

RE: 400379 Lot 43 HT MiTek USA, Inc. 16023 Swingley Ridge Rd Chesterfield, MO 63017 314-434-1200

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.2

Wind Code: N/A Wind Speed: 115 mph Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 38 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	140626068	A1	6/26/2020	27	140626094	R1	6/26/2020
2	140626069	A2	6/26/2020	28	140626095	R2	6/26/2020
3	140626070	B1	6/26/2020	29	140626096	V1	6/26/2020
4	140626071	B2	6/26/2020	30	140626097	V2	6/26/2020
5	140626072	C1	6/26/2020	31	140626098	V3	6/26/2020
6	140626073	C2	6/26/2020	32	140626099	V4	6/26/2020
7	140626074	C3	6/26/2020	33	140626100	V5	6/26/2020
8	140626075	D1	6/26/2020	34	140626101	V6	6/26/2020
9	140626076	D2	6/26/2020	35	140626102	V7	6/26/2020
10	140626077	E1	6/26/2020	36	140626103	V8	6/26/2020
11	140626078	E2	6/26/2020	37	140626104	V9	6/26/2020
12	140626079	E3	6/26/2020	38	140626105	V10	6/26/2020
13	140626080	E4	6/26/2020				
14	140626081	G1	6/26/2020				
15	140626082	G2	6/26/2020				
16	140626083	G3	6/26/2020				
17	140626084	G4	6/26/2020				
18	140626085	G5	6/26/2020				
19	140626086	G6	6/26/2020				
20	140626087	G7	6/26/2020				

6/26/2020

6/26/2020

6/26/2020 6/26/2020

6/26/2020

6/26/2020

The truss drawing(s) referenced above have been prepared by

MiTek USA, Inc under my direct supervision

based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Kansas is April 30, 2022.

G8

J1

J2

J3

J4

J5

Kansas COA: E-943

21

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140626088

140626089

140626090

140626091

140626092

140626093

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. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek 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.



June 26, 2020



RE: 400379 Lot 43 HT MiTek USA, Inc. 16023 Swingley Ridge Rd Chesterfield, MO 63017 314-434-1200

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.2

Wind Code: N/A Wind Speed: 115 mph Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 38 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	140626068	A1	6/26/2020	27	140626094	R1	6/26/2020
2	140626069	A2	6/26/2020	28	140626095	R2	6/26/2020
3	140626070	B1	6/26/2020	29	140626096	V1	6/26/2020
4	140626071	B2	6/26/2020	30	140626097	V2	6/26/2020
5	140626072	C1	6/26/2020	31	140626098	V3	6/26/2020
6	140626073	C2	6/26/2020	32	140626099	V4	6/26/2020
7	140626074	C3	6/26/2020	33	I40626100	V5	6/26/2020
8	140626075	D1	6/26/2020	34	I40626101	V6	6/26/2020
9	140626076	D2	6/26/2020	35	140626102	V7	6/26/2020
10	140626077	E1	6/26/2020	36	I40626103	V8	6/26/2020
11	140626078	E2	6/26/2020	37	I40626104	V9	6/26/2020
12	140626079	E3	6/26/2020	38	I40626105	V10	6/26/2020
13	140626080	E4	6/26/2020				
14	140626081	G1	6/26/2020				
15	140626082	G2	6/26/2020				
16	140626083	G3	6/26/2020				
17	140626084	G4	6/26/2020				
18	140626085	G5	6/26/2020				
19	140626086	G6	6/26/2020				

6/26/2020

6/26/2020

6/26/2020

6/26/2020

6/26/2020

6/26/2020

6/26/2020

1 of 1

The truss drawing(s) referenced above have been prepared by

G7

G8

J1

J2

J3

J4

J5

MiTek USA, Inc under my direct supervision

140626087

140626088

140626089

140626090

140626091

140626092

140626093

20 21

22

23

24

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26

based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Missouri is December 31, 2020.

Missouri COA: 001193

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. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek 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.



June 26, 2020

Job Truss Truss Type Lot 43 HT 140626068 400379 A1 Hip Girder | Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:08 2020 Page 1 Wheeler Lumber, Waverly, KS 66871

4-0-0

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-JBwdFSf?H7cYBHREi6NbwOVGgPHaliOoknw53wzaP3z

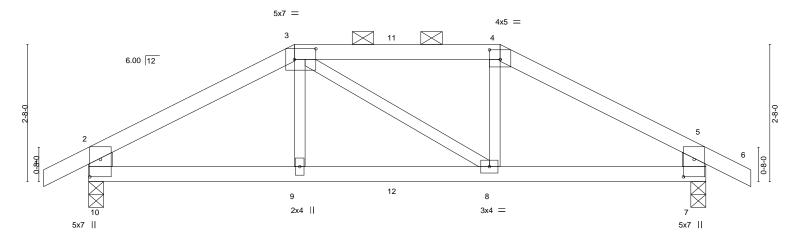
Structural wood sheathing directly applied or 4-3-4 oc purlins,

except end verticals, and 2-0-0 oc purlins (5-0-4 max.): 3-4.

