 1-2=10, 2-3=4, 3-4=10, 4-6=10, 6-7=26, 7-8=20, 8-9=26, 9-10=21, 11-25=-10, 14-23=-10, 3-7=-6  
 Horz: 1-4=-20, 6-9=36, 9-10=31, 1-25=-17, 9-11=-12  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=99(F) 28=99(F) 29=99(F) 30=99(F) 31=99(F) 32=99(F) 33=99(F) 34=99(F) 35=99(F) 36=99(F) 37=99(F)
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=26, 2-3=20, 3-4=26, 4-6=10, 6-7=10, 7-8=4, 8-9=10, 9-10=5, 11-25=-10, 14-23=-10, 3-7=-6  
 Horz: 1-4=-36, 6-9=20, 9-10=15, 1-25=12, 9-11=17  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=99(F) 28=99(F) 29=99(F) 30=99(F) 31=99(F) 32=99(F) 33=99(F) 34=99(F) 35=99(F) 36=99(F) 37=99(F)
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=10, 2-3=4, 3-4=10, 4-6=10, 6-7=26, 7-8=20, 8-9=26, 9-10=21, 11-25=-10, 14-23=-10, 3-7=-6  
 Horz: 1-4=-20, 6-9=36, 9-10=31, 1-25=-17, 9-11=-12  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=99(F) 28=99(F) 29=99(F) 30=99(F) 31=99(F) 32=99(F) 33=99(F) 34=99(F) 35=99(F) 36=99(F) 37=99(F)
- 14) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=6, 2-3=-4, 3-4=6, 4-6=-10, 6-7=-10, 7-8=-20, 8-9=-10, 9-10=-5, 11-25=-20, 14-23=-20, 3-7=-10  
 Horz: 1-4=-26, 6-9=10, 9-10=15, 1-25=23, 9-11=7  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=109(F) 28=109(F) 29=109(F) 30=109(F) 31=109(F) 32=109(F) 33=109(F) 34=109(F) 35=109(F) 36=109(F) 37=109(F)
- 15) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=-10, 2-3=-20, 3-4=-10, 4-6=-10, 6-7=6, 7-8=-4, 8-9=6, 9-10=11, 11-25=-20, 14-23=-20, 3-7=-10  
 Horz: 1-4=-10, 6-9=26, 9-10=31, 1-25=-7, 9-11=-23  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=109(F) 28=109(F) 29=109(F) 30=109(F) 31=109(F) 32=109(F) 33=109(F) 34=109(F) 35=109(F) 36=109(F) 37=109(F)
- 16) Dead + Snow on Overhangs: Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)  
 Vert: 1-4=-20, 4-6=-20, 6-9=-20, 9-10=-100, 11-25=-20, 14-23=-20
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-31(F) 28=-31(F) 29=-31(F) 30=-31(F) 31=-31(F) 32=-31(F) 33=-31(F) 34=-31(F) 35=-31(F) 36=-31(F) 37=-31(F)
- 17) Dead + Attic Floor: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)  
 Vert: 1-2=-20, 2-3=-30, 3-4=-20, 4-6=-20, 6-7=-20, 7-8=-30, 8-9=-20, 9-10=-20, 11-25=-20, 14-23=-100, 3-7=-10
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-45(F) 28=-45(F) 29=-45(F) 30=-45(F) 31=-45(F) 32=-45(F) 33=-45(F) 34=-45(F) 35=-45(F) 36=-45(F) 37=-45(F)
- 18) Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)  
 Vert: 1-2=-20, 2-3=-30, 3-4=-20, 4-6=-20, 6-7=-20, 7-8=-30, 8-9=-20, 9-10=-20, 11-25=-20, 14-23=-100, 3-7=-10
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-45(F) 28=-45(F) 29=-45(F) 30=-45(F) 31=-45(F) 32=-45(F) 33=-45(F) 34=-45(F) 35=-45(F) 36=-45(F) 37=-45(F)
- 19) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=-60, 2-3=-70, 3-4=-60, 4-6=-31, 6-7=-42, 7-8=-52, 8-9=-42, 9-10=-39, 11-25=-20, 14-23=-80, 3-7=-10  
 Horz: 1-4=10, 6-9=8, 9-10=11, 1-25=19, 9-11=6  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=78(F) 28=78(F) 29=78(F) 30=78(F) 31=78(F) 32=78(F) 33=78(F) 34=78(F) 35=78(F)  
 36=78(F) 37=78(F)
- 20) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=-42, 2-3=-52, 3-4=-42, 4-6=-31, 6-7=-60, 7-8=-70, 8-9=-60, 9-10=-56, 11-25=-20, 14-23=-80, 3-7=-10  
 Horz: 1-4=-8, 6-9=-10, 9-10=-6, 1-25=-6, 9-11=-19  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=78(F) 28=78(F) 29=78(F) 30=78(F) 31=78(F) 32=78(F) 33=78(F) 34=78(F) 35=78(F)  
 36=78(F) 37=78(F)
- 21) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=-31, 2-3=-41, 3-4=-31, 4-6=-42, 6-7=-42, 7-8=-52, 8-9=-42, 9-10=-39, 11-25=-20, 14-23=-80, 3-7=-10  
 Horz: 1-4=-19, 6-9=8, 9-10=11, 1-25=17, 9-11=5  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=78(F) 28=78(F) 29=78(F) 30=78(F) 31=78(F) 32=78(F) 33=78(F) 34=78(F) 35=78(F)  
 36=78(F) 37=78(F)
- 22) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60



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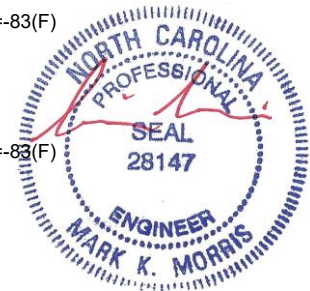
Continued on Page 4  
 Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building 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 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC
20-4569-R01	R08	Piggyback Base Girder	1	2	# 27092

8,430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:25 2021 Page 4  
 ID:jROaQZCa7AXr4yywaPFSiTyJIBf-Rt1TO3MBNK928IF?mVE\_g2iWUeqKFJ1z5bjDTcz3jdC

**LOAD CASE(S)** Standard

- Uniform Loads (plf)  
 Vert: 1-2=-42, 2-3=-52, 3-4=-42, 4-6=-42, 6-7=-31, 7-8=-41, 8-9=-31, 9-10=-27, 11-25=-20, 14-23=-80, 3-7=-10  
 Horz: 1-4=-8, 6-9=19, 9-10=23, 1-25=-5, 9-11=-17  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=78(F) 28=78(F) 29=78(F) 30=78(F) 31=78(F) 32=78(F) 33=78(F) 34=78(F) 35=78(F) 36=78(F) 37=78(F)
- 23) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=-60, 2-3=-70, 3-4=-60, 4-6=-31, 6-7=-42, 7-8=-52, 8-9=-42, 9-10=-39, 11-25=-20, 14-23=-80, 3-7=-10  
 Horz: 1-4=10, 6-9=8, 9-10=11, 1-25=19, 9-11=6  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=78(F) 28=78(F) 29=78(F) 30=78(F) 31=78(F) 32=78(F) 33=78(F) 34=78(F) 35=78(F) 36=78(F) 37=78(F)
- 24) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=-42, 2-3=-52, 3-4=-42, 4-6=-31, 6-7=-60, 7-8=-70, 8-9=-60, 9-10=-56, 11-25=-20, 14-23=-80, 3-7=-10  
 Horz: 1-4=-8, 6-9=-10, 9-10=-6, 1-25=-6, 9-11=-19  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=78(F) 28=78(F) 29=78(F) 30=78(F) 31=78(F) 32=78(F) 33=78(F) 34=78(F) 35=78(F) 36=78(F) 37=78(F)
- 25) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=-31, 2-3=-41, 3-4=-31, 4-6=-42, 6-7=-42, 7-8=-52, 8-9=-42, 9-10=-39, 11-25=-20, 14-23=-80, 3-7=-10  
 Horz: 1-4=-19, 6-9=8, 9-10=11, 1-25=17, 9-11=5  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=78(F) 28=78(F) 29=78(F) 30=78(F) 31=78(F) 32=78(F) 33=78(F) 34=78(F) 35=78(F) 36=78(F) 37=78(F)
- 26) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=-42, 2-3=-52, 3-4=-42, 4-6=-42, 6-7=-31, 7-8=-41, 8-9=-31, 9-10=-27, 11-25=-20, 14-23=-80, 3-7=-10  
 Horz: 1-4=-8, 6-9=19, 9-10=23, 1-25=-5, 9-11=-17  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=78(F) 28=78(F) 29=78(F) 30=78(F) 31=78(F) 32=78(F) 33=78(F) 34=78(F) 35=78(F) 36=78(F) 37=78(F)
- 27) Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-4=-16, 4-6=-10, 6-9=-10, 9-10=-10, 11-25=-10, 14-23=-10  
 Horz: 1-4=6, 1-25=16  
 Drag: 1-25=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=79(F) 28=79(F) 29=79(F) 30=79(F) 31=79(F) 32=79(F) 33=79(F) 34=79(F) 35=79(F) 36=79(F) 37=79(F)
- 28) Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-4=-10, 4-6=-10, 6-9=-16, 9-10=-10, 11-25=-10, 14-23=-10  
 Horz: 6-9=-6, 9-11=-16  
 Drag: 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=79(F) 28=79(F) 29=79(F) 30=79(F) 31=79(F) 32=79(F) 33=79(F) 34=79(F) 35=79(F) 36=79(F) 37=79(F)
- 29) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)  
 Vert: 1-2=-60, 2-3=-70, 3-4=-60, 4-6=-60, 6-7=-20, 7-8=-30, 8-9=-20, 9-10=-20, 11-25=-20, 14-23=-20, 3-7=-10
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-95(F) 28=-95(F) 29=-95(F) 30=-95(F) 31=-95(F) 32=-95(F) 33=-95(F) 34=-95(F) 35=-95(F)  
 36=-95(F) 37=-95(F)
- 30) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)  
 Vert: 1-2=-20, 2-3=-30, 3-4=-20, 4-6=-60, 6-7=-60, 7-8=-70, 8-9=-60, 9-10=-60, 11-25=-20, 14-23=-20, 3-7=-10
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-95(F) 28=-95(F) 29=-95(F) 30=-95(F) 31=-95(F) 32=-95(F) 33=-95(F) 34=-95(F) 35=-95(F)  
 36=-95(F) 37=-95(F)
- 31) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)  
 Vert: 1-2=-50, 2-3=-60, 3-4=-50, 4-6=-50, 6-7=-20, 7-8=-30, 8-9=-20, 9-10=-20, 11-25=-20, 14-23=-80, 3-7=-10
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-83(F) 28=-83(F) 29=-83(F) 30=-83(F) 31=-83(F) 32=-83(F) 33=-83(F) 34=-83(F) 35=-83(F)  
 36=-83(F) 37=-83(F)
- 32) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)  
 Vert: 1-2=-20, 2-3=-30, 3-4=-20, 4-6=-50, 6-7=-50, 7-8=-60, 8-9=-50, 9-10=-50, 11-25=-20, 14-23=-80, 3-7=-10
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-83(F) 28=-83(F) 29=-83(F) 30=-83(F) 31=-83(F) 32=-83(F) 33=-83(F) 34=-83(F) 35=-83(F)  
 36=-83(F) 37=-83(F)
- 33) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60



