

# 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 #: 28472

JOB: 21-4053-R01

JOB NAME: LOT 0.0056 OLDE MILL VILLAGE

Wind Code: 37

Wind Speed: Vult= 120mph

Exposure Category: B

Mean Roof Height (feet): 23

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

*47 Truss Design(s)*

Trusses:

J01, J01A, J02, J03, J04, J05, J06, J07, J08, R01, R02, R03, R04, R05, R06, R07, R08, R09, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R27, R27A, R28, R29, R30, R31, R32, R33, SP01, SP02, V01, V02, V03, V04, V05



**9/15/2021**

**Mark Morris**

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

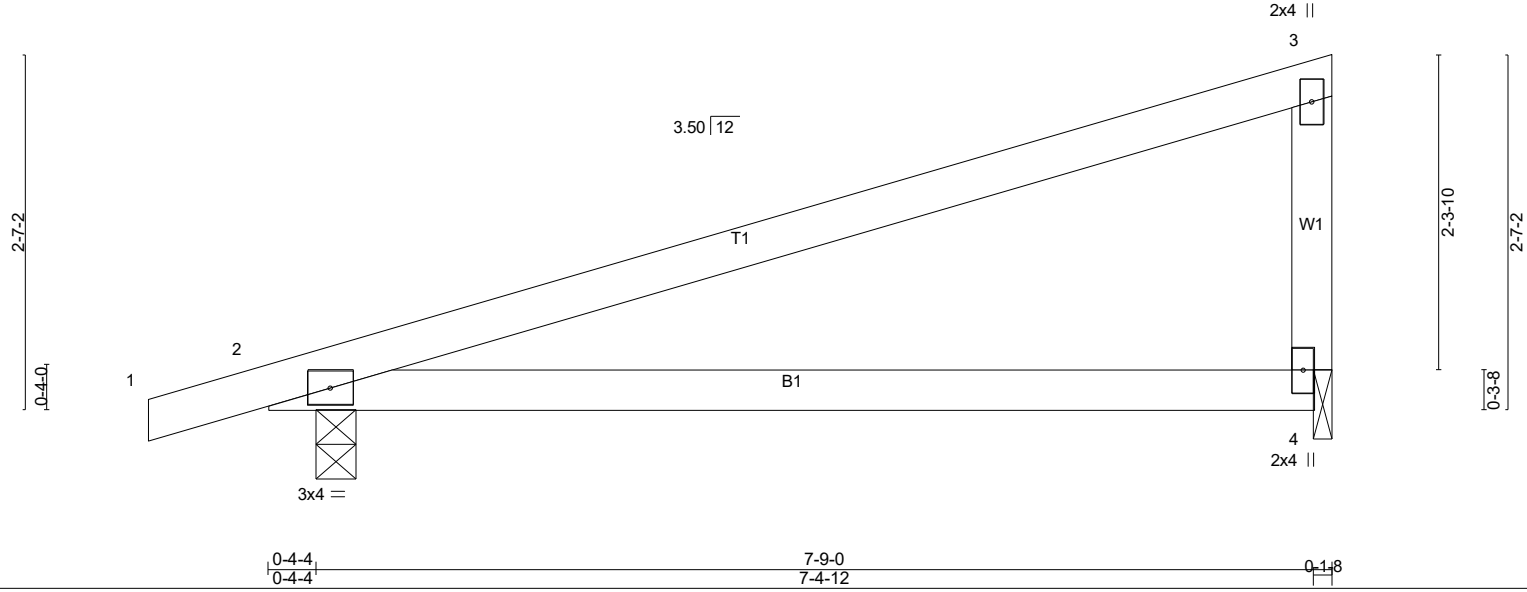
This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is 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 Handling*.

Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC
21-4053-R01	J01	Monopitch	5	1	
Job Reference (optional)					# 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:22 2021 Page 1  
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Scale = 1:16.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	Plate Grip DOL 1.25	TC 0.77	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.25	BC 0.65	Vert(LL) 0.30 4-9 >306 240		
TCDL 10.0	Rep Stress Incr YES	WB 0.00	Vert(CT) -0.29 4-9 >312 180		
BCLL 0.0 *	Code IRC2018/TPI2014	Matrix-AS	Horz(CT) 0.01 2 n/a n/a		
BCDL 10.0				Weight: 28 lb	FT = 20%

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

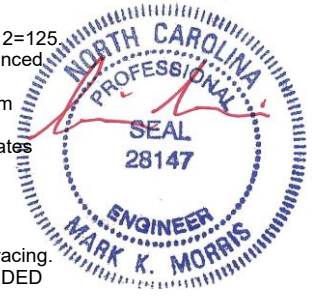
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) 4=284/0-1-8 (min. 0-1-8), 2=377/0-3-8 (min. 0-1-8)  
 Max Horz 2=77(LC 13)  
 Max Uplift 4=-93(LC 10), 2=-125(LC 10)  
 Max Grav 4=375(LC 21), 2=456(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-280/171

- NOTES-** (12-15)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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) Bearing at joint(s) 4 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 at joint(s) 4.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=125
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - 13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - 14) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - 15) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING



**CONSIDERATIONS.**  
 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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	J01	Monopitch	5	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:23 2021 Page 2  
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LOAD CASE(S) Standard



9/15/2021

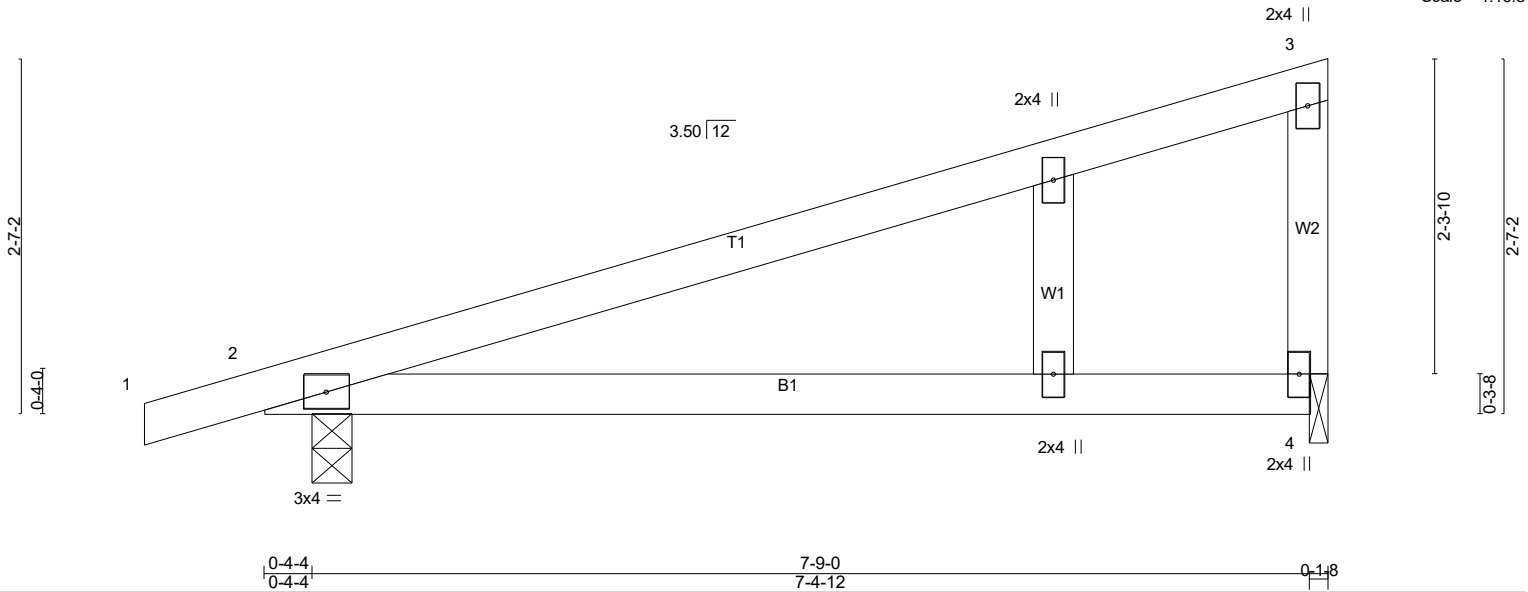
**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building 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	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC
21-4053-R01	J01A	Monopitch	1	1	
Job Reference (optional)					# 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:24 2021 Page 1  
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Scale = 1:16.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	Plate Grip DOL 1.25	TC 0.77	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.25	BC 0.65	Vert(LL) 0.30 4-11 >306 240		
TCDL 10.0	Rep Stress Incr YES	WB 0.00	Vert(CT) -0.29 4-11 >312 180		
BCLL 0.0 *	Code IRC2018/TPI2014	Matrix-AS	Horz(CT) 0.01 2 n/a n/a		
BCDL 10.0				Weight: 30 lb	FT = 20%

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

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

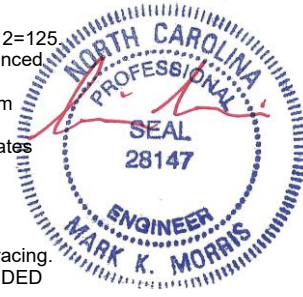
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 4=284/0-1-8 (min. 0-1-8), 2=377/0-3-8 (min. 0-1-8)  
 Max Horz 2=77(LC 13)  
 Max Uplift 4=-93(LC 10), 2=-125(LC 10)  
 Max Grav 4=375(LC 21), 2=456(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-280/171

**NOTES-** (12-15)

- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 4 considers parallel to grain value using ANSII/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=125
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSII/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING



9/15/2021

**CONSIDERATIONS.**  
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Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	J01A	Monopitch	1	1	Job Reference (optional) # 28472

**LOAD CASE(S)** Standard



9/15/2021

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Job 21-4053-R01	Truss J02	Truss Type Monopitch Girder	Qty 1	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N.C. 27048 Job Reference (optional) <b># 28472</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:26 2021 Page 1  
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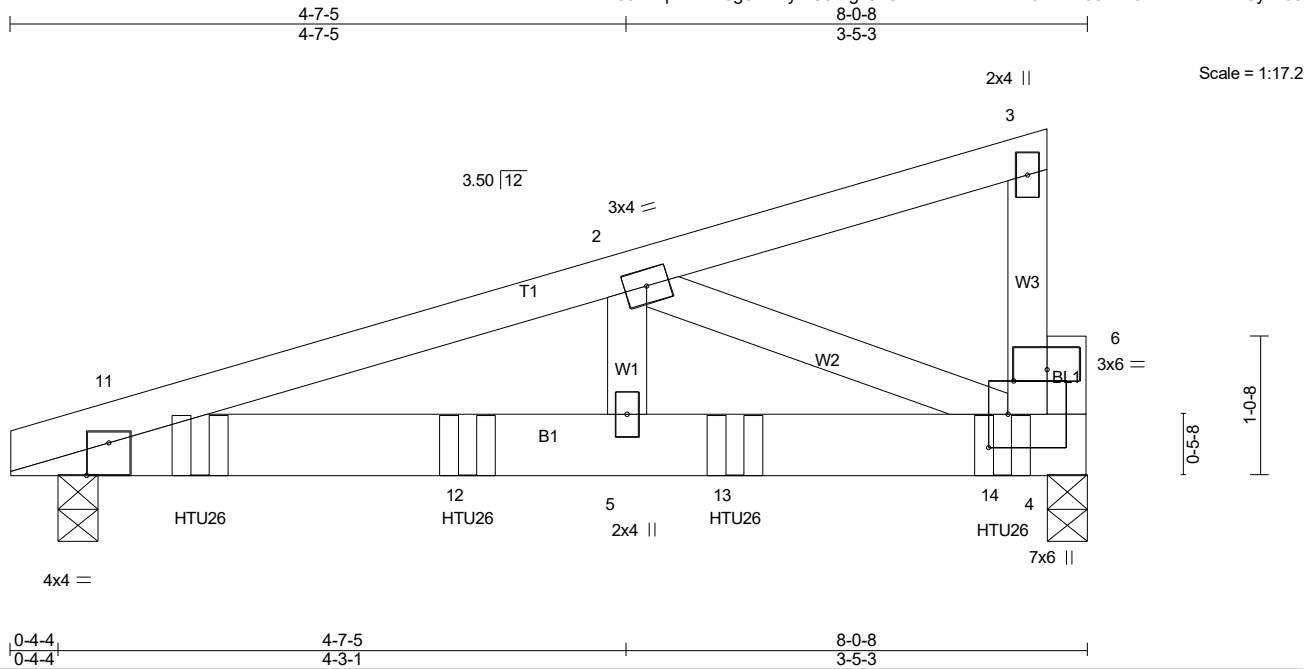


Plate Offsets (X,Y)-- [1:0-2-0,Edge], [4:0-3-0,0-1-12], [6:0-3-0,0-1-0]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.30	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.59	Vert(LL) -0.03 5-10 >999 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.43	Vert(CT) -0.05 5-10 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MP	Horz(CT) 0.01 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 40 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

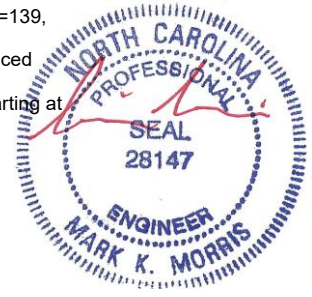
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-3-13 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

**REACTIONS.** (lb/size) 4=1006/0-3-8 (min. 0-1-8), 1=939/0-3-8 (min. 0-1-8)  
Max Horz 1=72(LC 9)  
Max Uplift 4=139(LC 8), 1=135(LC 8)  
Max Grav 4=1094(LC 18), 1=1022(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-11=-786/89, 1-2=-1617/202  
BOT CHORD 1-12=-197/1533, 5-12=-197/1533, 5-13=-197/1533, 13-14=-197/1533, 4-14=-197/1533  
WEBS 2-5=-65/750, 2-4=-1652/230

- NOTES-** (11-14)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; porch left exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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 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 100 lb uplift at joint(s) except (jt=lb) 4=139, 1=135.
  - 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) 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 1-5-0 from the left end to 7-5-0 to connect truss(es) R18 (1 ply 2x4 SP) to front face of bottom chord.
  - 9) Fill all nail holes where hanger is in contact with lumber.
  - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



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Continued on Page 2  
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Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	J02	Monopitch Girder	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:27 2021 Page 2  
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- 11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
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**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-3=-60, 1-4=-20
  - Concentrated Loads (lb)
    - Vert: 10=-332(F) 12=-332(F) 13=-332(F) 14=-338(F)



9/15/2021

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Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	J03	Jack-Open	5	1	
Job Reference (optional)					# 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:27 2021 Page 1  
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Scale = 1:17.2

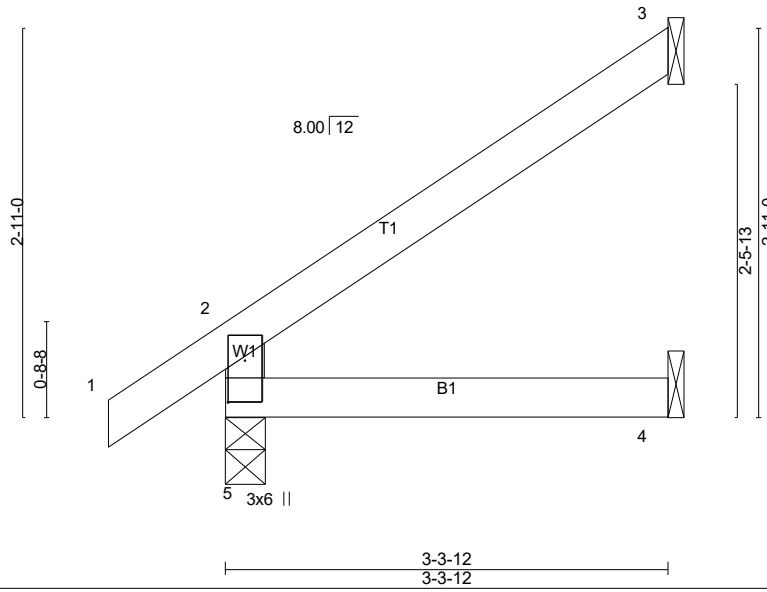


Plate Offsets (X,Y)-- [5:0-3-12,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.16	Vert(LL) 0.01	4-5	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.10	Vert(CT) -0.01	4-5	>999	180		
TCDL 10.0	Lumber DOL 1.25	WB 0.00	Horz(CT) 0.01	3	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MR						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 13 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-3-12 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

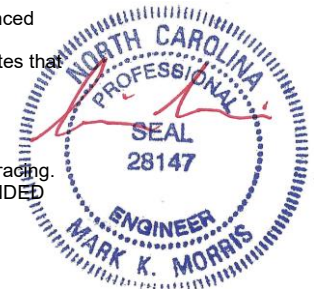
**REACTIONS.** (lb/size) 5=195/0-3-8 (min. 0-1-8), 3=80/Mechanical, 4=34/Mechanical  
 Max Horz 5=76(LC 12)  
 Max Uplift 5=-4(LC 12), 3=-49(LC 12)  
 Max Grav 5=195(LC 1), 3=85(LC 20), 4=58(LC 5)

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

**NOTES-** (9-12)

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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) 5, 3.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



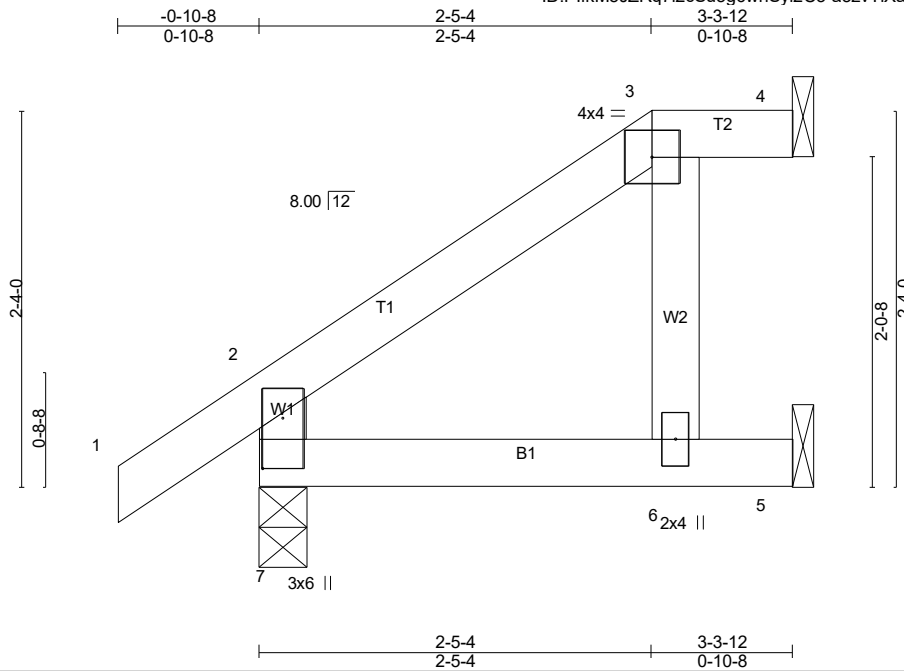
9/15/2021

**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 21-4053-R01	Truss J04	Truss Type Half Hip	Qty 1	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC 27086 Job Reference (optional) <b># 28472</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:28 2021 Page 1  
ID:PlfkM5JZRq7i2cSu5g6whSyi2C3-a3zvTiXa5XsPZ1cx9w8rFmyVRpsgdsw\_ qsbzyc61



Scale = 1:14.3

Plate Offsets (X,Y)-- [7:0-3-12,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.25		TC 0.12	Vert(LL) 0.01	6-7	>999	240		MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.25		BC 0.10	Vert(CT) -0.01	6-7	>999	180			
TCDL 10.0	Rep Stress Incr YES		WB 0.02	Horz(CT) 0.01	4	n/a	n/a			
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-MP							
BCDL 10.0									Weight: 15 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-3-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

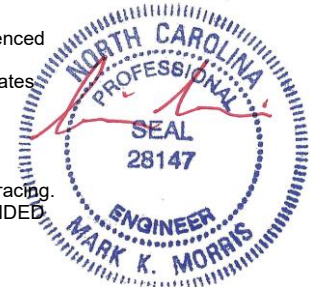
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 4=43/Mechanical, 7=195/0-3-8 (min. 0-1-8), 5=71/Mechanical  
Max Horz 7=60(LC 12)  
Max Uplift 4=-5(LC 9), 7=-14(LC 12), 5=-24(LC 12)

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

**NOTES-** (11-14)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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.
- 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.
- 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) 4, 7, 5.
- 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 bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



9/15/2021

**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	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARIAN, N
21-4053-R01	J05	Jack-Open Girder	1	1	
Job Reference (optional)					# 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:30 2021 Page 1  
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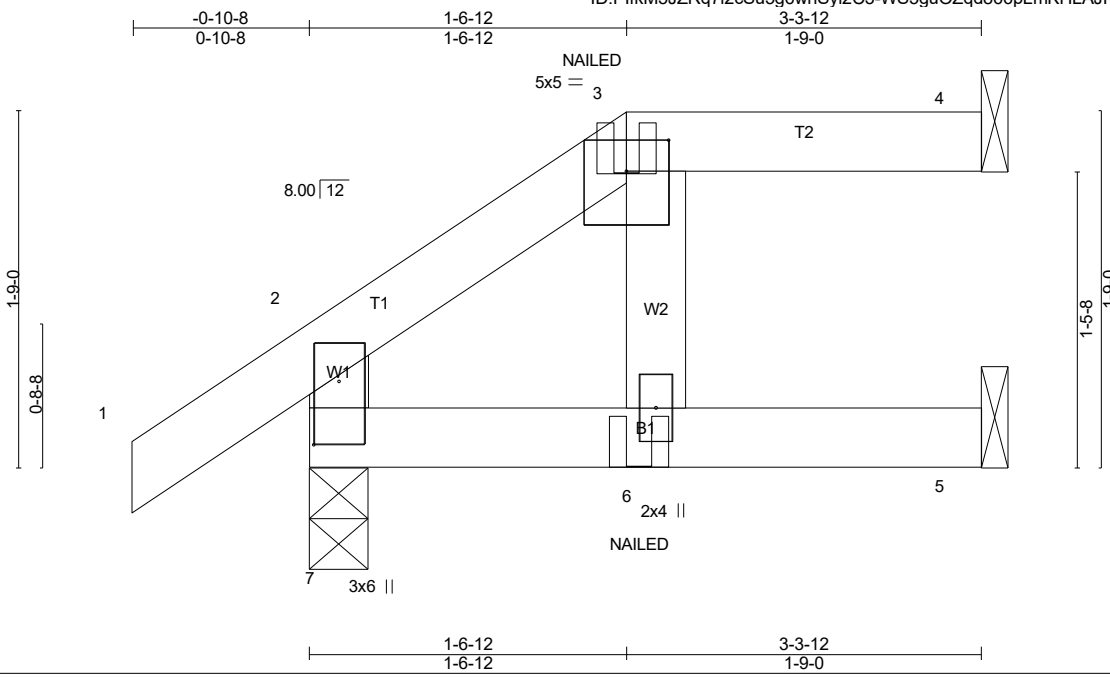


Plate Offsets (X,Y)-- [3:0-2-8,0-1-13], [7:0-3-12,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.22	Vert(LL) -0.01	6	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.29	Vert(CT) -0.02	6	>999	180		
TCDL 10.0	Lumber DOL 1.25	WB 0.02	Horz(CT) 0.02	4	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MP						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 14 lb	FT = 20%

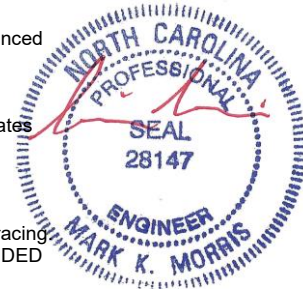
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-3-12 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 7=283/0-3-8 (min. 0-1-8), 4=101/Mechanical, 5=91/Mechanical  
 Max Horz 7=42(LC 37)  
 Max Uplift 7=-28(LC 10), 4=-21(LC 7), 5=-2(LC 7)  
 Max Grav 7=283(LC 1), 4=103(LC 26), 5=92(LC 26)

