

Trenco 818 Soundside Rd Edenton, NC 27932

Re: J1019-4780 Vision A

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Pages or sheets covered by this seal: E13695655 thru E13695662

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844



October 28,2019

Gilbert, Eric

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job Truss Truss Type Qty Vision A E13695655 J1019-4780 Α1 GABLE Job Reference (optional) 8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:07:18 2019 Page 1 ID:500uZ_4fAJagSYnK3Hg52cz8frK-DHU?DlvaLQf9HhcDA9t78vhJ?0hhSfbK4BIPM1yOuEt Comtech. Inc., Fayetteville, NC 28309 14-10-8 29-9-0 28-10-8 14-0-0 Scale = 1:61.5 5x5 =

8.00 12
$\begin{array}{c} 4 \times 6 \\ 8 \\ \hline \\ 3 \\ \hline \\ 3 \times 4 \\ \hline \end{array}$
3x4 — 32 31 30 29 28 27 26 25 24 23 22 21 20 8x8 =

Plate Offsets (X,Y) [25:0-4-0,0-4-8]			20-0-0	0-10-0
Tiato Onooto (71,1)	[20.0 1 0,0 1 0]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl	L/d PLATES GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.04	Vert(LL) 0.00 18 n/r	120 MT20 244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) 0.00 18 n/r	120
BCLL 0.0 *	Rep Stress Incr YES	WB 0.14	Horz(CT) 0.00 18 n/a	n/a
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	` '	Weight: 246 lb FT = 20%

28-10-8

LUMBER-

TOP CHORD 2x6 SP No.1 **BOT CHORD** 2x6 SP No.1 2x4 SP No.3 **OTHERS**

BRACING-

TOP CHORD **BOT CHORD** WEBS

Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing. T-Brace: 2x4 SPF No.2 - 10-26, 9-27, 11-25

Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. All bearings 28-0-0.

> (lb) -Max Horz 2=-235(LC 10)

-0-10-8

Max Uplift All uplift 100 lb or less at joint(s) 2, 18, 27, 28, 29, 30, 31, 32, 25, 24, 23, 22, 21, 20

Max Grav All reactions 250 lb or less at joint(s) 2, 18, 26, 29, 30, 31, 32, 23, 22, 21, 20 except 27=262(LC 19), 28=270(LC 19), 25=254(LC 20), 24=272(LC 20)

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

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Corner(3) -0-8-12 to 3-8-1, Exterior(2) 3-8-1 to 14-0-0, Corner(3) 14-0-0 to 18-4-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 18, 27, 28, 29, 30, 31, 32, 25, 24, 23, 22, 21, 20.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building
- 11) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE FAGE MITERS 1804. INVAICED BEFORE SECTION OF THE PROPERTY OF THE PROPER fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Qua Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

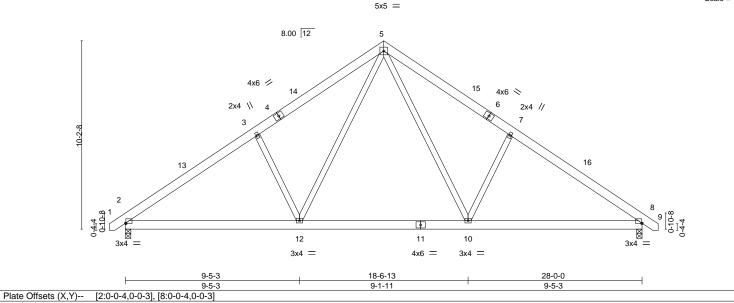


Edenton, NC 27932



 $ID: 500uZ_4fAJagSYnK3Hg52cz8frK-9fcle_wrt2vtW?lclavbDKmbMpHowXfdXVEWRwyOuEr$ 14-0-0 28-10-8 -0-10-8 0-10-8 20-10-4 28-0-0 7-1-12 7-1-12 6-10-4 0-10-8 6-10-4

Scale = 1:62.4



DEFL.