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Continued on Page 5  
 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 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC
20-4569-R01	R08	Piggyback Base Girder	1	2	# 27092

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:25 2021 Page 5  
 ID: jROaQZCa7AXr4yywaPFSiTyJIBf-Rt1TO3MBNK928IF?mVE\_g2IWUeqKFJ1z5bjDTcz3jdC

**LOAD CASE(S)** Standard

- Uniform Loads (plf)  
 Vert: 1-2=-13, 2-3=-19, 3-4=-13, 4-6=26, 6-7=10, 7-8=4, 8-9=10, 9-10=5, 11-25=-10, 14-23=-10, 3-7=-6  
 Horz: 1-4=3, 6-9=20, 9-10=15, 1-25=15, 9-11=19  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-116(F) 28=-116(F) 29=-116(F) 30=-116(F) 31=-116(F) 32=-116(F) 33=-116(F) 34=-116(F) 35=-116(F) 36=-116(F) 37=-116(F)
- 34) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=10, 2-3=4, 3-4=10, 4-6=26, 6-7=-13, 7-8=-19, 8-9=-13, 9-10=-1, 11-25=-10, 14-23=-10, 3-7=-6  
 Horz: 1-4=-20, 6-9=-3, 9-10=9, 1-25=-19, 9-11=-15  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-116(F) 28=-116(F) 29=-116(F) 30=-116(F) 31=-116(F) 32=-116(F) 33=-116(F) 34=-116(F) 35=-116(F) 36=-116(F) 37=-116(F)
- 35) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=-33, 2-3=-43, 3-4=-33, 4-6=6, 6-7=-10, 7-8=-20, 8-9=-10, 9-10=-5, 11-25=-20, 14-23=-20, 3-7=-10  
 Horz: 1-4=13, 6-9=10, 9-10=15, 1-25=25, 9-11=9  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-106(F) 28=-106(F) 29=-106(F) 30=-106(F) 31=-106(F) 32=-106(F) 33=-106(F) 34=-106(F) 35=-106(F) 36=-106(F) 37=-106(F)
- 36) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=-10, 2-3=-20, 3-4=-10, 4-6=6, 6-7=-33, 7-8=-43, 8-9=-33, 9-10=-28, 11-25=-20, 14-23=-20, 3-7=-10  
 Horz: 1-4=-10, 6-9=-13, 9-10=-8, 1-25=-9, 9-11=-25  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-106(F) 28=-106(F) 29=-106(F) 30=-106(F) 31=-106(F) 32=-106(F) 33=-106(F) 34=-106(F) 35=-106(F) 36=-106(F) 37=-106(F)
- 37) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=26, 2-3=20, 3-4=26, 4-6=10, 6-7=10, 7-8=4, 8-9=10, 9-10=5, 11-25=-10, 14-23=-10, 3-7=-6  
 Horz: 1-4=-36, 6-9=20, 9-10=15, 1-25=12, 9-11=17  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-116(F) 28=-116(F) 29=-116(F) 30=-116(F) 31=-116(F) 32=-116(F) 33=-116(F) 34=-116(F) 35=-116(F) 36=-116(F) 37=-116(F)
- 38) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=10, 2-3=4, 3-4=10, 4-6=10, 6-7=26, 7-8=20, 8-9=26, 9-10=21, 11-25=-10, 14-23=-10, 3-7=-6  
 Horz: 1-4=-20, 6-9=36, 9-10=31, 1-25=-17, 9-11=-12  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-116(F) 28=-116(F) 29=-116(F) 30=-116(F) 31=-116(F) 32=-116(F) 33=-116(F) 34=-116(F) 35=-116(F) 36=-116(F) 37=-116(F)
- 39) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=26, 2-3=20, 3-4=26, 4-6=10, 6-7=10, 7-8=4, 8-9=10, 9-10=5, 11-25=-10, 14-23=-10, 3-7=-6  
 Horz: 1-4=-36, 6-9=20, 9-10=15, 1-25=12, 9-11=17  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-116(F) 28=-116(F) 29=-116(F) 30=-116(F) 31=-116(F) 32=-116(F) 33=-116(F) 34=-116(F) 35=-116(F) 36=-116(F) 37=-116(F)
- 40) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=10, 2-3=4, 3-4=10, 4-6=10, 6-7=26, 7-8=20, 8-9=26, 9-10=21, 11-25=-10, 14-23=-10, 3-7=-6  
 Horz: 1-4=-20, 6-9=36, 9-10=31, 1-25=-17, 9-11=-12  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-116(F) 28=-116(F) 29=-116(F) 30=-116(F) 31=-116(F) 32=-116(F) 33=-116(F) 34=-116(F) 35=-116(F) 36=-116(F) 37=-116(F)
- 41) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=6, 2-3=-4, 3-4=6, 4-6=-10, 6-7=-10, 7-8=-20, 8-9=-10, 9-10=-5, 11-25=-20, 14-23=-20, 3-7=-10  
 Horz: 1-4=-26, 6-9=10, 9-10=15, 1-25=23, 9-11=7  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-106(F) 28=-106(F) 29=-106(F) 30=-106(F) 31=-106(F) 32=-106(F) 33=-106(F) 34=-106(F) 35=-106(F) 36=-106(F) 37=-106(F)
- 42) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
 Vert: 1-2=-10, 2-3=-20, 3-4=-10, 4-6=-10, 6-7=6, 7-8=-4, 8-9=6, 9-10=11, 11-25=-20, 14-23=-20, 3-7=-10  
 Horz: 1-4=-10, 6-9=26, 9-10=31, 1-25=-7, 9-11=-23  
 Drag: 1-25=0, 9-11=0
- Concentrated Loads (lb)  
 Vert: 24=-2000(B) 12=-2000(B) 27=-106(F) 28=-106(F) 29=-106(F) 30=-106(F) 31=-106(F) 32=-106(F) 33=-106(F) 34=-106(F) 35=-106(F) 36=-106(F) 37=-106(F)
- 43) Reversal: Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60



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Continued on Page 6  
 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 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC
20-4569-R01	R08	Piggyback Base Girder	1	2	# 27092

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:25 2021 Page 6  
 ID:JRoaQZCa7AXr4yywaPFsItYJIBf-Rt1TO3MBNK928IF?mVE\_g2iWUeqKFJ1z5bjDTcz3jdc

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-2=-60, 2-3=-70, 3-4=-60, 4-6=-31, 6-7=-42, 7-8=-52, 8-9=-42, 9-10=-39, 11-25=-20, 14-23=-80, 3-7=-10

Horz: 1-4=10, 6-9=8, 9-10=11, 1-25=19, 9-11=6

Drag: 1-25=0, 9-11=0

Concentrated Loads (lb)

Vert: 24=-2000(B) 12=-2000(B) 27=-125(F) 28=-125(F) 29=-125(F) 30=-125(F) 31=-125(F) 32=-125(F) 33=-125(F) 34=-125(F) 35=-125(F) 36=-125(F) 37=-125(F)

44) Reversal: Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-42, 2-3=-52, 3-4=-42, 4-6=-31, 6-7=-60, 7-8=-70, 8-9=-60, 9-10=-56, 11-25=-20, 14-23=-80, 3-7=-10

Horz: 1-4=-8, 6-9=-10, 9-10=-6, 1-25=-6, 9-11=-19

Drag: 1-25=0, 9-11=0

Concentrated Loads (lb)

Vert: 24=-2000(B) 12=-2000(B) 27=-125(F) 28=-125(F) 29=-125(F) 30=-125(F) 31=-125(F) 32=-125(F) 33=-125(F) 34=-125(F) 35=-125(F) 36=-125(F) 37=-125(F)

45) Reversal: Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-31, 2-3=-41, 3-4=-31, 4-6=-42, 6-7=-42, 7-8=-52, 8-9=-42, 9-10=-39, 11-25=-20, 14-23=-80, 3-7=-10

Horz: 1-4=-19, 6-9=8, 9-10=11, 1-25=17, 9-11=5

Drag: 1-25=0, 9-11=0

Concentrated Loads (lb)

Vert: 24=-2000(B) 12=-2000(B) 27=-125(F) 28=-125(F) 29=-125(F) 30=-125(F) 31=-125(F) 32=-125(F) 33=-125(F) 34=-125(F) 35=-125(F) 36=-125(F) 37=-125(F)

46) Reversal: Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-42, 2-3=-52, 3-4=-42, 4-6=-42, 6-7=-31, 7-8=-41, 8-9=-31, 9-10=-27, 11-25=-20, 14-23=-80, 3-7=-10

Horz: 1-4=-8, 6-9=19, 9-10=23, 1-25=-5, 9-11=-17

Drag: 1-25=0, 9-11=0

Concentrated Loads (lb)

Vert: 24=-2000(B) 12=-2000(B) 27=-125(F) 28=-125(F) 29=-125(F) 30=-125(F) 31=-125(F) 32=-125(F) 33=-125(F) 34=-125(F) 35=-125(F) 36=-125(F) 37=-125(F)

47) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-60, 2-3=-70, 3-4=-60, 4-6=-31, 6-7=-42, 7-8=-52, 8-9=-42, 9-10=-39, 11-25=-20, 14-23=-80, 3-7=-10

Horz: 1-4=10, 6-9=8, 9-10=11, 1-25=19, 9-11=6

Drag: 1-25=0, 9-11=0

Concentrated Loads (lb)

Vert: 24=-2000(B) 12=-2000(B) 27=-119(F) 28=-119(F) 29=-119(F) 30=-119(F) 31=-119(F) 32=-119(F) 33=-119(F) 34=-119(F) 35=-119(F) 36=-119(F) 37=-119(F)

48) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-42, 2-3=-52, 3-4=-42, 4-6=-31, 6-7=-60, 7-8=-70, 8-9=-60, 9-10=-56, 11-25=-20, 14-23=-80, 3-7=-10