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

- NOTES-** (13-16)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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) Provide adequate drainage to prevent water ponding.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
  - 8) Refer to girder(s) for truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 4, 5.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - 13) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - 14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - 15) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - 16) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



9/15/2021

**LOAD CASE(S)** Standard  
 Caution: See Code 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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	J05	Jack-Open Girder	1	1	Job Reference (optional) # 28472

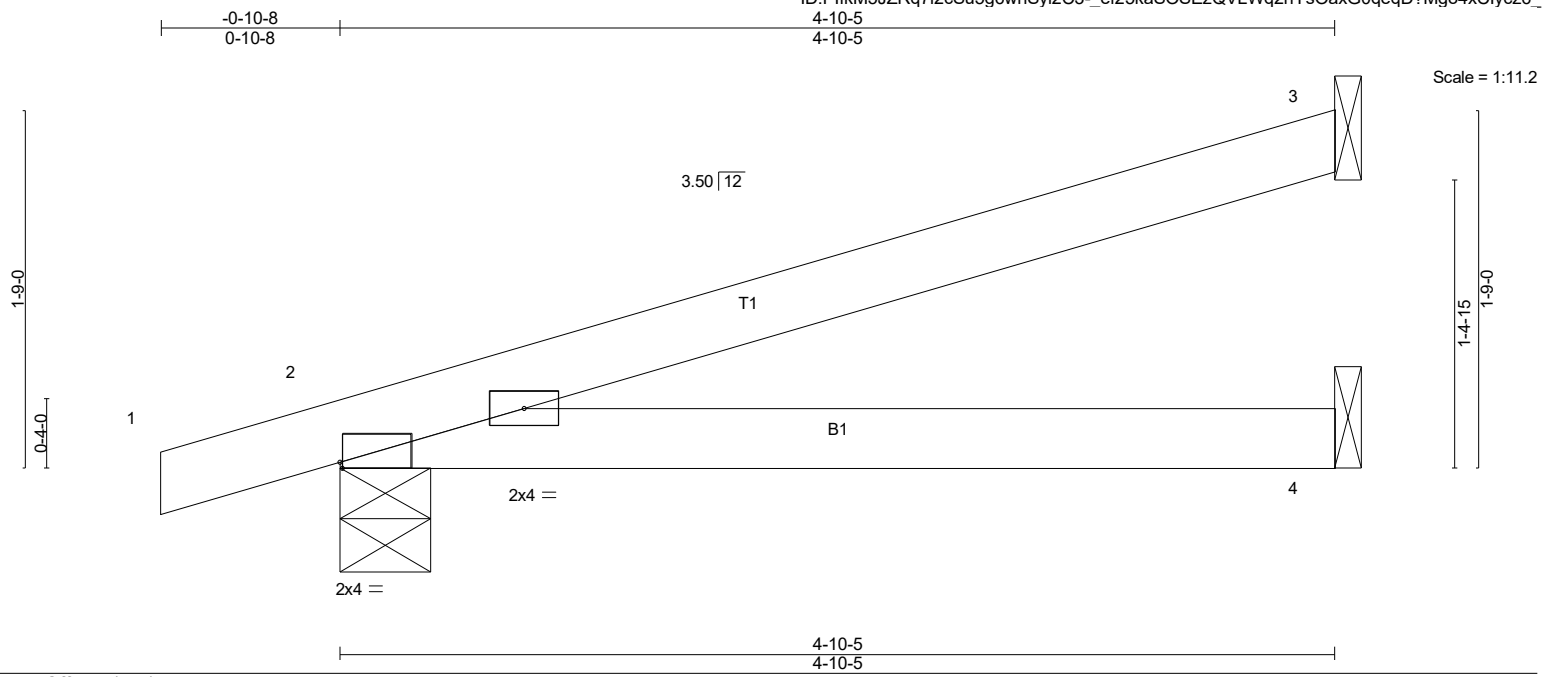
**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-7=-20
- Concentrated Loads (lb)
  - Vert: 3=-113(B) 6=-53(B)



9/15/2021

**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.



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL (roof)	20.0	2-0-0		TC	0.40	in	(loc)	l/defl	L/d	MT20	244/190
Snow (Pf)	20.0	Plate Grip DOL	1.25	BC	0.34	Vert(LL)	-0.04	4-7	>999		
TCDL	10.0	Lumber DOL	1.25	WB	0.00	Vert(CT)	-0.07	4-7	>867		
BCLL	0.0 *	Rep Stress Incr	YES	Matrix-AS		Horz(CT)	0.00	2	n/a		
BCDL	10.0	Code IRC2018/TPI2014								Weight: 16 lb	FT = 20%

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

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

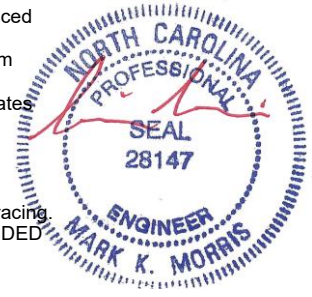
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 3=124/Mechanical, 2=249/0-5-4 (min. 0-1-8), 4=63/Mechanical  
 Max Horz 2=53(LC 10)  
 Max Uplift 3=-40(LC 14), 2=-48(LC 10)  
 Max Grav 3=173(LC 21), 2=335(LC 21), 4=85(LC 7)

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

**NOTES-** (11-14)

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 13) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 14) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

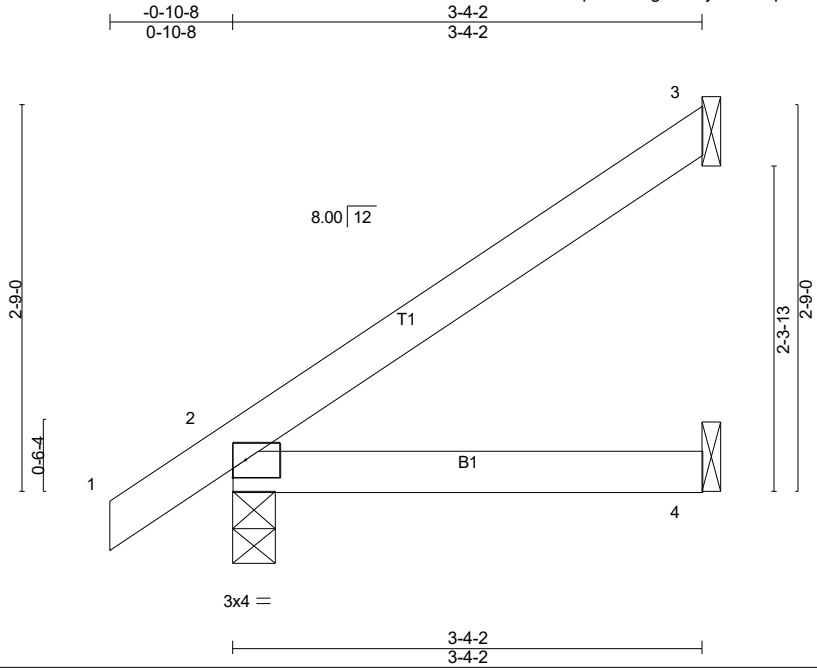


9/15/2021

**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	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	J07	Jack-Open	15	1	
Job Reference (optional)					# 28472

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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:32 2021 Page 1



Scale = 1:16.4

<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 0.15	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.11	Vert(LL) 0.01 4-7 >999 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.00	Vert(CT) -0.01 4-7 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MP	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 13 lb	FT = 20%

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

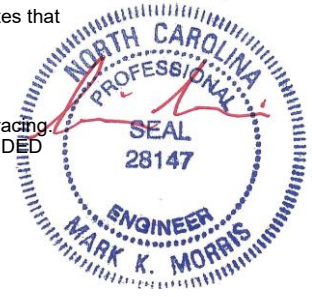
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-4-2 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

**REACTIONS.** (lb/size) 3=84/Mechanical, 2=191/0-3-8 (min. 0-1-8), 4=40/Mechanical  
Max Horz 2=82(LC 12)  
Max Uplift 3=46(LC 12), 2=-7(LC 12)  
Max Grav 3=88(LC 20), 2=191(LC 1), 4=61(LC 5)

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

- NOTES-** (9-12)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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) 3, 2.
  - 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 bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - 10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - 11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - 12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



9/15/2021

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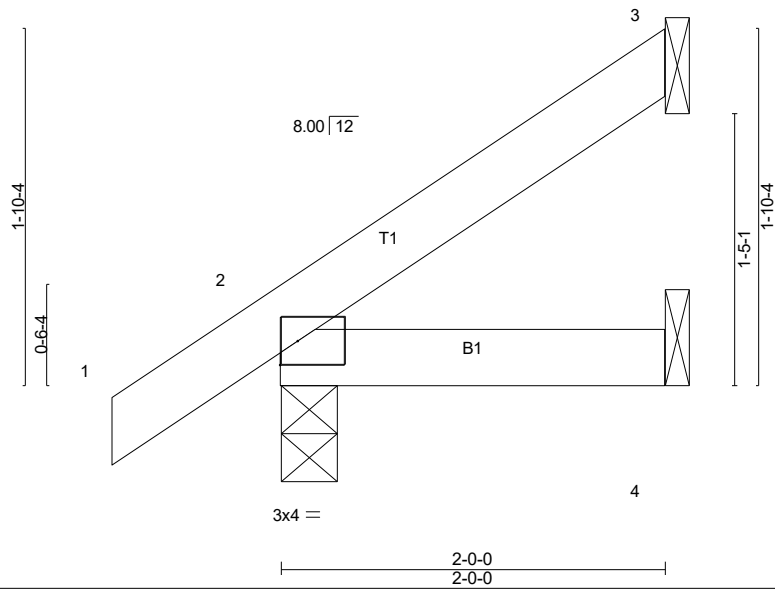


Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	J08	Jack-Open	2	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:34 2021 Page 1  
 ID:PlfK5JZRq7i2cSu5g6whSyi2C3-ODLAKicLgNcYHy35WBFEU1CW0EwB1alpMmJbodycz5x



Scale: 1"=1'



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.09	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.03	Vert(LL) 0.00 7 >999 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.00	Vert(CT) -0.00 4-7 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MP	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 8 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 2-0-0 oc purlins.  
 Rigid ceiling directly applied or 10-0-0 oc bracing.

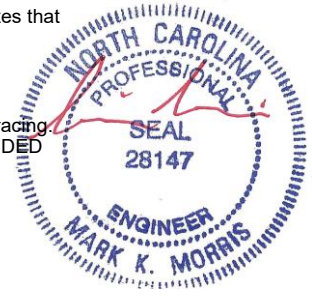
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 3=47/Mechanical, 2=144/0-3-8 (min. 0-1-8), 4=21/Mechanical  
 Max Horz 2=56(LC 12)  
 Max Uplift 3=-27(LC 12), 2=-11(LC 12)  
 Max Grav 3=50(LC 20), 2=147(LC 18), 4=36(LC 5)

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

**NOTES-** (9-12)

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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) 3, 2.
- 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 bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

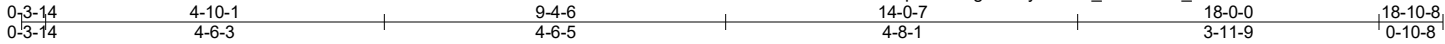


9/15/2021

**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 21-4053-R01	Truss R01	Truss Type Hip Girder	Qty 1	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC	Job Reference (optional) <b># 28472</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:38 2021 Page 1  
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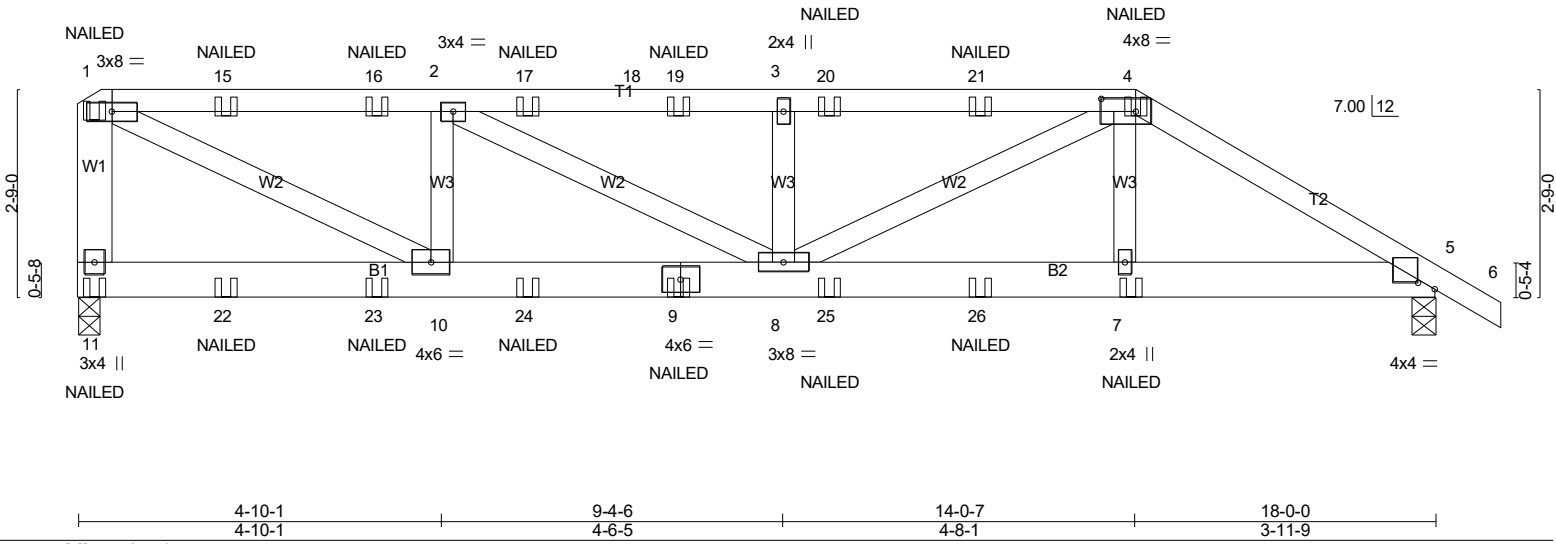


Plate Offsets (X,Y)-- [4:0-5-8,0-2-0], [5:0-2-11,0-1-1]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.63	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.44	Vert(LL) -0.09 8 >999 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.80	Vert(CT) -0.14 8-10 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MSH	Horz(CT) 0.02 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 106 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-2-3 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) 11=962/0-3-8 (min. 0-1-8), 5=900/0-3-8 (min. 0-1-8)  
Max Horz 11=-77(LC 10)  
Max Uplift 11=-191(LC 8), 5=-129(LC 13)  
Max Grav 11=1250(LC 33), 5=1006(LC 34)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-15=-1791/254, 15-16=-1791/254, 2-16=-1791/254, 2-17=-2252/321, 17-18=-2252/321, 18-19=-2252/321, 3-19=-2252/321, 3-20=-2252/321, 20-21=-2252/321, 4-21=-2252/321, 4-5=-1694/229, 1-11=-1139/220  
BOT CHORD 10-24=-255/1791, 9-24=-255/1791, 8-9=-255/1791, 8-25=-158/1452, 25-26=-158/1452, 7-26=-158/1452, 5-7=-161/1443  
WEBS 1-10=-279/1922, 2-10=-759/196, 2-8=-83/522, 3-8=-535/164, 4-8=-173/898

- NOTES-** (12-15)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=-191, 5=-129.
  - 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) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



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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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R01	Hip Girder	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:39 2021 Page 2  
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- 12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 14) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 15) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-6=-60, 11-12=-20

Concentrated Loads (lb)

Vert: 1=-50(B) 4=-24(B) 11=-28(B) 9=-20(B) 7=-20(B) 15=-24(B) 16=-24(B) 17=-24(B) 19=-24(B) 20=-24(B) 21=-24(B) 22=-20(B) 23=-20(B) 24=-20(B) 25=-20(B) 26=-20(B)



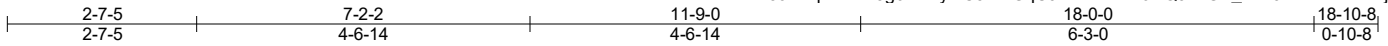
9/15/2021

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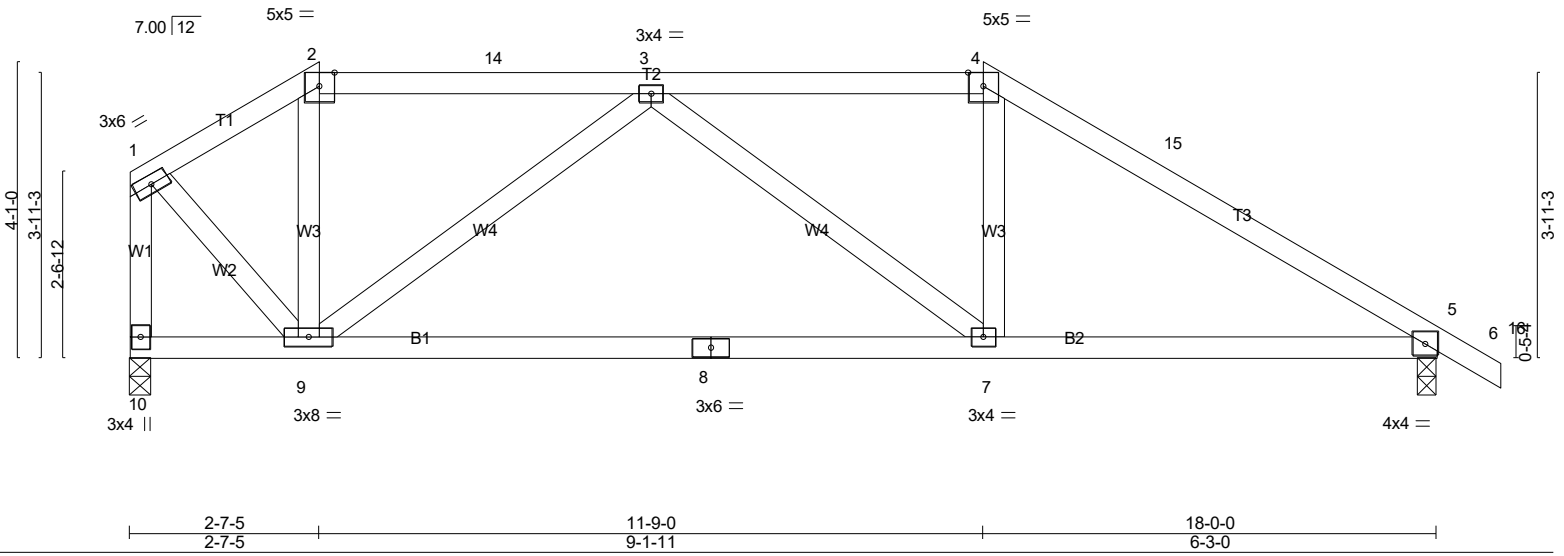
Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R02	Hip	1	1	

Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:41 2021 Page 1  
 ID: P1fkM5JZRq7i2cSu5g6whSyi2C3-hZGqC9ik1WVYd16RQ9suGV\_Z129fAdZrzMVSXjycz5q



Scale: 3/8"=1'



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	Plate Grip DOL 1.25	TC 0.70	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.25	BC 0.68	Vert(LL) -0.16 7-9 >999 240		
TCDL 10.0	Rep Stress Incr YES	WB 0.51	Vert(CT) -0.32 7-9 >668 180		
BCLL 0.0 *	Code IRC2018/TPI2014	Matrix-AS	Horz(CT) 0.03 5 n/a n/a		
BCDL 10.0				Weight: 92 lb	FT = 20%

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

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

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

**REACTIONS.** (lb/size) 10=713/0-3-8 (min. 0-1-8), 5=768/0-3-8 (min. 0-1-8)  
 Max Horz 10=-102(LC 12)  
 Max Uplift 10=-21(LC 11), 5=-53(LC 15)  
 Max Grav 10=866(LC 38), 5=945(LC 39)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-653/69, 2-14=-570/74, 3-14=-573/73, 3-4=-1002/125, 4-15=-1152/104, 5-15=-1209/90,  
 1-10=-902/47  
 BOT CHORD 8-9=-82/1143, 7-8=-82/1143, 5-7=-9/1010  
 WEBS 3-9=-725/122, 4-7=0/285, 1-9=-19/819

- NOTES-** (12-15)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 2-7-5, Exterior(2R) 2-7-5 to 14-0-14, Exterior(2E) 14-0-14 to 18-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - 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) 10, 5.
  - 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



9/15/2021

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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R02	Hip	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:41 2021 Page 2  
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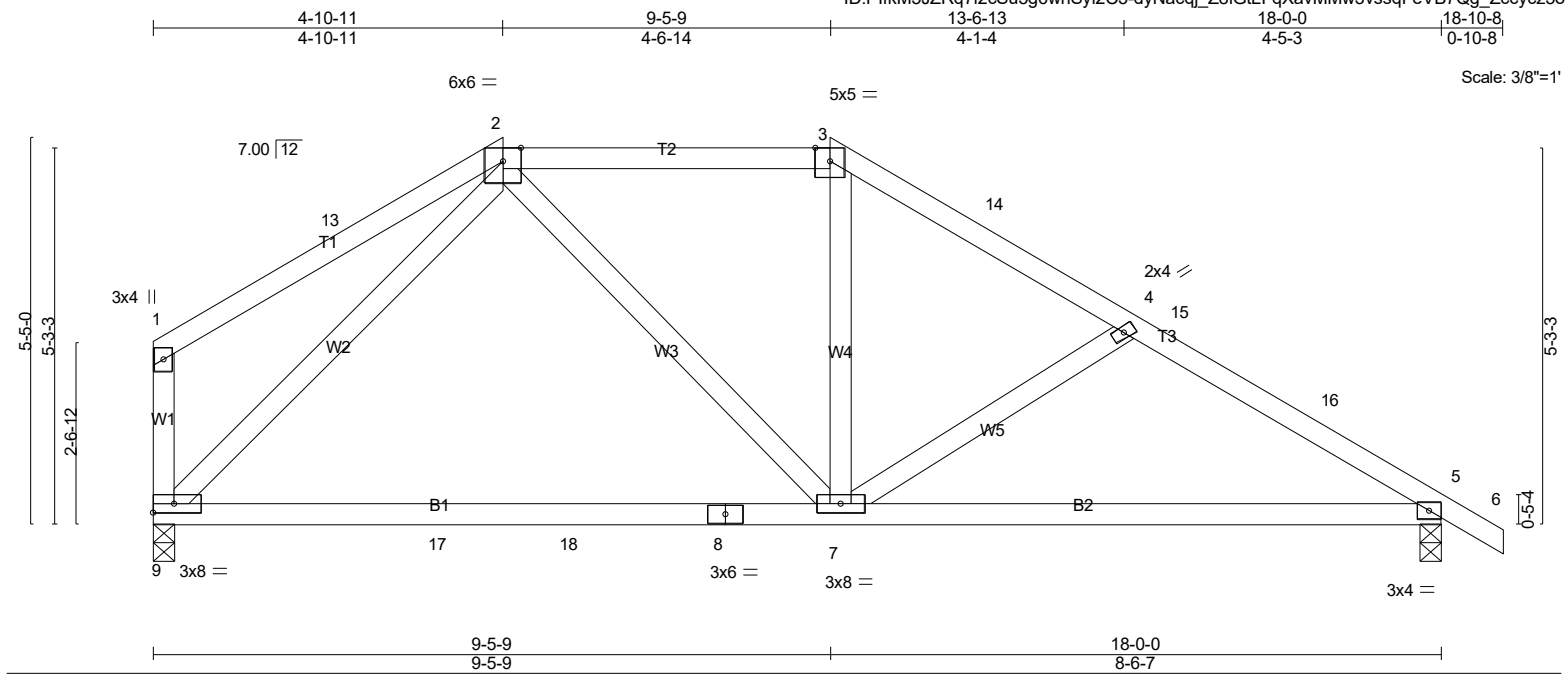
- 12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
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- 14) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 15) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