Vert(LL)

TOP CHORD

BOT CHORD

LOADING (psf) SPACING-CSI. 2-0-0 TCLL 20.0 Plate Grip DOL 1.15 TC 0.31 TCDL BC 10.0 Lumber DOL 1.15 0.43 **BCLL** 0.0 Rep Stress Incr YES WB 0.30 BCDL 10.0 Code IRC2015/TPI2014 Matrix-S

240 Vert(CT) -0.21 10-12 >999 Horz(CT) 0.03 8 n/a n/a Wind(LL) 0.03 2-12 >999 240 **BRACING-**

-0.17 10-12

(loc)

I/defI

>999

Weight: 196 lb

PLATES

MT20

GRIP

244/190

FT = 20%

Structural wood sheathing directly applied or 5-8-13 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

I/d

360

LUMBER-

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

7-10,3-12: 2x4 SP No.3

REACTIONS. (lb/size) 2=1161/0-3-8, 8=1161/0-3-8

Max Horz 2=235(LC 11)

Max Uplift 2=-69(LC 12), 8=-69(LC 13) Max Grav 2=1283(LC 19), 8=1283(LC 20)

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

TOP CHORD 2-3=-1787/331, 3-5=-1643/422, 5-7=-1643/422, 7-8=-1787/331

BOT CHORD 2-12=-147/1521, 10-12=0/1013, 8-10=-148/1363

WEBS 5-10=-150/837, 7-10=-430/274, 5-12=-150/837, 3-12=-430/274

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-12 to 3-8-1, Interior(1) 3-8-1 to 14-0-0, Exterior(2) 14-0-0 to 18-4-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
- 6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and permanent. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Job Truss Truss Type Qty Vision A E13695657 J1019-4780 АЗ Common Job Reference (optional) Comtech. Inc., Fayetteville, NC 28309 8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:07:21 2019 Page 1 $ID: 500uZ_4fAJagSYnK3Hg52cz8frK-dsA7sKxTeL1k88KosHQqIYJj5Dc2fwsnm9_3zMyOuEq$ 20-10-4 28-10-8 0-10-8 -0-10-8 0-10-8 14-0-0 28-0-0 7-1-12 7-1-12 6-10-4 6-10-4 Scale = 1:66.1 5x5 = 8.00 12 5 2x4 = 4x6 🥢 4x6 > 16 3x4 // 2x4 || 3x6 = 8 0-4-4 0-10-8 0 12 13 4x6 = 4x4 = 116x8 = 5x8 6x6 = 4x4 = 4x6 =11-0-0 18-6-13 20-10-4 28-0-0 11-0-0 7-6-13 2-3-7 7-1-12 Plate Offsets (X,Y)--[9:0-0-0,0-0-15], [11:0-2-8,0-3-0] LOADING (psf) SPACING-CSI. DEFL. **PLATES** GRIP 2-0-0 in (loc) I/defI I/d TCLL 20.0 Plate Grip DOL 1.15 TC 0.50 Vert(LL) -0.16 11-13 360 244/190 >999 MT20 BC -0.26 TCDL 10.0 Lumber DOL 1.15 0.49 Vert(CT) 11 >999 240 **BCLL** 0.0 Rep Stress Incr YES WB 0.56 Horz(CT) 0.03 9 n/a n/a BCDL 10.0 Code IRC2015/TPI2014 Matrix-S Wind(LL) 0.12 9-11 >999 240 Weight: 219 lb FT = 20%LUMBER-**BRACING-**TOP CHORD 2x6 SP No.1 TOP CHORD Structural wood sheathing directly applied or 5-2-0 oc purlins. **BOT CHORD** 2x6 SP No.1 **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing. **WEBS** 2x4 SP No.3 *Except* WEBS T-Brace: 2x4 SPF No.2 - 3-14 Fasten (2X) T and I braces to narrow edge of web with 10d 11-13: 2x6 SP No.1 (0.131"x3") nails, 6in o.c., with 3in minimum end distance. Brace must cover 90% of web length. JOINTS 1 Brace at Jt(s): 14 REACTIONS. (lb/size) 2=1161/0-3-8, 9=1161/0-3-8 Max Horz 2=-235(LC 10)