Horz: 1-4=-8, 6-9=-10, 9-10=-6, 1-25=-6, 9-11=-19

Drag: 1-25=0, 9-11=0

Concentrated Loads (lb)

Vert: 24=-2000(B) 12=-2000(B) 27=-119(F) 28=-119(F) 29=-119(F) 30=-119(F) 31=-119(F) 32=-119(F) 33=-119(F) 34=-119(F) 35=-119(F) 36=-119(F) 37=-119(F)

49) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-31, 2-3=-41, 3-4=-31, 4-6=-42, 6-7=-42, 7-8=-52, 8-9=-42, 9-10=-39, 11-25=-20, 14-23=-80, 3-7=-10

Horz: 1-4=-19, 6-9=8, 9-10=11, 1-25=17, 9-11=5

Drag: 1-25=0, 9-11=0

Concentrated Loads (lb)

Vert: 24=-2000(B) 12=-2000(B) 27=-119(F) 28=-119(F) 29=-119(F) 30=-119(F) 31=-119(F) 32=-119(F) 33=-119(F) 34=-119(F) 35=-119(F) 36=-119(F) 37=-119(F)

50) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-42, 2-3=-52, 3-4=-42, 4-6=-42, 6-7=-31, 7-8=-41, 8-9=-31, 9-10=-27, 11-25=-20, 14-23=-80, 3-7=-10

Horz: 1-4=-8, 6-9=19, 9-10=23, 1-25=-5, 9-11=-17

Drag: 1-25=0, 9-11=0

Concentrated Loads (lb)

Vert: 24=-2000(B) 12=-2000(B) 27=-119(F) 28=-119(F) 29=-119(F) 30=-119(F) 31=-119(F) 32=-119(F) 33=-119(F) 34=-119(F)

35=-119(F) 36=-119(F) 37=-119(F)

51) Reversal: Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-4=-16, 4-6=-10, 6-9=-10, 9-10=-10, 11-25=-10, 14-23=-10

Horz: 1-4=6, 1-25=16

Drag: 1-25=0

Concentrated Loads (lb)

Vert: 24=-2000(B) 12=-2000(B) 27=-97(F) 28=-97(F) 29=-97(F) 30=-97(F) 31=-97(F) 32=-97(F) 33=-97(F) 34=-97(F) 35=-97(F)

36=-97(F) 37=-97(F)

52) Reversal: Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-4=-10, 4-6=-10, 6-9=-16, 9-10=-10, 11-25=-10, 14-23=-10

Horz: 6-9=6, 9-11=-16

Drag: 9-11=0

Concentrated Loads (lb)

Vert: 24=-2000(B) 12=-2000(B) 27=-97(F) 28=-97(F) 29=-97(F) 30=-97(F) 31=-97(F) 32=-97(F) 33=-97(F) 34=-97(F) 35=-97(F)

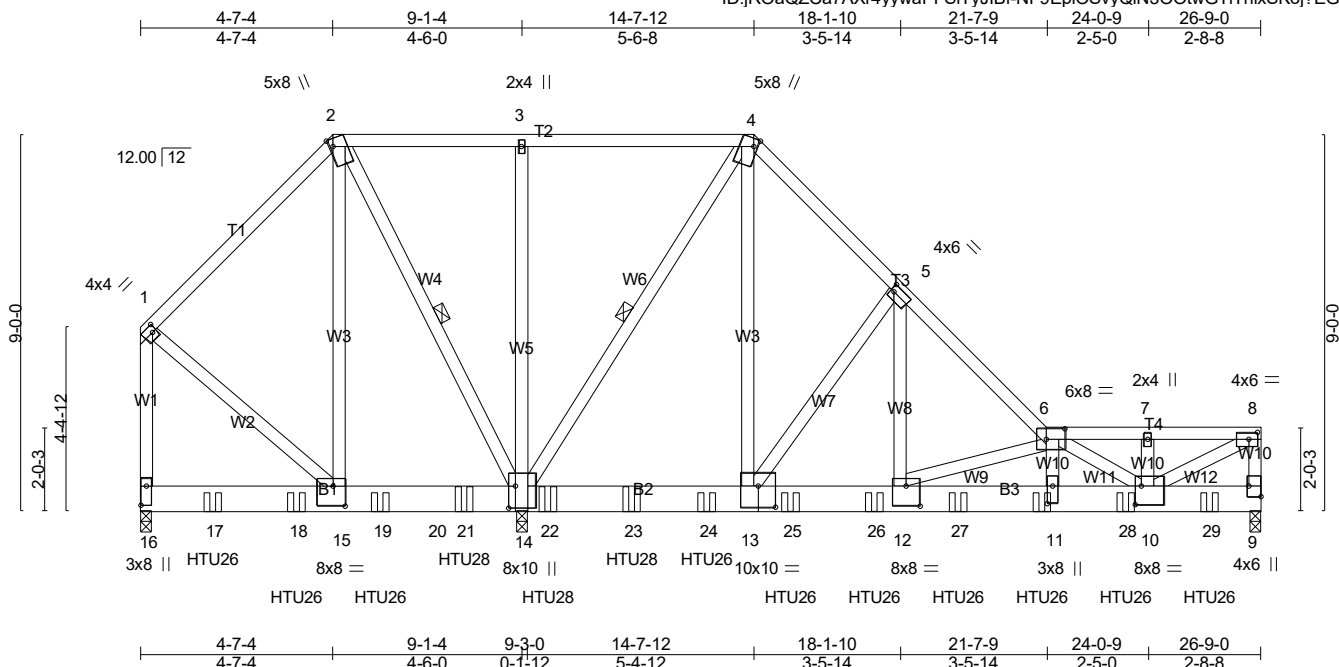
36=-97(F) 37=-97(F)



6/21/2021

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Scale = 1:55.0

Plate Offsets (X,Y)-- [1:0-1-4,0-2-0], [2:0-2-3,Edge], [4:0-2-3,Edge], [5:0-1-0,0-2-0], [6:0-5-4,0-3-0], [8:0-2-8,0-2-0], [9:Edge,0-3-8], [10:0-1-12,0-5-4], [11:0-5-0,0-1-8], [12:0-4-0,0-5-12], [13:0-5-0,0-6-0], [14:0-6-4,0-2-0], [15:0-3-8,0-5-12], [16:0-5-8,0-1-8]

<b>LOADING (psf)</b>	TCLL (roof) 20.0 Snow (PF) 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	<b>SPACING-</b>	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr NO Code IRC2018/TPI2014	<b>CSI.</b>	TC 0.68 BC 1.00 WB 0.98 Matrix-SH	<b>DEFL.</b>	in (loc) l/defl L/d Vert(LL) -0.13 11-12 >999 240 Vert(CT) -0.24 11-12 >857 180 Horz(CT) 0.02 9 n/a n/a	<b>PLATES</b>	<b>GRIP</b>
								MT20	244/190
								Weight: 481 lb FT = 0%	

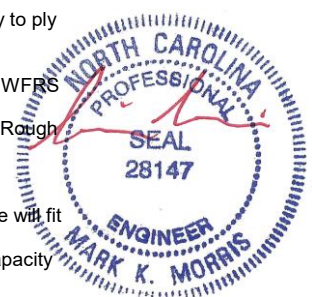
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
W3,W4,W5,W12: 2x4 SP No.2, W6: 2x4 SP SS

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-1-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 14-15.  
WEBS 1 Row at midpt 2-14, 4-14

**REACTIONS.** (lb/size) 9=4047/0-3-8 (min. 0-2-9), 16=-236/0-3-8 (min. 0-1-8), 14=14731/0-3-8 (min. 0-3-2)  
Max Horz 16=-158(LC 11)  
Max Uplift 9=433(LC 11), 16=-431(LC 30), 14=-1488(LC 11)  
Max Grav 9=4355(LC 30), 16=95(LC 11), 14=15703(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-128/1230, 2-3=-282/3490, 3-4=-282/3490, 4-5=-669/120, 5-6=-3583/328, 6-7=-5554/536, 7-8=-5552/537, 8-9=-3421/354, 1-16=-173/1537  
BOT CHORD 15-19=-757/276, 19-20=-757/276, 20-21=-757/276, 14-21=-757/276, 14-22=-97/548, 22-23=-97/548, 23-24=-97/548, 13-24=-97/548, 13-25=-192/2522, 25-26=-192/2522, 12-26=-192/2522, 12-27=-765/8143, 11-27=-765/8143, 11-28=-776/8286, 10-28=-776/8286  
WEBS 2-15=-368/4243, 2-14=-5888/566, 3-14=-422/163, 4-14=-7383/774, 4-13=-660/6441, 5-13=-3559/497, 5-12=-443/4749, 6-12=-6141/648, 6-11=-124/1532, 6-10=-3241/283, 8-10=-606/6305, 1-15=-1135/191

- NOTES-** (17-18)
- 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: 2x8 - 2 rows staggered at 0-6-0 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=130mph (3-second gust) Vasd=103mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; 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
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 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.
  - Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide metal plate or equivalent at bearing(s) 14 to support reaction shown.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=433, 16=431, 14=1488.



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Continued on Page 2 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 20-4569-R01	Truss R09	Truss Type Piggyback Base Girder	Qty 1	Ply 2	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC Job Reference (optional) # 27092
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**NOTES-** (17-18)

- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 7-9-8 oc max. starting at 1-8-12 from the left end to 13-6-4 to connect truss(es) R04 (1 ply 2x4 SP) to back face of bottom chord.
- 14) Use Simpson Strong-Tie HTU28 (26-10d Girder, 14-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 7-8-12 from the left end to 11-8-12 to connect truss(es) R04 (1 ply 2x4 SP) to back face of bottom chord.
- 15) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 15-6-4 from the left end to 25-6-4 to connect truss(es) R05 (1 ply 2x4 SP) to back face of bottom chord.
- 16) Fill all nail holes where hanger is in contact with lumber.
- 17) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-2=-60, 2-4=-60, 4-6=-60, 6-8=-60, 9-16=-20

Concentrated Loads (lb)

Vert: 11=-1127(B) 17=-1381(B) 18=-1381(B) 19=-1381(B) 21=-1381(B) 22=-1381(B) 23=-1381(B) 24=-1381(B) 25=-1127(B) 26=-1127(B) 27=-1127(B) 28=-1127(B) 29=-1127(B)