9/15/2021

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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 0.75	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.74	Vert(LL) -0.21 7-9 >999 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.63	Vert(CT) -0.39 7-9 >553 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.02 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 95 lb	FT = 20%

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

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

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

**REACTIONS.** (lb/size) 9=713/0-3-8 (min. 0-1-8), 5=768/0-3-8 (min. 0-1-8)  
 Max Horz 9=-128(LC 12)  
 Max Uplift 9=-27(LC 14), 5=-67(LC 15)  
 Max Grav 9=909(LC 39), 5=1076(LC 39)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-13=-286/62, 2-3=-807/119, 3-14=-934/107, 4-14=-1056/97, 4-15=-1267/133,  
 15-16=-1387/131, 5-16=-1476/115, 1-9=-319/65  
 BOT CHORD 9-17=-33/580, 17-18=-33/580, 8-18=-33/580, 7-8=-33/580, 5-7=-50/1198  
 WEBS 2-7=-10/359, 4-7=-458/129, 2-9=-697/73

- NOTES-** (12-15)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-10-11, Exterior(2R) 4-10-11 to 14-0-14, Exterior(2E) 14-0-14 to 18-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - 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) 9, 5.
  - 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



9/15/2021

Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R03	Hip	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:44 2021 Page 2  
 ID:PIfkM5JZRq7i2cSu5g6whSyr2C3-68xyqAkckRt7UVq05HQbu8c4cGATNyRHfJk782ycz5n

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

**LOAD CASE(S)** Standard

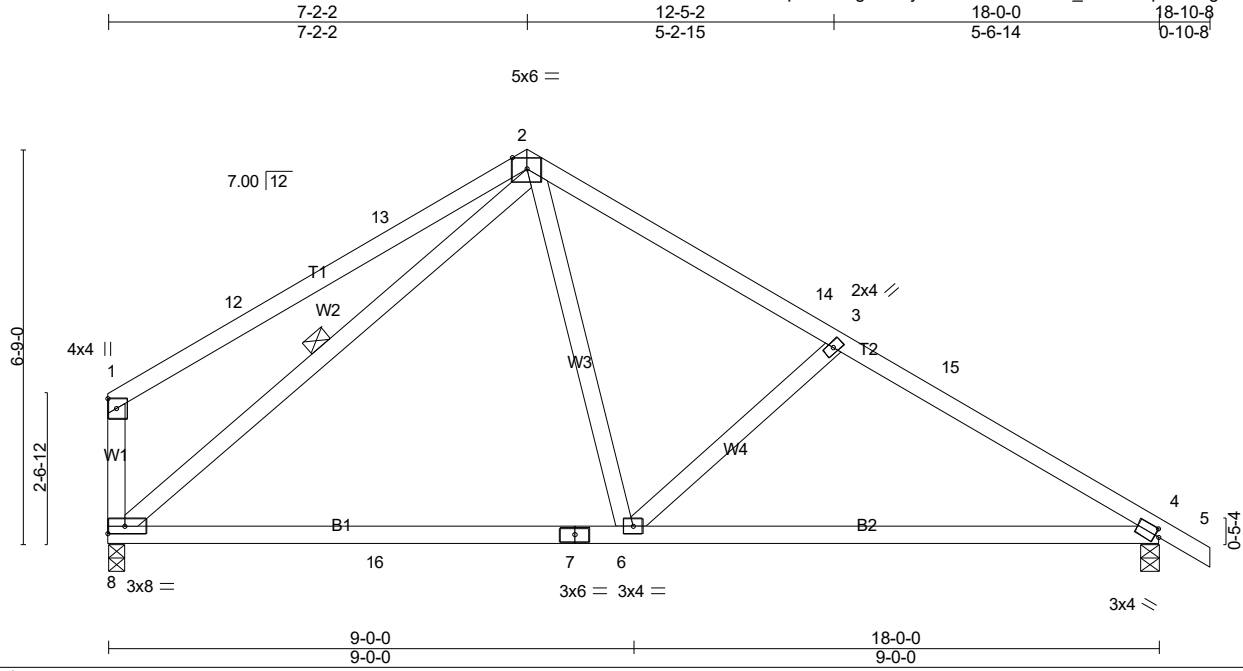


9/15/2021

**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	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R04	Common	3	1	
Job Reference (optional)					# 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:45 2021 Page 1  
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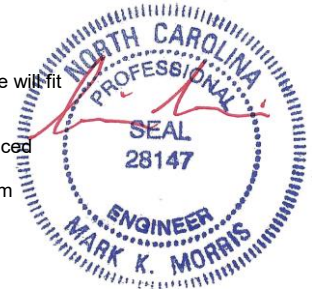
Plate Offsets (X,Y)-- [4:0-0-15,0-1-8]	
<b>LOADING</b> (psf)	<b>SPACING-</b>
TCLL (roof) 20.0	2-0-0
Snow (Pf) 20.0	Plate Grip DOL 1.25
TCDL 10.0	Lumber DOL 1.25
BCLL 0.0 *	Rep Stress Incr YES
BCDL 10.0	Code IRC2018/TPI2014
<b>CSI.</b>	<b>DEFL.</b>
TC 0.77	in (loc) l/defl L/d
BC 0.74	Vert(LL) -0.24 6-8 >879 240
WB 0.29	Vert(CT) -0.35 6-8 >615 180
Matrix-AS	Horz(CT) 0.02 4 n/a n/a
<b>PLATES</b>	<b>GRIP</b>
MT20	244/190
Weight: 93 lb FT = 20%	

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 2-8
W1: 2x4 SP No.2	
	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 4=768/0-3-8 (min. 0-1-8), 8=713/0-3-8 (min. 0-1-8)  
 Max Horz 8=-155(LC 12)  
 Max Uplift 4=-75(LC 15), 8=-42(LC 14)  
 Max Grav 4=819(LC 22), 8=751(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-12=-298/101, 2-14=-772/115, 3-14=-873/90, 3-15=-1009/122, 4-15=-1133/99,  
 1-8=-355/113  
 BOT CHORD 8-16=0/564, 7-16=0/564, 6-7=0/564, 4-6=-31/944  
 WEBS 2-6=-11/553, 3-6=-408/155, 2-8=-609/34

- NOTES-** (11-14)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-11-6, Exterior(2R) 4-11-6 to 11-11-12, Interior(1) 11-11-12 to 14-0-14, Exterior(2E) 14-0-14 to 18-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



9/15/2021

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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R04	Common	3	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:45 2021 Page 2  
 ID:PlfkM5JZRq7i2cSu5g6whSyi2C3-aKVk1VIE5l?\_6fPCf?xqRL9F2gV6UwQuzTggUycz5m

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

**LOAD CASE(S)** Standard



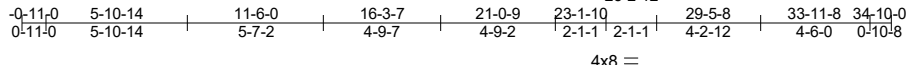
9/15/2021

**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 21-4053-R01	Truss R05	Truss Type ROOF SPECIAL	Qty 3	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N.C. 27086 Job Reference (optional) <b># 28472</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:47 2021 Page 1  
ID:PIfkM5JZRq7i2cSu5g6whSyi2C3-Wjvd5ScmVdMFilyZbmpZiIWmEZwT9VaDpjLHynlNycz5k



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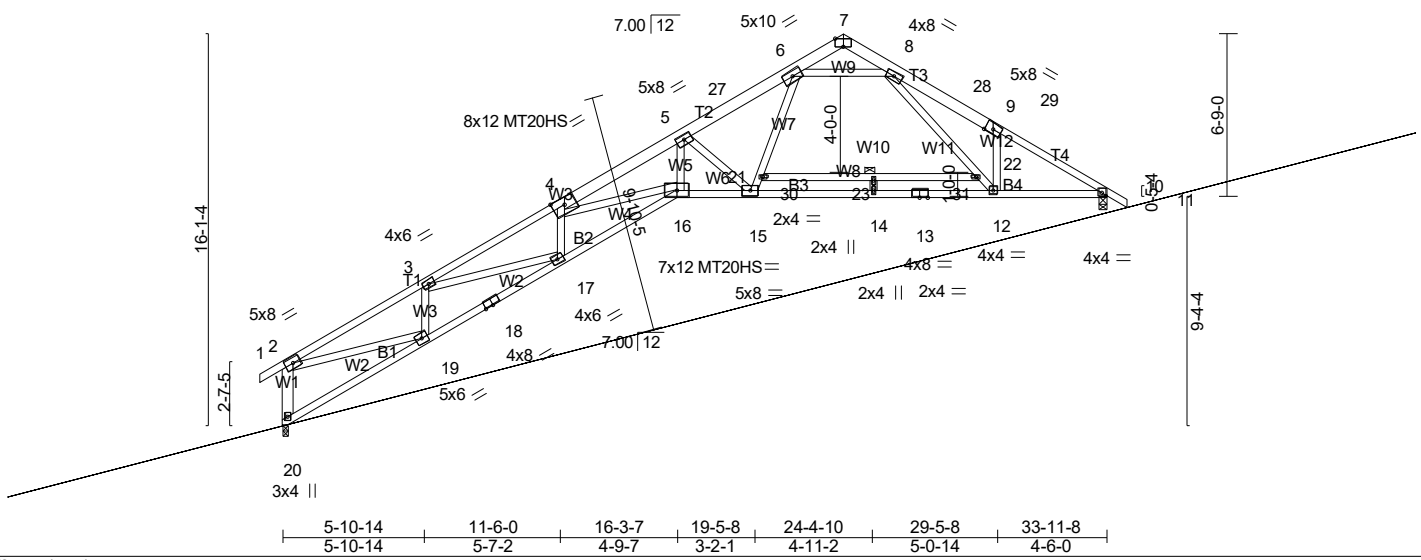


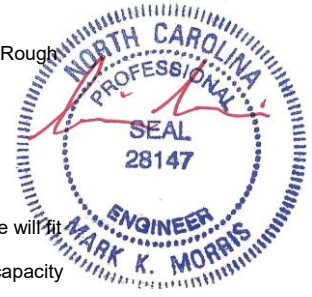
Plate Offsets (X,Y)-- [7:0-4-0,Edge], [10:Edge,0-1-8]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	Plate Grip DOL 1.25	TC 0.87	Vert(LL) -0.72 14-15 >563 240	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.25	BC 0.85	Vert(CT) -1.15 14-15 >351 180	MT20HS	187/143
TCDL 10.0	Rep Stress Incr YES	WB 0.97	Horz(CT) 0.76 10 n/a n/a		
BCLL 0.0 *	Code IRC2018/TPI2014	Matrix-AS			
BCDL 10.0					Weight: 220 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except* T1,T4: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP SS *Except* B2: 2x4 SP No.1, B1: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* W1: 2x6 SP No.2, W2,W5,W8: 2x4 SP No.2	WEBS 1 Row at midpt 21-22
	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 20=1418/0-3-0 (min. 0-1-8), 10=1401/0-3-8 (min. 0-1-12)  
Max Horz 20=287(LC 11)  
Max Uplift 20=-106(LC 14), 10=-127(LC 14)  
Max Grav 20=1437(LC 21), 10=1495(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-20=-1489/313, 2-3=-3502/644, 3-4=-5444/956, 4-5=-6303/1034, 5-27=-3542/499,  
6-27=-3434/511, 7-8=-470/92, 8-28=-2293/281, 28-29=-2353/264, 9-29=-2386/263,  
9-10=-2668/245  
BOT CHORD 19-20=-373/364, 18-19=-899/3483, 17-18=-874/3508, 16-17=-1116/5507, 15-16=-907/5375,  
14-15=-239/2128, 13-14=-239/2128, 12-13=-239/2128, 10-12=-168/2229  
WEBS 2-19=-482/2881, 3-19=-1030/248, 4-16=0/803, 5-16=-540/2785, 5-15=-3129/697,  
15-21=-377/2390, 6-21=-367/2467, 8-22=-163/417, 12-22=-162/364, 9-12=-90/363,  
4-17=-590/130, 3-17=-189/1759, 6-8=-1994/335

- NOTES-** (16-19)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 3-10-10, Interior(1) 3-10-10 to 18-4-1, Exterior(2R) 18-4-1 to 27-11-4, Interior(1) 27-11-4 to 30-0-6, Exterior(2E) 30-0-6 to 34-10-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - All plates are MT20 plates unless otherwise indicated.
  - The Fabrication Tolerance at joint 16 = 8%
  - 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.
  - Bearing at joint(s) 20 considers parallel to grain value using ANSI/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) 20=106 10=127.



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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARIANA, NC
21-4053-R01	R05	ROOF SPECIAL	3	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:48 2021 Page 2  
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**NOTES-** (16-19)

- 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) Load case(s) 3, 4, 5, 6, 7, 23, 24, 25, 26, 27, 28, 29, 30, 31, 36, 37 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 14) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 15) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- 16) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 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.
- 18) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 19) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-60, 2-7=-60, 7-11=-60, 16-20=-20, 16-24=-20
- 3) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-50, 2-7=-50, 7-11=-50, 16-20=-20, 16-24=-20, 30-31=-45(F)
- 4) Dead + 0.75 Snow (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-50, 2-7=-50, 7-11=-50, 16-20=-20, 16-24=-20, 30-31=-45(F)
- 5) Dead + 0.75 Snow (Unbal. Left) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-50, 2-27=-50, 7-27=-77, 7-11=-29, 16-20=-20, 16-24=-20, 30-31=-45(F)
- 6) Dead + 0.75 Snow (Unbal. Right) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-29, 2-7=-29, 7-29=-81, 11-29=-50, 16-20=-20, 16-24=-20, 30-31=-45(F)
- 7) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-20, 2-7=-20, 7-11=-20, 16-20=-40, 16-24=-40, 30-31=-60(F)
- 23) Dead + Uninhabitable Attic Storage: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90  
Uniform Loads (plf)  
Vert: 1-2=-20, 2-7=-20, 7-11=-20, 16-20=-20, 16-24=-20, 30-31=-60(F)
- 24) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-55, 2-7=-58, 7-10=-44, 10-11=-40, 16-20=-20, 16-24=-20, 30-31=-45(F)  
Horz: 2-20=16, 1-2=5, 2-7=8, 7-10=6, 10-11=10
- 25) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-7=-44, 7-10=-58, 10-11=-55, 16-20=-20, 16-24=-20, 30-31=-45(F)  
Horz: 2-20=-5, 1-2=-10, 2-7=-6, 7-10=-8, 10-11=-5
- 26) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-30, 2-7=-34, 7-10=-44, 10-11=-40, 16-20=-20, 16-24=-20, 30-31=-45(F)  
Horz: 2-20=14, 1-2=-20, 2-7=-16, 7-10=6, 10-11=10
- 27) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-7=-44, 7-10=-34, 10-11=-30, 16-20=-20, 16-24=-20, 30-31=-45(F)  
Horz: 2-20=-5, 1-2=-10, 2-7=-6, 7-10=16, 10-11=20
- 28) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-55, 2-7=-58, 7-10=-44, 10-11=-40, 16-20=-20, 16-24=-20, 30-31=-45(F)  
Horz: 2-20=16, 1-2=5, 2-7=8, 7-10=6, 10-11=10
- 29) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-7=-44, 7-10=-58, 10-11=-55, 16-20=-20, 16-24=-20, 30-31=-45(F)  
Horz: 2-20=-5, 1-2=-10, 2-7=-6, 7-10=-8, 10-11=-5
- 30) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-30, 2-7=-34, 7-10=-44, 10-11=-40, 16-20=-20, 16-24=-20, 30-31=-45(F)  
Horz: 2-20=14, 1-2=-20, 2-7=-16, 7-10=6, 10-11=10
- 31) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-7=-44, 7-10=-34, 10-11=-30, 16-20=-20, 16-24=-20, 30-31=-45(F)  
Horz: 2-20=-5, 1-2=-10, 2-7=-6, 7-10=16, 10-11=20
- 36) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-50, 2-7=-50, 7-11=-20, 16-20=-20, 16-24=-20, 30-31=-45(F)
- 37) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-20, 2-7=-20, 7-11=-50, 16-20=-20, 16-24=-20, 30-31=-45(F)

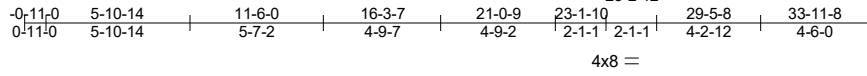


9/15/2021

**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 21-4053-R01	Truss R06	Truss Type ROOF SPECIAL	Qty 4	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N	# 28472
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:50 2021 Page 1  
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Scale = 1:95.0

Plate Offsets (X,Y)-- [7:0-4-0,Edge], [10:Edge,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 0.87	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.85	Vert(LL) -0.72 13-14 >562 240	MT20HS	187/143
TCDL 10.0	Lumber DOL 1.25	WB 0.97	Vert(CT) -1.15 13-14 >351 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.76 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014				Weight: 219 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except* T1,T4: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP SS *Except* B2: 2x4 SP No.1, B1: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* W1: 2x6 SP No.2, W2,W5,W8: 2x4 SP No.2	WEBS 1 Row at midpt 20-21
	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 19=1419/0-3-0 (min. 0-1-8), 10=1348/Mechanical  
 Max Horz 19=291(LC 11)  
 Max Uplift 19=-105(LC 14), 10=-126(LC 14)  
 Max Grav 19=1437(LC 21), 10=1460(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-19=-1488/315, 2-3=-3501/650, 3-4=-5443/968, 4-5=-6301/1050, 5-26=-3543/506,  
 6-26=-3435/519, 7-8=-470/93, 8-27=-2301/297, 27-28=-2361/280, 9-28=-2394/278,  
 9-10=-2674/249  
 BOT CHORD 18-19=-380/357, 17-18=-913/3477, 16-17=-887/3501, 15-16=-1135/5499, 14-15=-927/5367,  
 13-14=-249/2125, 12-13=-249/2125, 11-12=-249/2125, 10-11=-179/2230  
 WEBS 2-18=-487/2880, 3-18=-1030/250, 4-15=0/805, 5-15=-550/2781, 5-14=-3125/706,  
 14-20=-383/2387, 6-20=-373/2466, 8-21=-162/425, 11-21=-162/372, 9-11=-92/362,  
 4-16=-590/132, 3-16=-194/1758, 6-8=-1995/339

- NOTES-** (17-20)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 3-10-10, Interior(1) 3-10-10 to 18-4-1, Exterior(2R) 18-4-1 to 27-11-4, Interior(1) 27-11-4 to 29-1-14, Exterior(2E) 29-1-14 to 33-11-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - All plates are MT20 plates unless otherwise indicated.
  - The Fabrication Tolerance at joint 15 = 8%
  - 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.
  - Refer to girder(s) for truss to truss connections.
  - Bearing at joint(s) 19 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.



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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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC
21-4053-R01	R06	ROOF SPECIAL	4	1	Job Reference (optional) # 28472

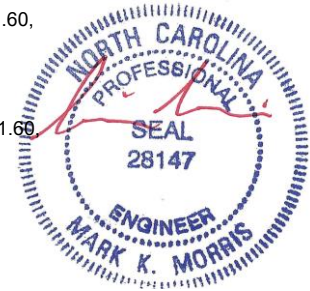
8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:51 2021 Page 2  
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**NOTES-** (17-20)

- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=105, 10=126.
- 13) 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.
- 14) Load case(s) 3, 4, 5, 6, 7, 23, 24, 25, 26, 27, 28, 29, 30, 31, 36, 37 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 15) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 16) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- 17) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 18) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 19) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 20) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-60, 2-7=-60, 7-10=-60, 15-19=-20, 15-23=-20
- 3) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-50, 2-7=-50, 7-10=-50, 15-19=-20, 15-23=-20, 29-30=-45(F)
- 4) Dead + 0.75 Snow (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-50, 2-7=-50, 7-10=-50, 15-19=-20, 15-23=-20, 29-30=-45(F)
- 5) Dead + 0.75 Snow (Unbal. Left) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-50, 2-26=-50, 7-26=-77, 7-10=-29, 15-19=-20, 15-23=-20, 29-30=-45(F)
- 6) Dead + 0.75 Snow (Unbal. Right) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-29, 2-7=-29, 7-28=-81, 10-28=-50, 15-19=-20, 15-23=-20, 29-30=-45(F)
- 7) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-20, 2-7=-20, 7-10=-20, 15-19=-40, 15-23=-40, 29-30=-60(F)
- 23) Dead + Uninhabitable Attic Storage: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90  
Uniform Loads (plf)  
Vert: 1-2=-20, 2-7=-20, 7-10=-20, 15-19=-20, 15-23=-20, 29-30=-60(F)
- 24) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-55, 2-7=-58, 7-10=-44, 15-19=-20, 15-23=-20, 29-30=-45(F)  
Horz: 2-19=16, 1-2=5, 2-7=8, 7-10=6
- 25) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-7=-44, 7-10=-58, 15-19=-20, 15-23=-20, 29-30=-45(F)  
Horz: 2-19=-5, 1-2=-10, 2-7=-6, 7-10=8
- 26) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-30, 2-7=-34, 7-10=-44, 15-19=-20, 15-23=-20, 29-30=-45(F)  
Horz: 2-19=14, 1-2=-20, 2-7=-16, 7-10=6
- 27) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-7=-44, 7-10=-34, 15-19=-20, 15-23=-20, 29-30=-45(F)  
Horz: 2-19=-5, 1-2=-10, 2-7=-6, 7-10=16
- 28) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-55, 2-7=-58, 7-10=-44, 15-19=-20, 15-23=-20, 29-30=-45(F)  
Horz: 2-19=16, 1-2=5, 2-7=8, 7-10=6
- 29) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-7=-44, 7-10=-58, 15-19=-20, 15-23=-20, 29-30=-45(F)  
Horz: 2-19=-5, 1-2=-10, 2-7=-6, 7-10=8
- 30) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-30, 2-7=-34, 7-10=-44, 15-19=-20, 15-23=-20, 29-30=-45(F)  
Horz: 2-19=14, 1-2=-20, 2-7=-16, 7-10=6
- 31) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-7=-44, 7-10=-34, 15-19=-20, 15-23=-20, 29-30=-45(F)  
Horz: 2-19=-5, 1-2=-10, 2-7=-6, 7-10=16
- 36) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-50, 2-7=-50, 7-10=-20, 15-19=-20, 15-23=-20, 29-30=-45(F)



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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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R06	ROOF SPECIAL	4	1	Job Reference (optional) # 28472

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**LOAD CASE(S)** Standard

37) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-2=-20, 2-7=-20, 7-10=-50, 15-19=-20, 15-23=-20, 29-30=-45(F)