Max Uplift 2=-69(LC 12), 9=-69(LC 13) Max Grav 2=1267(LC 19), 9=1329(LC 20)

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

TOP CHORD 2-3=-1800/354, 3-5=-666/177, 5-6=-525/157, 6-8=-1343/346, 8-9=-1728/257

BOT CHORD 2-13=-168/1540, 11-13=-77/1294, 9-11=-74/1293

8-11=0/407, 13-14=-32/668, 5-14=-132/380, 3-13=-223/278, 6-14=-1242/380, **WEBS**

3-14=-1422/432

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-12 to 3-8-1, Interior(1) 3-8-1 to 14-0-0, Exterior(2) 14-0-0 to 18-2-1 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9.
 6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building
- 7) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MILES FREERING FREE INCLUSED MILES AND INCLUDED MILES FREERING FREE INCLUSED MILES AND INCLUDED MILES FREERING FREE INCLUSED MILES FREERING fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Qua Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Job Truss Truss Type Qty Vision A E13695658 11019-4780 Common Job Reference (optional) 8.130 s Oct 7 2017 MiTek Industries, Inc. Mon Oct 28 13:21:52 2019 Page 1 ID:500uZ_4fAJagSYnK3Hg52cz8frK-ARBUjSGmWAqXAhL_YSuVIztc7Kt0Ekr_29Tf2NyOu1D Comtech, Inc., Fayetteville, NC 28309, MITER -0<u>-10-</u>8 7-1-12 14-0-0 20-10-4 28-0-0 28-10-8 7-1-12 6-10-4 6-10-4 7-1-12 0-10-8 Scale = 1:66.2 5x8 || 8.00 12 MEMBERS SHOWN DOTTED SHALL BE REMOVED AFTER TRUSS IS ERECTED AND BRACED 4x6 / 4x6 > 3x10 / 6 3x6 💸 15 3x10 = 3x10 = 24 21 2x4 || 2x4 || 13 14 12 3x4 3x4 = 10 2x4 || 5x8 = 4x8 = 2x4 4x4 = 11-0-0 20-10-4 28-0-0 22-0-0 9-10-4 6-0-0 Plate Offsets (X,Y)-- [2:0-0-0,0-0-3], [8:0-0-0,0-0-7], [10:0-3-8,0-2-0] LOADING (psf) SPACING-CSI. **DEFL PLATES** GRIP in (loc) I/defl L/d

LUMBER-

TCLL

TCDL

BCLL

BCDL

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

20.0

10.0

0.0

10.0

5-10: 2x4 SP No.2

Wind(LL) BRACING-

Vert(LL)

Vert(CT)

Horz(CT)

-0.21

-0.50

0.29

0.09

12 >999

12 >668

8

12 >999

TOP CHORD **BOT CHORD JOINTS**

Structural wood sheathing directly applied or 4-2-10 oc purlins.

MT20

Weight: 222 lb

244/190

FT = 20%

Rigid ceiling directly applied or 10-0-0 oc bracing.

360

240

n/a

240

1 Brace at Jt(s): 15, 16

n/a

REACTIONS. (lb/size) 2=1145/0-3-8 (min. 0-1-8), 8=1134/0-3-8 (min. 0-1-8)

Code IRC2015/TPI2014

Max Horz 2=-235(LC 10)

Max Uplift2=-79(LC 12), 8=-85(LC 13)

Plate Grip DOL

Rep Stress Incr

Lumber DOL

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/7, 2-3=-1497/351, 3-5=-2475/340, 5-7=-3261/492, 7-8=-1531/346, 8-9=0/7