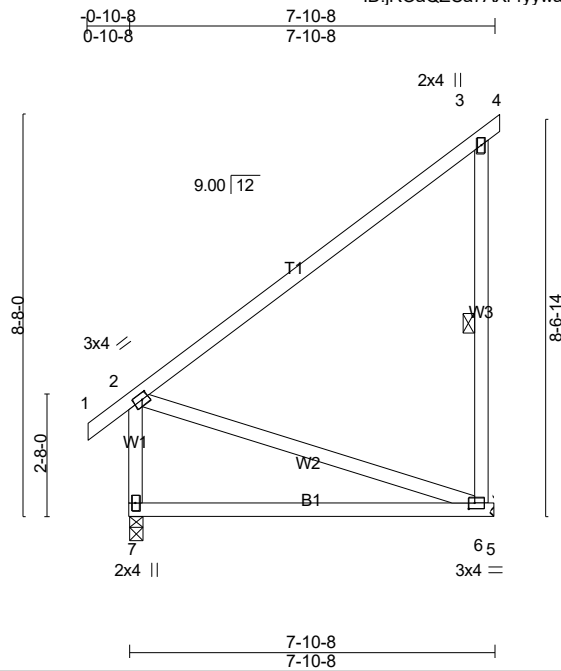


6/21/2021

**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 20-4569-R01	Truss R12	Truss Type Monopitch	Qty 6	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC # 27092
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Scale = 1:49.7

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.54	Vert(LL) -0.18	6-7	>484	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.74	Vert(CT) -0.37	6-7	>242	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.21	Horz(CT) -0.00	6	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 55 lb	FT = 0%

**LUMBER-**  
TOP CHORD 2x4 SP SS  
BOT CHORD 2x4 SP No.2  
WEBS 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 9-1-8 oc bracing.  
WEBS 1 Row at midpt 3-6

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

**REACTIONS.** (lb/size) 6=324/Mechanical, 7=363/0-3-8 (min. 0-1-8)  
Max Horz 7=203(LC 12)  
Max Uplift 6=-216(LC 12)  
Max Grav 6=370(LC 20), 7=363(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-6=-263/272, 2-7=-289/0  
BOT CHORD 6-7=-379/169  
WEBS 2-6=-178/399

**NOTES-** (9-10)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical 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) 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.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* 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.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=216
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard



6/21/2021

**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 20-4569-R01	Truss R13	Truss Type Monopitch	Qty 2	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC # 27092
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:29 2021 Page 1  
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Scale = 1:72.1

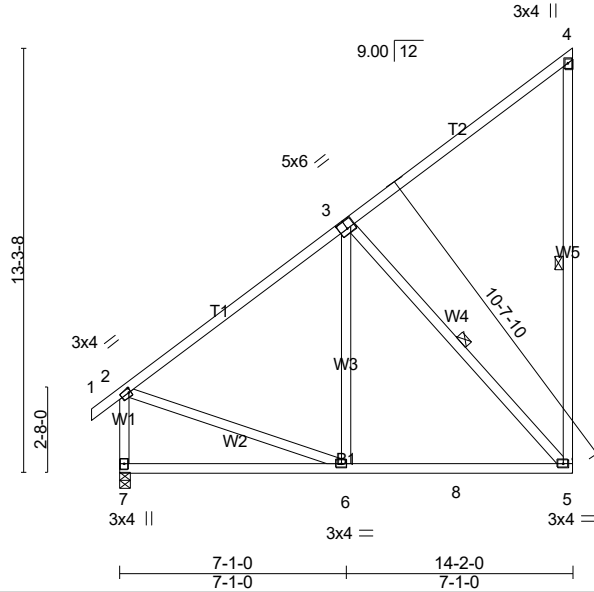


Plate Offsets (X,Y)-- [2:0-0-12,0-1-8], [3:0-3-0,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.68	Vert(LL) -0.13	5-6	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.53	Vert(CT) -0.18	5-6	>902	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.32	Horz(CT) -0.01	5	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 108 lb	FT = 0%

**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 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 8-9-8 oc bracing.  
WEBS 1 Row at midpt 4-5, 3-5

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

**REACTIONS.** (lb/size) 5=553/Mechanical, 7=619/0-3-8 (min. 0-1-8)  
Max Horz 7=366(LC 12)  
Max Uplift 5=-315(LC 12)  
Max Grav 5=708(LC 24), 7=619(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-517/0, 2-7=-563/0  
BOT CHORD 6-7=-444/312, 6-8=-198/409, 5-8=-198/409  
WEBS 3-6=-7/271, 3-5=-594/288, 2-6=-17/376

**NOTES-** (9-10)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 9-2-10, Exterior(2E) 9-2-10 to 14-0-4 zone; end vertical 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) 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.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* 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.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=315
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

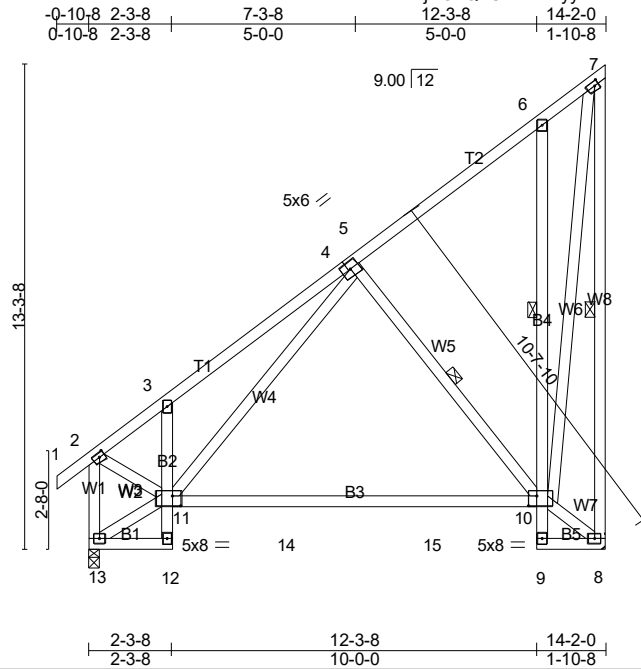


6/21/2021

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Job 20-4569-R01	Truss R14	Truss Type Monopitch	Qty 6	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC Job Reference (optional) # 27092
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:29 2021 Page 1  
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Plate Offsets (X,Y)-- [2:0-1-12,0-1-8], [7:0-1-8,0-1-8], [10:0-2-12,0-3-4], [11:0-2-12,0-3-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.55	Vert(LL) -0.49	10-11	>343	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.77	Vert(CT) -0.76	10-11	>218	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.81	Horz(CT) 0.04	8	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 143 lb	FT = 0%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
B2,B4: 2x4 SP No.3, B3: 2x4 SP SS  
WEBS 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. Except:  
1 Row at midpt 6-10  
WEBS 1 Row at midpt 7-8, 5-10

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

**REACTIONS.** (lb/size) 8=553/Mechanical, 13=619/0-3-8 (min. 0-1-8)  
Max Horz 13=366(LC 12)  
Max Uplift 8=315(LC 12)  
Max Grav 8=704(LC 20), 13=638(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-635/150, 3-4=-776/269, 4-5=-624/270, 7-8=-788/278, 2-13=-765/162  
BOT CHORD 3-11=-263/175, 11-14=-229/379, 14-15=-229/379, 10-15=-229/379  
WEBS 5-10=-405/297, 8-10=0/270, 7-10=-312/865, 2-11=-69/539, 5-11=-364/420, 11-13=-416/343

- NOTES-** (10-11)
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 9-2-10, Exterior(2E) 9-2-10 to 14-0-4 zone; end vertical 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) 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.
  - 4) All plates are 3x4 MT20 unless otherwise indicated.
  - 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) except (jt=lb) 8=315
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - 11) 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.



**LOAD CASE(S)** Standard

6/21/2021

**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 20-4569-R01	Truss R15	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC Job Reference (optional) <b># 27092</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:30 2021 Page 1  
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-0-10-8 14-2-0  
0-10-8 14-2-0

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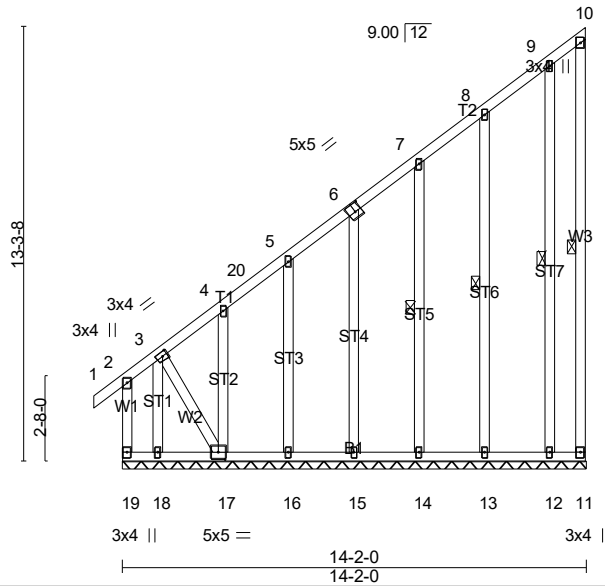


Plate Offsets (X,Y)-- [3:0-1-12, 0-1-8], [6:0-2-8, 0-3-0], [17:0-2-8, 0-2-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.20	Vert(LL) 0.00	1	n/r	180	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.14	Vert(CT) 0.00	1	n/r	80		
TCDL 10.0	Lumber DOL 1.15	WB 0.32	Horz(CT) -0.00	11	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 154 lb	FT = 0%

**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 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 18-19, 17-18.  
WEBS 1 Row at midpt 10-11, 7-14, 8-13, 9-12

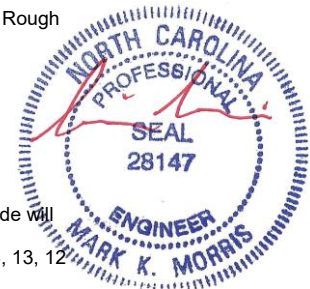
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 14-2-0.  
(lb) - Max Horz 19=366(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 11, 15, 16, 14, 13, 12 except 17=602(LC 12), 18=224(LC 10)  
Max Grav All reactions 250 lb or less at joint(s) 19, 11, 12 except 15=258(LC 20), 16=266(LC 20), 17=395(LC 20), 18=660(LC 12), 14=260(LC 20), 13=272(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-4=-535/245, 4-20=-462/200, 5-20=-458/214, 5-6=-373/171, 6-7=-293/132  
BOT CHORD 18-19=-571/233, 17-18=-571/233  
WEBS 3-18=-1111/399, 3-17=-434/1063

**NOTES-** (13-14)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-11-2, Exterior(2N) 3-11-2 to 9-1-0, Corner(3E) 9-1-0 to 14-0-4 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); 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) 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) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) \* This truss has been designed for a live load of 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.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 15, 16, 14, 13, 12 except (jt=lb) 17=602, 18=224.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



6/21/2021

**Continued on Page 2** 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 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC
20-4569-R01	R15	Monopitch Supported Gable	1	1	Job Reference (optional) # 27092