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

12-10-8 4-0-0 0-10-8

Scale = 1:22.4



		4-0-0		8-0-0				12-0-0	
	'	4-0-0	ı	4-0-0		1		4-0-0	ı
Plate Offs	sets (X,Y)	[3:0-5-0,0-2-8], [4:0-2-8,0-2-4], [7:0-4-	1,0-2-8], [10:0-4-1,0-2-8]						
LOADING	G (psf)	SPACING- 2-0-0	CSI.	DEFL.	in	(loc) I/de	efl L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC 0.71	Vert(LL)	-0.07	8-9 >99	9 360	MT20	197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.67	Vert(CT)	-0.13	8-9 >99	9 240		
BCLL	0.0 *	Rep Stress Incr NO	WB 0.10	Horz(CT)	0.02	7 n	/a n/a		
BCDL	10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL)	0.06	8-9 >99	9 240	Weight: 39 lb	FT = 10%

BOT CHORD

LUMBER-**BRACING-**TOP CHORD

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 **WEBS** 2x3 SPF No.2 *Except*

0-10-8

2-10,5-7: 2x6 SP DSS

(size) 10=0-3-8, 7=0-3-8

Max Horz 10=-50(LC 6)

Max Uplift 10=-201(LC 8), 7=-201(LC 9) Max Grav 10=899(LC 1), 7=899(LC 1)

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

 $2\text{-}3\text{=-}1231/277,\ 3\text{-}4\text{=-}1024/269,\ 4\text{-}5\text{=-}1232/276,\ 2\text{-}10\text{=-}806/214,\ 5\text{-}7\text{=-}806/213}$ TOP CHORD

4-0-0

9-10=-219/1012, 8-9=-219/1023, 7-8=-196/1013 BOT CHORD

WEBS 3-9=0/271, 4-8=-5/279

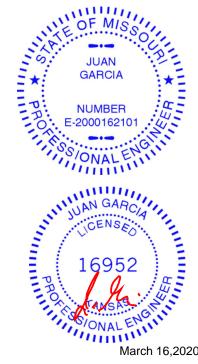
REACTIONS.

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate arip DOL=1.60
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 201 lb uplift at joint 10 and 201 lb uplift
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 79 lb down and 74 lb up at 4-0-0, and 86 lb down and 74 lb up at 6-0-0, and 79 lb down and 74 lb up at 8-0-0 on top chord, and 220 lb down and 76 lb up at 4-0-0, and 31 lb down at 6-0-0, and 220 lb down and 76 lb up at 7-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 7-10=-20



March 16,2020



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



Job	Truss	Truss Type	Qty	Ply	Lot 43 HT
400379	A1	Hip Girder	1	1	140626068
400373		i iip Girdei			Job Reference (optional)

Wheeler Lumber,

Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:09 2020 Page 2 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-nNT?Sogd2RkPpR?RGpvqTb2RQpdp19exzRfebMzaP3y

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 3=-46(F) 4=-46(F) 9=-220(F) 8=-220(F) 11=-46(F) 12=-25(F)



Job Truss Truss Type Qty Lot 43 HT 140626069 400379 A2 Common Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:10 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-Fa1Of8hFpksGRbadpXQ3?pbhnD3KmcA5B5PB8ozaP3x 12-0-0 12-10-8

6-0-0

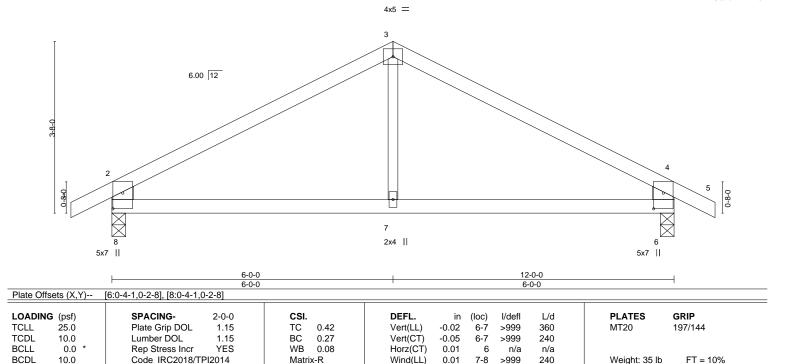
Structural wood sheathing directly applied or 6-0-0 oc purlins,

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

except end verticals.