1.15

1.15

YES

2-14=-165/1189, 12-14=0/0, 10-11=0/0, 8-10=-158/1144 BOT CHORD

WEBS 5-15=-266/1803, 10-15=-268/1941, 7-10=-1433/280, 14-16=-52/1305, 5-16=-53/1273, 3-14=-1281/239, 7-15=0/1473,

TC

BC

WB 0.98

Matrix-S

0.32

0.45

15-16=0/1594, 3-16=0/1572

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-12 to 3-8-1, Interior(1) 3-8-1 to 14-0-0, Exterior(2) 14-0-0 to 18-4-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 79 lb uplift at joint 2 and 85 lb uplift at joint
- 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S)

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)

Vert: 1-5=-60, 5-9=-60, 2-12=-20, 8-11=-20

2) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)

Vert: 1-5=-50, 5-9=-50, 2-12=-20, 8-11=-20

3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25

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October 28,2019

Continued on page 2



a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal in-jury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Qua Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Comtech, Inc., Fayetteville, NC 28309, MITEK

8.130 s Oct 7 2017 MiTek Industries, Inc. Mon Oct 28 13:21:53 2019 Page 2 ID:500uZ_4fAJagSYnK3Hg52cz8frK-edlsxoGOHTyOorwA6APkHAQnskDdzB57HpDCapyOu1C

LOAD CASE(S)

Uniform Loads (plf)

Vert: 1-5=-20. 5-9=-20. 2-12=-40. 8-11=-40

4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-2=55, 2-21=32, 5-21=25, 5-23=32, 8-23=25, 8-9=18, 2-12=-12, 8-11=-12

Horz: 1-2=-67, 2-21=-44, 5-21=-37, 5-23=44, 8-23=37, 8-9=30

5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-2=18, 2-22=25, 5-22=32, 5-24=25, 8-24=32, 8-9=55, 2-12=-12, 8-11=-12 Horz: 1-2=-30, 2-22=-37, 5-22=-44, 5-24=37, 8-24=44, 8-9=67

6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-2=10, 2-5=-57, 5-8=-57, 8-9=-50, 2-12=-20, 8-11=-20 Horz: 1-2=-30, 2-5=37, 5-8=-37, 8-9=-30

7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-2=-50, 2-5=-57, 5-8=-57, 8-9=10, 2-12=-20, 8-11=-20

Horz: 1-2=30, 2-5=37, 5-8=-37, 8-9=30

8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-2=2, 2-5=-13, 5-8=11, 8-9=4, 2-12=-12, 8-11=-12

Horz: 1-2=-14, 2-5=1, 5-8=23, 8-9=16

9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-2=4, 2-5=11, 5-8=-13, 8-9=2, 2-12=-12, 8-11=-12

Horz: 1-2=-16, 2-5=-23, 5-8=-1, 8-9=14

10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-2=-28, 2-5=-35, 5-8=-11, 8-9=-4, 2-12=-20, 8-11=-20

Horz: 1-2=8, 2-5=15, 5-8=9, 8-9=16

11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-2=-4, 2-5=-11, 5-8=-35, 8-9=-28, 2-12=-20, 8-11=-20

Horz: 1-2=-16, 2-5=-9, 5-8=-15, 8-9=-8

12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-2=14, 2-5=21, 5-8=9, 8-9=2, 2-12=-12, 8-11=-12

Horz: 1-2=-26, 2-5=-33, 5-8=21, 8-9=14

13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

> Vert: 1-2=2, 2-5=9, 5-8=21, 8-9=14, 2-12=-12, 8-11=-12 Horz: 1-2=-14, 2-5=-21, 5-8=33, 8-9=26

14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=14, 2-5=21, 5-8=9, 8-9=2, 2-12=-12, 8-11=-12

Horz: 1-2=-26, 2-5=-33, 5-8=21, 8-9=14

15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-2=2, 2-5=9, 5-8=21, 8-9=14, 2-12=-12, 8-11=-12