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:31 2021 Page 2  
 ID:jROaQZCa7AXr4yywaPFSiTyJIBf-G0Oke6RyzAwBsgj96iLPvJyVL3uGf\_esTWAYhGz3jd6

- 13) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

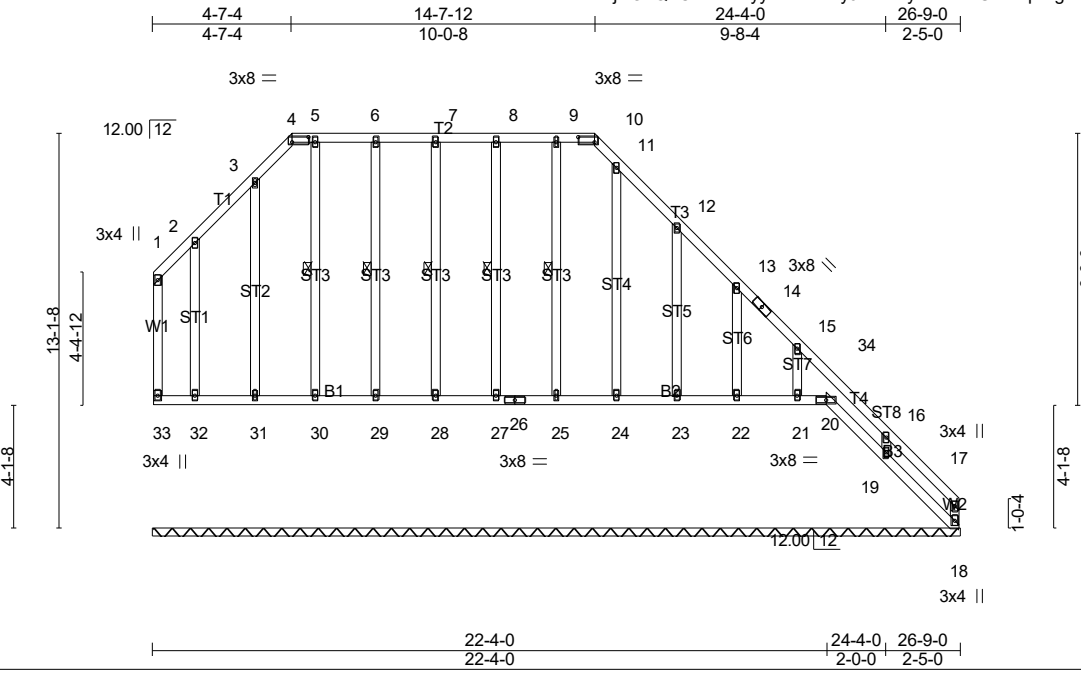


6/21/2021

**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 20-4569-R01	Truss R18	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC # 27092
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:32 2021 Page 1  
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Scale = 1:76.5

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.39	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.56	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	WB 0.17	Horz(CT)	0.02	18	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 211 lb	FT = 0%

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

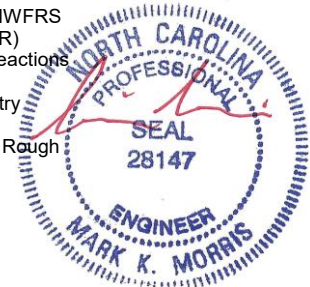
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 19-20.  
WEBS 1 Row at midpt 9-25, 8-27, 7-28, 6-29, 5-30

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

**REACTIONS.** All bearings 26-9-0.  
(lb) - Max Horz 33=-339(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 33, 18, 25, 27, 28, 29, 30, 31, 24, 22 except 20=-180(LC 11), 32=-109(LC 12), 23=-123(LC 13), 21=-133(LC 13), 19=-348(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 33, 18, 27, 28, 29, 32, 22, 21 except 20=358(LC 13), 25=255(LC 21), 30=270(LC 21), 31=256(LC 19), 24=270(LC 20), 23=276(LC 20), 19=342(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 16-34=-266/174, 16-17=-477/305, 17-18=-351/198  
32-33=-189/324, 31-32=-189/324, 30-31=-189/324, 29-30=-189/324, 28-29=-189/324,  
BOT CHORD 27-28=-189/324, 26-27=-189/324, 25-26=-189/324, 24-25=-189/324, 23-24=-189/324,  
22-23=-189/324, 21-22=-189/324, 20-21=-189/324, 19-20=-290/473, 18-19=-246/408  
WEBS 16-19=-247/276

- NOTES-** (15-16)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 4-7-4, Corner(3R) 4-7-4 to 9-4-8, Exterior(2N) 9-4-8 to 9-10-2, Corner(3R) 9-10-2 to 19-4-8, Exterior(2N) 19-4-8 to 21-9-10, Corner(3E) 21-9-10 to 26-7-4 zone; 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
  - Provide adequate drainage to prevent water ponding.
  - 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.



6/21/2021

Continued on page 2. 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 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC
20-4569-R01	R18	Piggyback Base Supported Gable	1	1	Job Reference (optional) # 27092

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:32 2021 Page 2  
 ID:jROaQZCa7AXr4yywaPFSiTyJIBf-kDy7sSRakU22TqHLgTseSXUd7T8sOTC?iAw5Djz3jd5

**NOTES-** (15-16)

- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 33, 18, 25, 27, 28, 29, 30, 31, 24, 22 except (jt=lb) 20=180, 32=109, 23=123, 21=133, 19=348.
- 13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 33, 20, 25, 27, 28, 29, 30, 31, 32, 24, 23, 22, 21, 19.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 16) 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.

**LOAD CASE(S)** Standard



6/21/2021

**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.

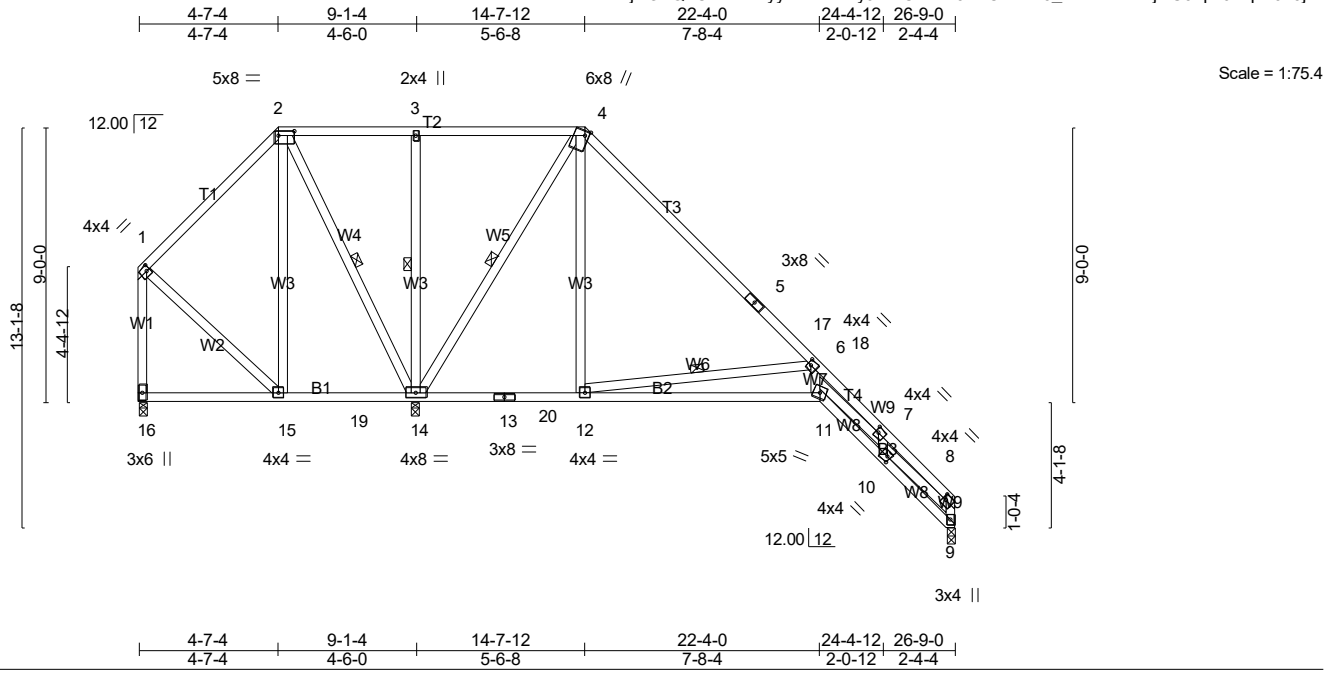


Plate Offsets (X,Y)-- [1:0-1-4,0-2-0], [2:0-6-4,0-1-12], [4:0-2-0,Edge], [6:0-1-4,0-2-0], [7:0-1-4,0-2-0], [8:0-1-4,0-2-0], [10:0-1-4,0-2-0]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>				
TCLL (roof) 20.0	2-0-0	TC 0.71	in (loc) l/defl L/d	MT20	244/190				
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.56	Vert(LL) -0.12 11-12 >999 240						
TCDL 10.0	Lumber DOL 1.15	WB 0.58	Vert(CT) -0.28 11-12 >760 180						
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.12 9 n/a n/a						
BCDL 10.0	Code IRC2018/TPI2014			Weight: 198 lb FT = 0%					

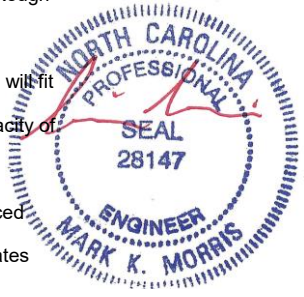
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-7-1 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 2-14, 3-14, 4-14, 6-12

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

**REACTIONS.** (lb/size) 9=280/0-3-8 (min. 0-1-8), 16=-463/0-3-8 (min. 0-1-8), 14=2300/0-3-8 (min. 0-2-11)  
 Max Horz 16=-338(LC 13)  
 Max Uplift 9=-58(LC 13), 16=-595(LC 30), 14=-203(LC 13)  
 Max Grav 9=281(LC 30), 16=67(LC 13), 14=2300(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-35/559, 2-3=-4/823, 3-4=-4/823, 4-5=-45/502, 6-7=-1015/94, 7-8=-625/25, 8-9=-299/94, 1-16=-48/636  
 BOT CHORD 15-16=-197/333, 15-19=-437/396, 14-19=-437/396, 14-20=-315/341, 13-20=-315/341, 12-13=-315/341, 11-12=-48/668, 10-11=0/569  
 WEBS 2-15=-11/443, 2-14=-1094/121, 3-14=-350/155, 4-14=-1099/174, 4-12=0/397, 6-12=-960/373, 6-11=0/689, 7-11=-108/419, 8-10=0/394, 1-15=-481/94

- NOTES-** (10-11)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-7-4, Exterior(2R) 4-7-4 to 21-5-3, Interior(1) 21-5-3 to 21-9-10, Exterior(2E) 21-9-10 to 26-7-4 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) Provide adequate drainage to prevent water ponding.
  - 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) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 16=595, 14=203.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - 11) 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.