Scale = 1:24.6

0-10-8



BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 **WEBS** 2x6 SPF No.2 *Except*

0-10-8

3-7: 2x3 SPF No.2

REACTIONS. (size) 8=0-3-8, 6=0-3-8

Max Horz 8=-62(LC 6)

Max Uplift 8=-90(LC 8), 6=-90(LC 9) Max Grav 8=597(LC 1), 6=597(LC 1)

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

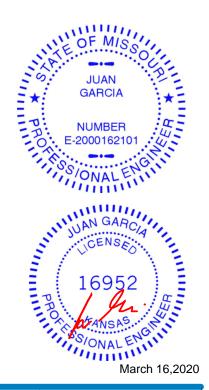
TOP CHORD 2-3=-638/89, 3-4=-638/89, 2-8=-544/131, 4-6=-544/131

BOT CHORD 7-8=-14/480, 6-7=-14/480

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 8 and 90 lb uplift at joint 6.
- 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.

6-0-0





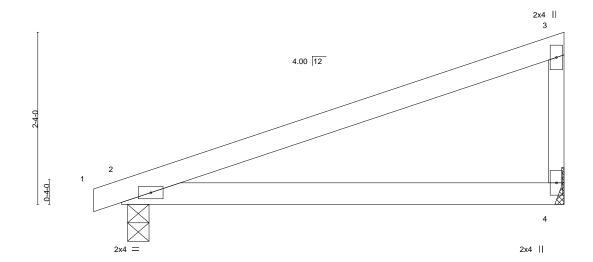
M WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.



Job Truss Truss Type Qty Lot 43 HT 140626070 400379 B1 Monopitch Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:10 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-Fa1Of8hFpksGRbadpXQ3?pbeKD2?mdN5B5PB8ozaP3x -0-4-8 0-4-8 6-0-0

6-0-0

Scale = 1:15.6



LOADING (psf) SPACING-2-0-0 CSI. DEFL. **PLATES** GRIP (loc) L/d TCLL 25.0 Plate Grip DOL Vert(LL) -0.07 >999 197/144 1.15 TC 0.64 360 MT20 **TCDL** 10.0 Lumber DOL 1.15 ВС 0.35 Vert(CT) -0.13 2-4 >526 240 **BCLL** 0.0 Rep Stress Incr YES WB 0.00 Horz(CT) -0.00 4 n/a n/a Code IRC2018/TPI2014 BCDL 10.0 Matrix-P Wind(LL) 0.00 240 Weight: 16 lb FT = 10%

6-0-0

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

2x4 SPF No.2 TOP CHORD BOT CHORD 2x4 SPF No.2

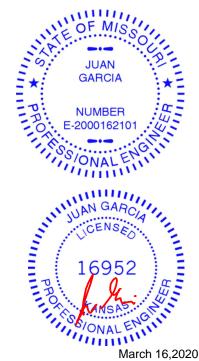
WEBS 2x3 SPF No.2

> 4=Mechanical, 2=0-3-8 (size) Max Horz 2=91(LC 5) Max Uplift 4=-55(LC 8), 2=-65(LC 4) Max Grav 4=257(LC 1), 2=297(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 4 and 65 lb uplift at ioint 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.



Structural wood sheathing directly applied or 6-0-0 oc purlins,

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

except end verticals.



Job Truss Truss Type Qty Lot 43 HT 140626071 400379 B2 Monopitch Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:11 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-jmbmtUhta2_72l9pNExIY07n2dNAV3dEQl8lgFzaP3w $\frac{0-4-8}{0-4-8}$ 8-0-0 Scale = 1:18.7 2x4 || 3 4.00 12 0-4-0 4 2x4 = 2x4 || 7-11-0 LOADING (psf) SPACING-2-0-0 CSI. DEFL. L/d **PLATES** GRIP (loc) I/defI TCLL 25.0 Plate Grip DOL Vert(LL) -0.17 >553 360 MT20 197/144 1.15 TC 0.77 2-4 **TCDL** 10.0 Lumber DOL 1.15 ВС 0.42 Vert(CT) -0.34 2-4 >276 240 **BCLL** 0.0 Rep Stress Incr YES WB 0.00 Horz(CT) -0.00 4 n/a n/a Code IRC2018/TPI2014 BCDL 10.0 Matrix-P Wind(LL) 0.00 240 Weight: 21 lb FT = 10%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E 2x4 SPF 2100F 1.8E BOT CHORD

WEBS 2x3 SPF No.2

REACTIONS. 4=Mechanical, 2=0-3-8 (size)

Max Horz 2=121(LC 7) Max Uplift 4=-74(LC 8), 2=-79(LC 4)

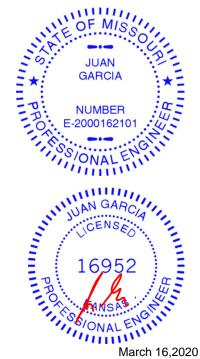
Max Grav 4=348(LC 1), 2=386(LC 1)

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

TOP CHORD 3-4=-270/121

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 4 and 79 lb uplift at joint 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.