Horz: 1-2=-14, 2-5=-21, 5-8=33, 8-9=26

16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-2=6, 2-5=-1, 5-8=-13, 8-9=-6, 2-12=-20, 8-11=-20

Horz: 1-2=-26, 2-5=-19, 5-8=7, 8-9=14

17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-2=-6, 2-5=-13, 5-8=-1, 8-9=6, 2-12=-20, 8-11=-20

Horz: 1-2=-14, 2-5=-7, 5-8=19, 8-9=26

18) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90

Uniform Loads (plf)

Vert: 1-5=-20, 5-9=-20, 2-12=-20, 8-11=-20

19) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-2=-56, 2-5=-61, 5-8=-43, 8-9=-38, 2-12=-20, 8-11=-20

Horz: 1-2=6, 2-5=11, 5-8=7, 8-9=12

20) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60. Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-2=-38, 2-5=-43, 5-8=-61, 8-9=-56, 2-12=-20, 8-11=-20

Horz: 1-2=-12, 2-5=-7, 5-8=-11, 8-9=-6

21) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-2=-31, 2-5=-36, 5-8=-45, 8-9=-40, 2-12=-20, 8-11=-20

Horz: 1-2=-19, 2-5=-14, 5-8=5, 8-9=10

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

Continued on page 3





Job	Truss	Truss Type	Qty	Ply	Vision A
J1019-4780	A4	Common	2	1	E13695658
	,	Common		·	Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309, MITEK

8.130 s Oct 7 2017 MiTek Industries, Inc. Mon Oct 28 13:21:53 2019 Page 3 ID:500uZ_4fAJagSYnK3Hg52cz8frK-edlsxoGOHTyOorwA6APkHAQnskDdzB57HpDCapyOu1C

LOAD CASE(S)

Uniform Loads (plf)

Vert: 1-2=-40, 2-5=-45, 5-8=-36, 8-9=-31, 2-12=-20, 8-11=-20

Horz: 1-2=-10, 2-5=-5, 5-8=14, 8-9=19

23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)

Vert: 1-5=-60, 5-9=-20, 2-12=-20, 8-11=-20

24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)

Vert: 1-5=-20, 5-9=-60, 2-12=-20, 8-11=-20

25) 3rd Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)

Vert: 1-5=-50, 5-9=-20, 2-12=-20, 8-11=-20

26) 4th Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)

Vert: 1-5=-20, 5-9=-50, 2-12=-20, 8-11=-20



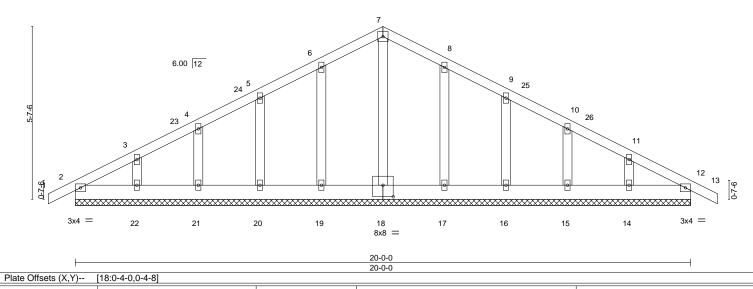
Job Truss Truss Type Qty Vision A E13695659 J1019-4780 G1 GABLE Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:07:22 2019 Page 1 ID:500uZ_4fAJagSYnK3Hg52cz8frK-52kV3gy5Pf9bmlv_P_y3llr_pd2kOVuw?pjcVoyOuEp 20-10-8 0-10-8 0-10-8 0-10-8 10-0-0 20-0-0 10-0-0

4x4 =

Scale = 1:37.4



Title Offices (X,1) [10.0 ± 0,0 ± 0]					
LOADING	VI /	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d PLATES GRIP	
TCLL	20.0	Plate Grip DOL 1.15	TC 0.05	Vert(LL) -0.00 12 n/r 120 MT20 244/190	
TCDL	10.0	Lumber DOL 1.15	BC 0.01	Vert(CT) -0.00 12 n/r 120	
BCLL	0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) 0.00 12 n/a n/a	
BCDL	10.0	Code IRC2015/TPI2014	Matrix-S	Weight: 119 lb FT = 20%	

LUMBER-

2x4 SP No.1 TOP CHORD **BOT CHORD** 2x6 SP No.1 2x4 SP No.3 **OTHERS**

BRACING-

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

REACTIONS. All bearings 20-0-0.