6/21/2021

**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.

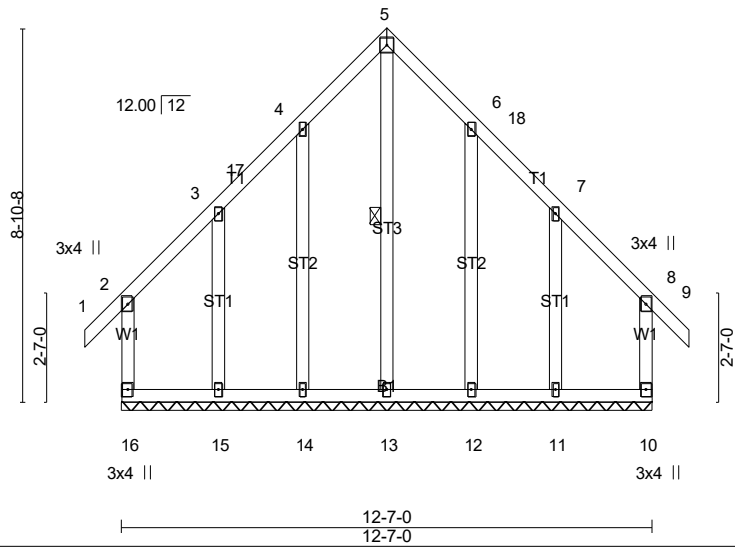
Job 20-4569-R01	Truss R21	Truss Type Common Supported Gable	Qty 1	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC Job Reference (optional) <b># 27092</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:34 2021 Page 1  
ID: jROaQZCa7AXr4yywaPFStyJlBf-gb4tH8TrG5lmj8Rkouu6XyazGHtJsMVI9UPCHbz3jd3

-0-10-8      6-3-8      12-7-0      13-5-8  
0-10-8      6-3-8      6-3-8      0-10-8

4x4 =

Scale = 1:54.7



<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 0.42	in (loc) l/def L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.37	Vert(LL) -0.00 9 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.25	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 IRC2018/TPI2014			Weight: 100 lb	FT = 0%

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

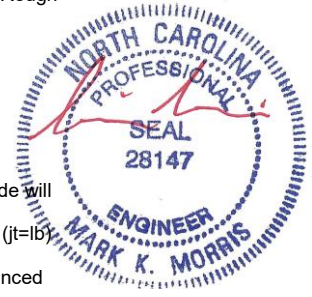
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
WEBS 1 Row at midpt 5-13

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

**REACTIONS.** All bearings 12-7-0.  
(lb) - Max Horz 16=244(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 14, 12 except 16=-190(LC 8), 10=-186(LC 9), 15=-216(LC 9), 11=-213(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 14, 12 except 16=259(LC 21), 10=256(LC 20), 13=337(LC 23), 15=365(LC 20), 11=363(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-16=-192/281, 3-17=-151/399, 4-17=-125/405, 4-5=-208/529, 5-6=-208/529, 6-18=-125/405, 7-18=-151/399, 8-10=-190/281  
WEBS 5-13=-652/186

- NOTES-** (14-15)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-11-2, Corner(3R) 3-11-2 to 8-7-14, Corner(3E) 8-7-14 to 13-5-8 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
  - 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) 14, 12 except (jt=14) 16=190, 10=186, 15=216, 11=213.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



6/21/2021

**Continued on Page 2** 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 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC
20-4569-R01	R21	Common Supported Gable	1	1	Job Reference (optional) # 27092

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:34 2021 Page 2  
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- 14) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

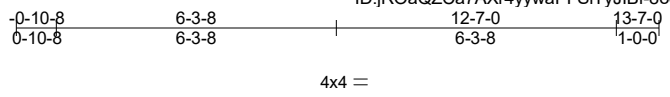


6/21/2021

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Job 20-4569-R01	Truss R22	Truss Type Common	Qty 2	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC # 27092
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:35 2021 Page 1  
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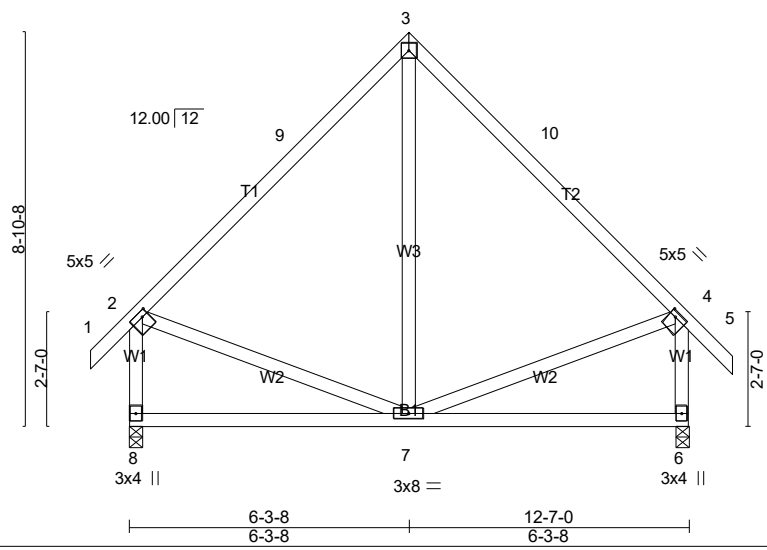


Plate Offsets (X,Y)-- [2:0-1-12,0-1-8], [4:0-1-12,0-1-8]

<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 0.65	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.33	Vert(LL) -0.03 6-7 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Vert(CT) -0.06 6-7 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 87 lb	FT = 0%

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

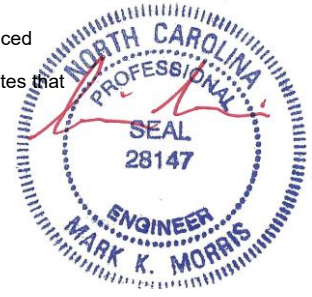
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 8=552/0-3-8 (min. 0-1-8), 6=561/0-3-8 (min. 0-1-8)  
Max Horz 8=-246(LC 10)  
Max Uplift 8=68(LC 13), 6=69(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-9=-412/163, 3-9=-261/183, 3-10=-266/183, 4-10=-412/163, 2-8=-497/187, 4-6=-506/192  
BOT CHORD 7-8=-235/279

- NOTES-** (9-10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Exterior(2R) 3-11-2 to 8-9-6, Exterior(2E) 8-9-6 to 13-7-0 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
  - 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) 8, 6.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard



6/21/2021

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Job 20-4569-R01	Truss R23	Truss Type Monopitch Structural Gable	Qty 1	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC # 27092
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:35 2021 Page 1

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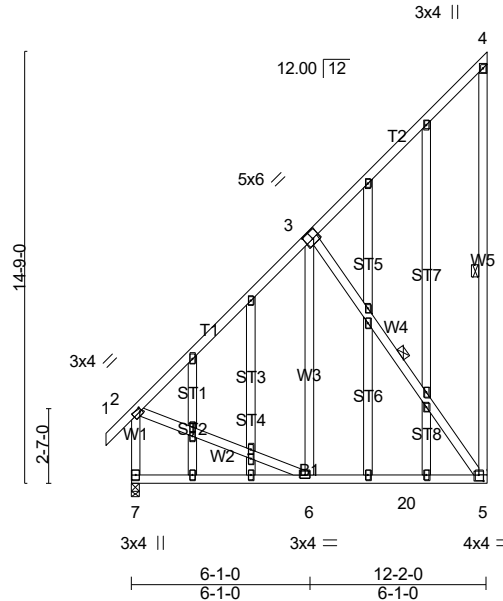


Plate Offsets (X,Y)--	[2:0-0-12,0-1-8], [3:0-3-0,0-3-0], [5:0-2-0,0-2-8], [8:0-1-12,0-1-0], [11:0-1-12,0-1-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.49	Vert(LL) -0.08	5-6	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.69	Vert(CT) -0.12	5-6	>999	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.26	Horz(CT) -0.01	5	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 153 lb	FT = 0%

**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 7-5-15 oc bracing.  
WEBS 1 Row at midpt 4-5, 3-5

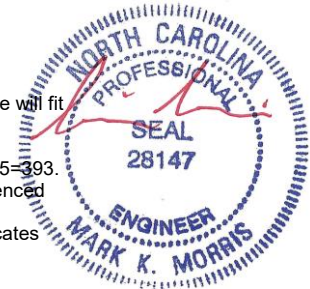
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 5=472/Mechanical, 7=539/0-3-8 (min. 0-1-8)  
Max Horz 7=427(LC 12)  
Max Uplift 5=393(LC 12)  
Max Grav 5=647(LC 20), 7=542(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-476/6, 2-7=-504/0  
BOT CHORD 6-7=-558/351, 6-20=-211/292, 5-20=-211/292  
WEBS 3-5=-496/359, 2-6=-94/374

**NOTES-** (12-13)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 7-2-10, Exterior(2E) 7-2-10 to 12-0-4 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); 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) 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) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 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, with BCDL = 10.0psf.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=393.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.