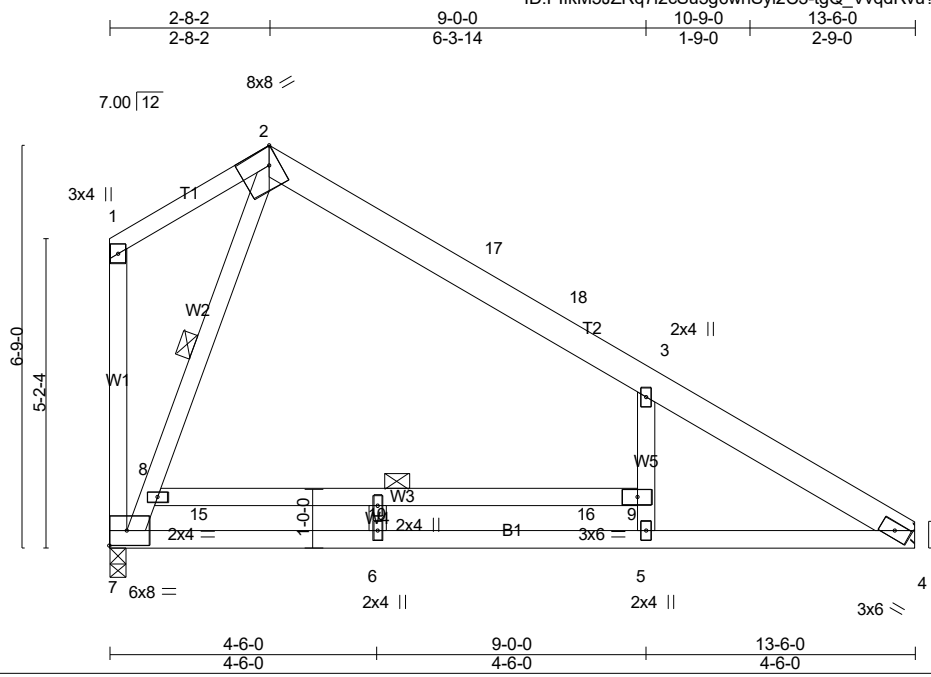


9/15/2021

**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 21-4053-R01	Truss R07	Truss Type Common	Qty 2	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC	Job Reference (optional) <b># 28472</b>
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Scale = 1:38.6

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.86	Vert(LL) -0.54	5-6	>294	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.88	Vert(CT) -0.79	5-6	>202	180		
TCDL 10.0	Lumber DOL 1.25	WB 0.94	Horz(CT) 0.01	4	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 87 lb	FT = 20%

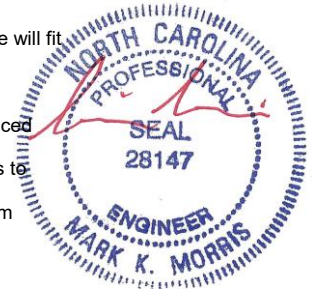
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 *Except* T2: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2 *Except* W3: 2x4 SP No.1, W4,W2: 2x4 SP No.3	WEBS 1 Row at midpt 8-9, 2-7

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

**REACTIONS.** (lb/size) 7=532/0-3-8 (min. 0-1-8), 4=533/Mechanical  
Max Horz 7=-176(LC 12)  
Max Uplift 7=-63(LC 15), 4=-43(LC 15)  
Max Grav 7=699(LC 24), 4=597(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-4=-554/15  
BOT CHORD 6-7=-7/665, 5-6=-7/665, 4-5=0/356  
WEBS 8-15=-501/83, 10-15=-501/83, 10-16=-501/83, 9-16=-501/83, 5-9=0/338, 3-9=0/493,  
7-8=-937/147, 2-8=-583/108

- NOTES-** (13-16)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 2-8-2, Exterior(2R) 2-8-2 to 7-5-12, Interior(1) 7-5-12 to 8-7-10, Exterior(2E) 8-7-10 to 13-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 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.
  - Load case(s) 3, 4, 5, 6, 7, 22, 23, 24, 25, 26, 27, 28, 29, 30, 35, 36 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



9/15/2021

**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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC
21-4053-R01	R07	Common	2	1	Job Reference (optional) # 28472

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

**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-60, 4-7=-20, 2-13=-60
- 3) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-50, 4-7=-20, 15-16=-45(F), 2-13=-50
- 4) Dead + 0.75 Snow (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-50, 4-7=-20, 15-16=-45(F), 2-13=-50
- 5) Dead + 0.75 Snow (Unbal. Left) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-77, 4-7=-20, 15-16=-45(F), 2-13=-29
- 6) Dead + 0.75 Snow (Unbal. Right) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-29, 4-7=-20, 15-16=-45(F), 2-17=-69, 13-17=-50
- 7) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-20, 4-7=-40, 15-16=-60(F), 2-13=-20
- 22) Dead + Uninhabitable Attic Storage: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90  
Uniform Loads (plf)  
Vert: 1-2=-20, 4-7=-20, 15-16=-60(F), 2-13=-20
- 23) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-58, 4-7=-20, 15-16=-45(F), 2-13=-44  
Horz: 1-2=8, 1-7=16, 2-13=6
- 24) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-44, 4-7=-20, 15-16=-45(F), 2-13=-58  
Horz: 1-2=-6, 1-7=-5, 2-13=-8
- 25) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-34, 4-7=-20, 15-16=-45(F), 2-13=-44  
Horz: 1-2=-16, 1-7=14, 2-13=6
- 26) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-44, 4-7=-20, 15-16=-45(F), 2-13=-34  
Horz: 1-2=-6, 1-7=-5, 2-13=16
- 27) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-58, 4-7=-20, 15-16=-45(F), 2-13=-44  
Horz: 1-2=8, 1-7=16, 2-13=6
- 28) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-44, 4-7=-20, 15-16=-45(F), 2-13=-58  
Horz: 1-2=-6, 1-7=-5, 2-13=-8
- 29) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-34, 4-7=-20, 15-16=-45(F), 2-13=-44  
Horz: 1-2=-16, 1-7=14, 2-13=6
- 30) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-44, 4-7=-20, 15-16=-45(F), 2-13=-34  
Horz: 1-2=-6, 1-7=-5, 2-13=16
- 35) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-50, 4-7=-20, 15-16=-45(F), 2-13=-20
- 36) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-20, 4-7=-20, 15-16=-45(F), 2-13=-50



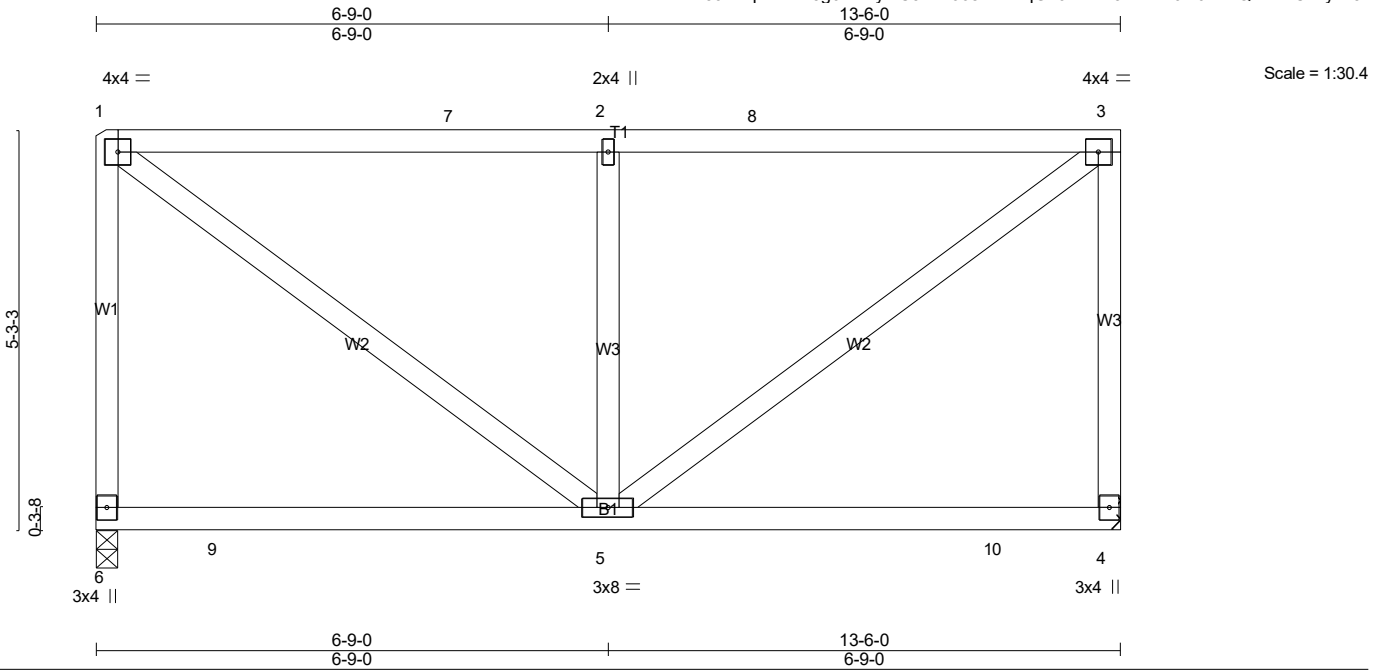
9/15/2021

**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 21-4053-R01	Truss R08	Truss Type Half Hip	Qty 1	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC	Job Reference (optional) <b># 28472</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:55 2021 Page 1  
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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 0.49	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.37	Vert(LL) -0.04 4-5 >999 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.29	Vert(CT) -0.08 4-5 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) -0.00 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 84 lb	FT = 20%

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

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

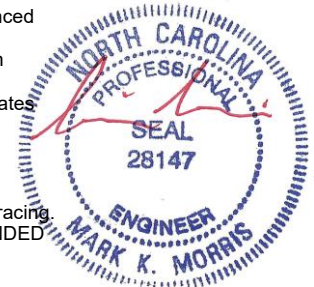
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 4=528/Mechanical, 6=528/0-3-8 (min. 0-1-8)  
Max Horz 6=-142(LC 8)  
Max Uplift 4=-96(LC 9), 6=-96(LC 8)  
Max Grav 4=530(LC 3), 6=530(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-7=-423/263, 2-7=-423/263, 2-8=-423/263, 3-8=-423/263, 3-4=-468/286, 1-6=-468/286  
WEBS 1-5=-226/499, 2-5=-458/344, 3-5=-226/499

**NOTES-** (10-13)

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-1-12 to 4-8-15, Exterior(2) 4-8-15 to 8-9-1, Corner(3) 8-9-1 to 13-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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) Provide adequate drainage to prevent water ponding.
- 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 BCCL = 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) 4, 6.
- 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 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.
- 12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



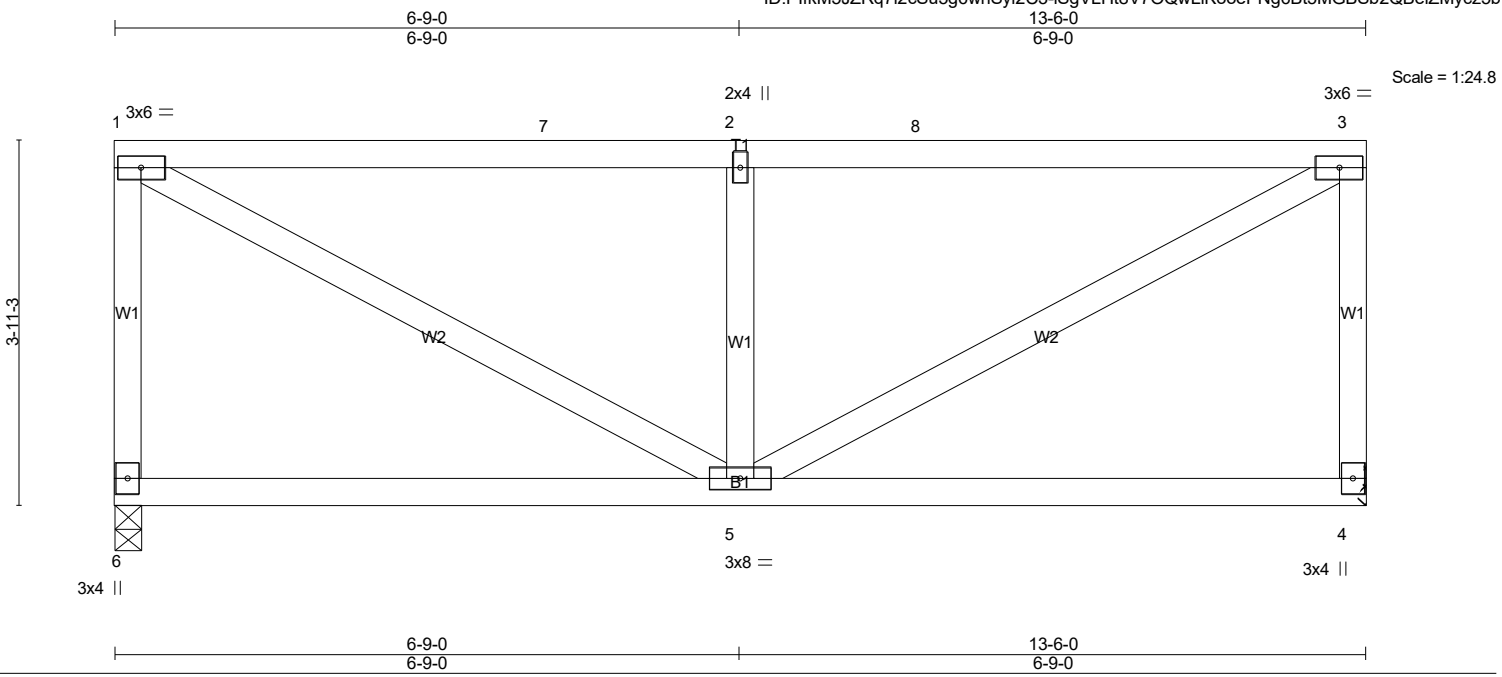
9/15/2021

**LOAD CASE(S)** Standard

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Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC	Job Reference (optional)	# 28472
21-4053-R01	R09	Flat	1	1			

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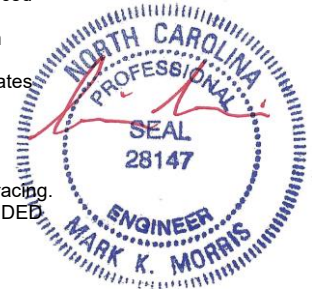
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.47	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.36	Vert(LL) -0.04 5-6 >999 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.29	Vert(CT) -0.09 5-6 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) -0.00 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 76 lb	FT = 20%

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

**REACTIONS.** (lb/size) 6=528/0-3-8 (min. 0-1-8), 4=528/Mechanical  
 Max Horz 6=104(LC 9)  
 Max Uplift 6=-84(LC 8), 4=-84(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-6=-466/282, 1-7=-574/313, 2-7=-574/313, 2-8=-574/313, 3-8=-574/313, 3-4=-466/282  
 WEBS 1-5=-277/612, 2-5=-451/346, 3-5=-277/612

- NOTES-** (10-13)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-1-12 to 4-8-15, Exterior(2) 4-8-15 to 8-9-1, Corner(3) 8-9-1 to 13-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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) Provide adequate drainage to prevent water ponding.
  - 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) 6, 4.
  - 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - 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.
  - 12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - 13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



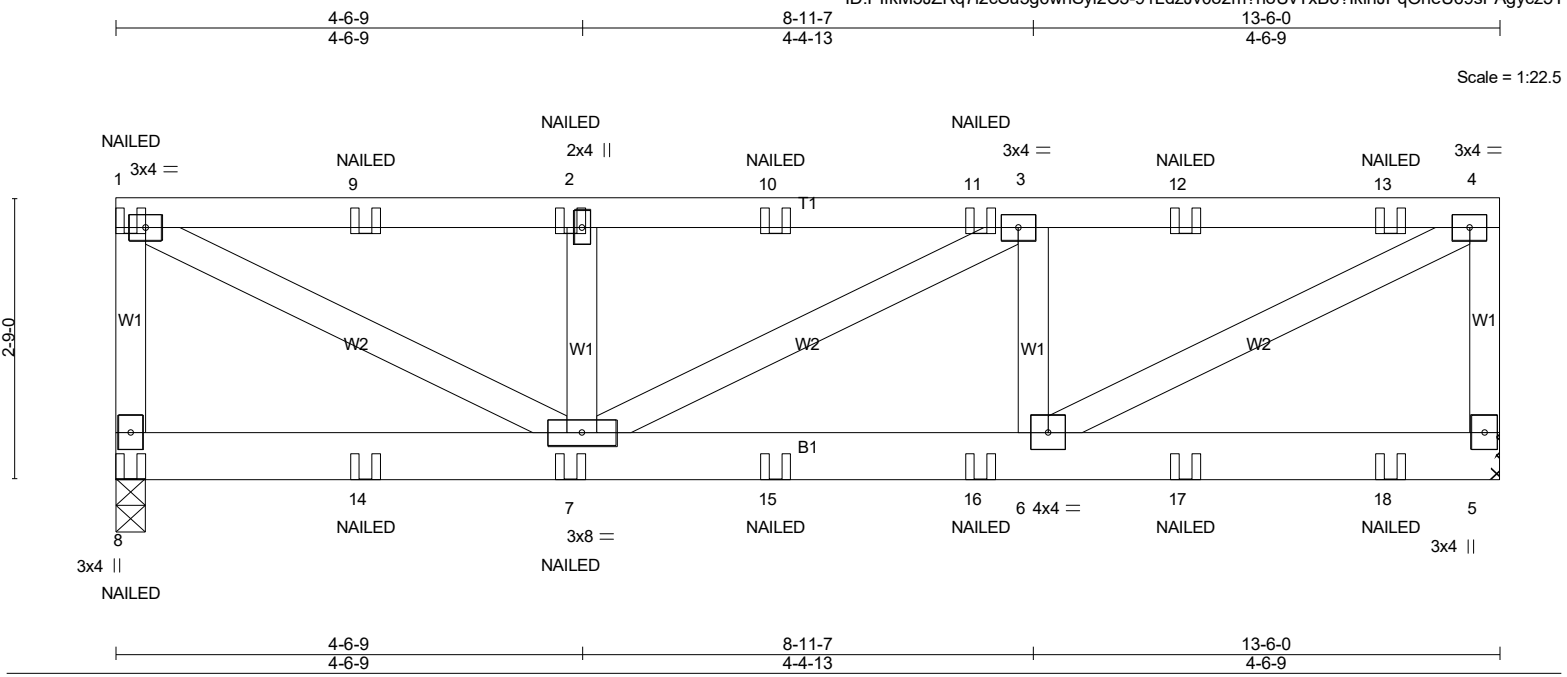
9/15/2021

**LOAD CASE(S)** Standard

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Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC	Job Reference (optional)
21-4053-R01	R10	Flat Girder	1	1		# 28472

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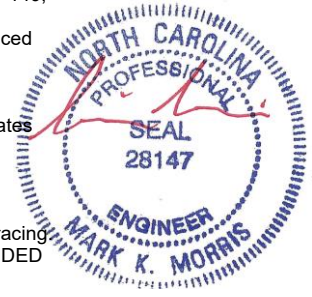
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.30	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.24	Vert(LL) -0.02 6-7 >999 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.40	Vert(CT) -0.05 6-7 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MSH	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 84 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-10-12 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 8=720/0-3-8 (min. 0-1-8), 5=678/Mechanical  
 Max Horz 8=-68(LC 6)  
 Max Uplift 8=-149(LC 6), 5=-140(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-8=-632/174, 1-9=-880/180, 2-9=-880/180, 2-10=-880/180, 10-11=-880/180, 3-11=-880/180, 3-12=-892/184, 12-13=-892/184, 4-13=-892/184, 4-5=-608/160  
 BOT CHORD 7-15=-202/892, 15-16=-202/892, 6-16=-202/892  
 WEBS 1-7=-197/963, 2-7=-330/153, 3-6=-330/162, 4-6=-200/974

- NOTES-** (11-14)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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) Provide adequate drainage to prevent water ponding.
  - 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) 8=149, 5=140.
  - 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) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - 11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - 12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - 13) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - 14) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



**LOAD CASE(S) Standard**

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Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FOUQUAY VARINA, N
21-4053-R01	R10	Flat Girder	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:08:59 2021 Page 2  
 ID:PIfkM5JZRq7i2cSu5g6whSyi2C3-91LdzJv0o2m?noUvTxB6?lkinJPqOneU69sPAgycz5Y

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 8=-27(F) 7=-20(F) 1=-46(F) 2=-24(F) 9=-24(F) 10=-24(F) 11=-24(F) 12=-24(F) 13=-27(F) 14=-20(F) 15=-20(F) 16=-20(F) 17=-20(F) 18=-21(F)



9/15/2021

**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 21-4053-R01	Truss R11	Truss Type Common Girder	Qty 1	Ply 2	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC	Job Reference (optional) # 28472
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:02 2021 Page 1  
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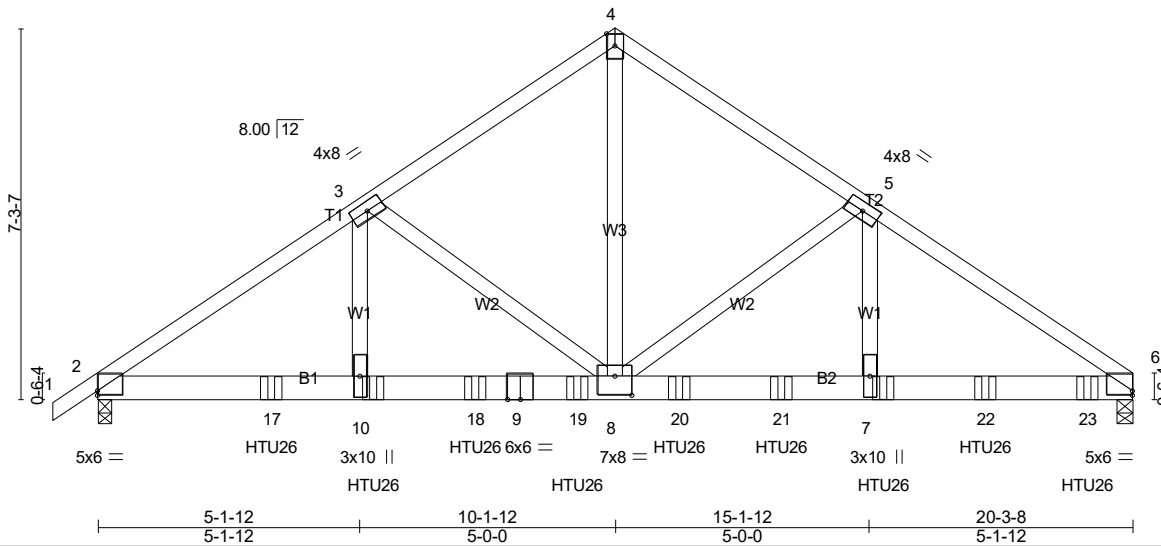


Plate Offsets (X,Y)-- [2:Edge,0-1-1], [6:Edge,0-1-1], [8:0-4-0,0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.59	Vert(LL) -0.09	7-8	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.57	Vert(CT) -0.18	7-8	>999	180		
TCDL 10.0	Lumber DOL 1.25	WB 0.94	Horz(CT) 0.04	6	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MSH						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 244 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP DSS  
 WEBS 2x4 SP No.3

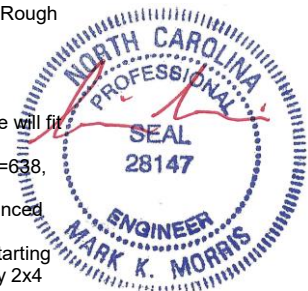
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-11-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 6=6062/0-3-8 (min. 0-3-2), 2=3670/0-3-8 (min. 0-1-14)  
 Max Horz 2=140(LC 9)  
 Max Uplift 6=638(LC 11), 2=-493(LC 10)  
 Max Grav 6=6154(LC 4), 2=3670(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-5719/754, 3-4=-4397/558, 4-5=-4400/558, 5-6=-7768/835  
 BOT CHORD 2-17=-652/4692, 10-17=-652/4692, 10-18=-652/4692, 9-18=-652/4692, 9-19=-652/4692,  
 8-19=-652/4692, 8-20=-634/6439, 20-21=-634/6439, 7-21=-634/6439, 7-22=-634/6439,  
 22-23=-634/6439, 6-23=-634/6439  
 WEBS 4-8=-529/4527, 5-8=-3512/437, 5-7=-304/3646, 3-8=-1367/353, 3-10=-214/1234

**NOTES-** (13-16)

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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) except (jt=lb) 6=638, 2=493.
- 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.
- 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 3-4-14 from the left end to 19-4-14 to connect truss(es) R10 (1 ply 2x6 SP), R09 (1 ply 2x4 SP), R08 (1 ply 2x4 SP), R07 (1 ply 2x4 SP), R06 (1 ply 2x4 SP) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.