(lb) - Max Horz 2=-110(LC 17)

Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 19, 20, 21, 22, 17, 16, 15, 14 Max Grav All reactions 250 lb or less at joint(s) 2, 12, 18, 19, 20, 21, 22, 17, 16, 15, 14

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

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 10-0-0, Corner(3) 10-0-0 to 14-4-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12, 19, 20, 21, 22, 17, 16, 15, 14.



MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MILES REPRETIVE FAGE MILES AND INCLUDED MILES REPRETIVE FAGE MILES AND INCLUDED MILES AND INCL fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Qua Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

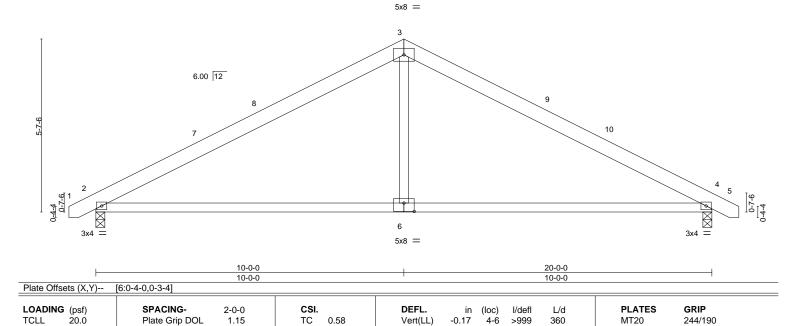


Job Truss Truss Type Qty Vision A E13695660 J1019-4780 G2 COMMON Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:07:23 2019 Page 1 ID:500uZ_4fAJagSYnK3Hg52cz8frK-ZEIuH0zj9zHSOSUBziTIrzO0L1Dd7wJ4ETTA1FyOuEo 20-10-8 0-10-8 0-10-8 10-0-0 20-0-0 0-10-8 10-0-0

Scale = 1:37.4



Vert(CT)

Horz(CT)

Wind(LL)

BRACING-

TOP CHORD

BOT CHORD

-0.36

0.02

0.06

4-6

2-6

4

>659

>999

n/a

240

n/a

240

Rigid ceiling directly applied or 10-0-0 oc bracing.

Weight: 94 lb

Structural wood sheathing directly applied or 5-10-10 oc purlins.

FT = 20%

LUMBER-

TCDL

BCLL

BCDL

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

10.0

0.0

10.0

(lb/size) 2=840/0-3-8, 4=840/0-3-8 REACTIONS.

Max Horz 2=-70(LC 10)

Max Uplift 2=-59(LC 12), 4=-59(LC 13)

Lumber DOL

Rep Stress Incr

Code IRC2015/TPI2014

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

TOP CHORD 2-3=-1070/263, 3-4=-1070/263 **BOT CHORD** 2-6=-84/863, 4-6=-84/863

WEBS 3-6=0/457

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 10-0-0, Exterior(2) 10-0-0 to 14-4-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