6/21/2021

**LOAD CASE(S)** Standard

**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 20-4569-R01	Truss R24	Truss Type Monopitch	Qty 1	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC # 27092
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:36 2021 Page 1

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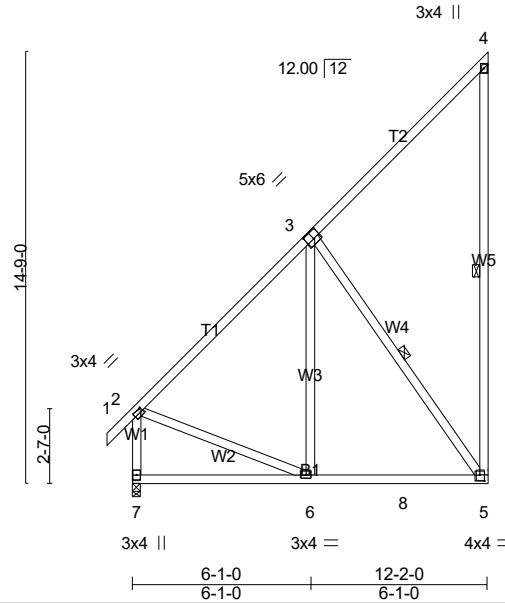


Plate Offsets (X,Y)-- [2:0-0-12,0-1-8], [3:0-3-0,0-3-0], [5:0-2-0,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.49	Vert(LL) -0.08	5-6	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.41	Vert(CT) -0.11	5-6	>999	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.26	Horz(CT) -0.01	5	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 106 lb	FT = 0%

**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 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 7-10-10 oc bracing.  
 WEBS 1 Row at midpt 4-5, 3-5

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

**REACTIONS.** (lb/size) 5=472/Mechanical, 7=539/0-3-8 (min. 0-1-8)  
 Max Horz 7=427(LC 12)  
 Max Uplift 5=393(LC 12)  
 Max Grav 5=647(LC 20), 7=542(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-476/6, 2-7=-504/0  
 BOT CHORD 6-7=-558/351, 6-8=-211/292, 5-8=-211/292  
 WEBS 3-5=-496/359, 2-6=-94/374

**NOTES-** (9-10)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 7-2-10, Exterior(2E) 7-2-10 to 12-0-4 zone; end vertical 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) 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.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* 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.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=393
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

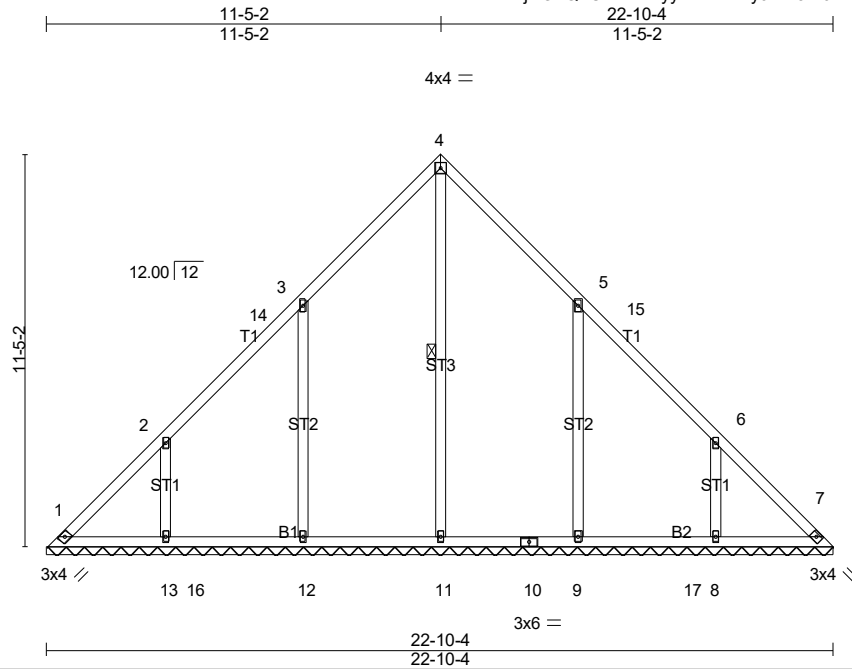


6/21/2021

**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 20-4569-R01	Truss VT01	Truss Type Valley	Qty 1	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC # 27092
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:37 2021 Page 1  
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Scale = 1:67.0

<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 0.21	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.39	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.29	Vert(CT) n/a - n/a 999		
BCDL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.01 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 126 lb	FT = 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.  
WEBS 1 Row at midpt 4-11

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

**REACTIONS.** All bearings 22-10-4.  
(lb) - Max Horz 1=-254(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 12=-225(LC 12), 13=-199(LC 12), 9=-225(LC 13), 8=-199(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=453(LC 22), 12=570(LC 19), 13=402(LC 19), 9=570(LC 20), 8=402(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-302/206, 6-7=-258/142  
WEBS 3-12=-303/268, 2-13=-253/225, 5-9=-303/268, 6-8=-254/225

**NOTES-** (10-11)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-4 to 5-1-13, Interior(1) 5-1-13 to 6-7-8, Exterior(2R) 6-7-8 to 16-2-12, Interior(1) 16-2-12 to 17-8-7, Exterior(2E) 17-8-7 to 22-6-0 zone; 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
- All plates are 2x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 12=225, 13=199, 9=225, 8=199.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

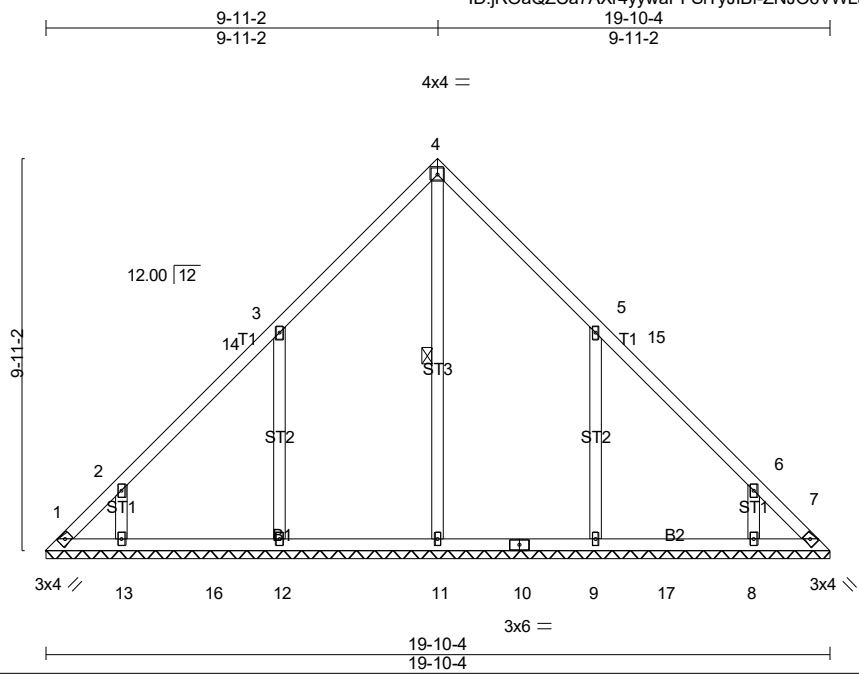
**LOAD CASE(S)** Standard



6/21/2021

**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 = 1:58.3

<b>LOADING</b> (psf)	TCLL (roof) 20.0 Snow (Pf) 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	<b>SPACING-</b>	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	<b>CSI.</b>	TC 0.22 BC 0.39 WB 0.18 Matrix-SH	<b>DEFL.</b>	in (loc) l/defl L/d Vert(LL) n/a - n/a 999 Vert(CT) n/a - n/a 999 Horz(CT) 0.01 7 n/a n/a	<b>PLATES</b>	<b>GRIP</b>
								MT20	244/190
								Weight: 104 lb FT = 0%	

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

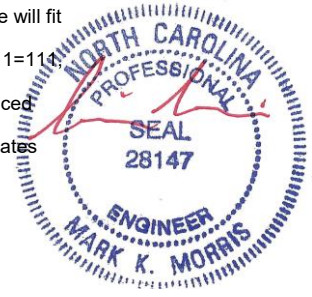
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 4-11

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

**REACTIONS.** All bearings 19-10-4.  
(lb) - Max Horz 1=220(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 7 except 1=-111(LC 10), 12=-231(LC 12), 13=-166(LC 12), 9=-231(LC 13), 8=-166(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=445(LC 22), 12=548(LC 19), 13=298(LC 19), 9=548(LC 20), 8=299(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-297/189, 6-7=-260/134  
WEBS 3-12=-308/272, 5-9=-308/272

- NOTES-** (10-11)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-4 to 5-1-13, Exterior(2R) 5-1-13 to 14-8-7, Exterior(2E) 14-8-7 to 19-6-0 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) All plates are 2x4 MT20 unless otherwise indicated.
  - 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) 7 except (jt=lb) 1=111, 12=231, 13=166, 9=231, 8=166.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - 11) 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.



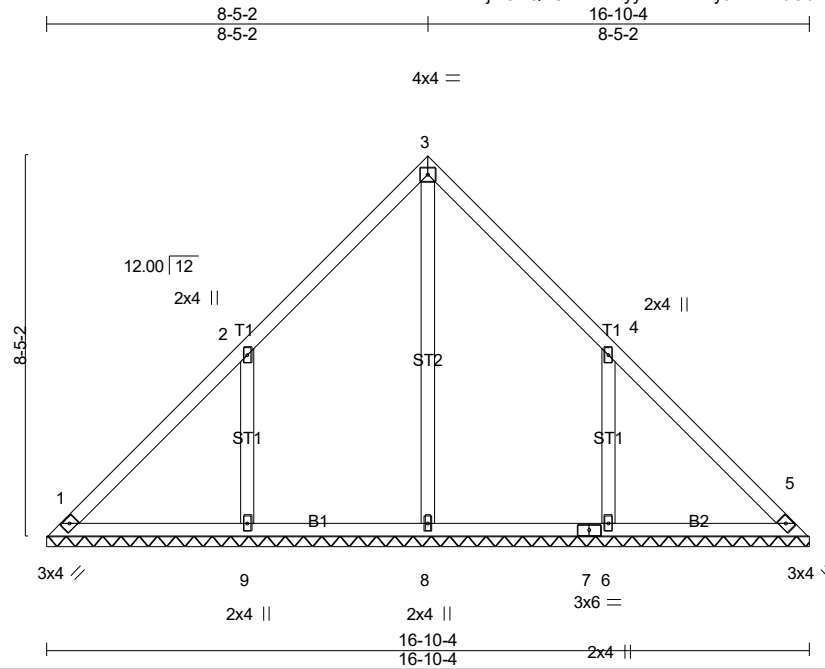
6/21/2021

**LOAD CASE(S)** Standard

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Job 20-4569-R01	Truss VT03	Truss Type Valley	Qty 1	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC Job Reference (optional) # 27092
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Scale = 1:51.0

<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 0.22	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.42	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.19	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 82 lb	FT = 0%

**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.

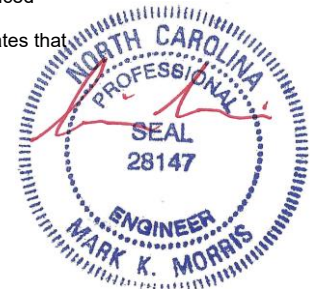
**REACTIONS.** All bearings 16-10-4.  
(lb) - Max Horz 1=185(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-254(LC 12), 6=-254(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=433(LC 26), 9=514(LC 19), 6=514(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-9=-354/279, 4-6=-354/278

**NOTES-** (9-10)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-4 to 5-1-13, Exterior(2R) 5-1-13 to 11-8-7, Exterior(2E) 11-8-7 to 16-6-0 zone; 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
- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=254, 6=254.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