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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 21-4053-R01	Truss R11	Truss Type Common Girder	Qty 1	Ply 2	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N Job Reference (optional) # 28472
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:02 2021 Page 2

ID:PlfkM5JZRq7i2cSu5g6whSyi2C3-ac1mckYv4z8aeGCT93lpdxMBUWMQb01wo754n?ycz5V

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

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-6=-60, 11-14=-20

Concentrated Loads (lb)

Vert: 7=-1328(B) 10=-508(B) 17=-658(B) 18=-508(B) 19=-534(B) 20=-534(B) 21=-1328(B) 22=-1328(B) 23=-1329(B)



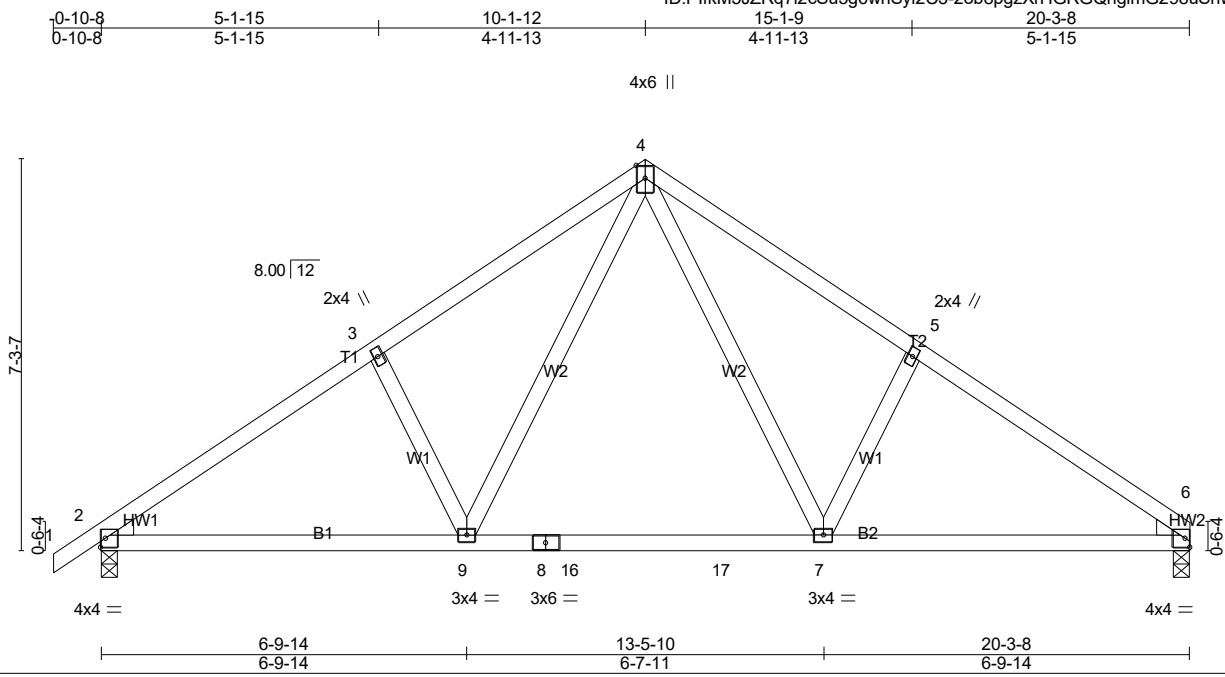
9/15/2021

**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 21-4053-R01	Truss R12	Truss Type COMMON	Qty 1	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC	Job Reference (optional) <b># 28472</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:03 2021 Page 1  
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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 0.24	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.53	Vert(LL) -0.13 7-9 >999 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.18	Vert(CT) -0.18 7-9 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.02 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 103 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 WEDGE  
 Left: 2x4 SP No.3 , Right: 2x4 SP No.3

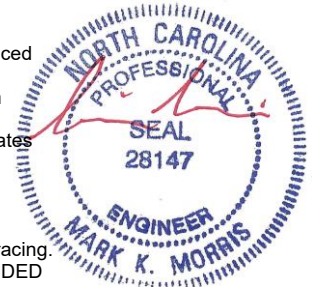
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) 6=811/0-3-8 (min. 0-1-8), 2=865/0-3-8 (min. 0-1-8)  
 Max Horz 2=140(LC 11)  
 Max Uplift 6=-57(LC 13), 2=-72(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1144/128, 3-4=-1042/173, 4-5=-1046/175, 5-6=-1147/130  
 BOT CHORD 2-9=-106/978, 8-9=-3/647, 8-16=-3/647, 16-17=-3/647, 7-17=-3/647, 6-7=-57/890  
 WEBS 4-7=-86/506, 5-7=-276/157, 4-9=-84/500, 3-9=-273/156

- NOTES-** (10-13)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 5-1-3, Exterior(2R) 5-1-3 to 15-2-5, Exterior(2E) 15-2-5 to 20-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
  - 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING



**CONSIDERATIONS.**  
 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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R12	COMMON	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:04 2021 Page 2  
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**LOAD CASE(S)** Standard

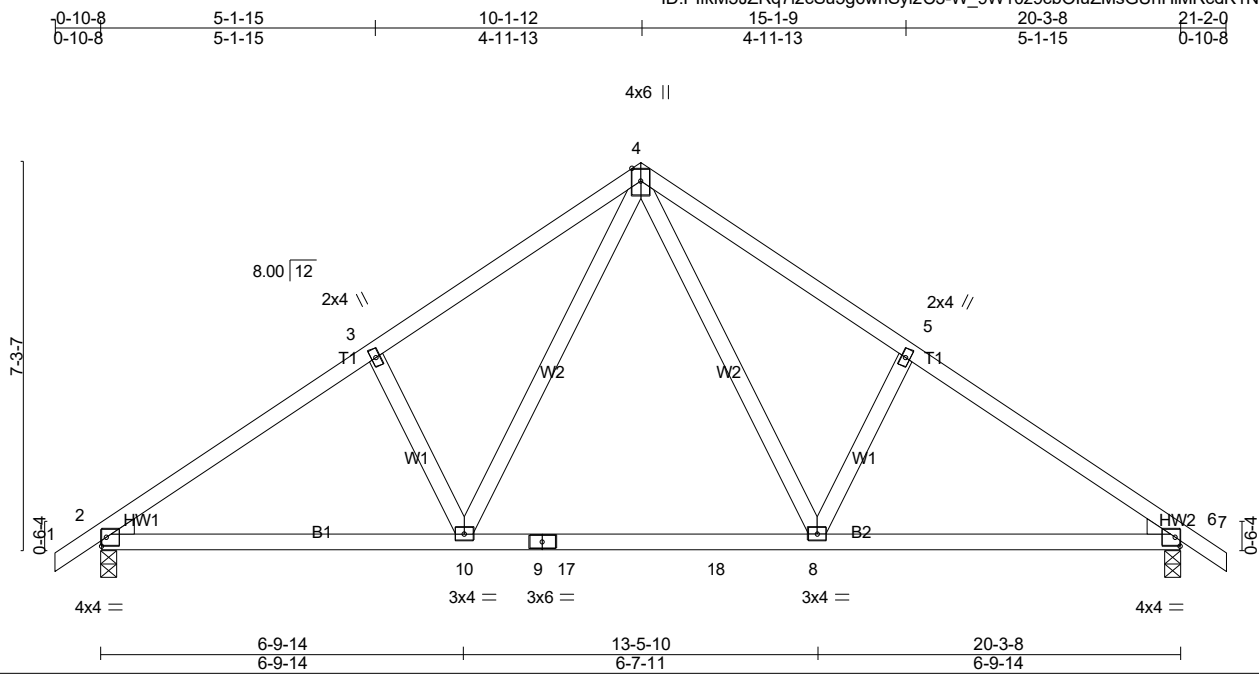


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**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation 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 21-4053-R01	Truss R13	Truss Type Common	Qty 3	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC	Job Reference (optional) <b># 28472</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:04 2021 Page 1  
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Scale = 1:43.3

<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 1.25	BC 0.53	Vert(LL) -0.13 8-10 >999 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.18	Vert(CT) -0.18 8-10 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.02 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 105 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

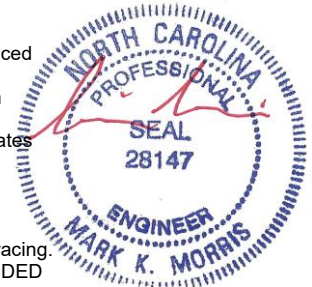
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) 2=864/0-3-8 (min. 0-1-8), 6=864/0-3-8 (min. 0-1-8)  
Max Horz 2=-144(LC 10)  
Max Uplift 2=-72(LC 12), 6=-72(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1142/127, 3-4=-1040/172, 4-5=-1041/172, 5-6=-1142/127  
BOT CHORD 2-10=-99/982, 9-10=0/652, 9-17=0/652, 17-18=0/652, 8-18=0/652, 6-8=-31/888  
WEBS 4-8=-85/500, 5-8=-273/156, 4-10=-84/500, 3-10=-273/156

- NOTES-** (10-13)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 5-1-3, Exterior(2R) 5-1-3 to 15-2-5, Interior(1) 15-2-5 to 16-4-6, Exterior(2E) 16-4-6 to 21-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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, with BCCL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING



9/15/2021

**CONSIDERATIONS.**  
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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R13	Common	3	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:05 2021 Page 2  
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**LOAD CASE(S)** Standard



9/15/2021

**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.

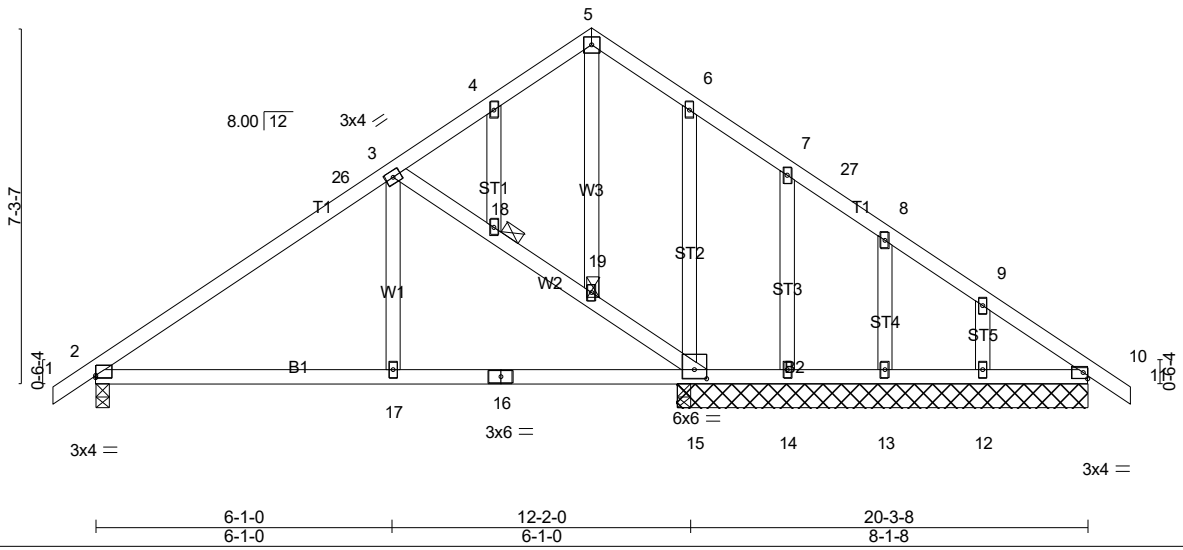
Job 21-4053-R01	Truss R14	Truss Type DUAL RIDGE GABLE	Qty 1	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC	Job Reference (optional) <b># 28472</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:06 2021 Page 1  
ID:PlfkM5JZRq7I2cSu5g6whSyi2C3-SNGHR?P8Ce?7tWFOvplnnWw47mtX16Wj3Hwmycz5R



4x4 =

Scale = 1:47.1



Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R14	DUAL RIDGE GABLE	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:07 2021 Page 2  
 ID:PIfkM5JZRq7i2cSu5g6whSyr2C3-xZqff201vWmsl15RxcK\_K\_35pX66GULgyOorSDycz5Q

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

**LOAD CASE(S)** Standard

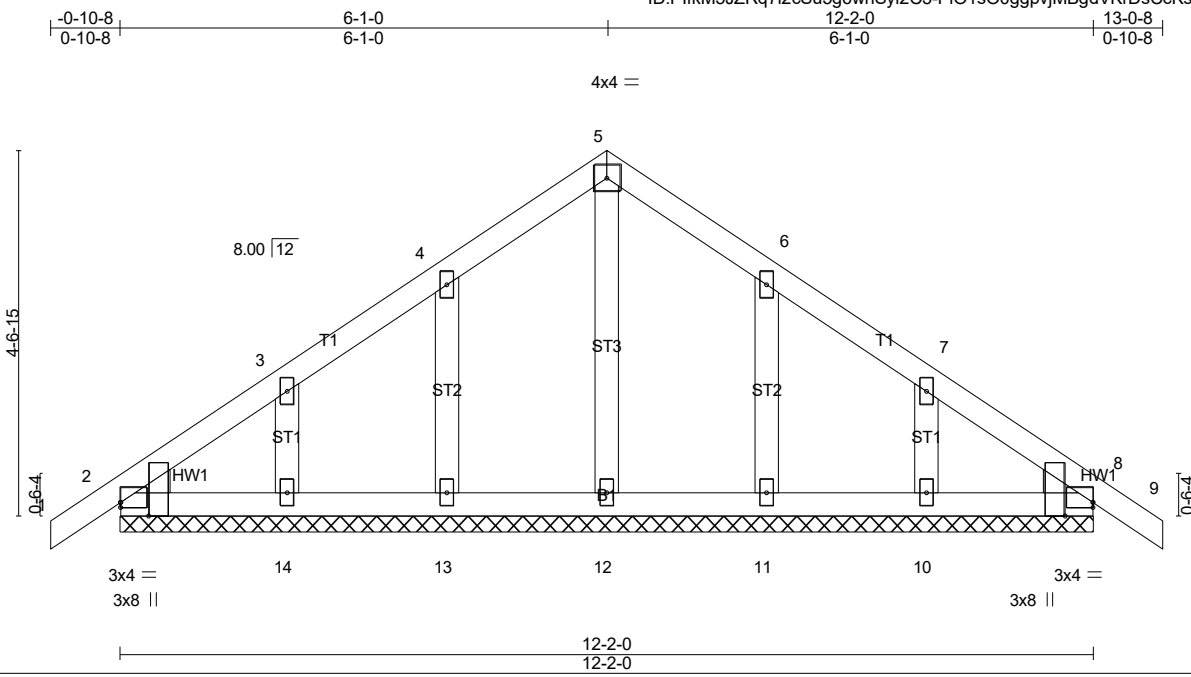


9/15/2021

**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 21-4053-R01	Truss R15	Truss Type Common Supported Gable	Qty 1	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N	Job Reference (optional) <b># 28472</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:08 2021 Page 1  
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Scale = 1:28.8

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.25		TC 0.09	Vert(LL) -0.00	8	n/r	180	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.25		BC 0.06	Vert(CT) -0.00	8	n/r	80		
TCDL 10.0	Rep Stress Incr YES		WB 0.04	Horz(CT) 0.00	8	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-S						
BCDL 10.0								Weight: 63 lb	FT = 20%

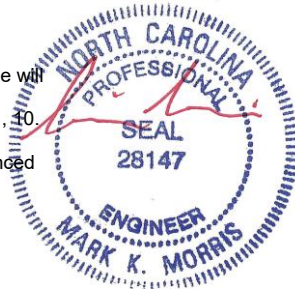
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.3  
 OTHERS 2x4 SP No.3  
 WEDGE  
 Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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

**REACTIONS.** All bearings 12-2-0.  
 (lb) - Max Horz 2=-91(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10  
 Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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

- NOTES-** (14-17)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 4-1-0, Corner(3R) 4-1-0 to 8-1-0, Corner(3E) 8-1-0 to 13-0-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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.
  - 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, 8, 13, 14, 11, 10.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 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.



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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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R15	Common Supported Gable	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:08 2021 Page 2  
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- 14) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 15) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 16) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 17) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

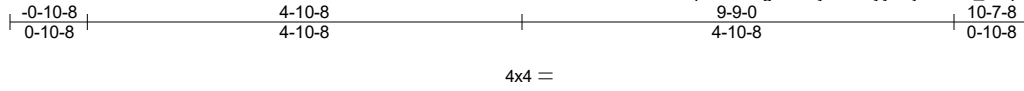


9/15/2021

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Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R16	Common Supported Gable	1	1	
Job Reference (optional)					# 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:09 2021 Page 1  
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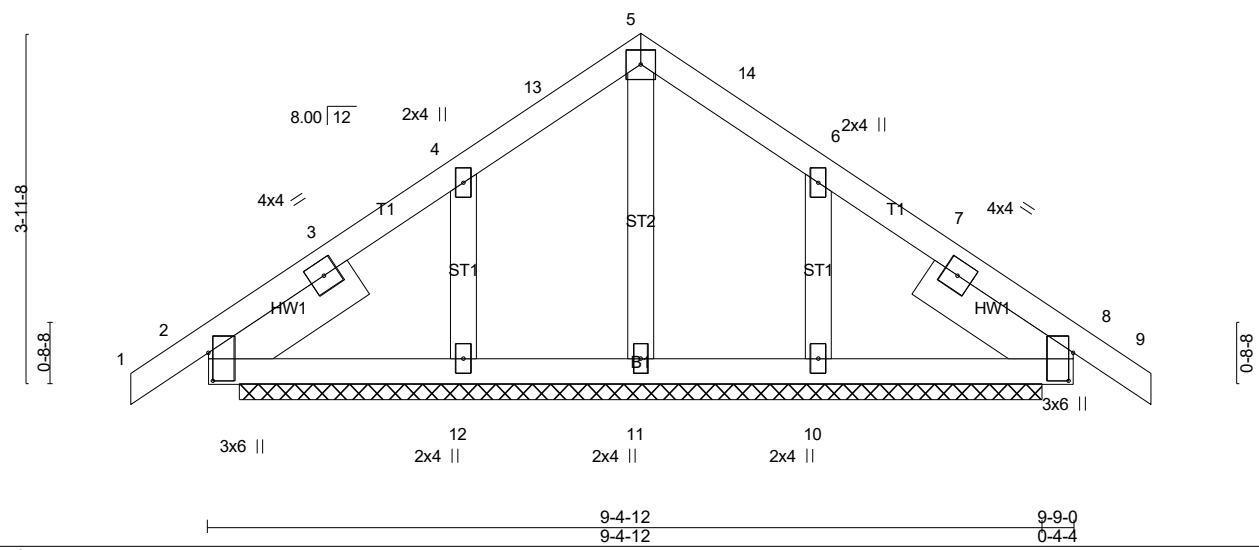


Plate Offsets (X,Y)-- [2:0-3-13,0-0-10], [8:0-3-13,0-0-10]

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) 0.00	8	n/r	180	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.10	Vert(CT) 0.00	8	n/r	80		
TCDL 10.0	Lumber DOL 1.25	WB 0.05	Horz(CT) 0.00	8	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 56 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.3  
 OTHERS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 - 1-11-0, Right 2x6 SP No.2 - 1-11-0

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

**REACTIONS.** All bearings 9-0-8.  
 (lb) - Max Horz 2=75(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 12, 10  
 Max Grav All reactions 250 lb or less at joint(s) 2, 8, 11, 12, 10

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

- NOTES-** (12-15)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-11-2, Corner(3R) 3-11-2 to 5-9-14, Corner(3E) 5-9-14 to 10-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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=1.25 Plate DOL=1.25); 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 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, 8, 12, 10.
  - Non Standard bearing condition. Review required.
  - 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 bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING



9/15/2021

**CONSIDERATIONS.**  
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Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R16	Common Supported Gable	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:10 2021 Page 2  
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**LOAD CASE(S)** Standard

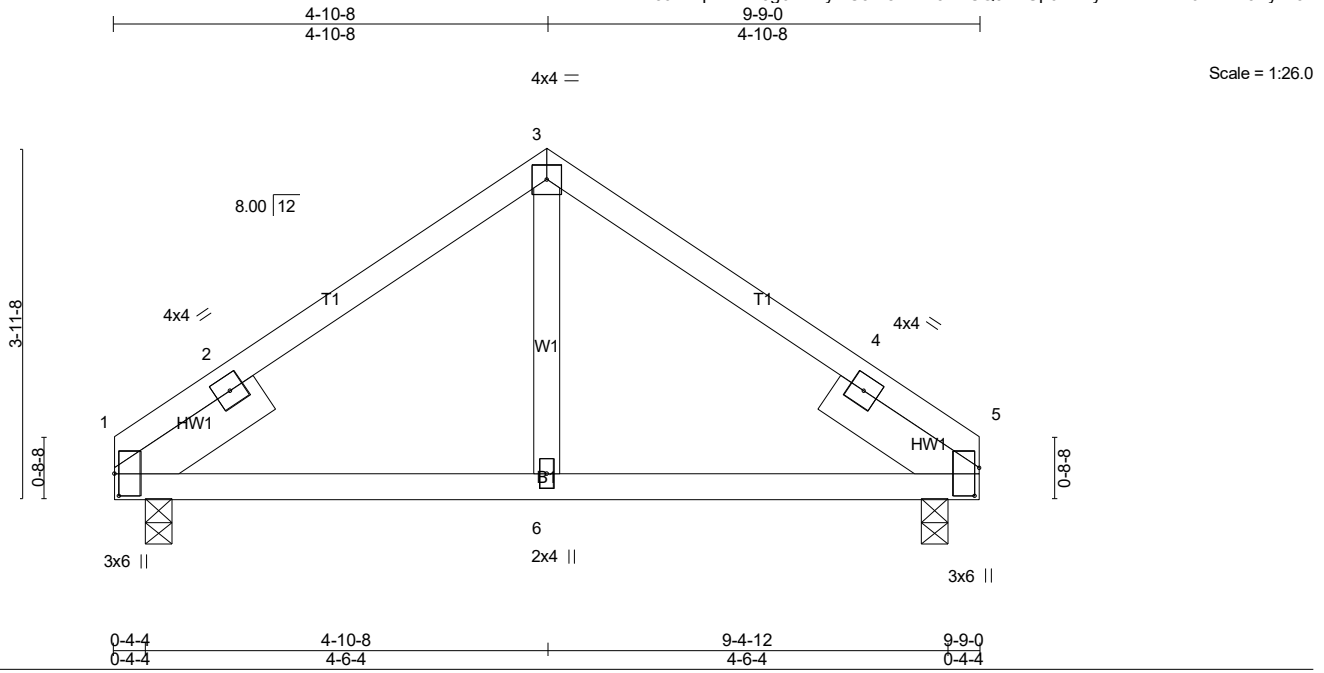


9/15/2021

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Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC
21-4053-R01	R17	Common	1	1	
Job Reference (optional)					# 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:10 2021 Page 1  
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Scale = 1:26.0

Plate Offsets (X,Y)-- [1:0-3-0,0-0-10], [5:0-3-13,0-0-10]					
<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 0.15	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.16	Vert(LL) -0.01 6-17 >999 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.07	Vert(CT) -0.02 6-17 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.01 1 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 46 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 - 1-11-0, Right 2x6 SP No.2 - 1-11-0

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

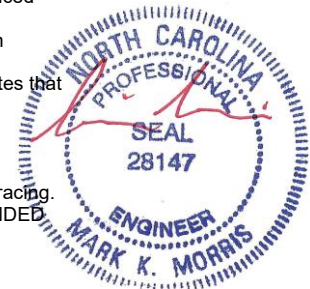
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=390/0-3-8 (min. 0-1-8), 5=390/0-3-8 (min. 0-1-8)  
 Max Horz 1=63(LC 9)  
 Max Uplift 1=-27(LC 12), 5=-27(LC 13)  
 Max Grav 1=390(LC 2), 5=390(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-303/300, 3-4=-303/300  
 BOT CHORD 1-6=-175/252, 5-6=-175/252