BC

WB

Matrix-S

0.74

0.17

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

1.15

YES

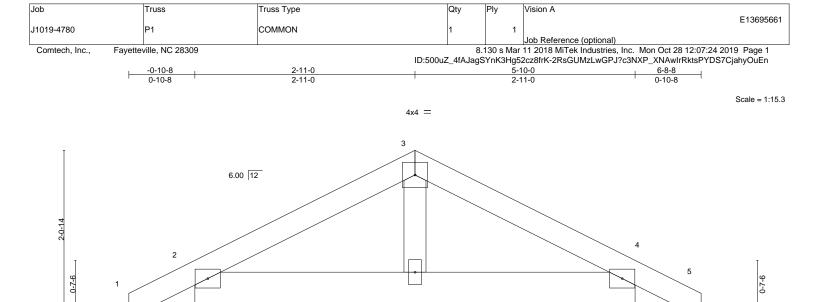
- 4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and permanent. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





	l	2-11-0	1	2-11-0	· ·
LOADING (psf)	SPACING- 2-0-0	CSI.		(loc) I/defl L/d	PLATES GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.15	Vert(LL) -0.00	6 >999 360	MT20 244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) -0.00	6 >999 240	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Horz(CT) 0.00	4 n/a n/a	
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P	Wind(LL) 0.00	6 >999 240	Weight: 29 lb FT = 20%

BRACING-

TOP CHORD

BOT CHORD

6_{2x4} II

LUMBER-

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

REACTIONS. (lb/size) 2=283/0-3-8, 4=283/0-3-8

Max Horz 2=38(LC 16)

Max Uplift 2=-75(LC 12), 4=-75(LC 13)

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

3x4 =

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2-11-0

- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



3x4 =

Structural wood sheathing directly applied or 5-10-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

5-10-0



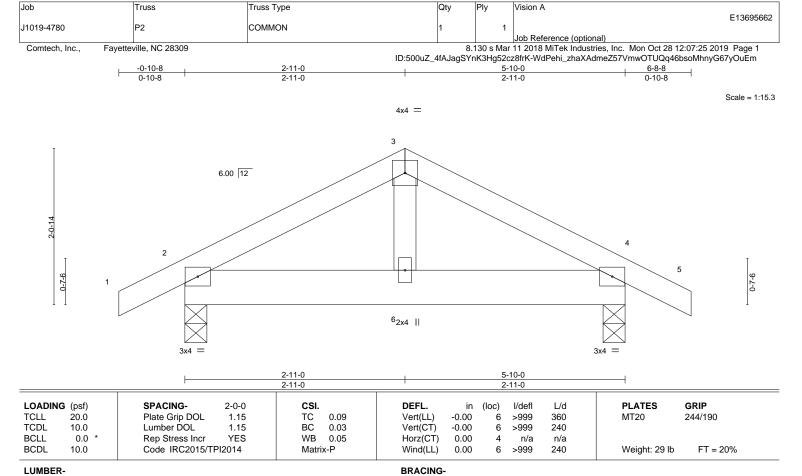
🗥 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information

available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





TOP CHORD

BOT CHORD

LUMBER-

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

REACTIONS. (lb/size) 2=283/0-3-8, 4=283/0-3-8

Max Horz 2=25(LC 11)

Max Uplift 2=-28(LC 12), 4=-28(LC 13)

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

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



Structural wood sheathing directly applied or 5-10-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

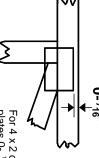


Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated.
Dimensions are in ft-in-sixteenths.
Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- ¹/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

* Plate location details available in MiTek 20/20 software or upon request.

PLATE SIZE

4 × 4

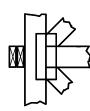
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING



Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

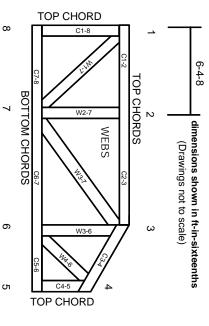
Industry Standards:

National Design Specification for Metal

ANSI/TPI1: DSB-89:

Plate Connected Wood Truss Construction. Design Standard for Bracing.
Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988 ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.

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- Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

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- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- 15. Connections not shown are the responsibility of others.
- Do not cut or alter truss member or plate without prior approval of an engineer.
- 17. Install and load vertically unless indicated otherwise
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.