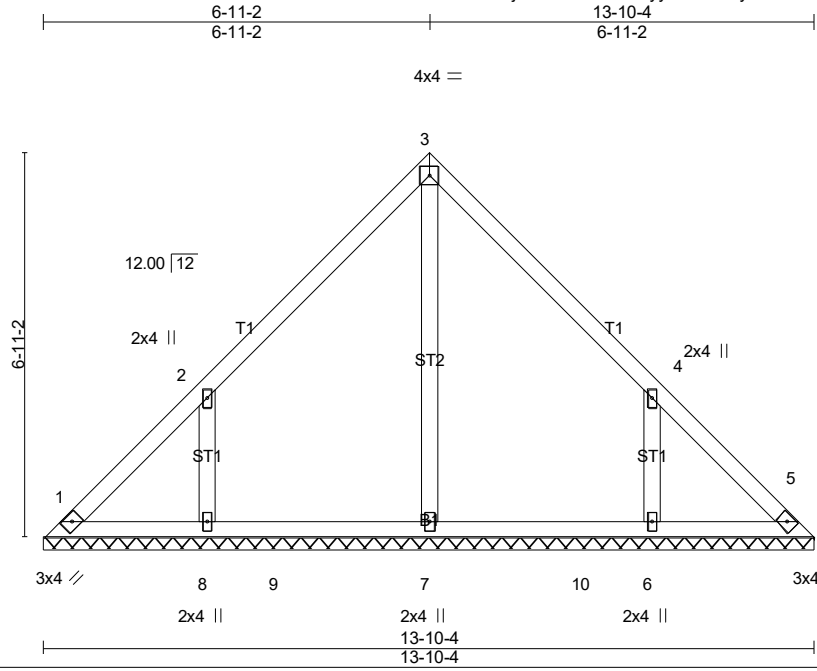


6/21/2021

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Job 20-4569-R01	Truss VT04	Truss Type Valley	Qty 1	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC Job Reference (optional) # 27092
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:39 2021 Page 1  
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Scale = 1:41.4

<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 0.18	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 0.12	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 65 lb	FT = 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.

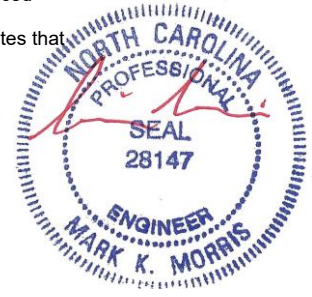
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 13-10-4.  
(lb) - Max Horz 1=-151(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-210(LC 12), 6=-210(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=407(LC 22), 8=389(LC 19), 6=389(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-306/241, 4-6=-306/241

- NOTES-** (9-10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-4 to 5-1-13, Exterior(2R) 5-1-13 to 8-8-7, Exterior(2E) 8-8-7 to 13-6-0 zone; 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
  - 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, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=210, 6=210.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

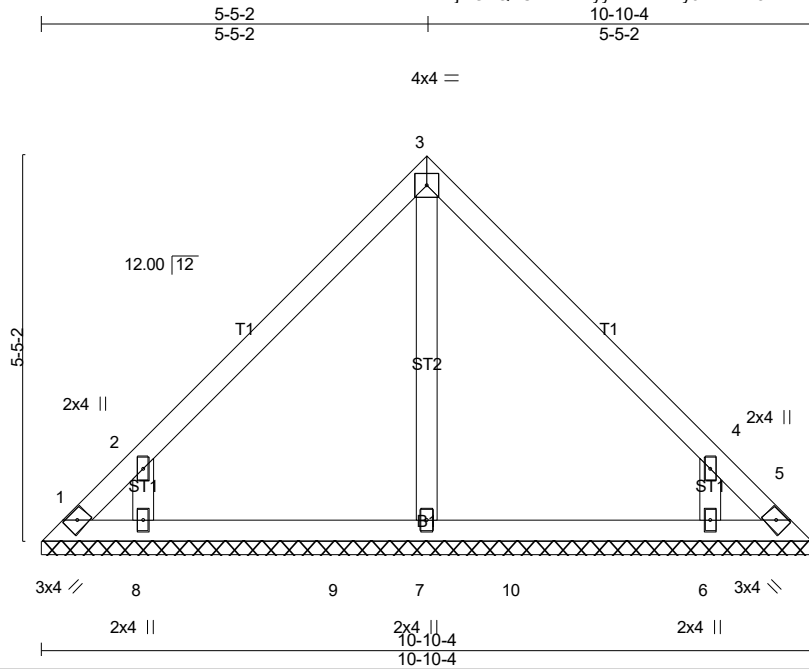


6/21/2021

**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 20-4569-R01	Truss VT05	Truss Type Valley	Qty 1	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC Job Reference (optional) <b># 27092</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:40 2021 Page 1  
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Scale = 1:32.5

<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 0.19	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 0.09	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 47 lb	FT = 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.

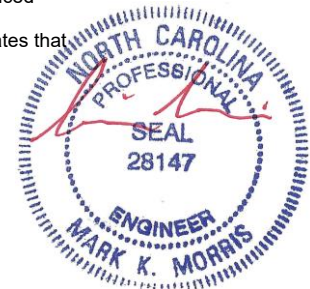
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 10-10-4.  
(lb) - Max Horz 1=116(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 5 except 1=-102(LC 10), 8=-212(LC 12), 6=-211(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=320(LC 19), 8=352(LC 19), 6=352(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-293/287, 4-6=-293/287

- NOTES-** (9-10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=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
  - 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
  - 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, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 1=102, 8=212, 6=211.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

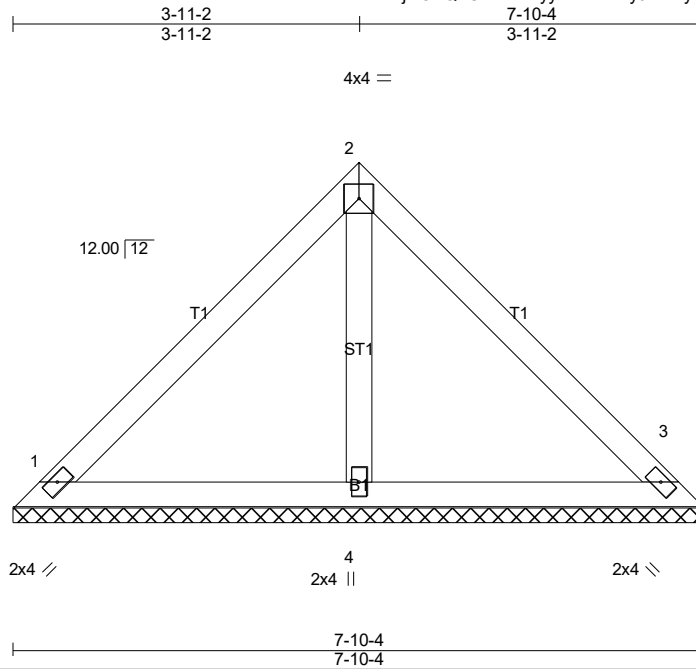


6/21/2021

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Job 20-4569-R01	Truss VT06	Truss Type Valley	Qty 1	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC Job Reference (optional) <b># 27092</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Jun 22 14:02:41 2021 Page 1  
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Scale = 1:26.2

<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 0.25	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.22	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 IRC2018/TPI2014			Weight: 32 lb	FT = 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) 1=172/7-10-4 (min. 0-1-8), 3=172/7-10-4 (min. 0-1-8), 4=228/7-10-4 (min. 0-1-8)  
Max Horz 1=-82(LC 8)  
Max Uplift1=-44(LC 13), 3=-44(LC 13)

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

**NOTES-** (9-10)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=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
- 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
- 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.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard



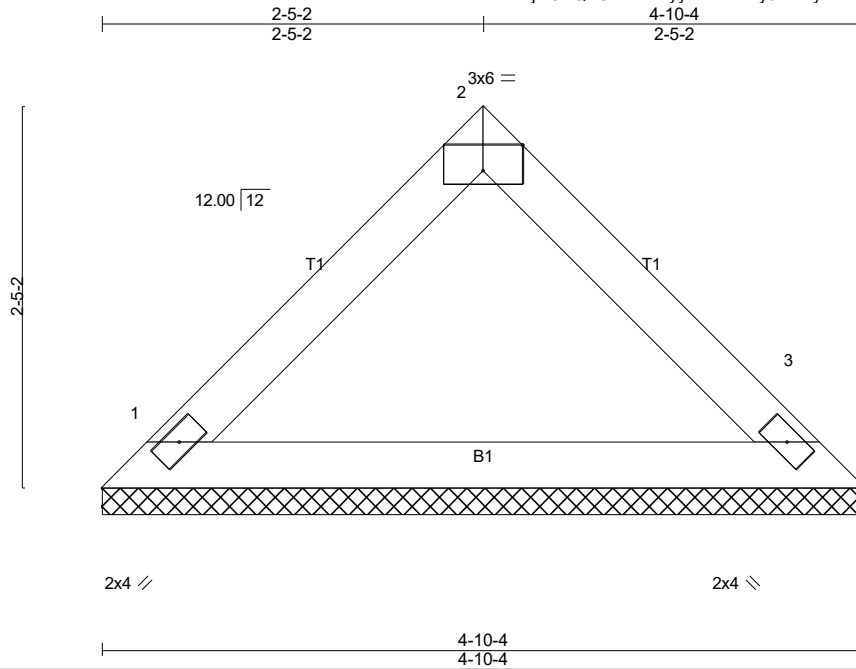
6/21/2021

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Job 20-4569-R01	Truss VT07	Truss Type Valley	Qty 1	Ply 1	LOT 1114 ANDERSON CREEK   199 SCHOLAR DRIVE SPRING LAKE, NC Job Reference (optional) <b># 27092</b>
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Scale = 1:14.6

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.36	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 16 lb	FT = 0%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-10-4 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.

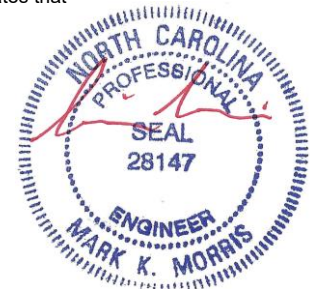
**REACTIONS.** (lb/size) 1=166/4-10-4 (min. 0-1-8), 3=166/4-10-4 (min. 0-1-8)  
Max Horz 1=48(LC 9)  
Max Uplift 1=17(LC 13), 3=17(LC 12)

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

**NOTES-** (9-10)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=5.0psf; BCDL=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
- 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
- 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.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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**LOAD CASE(S)** Standard



6/21/2021

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