**NOTES-** (9-12)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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 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, 5.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



9/15/2021

**LOAD CASE(S)** Standard

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Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R18	Common	4	1	
Job Reference (optional)					# 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:11 2021 Page 1  
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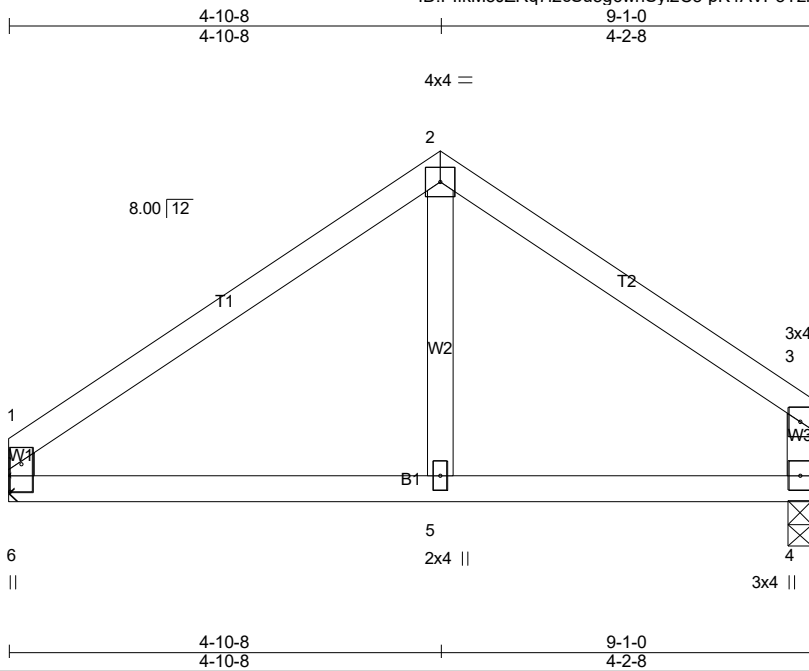


Plate Offsets (X,Y)-- [6:0-3-12,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.44	Vert(LL) 0.03	5-6	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.25	Vert(CT) -0.04	5-6	>999	180		
TCDL 10.0	Lumber DOL 1.25	WB 0.06	Horz(CT) 0.00	4	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 37 lb	FT = 20%

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

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

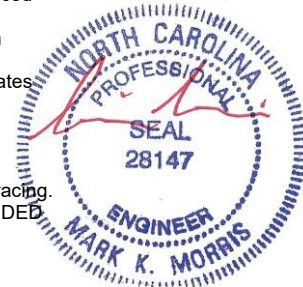
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 6=352/Mechanical, 4=352/0-3-8 (min. 0-1-8)  
 Max Horz 6=80(LC 9)  
 Max Uplift 6=-24(LC 12), 4=-22(LC 13)  
 Max Grav 6=352(LC 2), 4=352(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-358/286, 2-3=-352/299, 1-6=-299/215, 3-4=-289/220

**NOTES-** (10-13)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



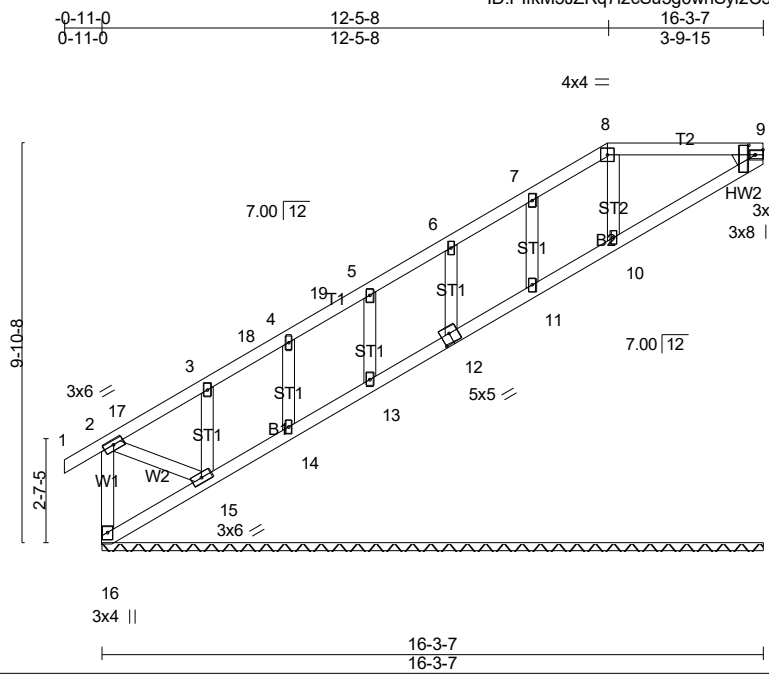
9/15/2021

**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 21-4053-R01	Truss R19	Truss Type GABLE	Qty 1	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC	Job Reference (optional) <b># 28472</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:13 2021 Page 1  
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Scale = 1:56.8

Plate Offsets (X,Y)-- [9:0-2-13,0-1-15], [9:Edge,0-1-8], [12:0-2-8,0-3-0]					
<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 0.35	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.12	Vert(LL) -0.00 1 n/r 180		
TCDL 10.0	Lumber DOL 1.25	WB 0.06	Vert(CT) -0.00 1 n/r 80		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 9 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 84 lb	FT = 20%

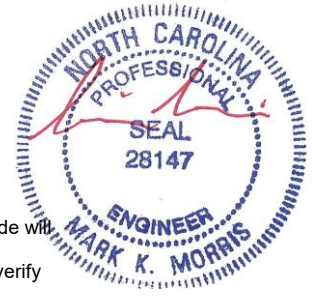
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3  
WEDGE  
Right: 2x4 SP No.3

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

**REACTIONS.** All bearings 16-3-7.  
(lb) - Max Horz 16=207(LC 14)  
Max Uplift All uplift 100 lb or less at joint(s) 16, 12, 13, 14, 11, 9 except 15=-199(LC 14)  
Max Grav All reactions 250 lb or less at joint(s) 14, 11, 9 except 16=250(LC 44), 12=255(LC 36), 13=251(LC 36), 15=332(LC 40), 10=376(LC 35)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
BOT CHORD 15-16=-292/156  
WEBS 8-10=-268/30

- NOTES-** (18-21)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 3-10-10, Interior(1) 3-10-10 to 5-8-1, Exterior(2R) 5-8-1 to 12-5-8, Exterior(2E) 12-5-8 to 16-3-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - 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 with fit between the bottom chord and any other members.
  - Bearing at joint(s) 11, 10, 9 considers parallel to grain value using ANSI/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) 16, 12, 13, 14, 11, 9 except (it-lb) 15=199.



**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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R19	GABLE	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:14 2021 Page 2  
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**NOTES-** (18-21)

- 16) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 12, 13, 14, 15, 11, 10, 9.
- 17) 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.
- 18) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 19) 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.
- 20) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 21) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

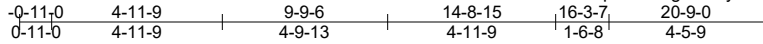


9/15/2021

**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	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC
21-4053-R01	R20	Half Hip Girder	1	1	
Job Reference (optional)					# 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:16 2021 Page 1  
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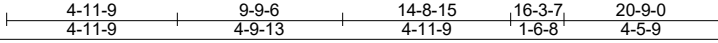
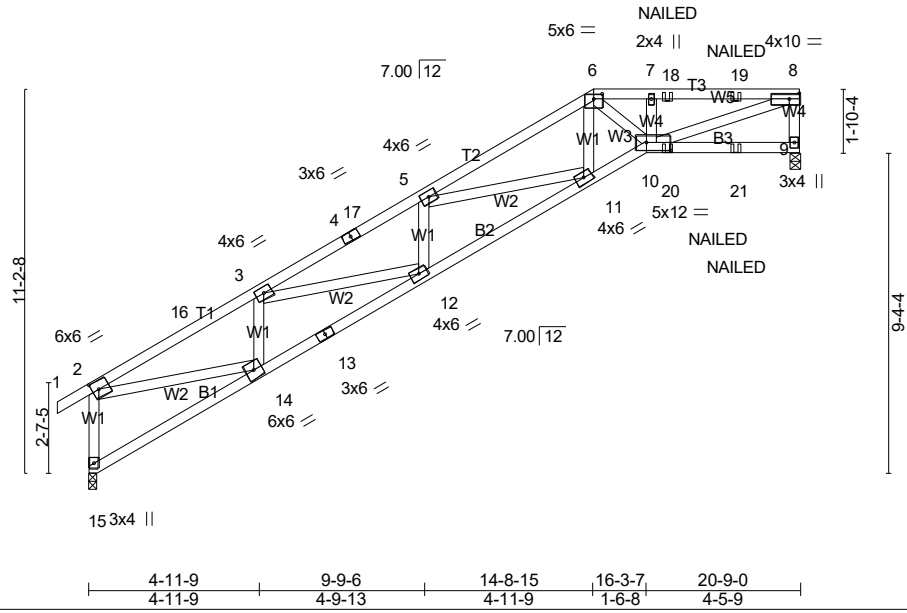


Plate Offsets (X,Y)-- [2:0-2-5,0-3-0], [6:0-3-0,0-1-12], [10:0-8-8,0-2-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.73	Vert(LL) -0.19	12	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.84	Vert(CT) -0.31	11-12	>800	180		
TCDL 10.0	Lumber DOL 1.25	WB 0.94	Horz(CT) 0.19	9	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MSH						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 118 lb	FT = 20%

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

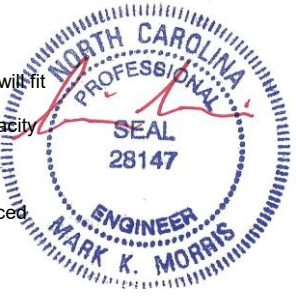
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-10-11 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 7-7-3 oc bracing.

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

**REACTIONS.** (lb/size) 15=884/0-3-0 (min. 0-1-8), 9=821/0-3-8 (min. 0-1-8)  
 Max Horz 15=228(LC 12)  
 Max Uplift 15=-45(LC 12), 9=-147(LC 12)  
 Max Grav 15=1167(LC 34), 9=935(LC 34)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-15=-1138/210, 2-16=-2255/336, 3-16=-2168/349, 3-4=-3063/473, 4-17=-2916/475,  
 5-17=-2834/486, 5-6=-2332/366, 6-7=-2200/390, 7-18=-2202/393, 18-19=-2202/393,  
 8-19=-2202/393, 8-9=-873/166  
 BOT CHORD 14-15=-294/210, 13-14=-561/2096, 12-13=-539/2126, 11-12=-609/2944, 10-11=-375/2150  
 WEBS 2-14=-241/1855, 3-14=-771/164, 5-11=-652/229, 6-11=-85/437, 6-10=-90/667,  
 7-10=-339/108, 8-10=-397/2267, 3-12=-47/729

- NOTES-** (13-16)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCELL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
  - 8) Bearing at joint(s) 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15 except (jt=1b) 9=147.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



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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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R20	Half Hip Girder	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:16 2021 Page 2  
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- 13) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 15) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 16) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-2=-60, 2-6=-60, 6-8=-60, 10-15=-20, 9-10=-20
  - Concentrated Loads (lb)
    - Vert: 20=-2(F) 21=-2(F)



9/15/2021

**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	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R21	Half Hip	1	1	
Job Reference (optional)					# 28472

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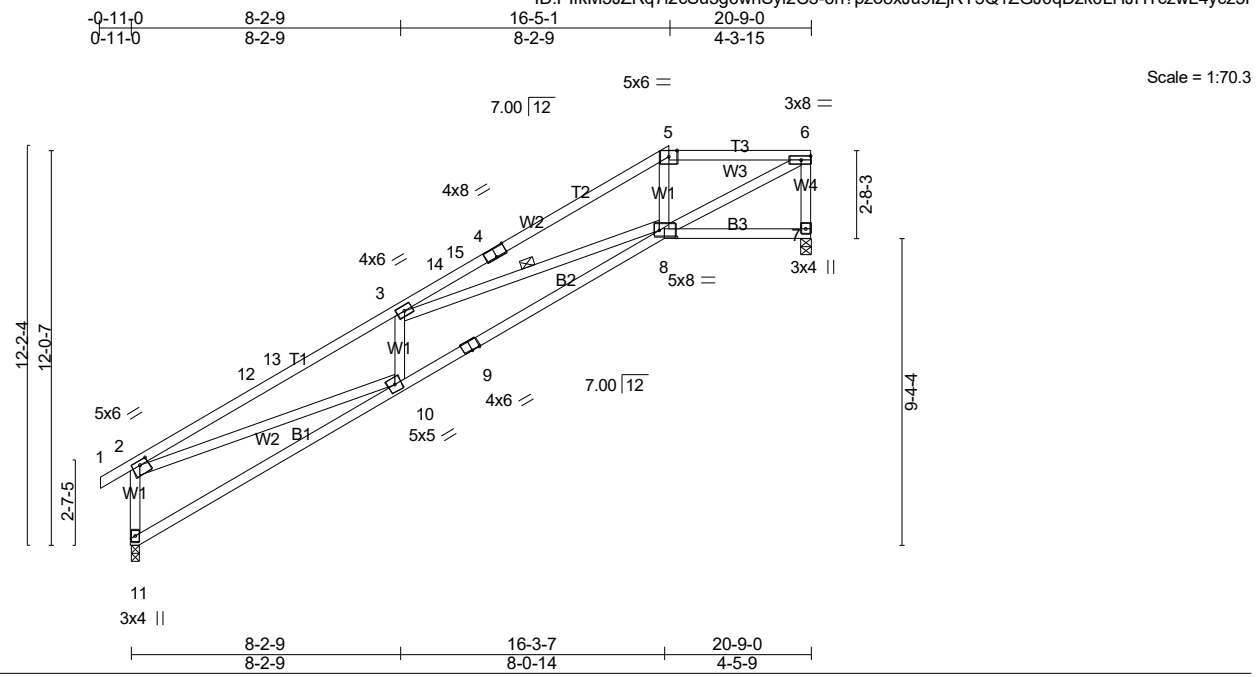


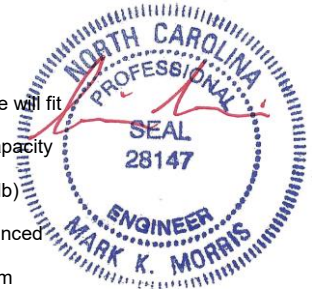
Plate Offsets (X,Y)-- [2:0-3-0,0-1-8], [4:0-4-0,Edge], [8:0-6-4,0-2-8]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.99	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.90	Vert(LL) -0.23 8-10 >999 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.79	Vert(CT) -0.41 8-10 >598 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.16 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 116 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP SS *Except* T3: 2x4 SP No.2, T1: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* W2: 2x4 SP No.2	WEBS 1 Row at midpt 3-8
	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 11=884/0-3-0 (min. 0-1-8), 7=817/0-3-8 (min. 0-1-8)  
 Max Horz 11=242(LC 14)  
 Max Uplift 11=-38(LC 14), 7=-139(LC 14)  
 Max Grav 11=1130(LC 36), 7=978(LC 36)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-11=-1122/234, 2-12=-3197/463, 12-13=-3078/464, 3-13=-2921/485, 3-14=-2192/250,  
 14-15=-2079/257, 4-15=-2034/261, 4-5=-1951/287, 5-6=-1670/295, 6-7=-944/156  
 BOT CHORD 10-11=-339/321, 9-10=-684/2996, 8-9=-661/3055  
 WEBS 2-10=-322/2631, 3-10=-551/175, 3-8=-956/323, 5-8=-27/460, 6-8=-322/1906

- NOTES-** (13-16)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 3-10-10, Interior(1) 3-10-10 to 9-7-10, Exterior(2R) 9-7-10 to 16-5-1, Exterior(2E) 16-5-1 to 20-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - 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.
  - Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 7=139.
  - 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R21	Half Hip	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:18 2021 Page 2  
 ID:PlfkM5JZRq7i2cSu5g6whSyi2C3-6h?pzo8xJu9lZjRY5Q1ZGJ0qDzk0LHJHTczwL4ycz5F

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

**LOAD CASE(S)** Standard



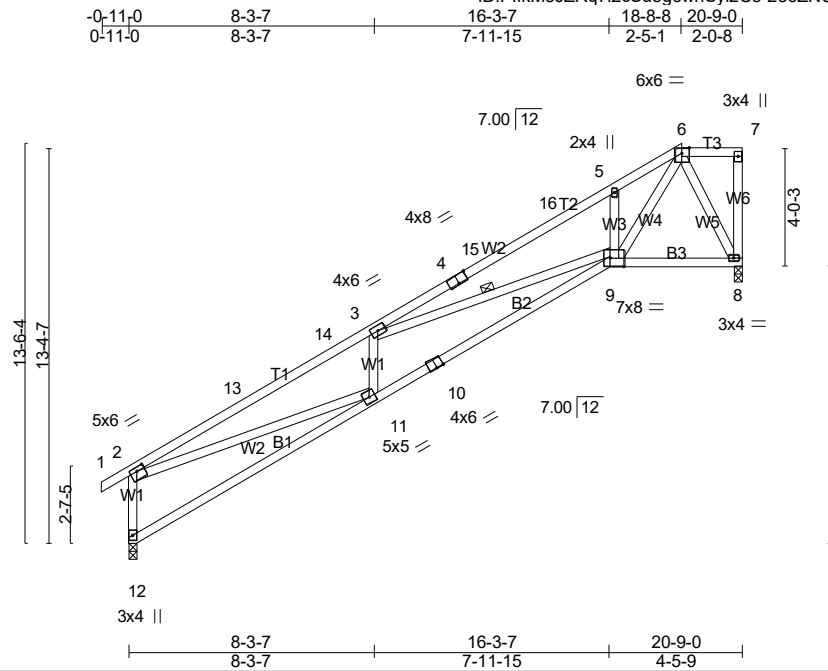
9/15/2021

**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	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R22	Half Hip	1	1	
					<b># 28472</b>

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Scale = 1:77.9

Plate Offsets (X,Y)-- [2:0-3-0,0-1-8], [4:0-4-0,Edge], [9:0-5-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.94	Vert(LL) -0.23	9-11	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.87	Vert(CT) -0.41	9-11	>594	180		
TCDL 10.0	Lumber DOL 1.25	WB 0.63	Horz(CT) 0.17	8	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 124 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.1 \*Except\*  
T3: 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
W2,W4: 2x4 SP No.2

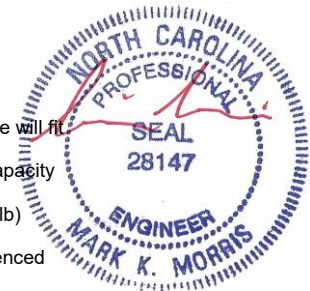
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-9

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

**REACTIONS.** (lb/size) 12=884/0-3-0 (min. 0-1-8), 8=817/0-3-8 (min. 0-1-8)  
Max Horz 12=278(LC 11)  
Max Uplift 12=-30(LC 14), 8=-177(LC 14)  
Max Grav 12=1081(LC 36), 8=1092(LC 36)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-12=-1064/240, 2-13=-3086/477, 13-14=-2973/477, 3-14=-2858/499, 3-4=-2334/290,  
4-15=-2137/305, 15-16=-2115/308, 5-16=-1998/328, 5-6=-2296/452  
BOT CHORD 11-12=-366/347, 10-11=-720/2898, 9-10=-696/2957, 8-9=-69/508  
WEBS 2-11=-331/2560, 3-11=-522/177, 3-9=-757/297, 5-9=-730/209, 6-9=-498/2520,  
6-8=-1108/193

- NOTES-** (13-16)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 3-10-10, Interior(1) 3-10-10 to 11-11-1, Exterior(2R) 11-11-1 to 18-8-8, Exterior(2E) 18-8-8 to 20-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - 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.
  - Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12 except (jt=lb) 8=177.
  - 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R22	Half Hip	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:21 2021 Page 2

ID:PlfkM5JZRq7i2cSu5g6whSyi2C3-WGgxbqBpcpXtQB97mYaGuxeLKAm4YhZjAaBayPycz5C

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

**LOAD CASE(S)** Standard

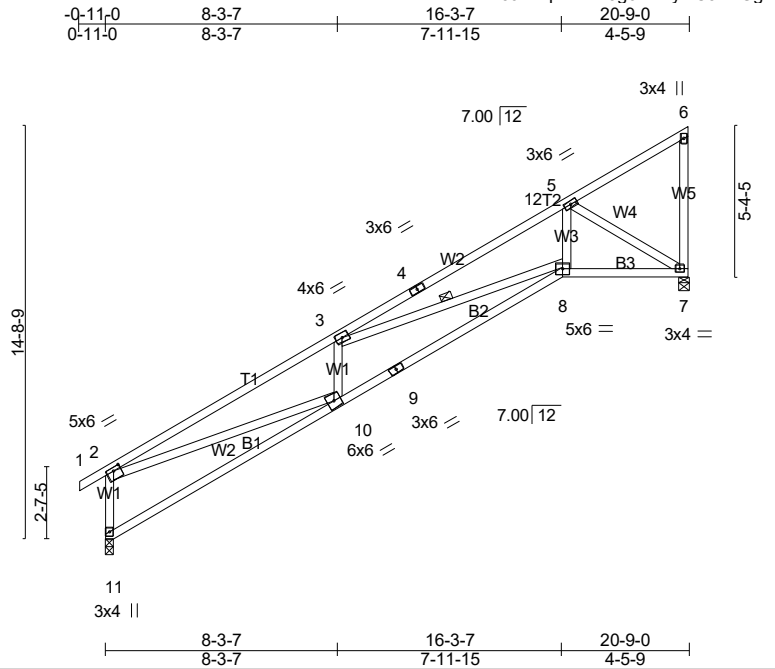


9/15/2021

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Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC
21-4053-R01	R23	Monopitch	3	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:21 2021 Page 1  
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Scale = 1:82.1

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.98	Vert(LL) -0.15	8-10	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.78	Vert(CT) -0.34	8-10	>712	180		
TCDL 10.0	Lumber DOL 1.25	WB 0.78	Horz(CT) 0.14	7	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 121 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 3-8

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

**REACTIONS.** (lb/size) 11=884/0-3-0 (min. 0-1-8), 7=817/0-3-8 (min. 0-1-8)  
 Max Horz 11=316(LC 11)  
 Max Uplift 11=-19(LC 14), 7=-214(LC 14)  
 Max Grav 11=907(LC 21), 7=983(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-11=-900/240, 2-3=-2355/496, 3-4=-1758/287, 4-12=-1629/320, 5-12=-1493/324  
 BOT CHORD 10-11=-389/374, 9-10=-739/2236, 8-9=-715/2295, 7-8=-320/1345  
 WEBS 2-10=-326/1879, 3-10=-339/176, 3-8=-661/298, 5-8=-223/1090, 5-7=-1559/416

**NOTES-** (11-14)

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 3-10-10, Interior(1) 3-10-10 to 15-9-10, Exterior(2E) 15-9-10 to 20-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 7=214.
- 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R23	Monopitch	3	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:22 2021 Page 2  
 ID:PIfkM5JZRq7i2cSu5g6whSyi2C3-SEKoABSN6fk2KkJKG6VR9BVL7gH5UtoEx7Urycz5B

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

**LOAD CASE(S)** Standard

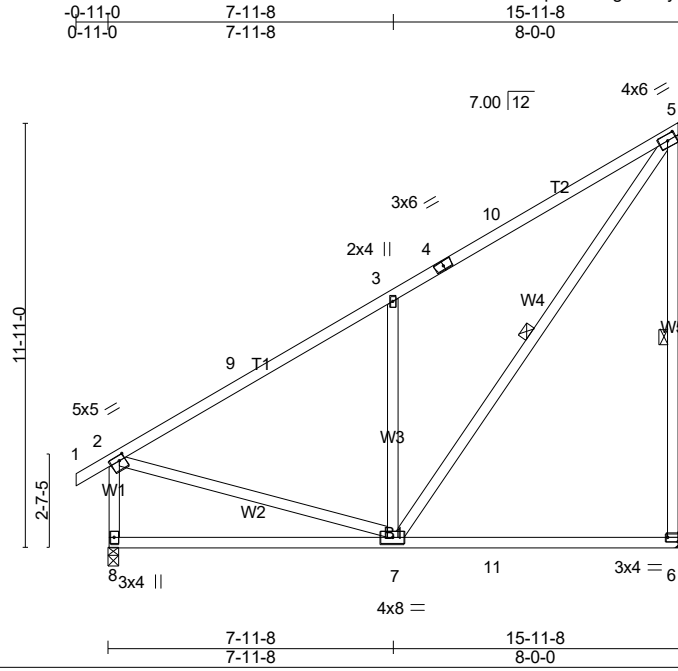


9/15/2021

**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 21-4053-R01	Truss R27	Truss Type Monopitch	Qty 1	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC 27048 Job Reference (optional) # 28472
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:23 2021 Page 1  
ID:PIfkM5JZRq7i2cSu5g6whSyi2C3-Teoi0WC48QnbgUJWtzdkzMji\_Rt0cD0dugh0Hycz5A



Scale: 3/16"=1'

Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [5:0-2-14,0-2-0], [6:Edge,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 0.86	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.85	Vert(LL) -0.29 6-7 >641 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.55	Vert(CT) -0.38 6-7 >493 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) -0.01 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 115 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
W5: 2x4 SP No.2

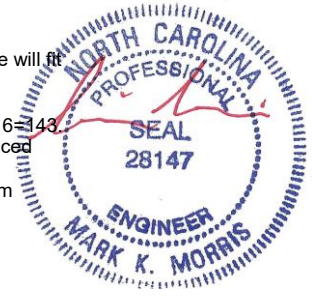
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-6, 5-7

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

**REACTIONS.** (lb/size) 6=625/Mechanical, 8=693/0-3-0 (min. 0-1-8)  
Max Horz 8=348(LC 13)  
Max Uplift 6=-143(LC 14), 8=-39(LC 14)  
Max Grav 6=865(LC 24), 8=718(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-9=-660/89, 3-9=-566/109, 3-4=-693/203, 4-10=-599/214, 5-10=-528/238, 5-6=-698/188,  
2-8=-644/124  
BOT CHORD 7-8=-329/282  
WEBS 3-7=-595/256, 5-7=-246/862, 2-7=-9/469

- NOTES-** (11-14)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 3-10-10, Interior(1) 3-10-10 to 11-0-2, Exterior(2E) 11-0-2 to 15-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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, 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) 8 except (jt=lb) 6=-143.
  - 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



9/15/2021

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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R27	Monopitch	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:23 2021 Page 2  
 ID:PlfK5JZRq7i2cSu5g6whSyi2C3-Teoi0WC48QnbgUJWtzdkzMji\_Rt0cD0dugh0Hycz5A

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

**LOAD CASE(S)** Standard

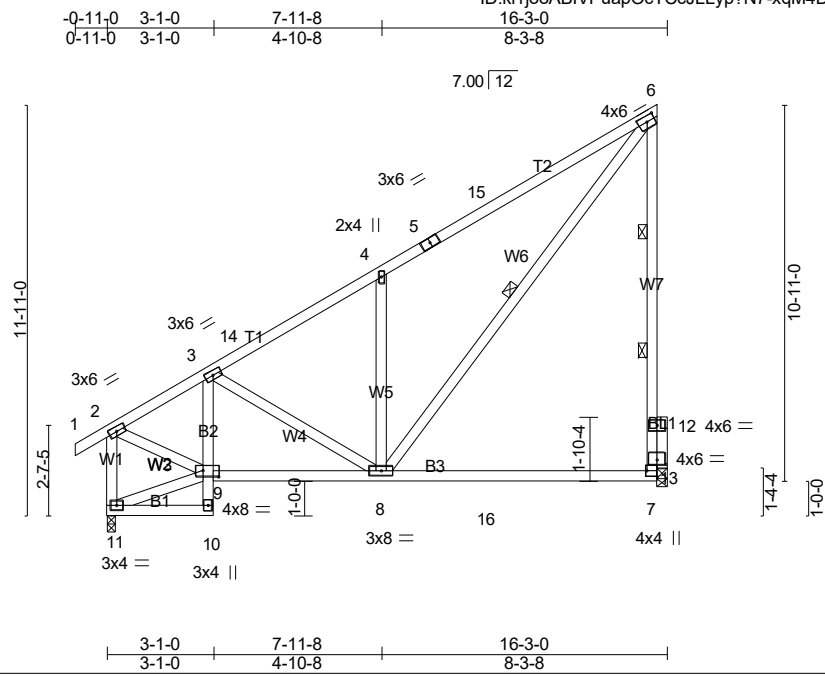


9/15/2021

**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 21-4053-R01	Truss R27A	Truss Type MONOPITCH	Qty 5	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC 27048 Job Reference (optional) <b># 28472</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:24 2021 Page 1



Scale = 1:66.8

Plate Offsets (X,Y)-- [6:0-2-14,0-2-0], [7:Edge,0-3-8], [9:0-5-8,0-2-4], [13:0-3-0,0-1-8]					
<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 1.00	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.77	Vert(LL) -0.24 7-8 >780 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.37	Vert(CT) -0.34 7-8 >549 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) -0.03 13 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 123 lb	FT = 20%

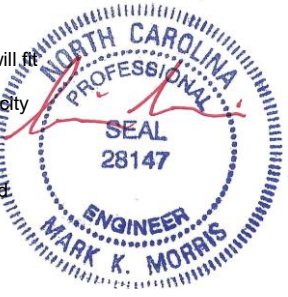
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 6-8
OTHERS 2x4 SP No.3	2 Rows at 1/3 pts 6-7

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

**REACTIONS.** (lb/size) 11=693/0-3-0 (min. 0-1-8), 13=625/0-3-8 (min. 0-1-8)  
Max Horz 11=336(LC 11)  
Max Uplift 11=-39(LC 14), 13=-143(LC 14)  
Max Grav 11=718(LC 21), 13=857(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-633/86, 3-14=-645/93, 4-14=-531/113, 4-5=-765/194, 5-15=-671/206, 6-15=-609/230,  
7-13=0/273, 12-13=-689/192, 6-12=-689/192, 2-11=-689/95  
BOT CHORD 3-9=-277/61, 8-9=-269/640  
WEBS 4-8=-543/222, 6-8=-264/906, 2-9=-40/548, 9-11=-339/211

- NOTES-** (11-14)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 3-10-10, Interior(1) 3-10-10 to 15-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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, with BCDL = 10.0psf.
  - 7) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 13=143.
  - 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R27A	MONOPITCH	5	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:25 2021 Page 2

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

**LOAD CASE(S)** Standard



9/15/2021

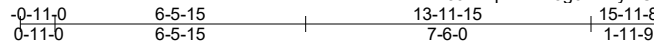
**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building 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	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R28	Half Hip	1	1	

# 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:26 2021 Page 1

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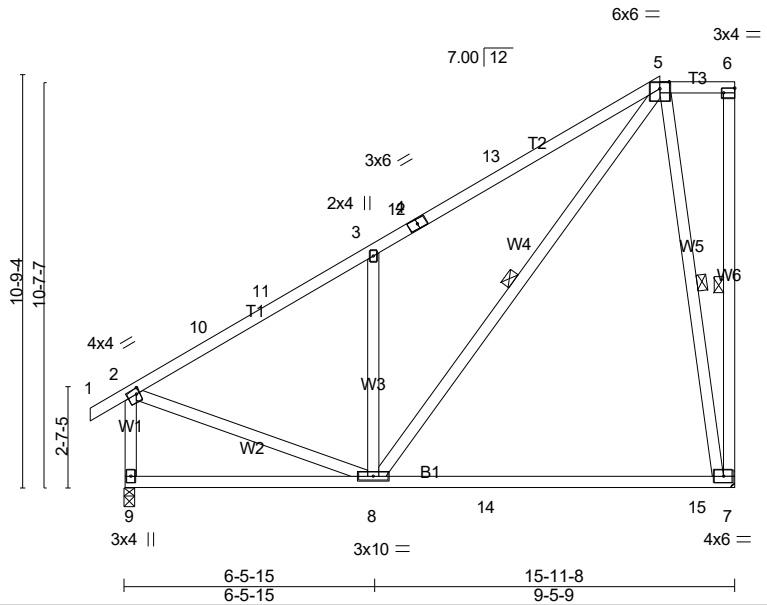


Plate Offsets (X,Y)-- [2:0-1-0,0-1-12], [6:Edge,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.91	Vert(LL) -0.45	7-8	>417	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.60	Vert(CT) -0.62	7-8	>302	180		
TCDL 10.0	Lumber DOL 1.25	WB 0.57	Horz(CT) -0.00	7	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 123 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 6-7, 5-7, 5-8

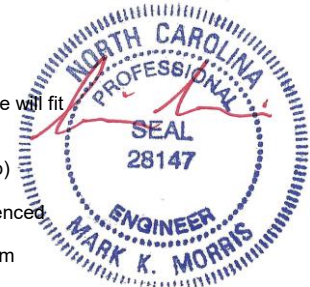
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 7=625/Mechanical, 9=693/0-3-0 (min. 0-1-8)  
 Max Horz 9=312(LC 11)  
 Max Uplift 7=-108(LC 14), 9=-50(LC 14)  
 Max Grav 7=973(LC 40), 9=947(LC 36)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-10=-898/80, 10-11=-814/82, 3-11=-692/101, 3-12=-1006/197, 4-12=-968/201,  
 4-13=-840/214, 5-13=-815/234, 2-9=-899/106  
 BOT CHORD 8-9=-299/226  
 WEBS 3-8=-784/239, 5-7=-883/196, 2-8=0/746, 5-8=-209/999

**NOTES-** (13-16)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-11-0 to 3-10-10, Interior(1) 3-10-10 to 7-2-8, Exterior(2R) 7-2-8 to 13-11-15, Exterior(2E) 13-11-15 to 15-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 7=108.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R28	Half Hip	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:26 2021 Page 2  
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- 13) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 15) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 16) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



9/15/2021

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Job 21-4053-R01	Truss R29	Truss Type Half Hip Supported	Qty 1	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC	Job Reference (optional) <b># 28472</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:28 2021 Page 1  
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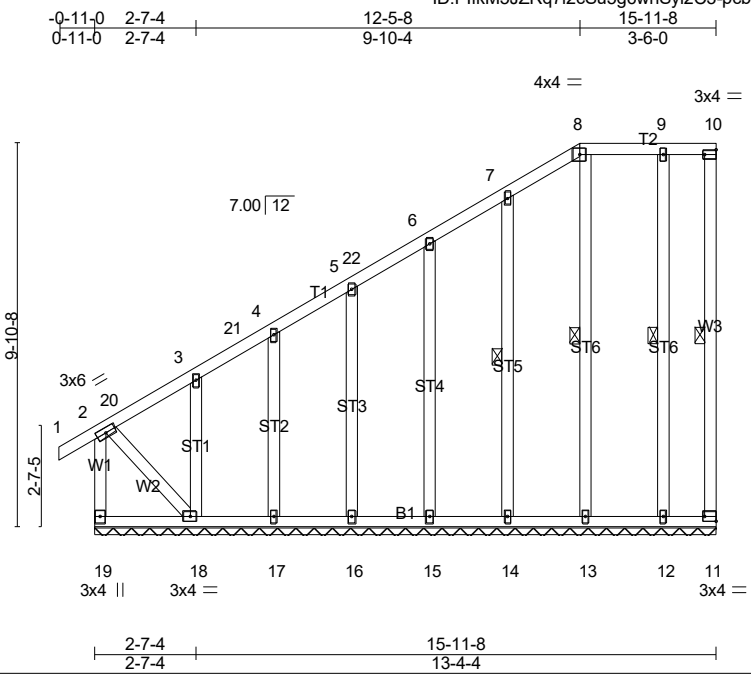


Plate Offsets (X,Y)-- [10:Edge,0-1-8], [11:Edge,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.88	Vert(LL) 0.00	1	n/r	180	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.25	BC 0.42	Vert(CT) -0.00	1	n/r	80		
TCDL 10.0	Rep Stress Incr YES	WB 0.22	Horz(CT) -0.00	11	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014	Matrix-S						
BCDL 10.0							Weight: 145 lb	FT = 20%

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

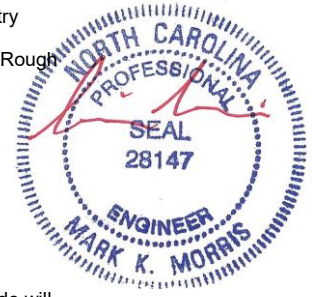
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 18-19.  
WEBS 1 Row at midpt 10-11, 7-14, 8-13, 9-12

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

**REACTIONS.** All bearings 15-11-8.  
(lb) - Max Horz 19=291(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 11, 15, 16, 17, 14, 13, 12 except 19=-127(LC 10), 18=-209(LC 11)  
Max Grav All reactions 250 lb or less at joint(s) 11, 12 except 19=334(LC 42), 15=320(LC 40), 16=319(LC 40), 17=316(LC 40), 18=414(LC 40), 14=321(LC 40), 13=258(LC 39)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-19=-313/136  
BOT CHORD 18-19=-278/181  
WEBS 2-18=-199/290

- NOTES-** (15-18)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 3-10-10, Exterior(2N) 3-10-10 to 7-7-14, Corner(3R) 7-7-14 to 12-5-8, Corner(3E) 12-5-8 to 15-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 6) Provide adequate drainage to prevent water ponding.
  - 7) All plates are 2x4 MT20 unless otherwise indicated.
  - 8) Gable requires continuous bottom chord bearing.
  - 9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 10) Gable studs spaced at 2-0-0 oc.
  - 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 12) \* This truss has been designed for a live load of 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.



9/15/2021

**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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R29	Half Hip Supported	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:29 2021 Page 2  
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**NOTES-** (15-18)

- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 15, 16, 17, 14, 13, 12 except (jt=lb) 19=127, 18=209.
- 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 bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 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.
- 17) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 18) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

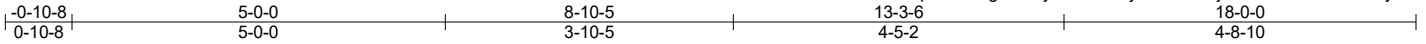


9/15/2021

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Job 21-4053-R01	Truss R30	Truss Type Half Hip Girder	Qty 1	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC	Job Reference (optional) <b># 28472</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:31 2021 Page 1  
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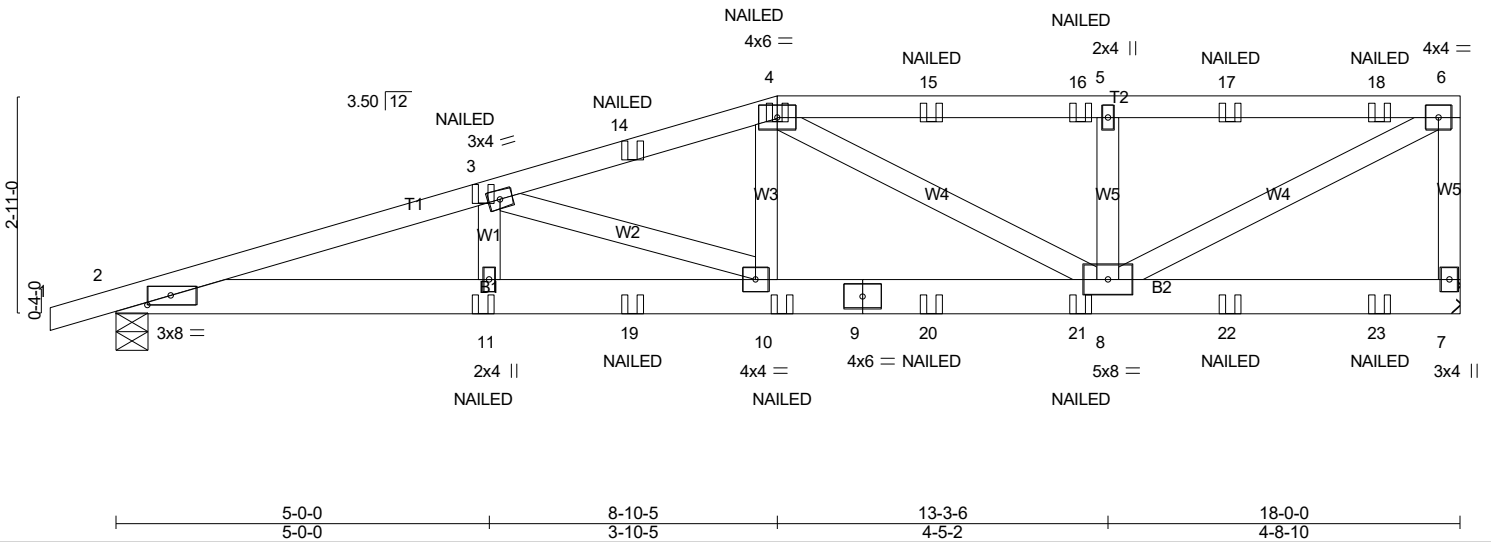


Plate Offsets (X,Y)-- [2:0-3-12,0-1-8]		5-0-0		8-10-5		13-3-6		18-0-0			
		5-0-0		3-10-5		4-5-2		4-8-10			
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.48	Vert(LL)	-0.10 11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.25	BC	0.85	Vert(CT)	-0.18 10-11	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.04 7	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-MSH							
BCDL	10.0									Weight: 102 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-1-11 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

**REACTIONS.** (lb/size) 7=891/Mechanical, 2=931/0-5-4 (min. 0-1-8)  
Max Horz 2=88(LC 9)  
Max Uplift 7=-196(LC 8), 2=-180(LC 8)  
Max Grav 7=1015(LC 33), 2=1114(LC 34)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2796/466, 3-14=-1876/368, 4-14=-1822/374, 4-15=-1383/291, 15-16=-1383/291, 16-17=-1383/291, 17-18=-1383/291, 18-19=-1383/291, 19-20=-1383/291, 20-21=-328/1719, 21-22=-328/1719, 22-23=-328/1719, 23-24=-328/1719  
BOT CHORD 2-11=-453/2659, 11-19=-453/2659, 10-19=-453/2659, 9-10=-328/1719, 9-20=-328/1719, 20-21=-328/1719, 8-21=-328/1719  
WEBS 3-10=-974/140, 4-10=-31/524, 4-8=-572/95, 5-8=-490/180, 6-8=-298/1534

**NOTES-** (14-17)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=196, 2=180.
- 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.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



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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 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R30	Half Hip Girder	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:31 2021 Page 2  
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- 14) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 15) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 16) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 17) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-6=-60, 2-7=-20

Concentrated Loads (lb)

Vert: 3=-43(F) 11=-72(F) 10=-14(F) 4=-20(F) 14=-3(F) 15=-20(F) 16=-20(F) 17=-20(F) 18=-22(F) 19=-51(F) 20=-14(F) 21=-14(F) 22=-14(F) 23=-15(F)



9/15/2021

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Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R31	Half Hip	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:33 2021 Page 2  
 ID:PlfkM5JZRq7i2cSu5g6whSyi2C3-AZPU6xKLnV2As14RT4o4NT8P0t0M5IUwR5DNiycz50

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



9/15/2021

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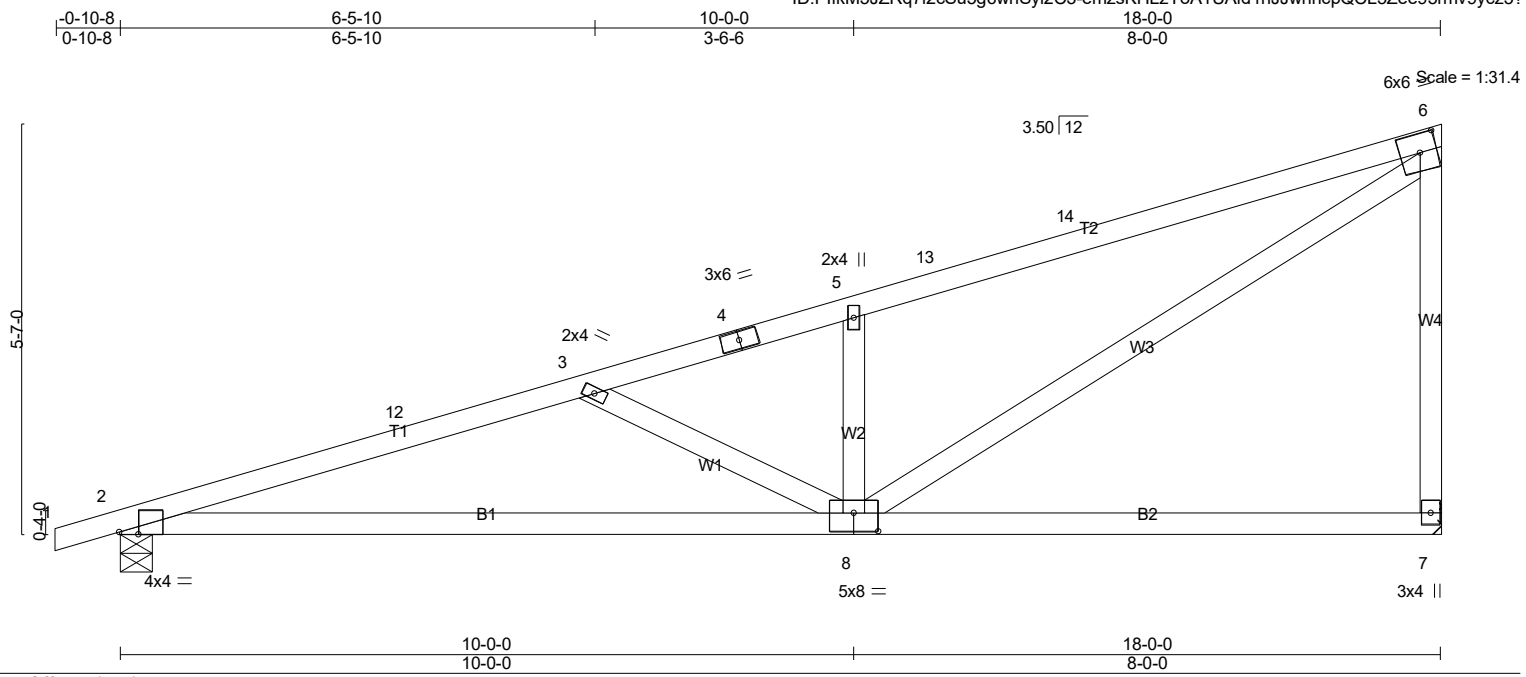


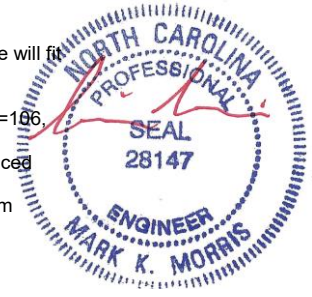
Plate Offsets (X,Y)-- [2:0-3-2,Edge], [6:0-2-12,0-3-0], [8:0-4-0,0-3-0]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.82	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.86	Vert(LL) -0.18 8-11 >999 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.64	Vert(CT) -0.41 8-11 >523 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.03 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 87 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1 *Except* T1: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* W4: 2x4 SP No.2	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 7=713/Mechanical, 2=768/0-5-4 (min. 0-1-8)  
 Max Horz 2=175(LC 13)  
 Max Uplift 7=-106(LC 14), 2=-110(LC 10)  
 Max Grav 7=852(LC 21), 2=800(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-12=-1753/227, 3-12=-1711/234, 3-4=-1403/163, 4-5=-1347/168, 5-13=-1478/213,  
 13-14=-1413/220, 6-14=-1387/233, 6-7=-783/144  
 BOT CHORD 2-8=-243/1660  
 WEBS 3-8=-418/110, 5-8=-493/159, 6-8=-213/1539

- NOTES-** (11-14)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 13-0-10, Exterior(2E) 13-0-10 to 17-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=106, 2=110.
  - 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



9/15/2021

Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	R32	Monopitch	6	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:34 2021 Page 2  
 ID:PlfkM5JZRq7i2cSu5g6whSyi2C3-emzsKHLzYoA1UAfd1nJjwhhpcQCL5Zee95rmv9ycz5?

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

**LOAD CASE(S)** Standard



9/15/2021

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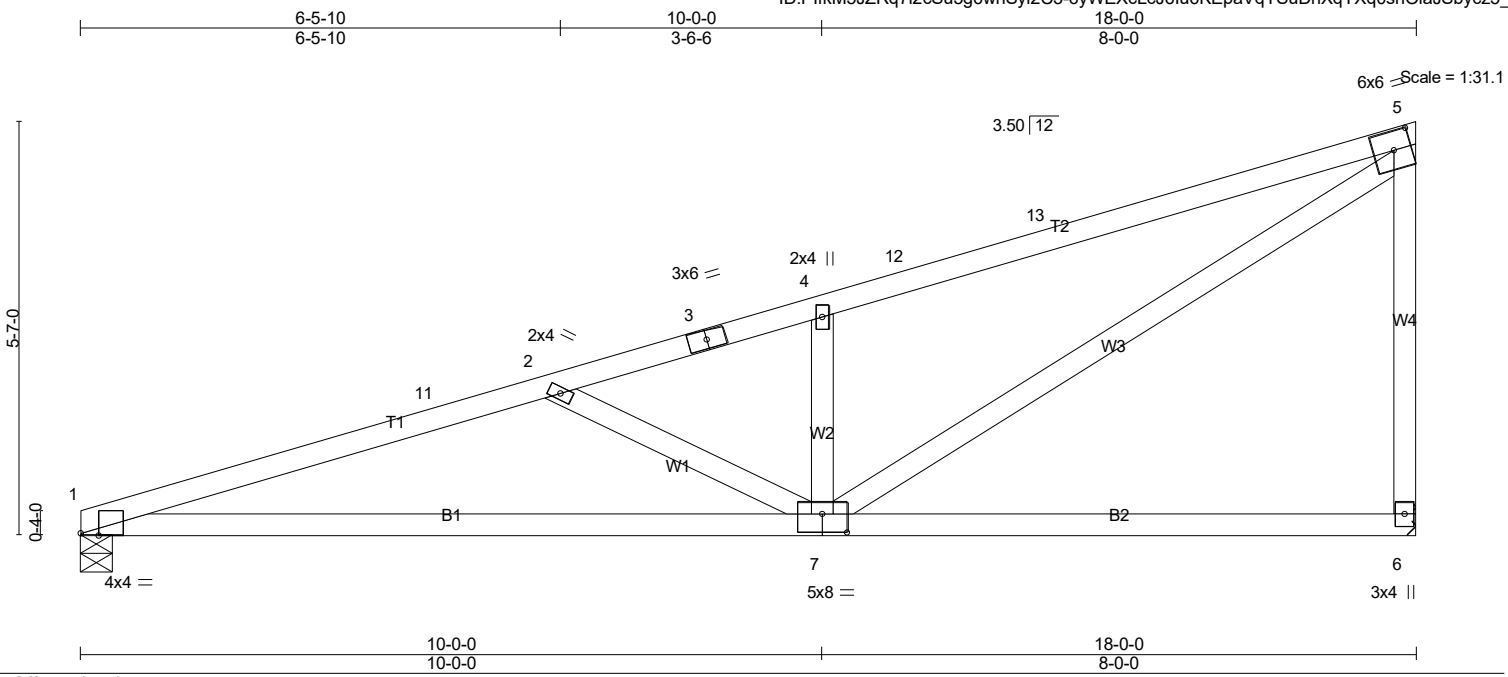


Plate Offsets (X,Y)-- [1:0-2-14,Edge], [5:0-2-12,0-3-0], [7:0-4-0,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.82	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.86	Vert(LL) -0.18 7-10 >999 240		
TCDL 10.0	Lumber DOL 1.25	WB 0.64	Vert(CT) -0.41 7-10 >520 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.03 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 85 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.1 \*Except\*  
 T1: 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 W4: 2x4 SP No.2

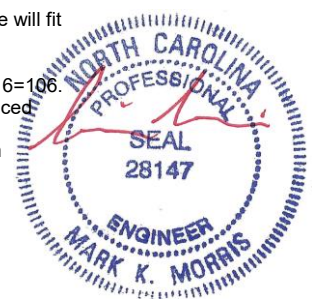
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) 6=714/Mechanical, 1=714/0-5-4 (min. 0-1-8)  
 Max Horz 1=171(LC 13)  
 Max Uplift 6=-106(LC 14), 1=-83(LC 10)  
 Max Grav 6=853(LC 20), 1=746(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-11=-1762/243, 2-11=-1706/250, 2-3=-1407/170, 3-4=-1351/175, 4-12=-1482/220,  
 12-13=-1417/226, 5-13=-1391/240, 5-6=-785/147  
 BOT CHORD 1-7=-246/1670  
 WEBS 2-7=-425/117, 4-7=-491/158, 5-7=-214/1544

- NOTES-** (10-13)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 4-9-10, Interior(1) 4-9-10 to 13-0-10, Exterior(2E) 13-0-10 to 17-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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 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) 1 except (jt=lb) 6=106.
  - 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



9/15/2021



Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FOUQUAY VARINA, N
21-4053-R01	R33	MONOPITCH	1	1	Job Reference (optional) # 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:35 2021 Page 2  
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- 10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 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.
- 12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

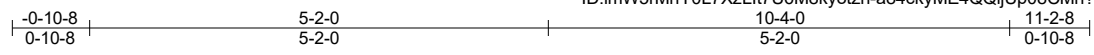


9/15/2021

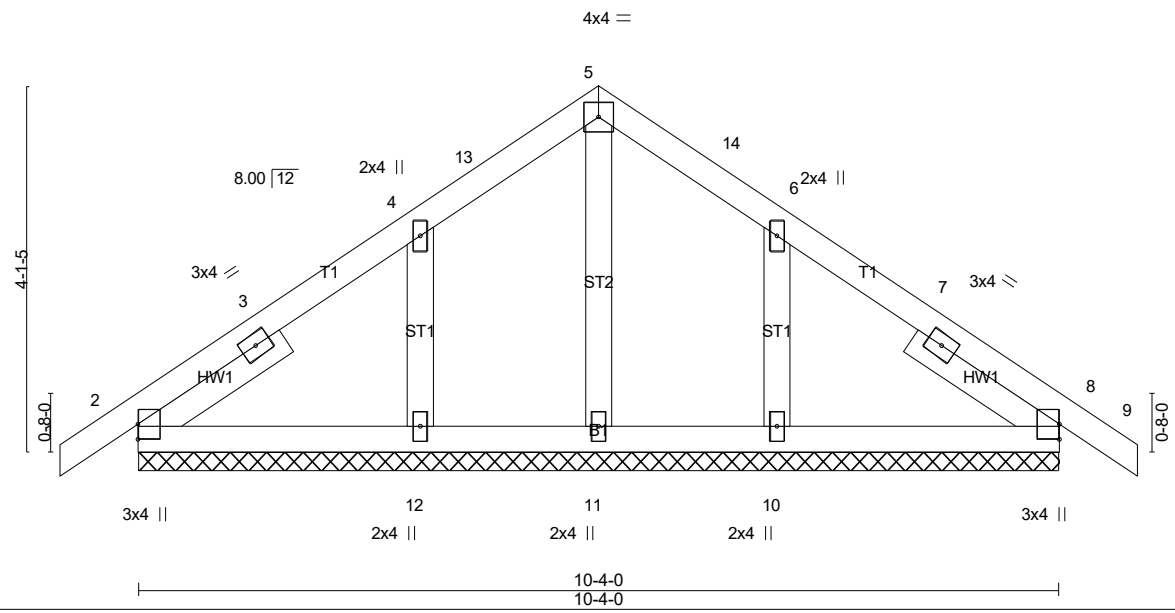
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Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	SP01	Common Supported Gable	1	1	
Job Reference (optional)					# 28472

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:36 2021 Page 1  
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Scale = 1:25.8



<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 0.09	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.07	Vert(LL) 0.00 9 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.05	Vert(CT) 0.00 9 n/r 80		
BCDL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 55 lb	FT = 20%

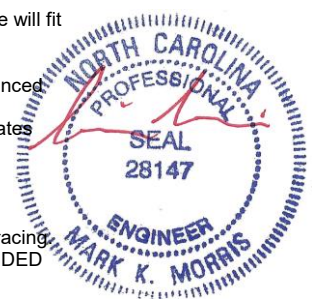
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 - 1-11-0, Right 2x4 SP No.3 - 1-11-0

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

**REACTIONS.** All bearings 10-4-0.  
 (lb) - Max Horz 2=79(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 12, 10  
 Max Grav All reactions 250 lb or less at joint(s) 2, 8, 11, 10 except 12=252(LC 24)

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

- NOTES-** (12-15)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-11-2, Corner(3R) 3-11-2 to 6-4-14, Corner(3E) 6-4-14 to 11-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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, 8, 12, 10.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

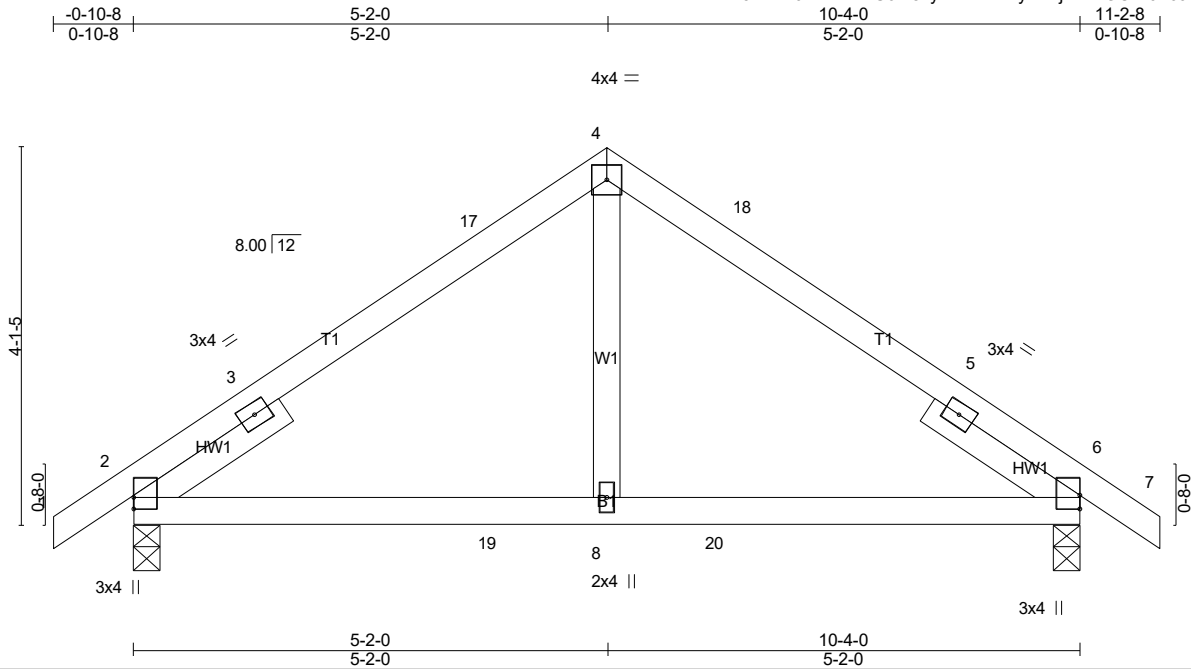


9/15/2021

**LOAD CASE(S) Bracing 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 21-4053-R01	Truss SP02	Truss Type Common	Qty 6	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC 27048 Job Reference (optional) <b># 28472</b>
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:37 2021 Page 1  
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Scale = 1:25.2

<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 0.23	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.24	Vert(LL) 0.03 8-11 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.08	Vert(CT) -0.03 8-11 >999 180		
BCDL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.01 2 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 48 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 - 1-11-0, Right 2x4 SP No.3 - 1-11-0

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

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

**REACTIONS.** (lb/size) 2=466/0-3-8 (min. 0-1-8), 6=466/0-3-8 (min. 0-1-8)  
Max Horz 2=-79(LC 10)  
Max Uplift 2=-43(LC 12), 6=-43(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-252/255, 3-17=-385/339, 4-17=-346/354, 4-18=-346/354, 5-18=-385/339, 5-6=-252/255  
BOT CHORD 2-19=-195/320, 8-19=-195/320, 8-20=-195/320, 6-20=-195/320

**NOTES-** (10-13)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Exterior(2R) 3-11-2 to 6-4-14, Exterior(2E) 6-4-14 to 11-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 2, 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

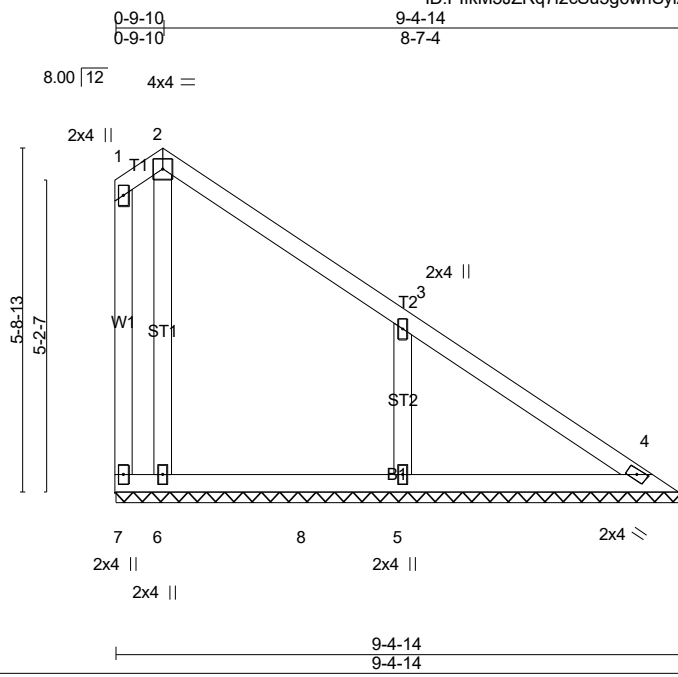


9/15/2021

**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	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC
21-4053-R01	V01	Valley	1	1	
Job Reference (optional)					# 28472



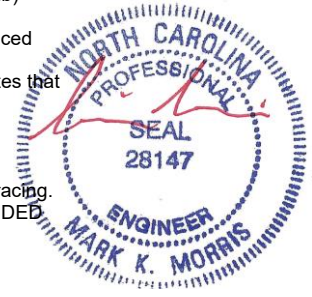
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.25	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.28	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.25	WB 0.10	Vert(CT) n/a - n/a 999		
BCDL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 4 n/a n/a		
TCLL 10.0	Code IRC2018/TPI2014			Weight: 49 lb	FT = 20%

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

**REACTIONS.** All bearings 9-4-14.  
 (lb) - Max Horz 7=-157(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 4, 6 except 7=-131(LC 18), 5=-119(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 7, 4 except 6=394(LC 20), 5=426(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-5=-297/202

- NOTES-** (9-12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 0-9-10, Exterior(2R) 0-9-10 to 4-1-8, Exterior(2E) 4-1-8 to 8-11-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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) Gable requires continuous bottom chord bearing.
  - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 6 except (jt=lb) 7=131, 5=119.
  - 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 bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - 10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - 11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - 12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



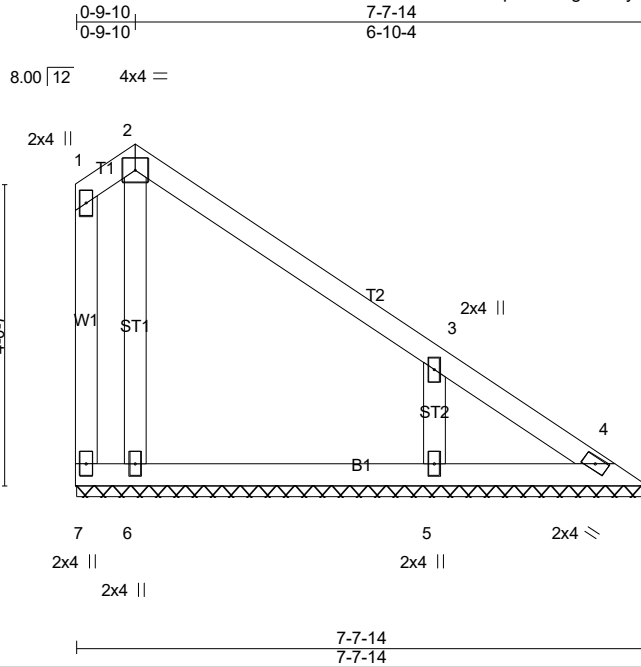
**LOAD CASE(S)** Standard

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

Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARIAN, NC
21-4053-R01	V02	Valley	1	1	
Job Reference (optional)					# 28472

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Scale = 1:30.8

<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 0.20	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.17	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.25	WB 0.06	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 38 lb	FT = 20%

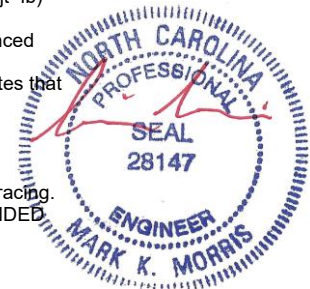
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.3  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

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

**REACTIONS.** All bearings 7-7-14.  
(lb) - Max Horz 7=-122(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 7, 4, 6 except 5=-107(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 7, 4, 6 except 5=333(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-5=-260/208

- NOTES-** (9-12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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 0-9-10, Exterior(2R) 0-9-10 to 2-4-8, Exterior(2E) 2-4-8 to 7-2-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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) Gable requires continuous bottom chord bearing.
  - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 4, 6 except (jt=lb) 5=107.
  - 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 bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - 10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - 11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - 12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



9/15/2021

**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.

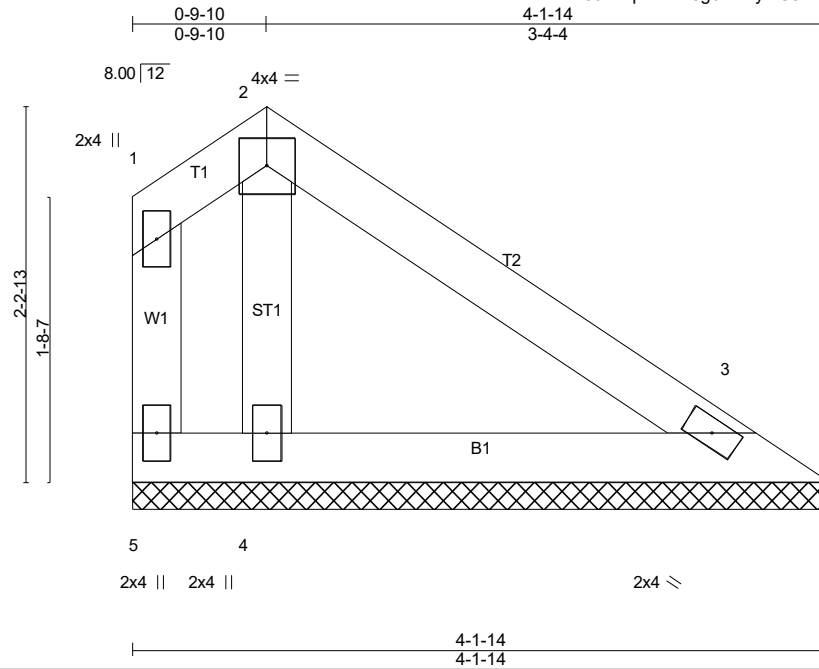






Job	Truss	Truss Type	Qty	Ply	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, N
21-4053-R01	V04	Valley	1	1	
Job Reference (optional)					# 28472

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Scale = 1:13.7

<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 0.15	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.11	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.25	WB 0.02	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 17 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-1-14 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

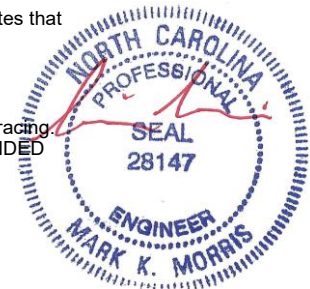
**REACTIONS.** (lb/size) 5=0/4-1-14 (min. 0-1-8), 3=109/4-1-14 (min. 0-1-8), 4=173/4-1-14 (min. 0-1-8)  
 Max Horz 5=-53(LC 8)  
 Max Uplift 5=-32(LC 5), 3=-11(LC 13)  
 Max Grav 5=9(LC 19), 3=109(LC 1), 4=178(LC 20)

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

**NOTES-** (9-12)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); 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) 5, 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 bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

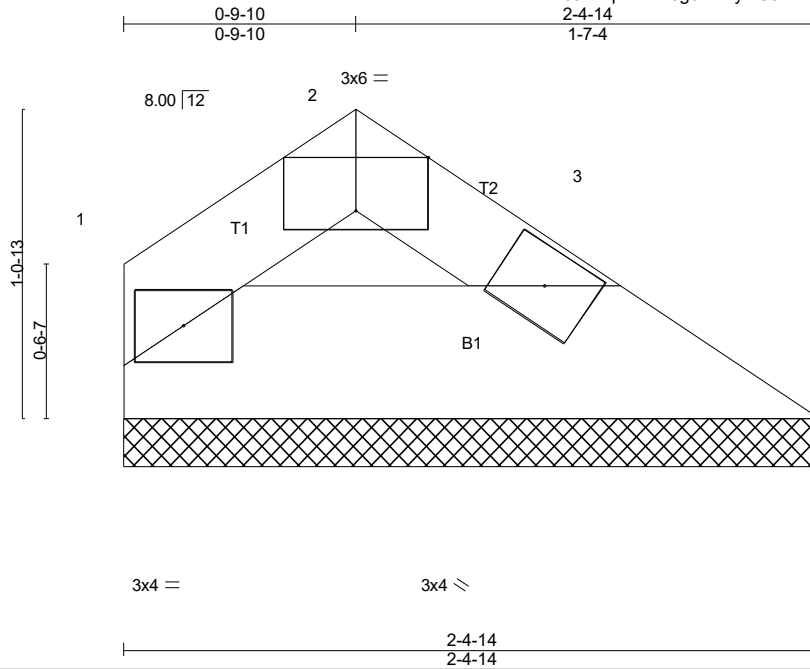


9/15/2021

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Job 21-4053-R01	Truss V05	Truss Type Valley	Qty 1	Ply 1	LOT 0.0056 OLDE MILL VILLAGE   87 VILLAGE BEND DRIVE FUQUAY VARINA, NC 27048 Job Reference (optional) # 28472
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8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Sep 16 20:09:42 2021 Page 1  
ID:PlfkM5JZRq7I2cSu5g6whSyi2C3-PIsu?0R?gGBvSPG9VTSBFN09Qe7OzKap?LnBAhycz4t



Scale: 1.5"=1'

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 0.01	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.25	BC 0.01	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.25	WB 0.00	Horz(CT)	0.00	3	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 9 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-4-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

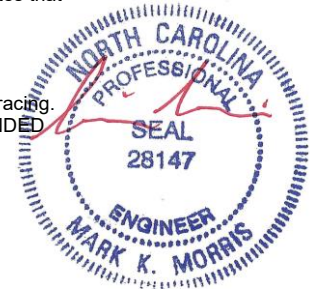
**REACTIONS.** (lb/size) 1=69/2-4-14 (min. 0-1-8), 3=69/2-4-14 (min. 0-1-8)  
Max Horz 1=-13(LC 10)  
Max Uplift 1=-4(LC 12), 3=-5(LC 13)

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

**NOTES-** (9-12)

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