Structural wood sheathing directly applied or 6-0-0 oc purlins,

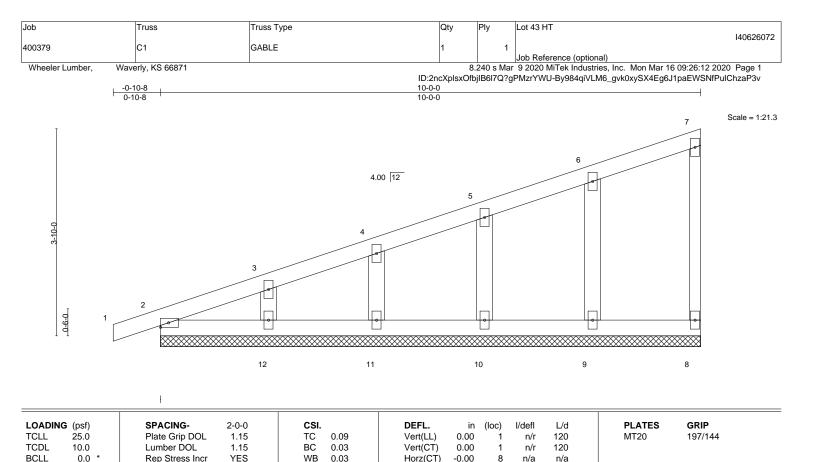
Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals.



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





LUMBER-

BCDL

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 **WEBS** 2x3 SPF No.2 **OTHERS** 2x4 SPF No.2

10.0

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

Weight: 35 lb

FT = 10%

except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing

REACTIONS. All bearings 10-0-0.

(lb) -Max Horz 2=158(LC 5)

Max Uplift All uplift 100 lb or less at joint(s) 8, 2, 12, 11, 10, 9 Max Grav All reactions 250 lb or less at joint(s) 8, 2, 12, 11, 10, 9

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

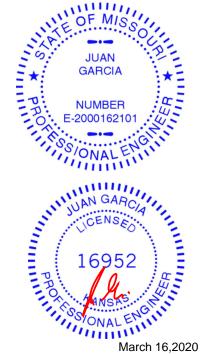
Code IRC2018/TPI2014

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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

Matrix-S

- 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) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2, 12, 11, 10, 9.
- 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.



March 16,2020



Job Truss Truss Type Qty Lot 43 HT 140626073 400379 C2 Monopitch Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:12 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-By984qiVLM6_qvk0xySX4Eg341ltEP7NfPulChzaP3v 0-10-8 4-11-6 5-0-10 Scale = 1:22.9 2x4 II 4 4.00 12 3x4 = 3-10-0 0-9-0 5 6 2x4 || 3x4 = 2x4 10-0-0 4-11-6 LOADING (psf) SPACING-2-0-0 CSI. DEFL. I/defI L/d **PLATES** GRIP (loc) TCLL 25.0 Plate Grip DOL Vert(LL) -0.02 >999 MT20 197/144 1.15 TC 0.30 2-6 360 **TCDL** 10.0 Lumber DOL 1.15 ВС 0.26 Vert(CT) -0.04 5-6 >999 240 **BCLL** 0.0 Rep Stress Incr YES WB 0.50 Horz(CT) 0.01 5 n/a n/a Code IRC2018/TPI2014 BCDL 10.0 Matrix-S Wind(LL) 0.02 2-6 >999 240 Weight: 33 lb FT = 10% BRACING-

TOP CHORD

BOT CHORD

LUMBER-TOP CHORD BOT CHORD

REACTIONS.

2x4 SPF No.2 2x4 SPF No.2

WEBS 2x3 SPF No.2

> 5=Mechanical, 2=0-3-8 (size) Max Horz 2=158(LC 5) Max Uplift 5=-94(LC 8), 2=-115(LC 4) Max Grav 5=435(LC 1), 2=514(LC 1)

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

TOP CHORD 2-3=-782/113

BOT CHORD 2-6=-134/682, 5-6=-134/682

WEBS 3-5=-714/178

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb)
- 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.



Structural wood sheathing directly applied or 6-0-0 oc purlins,

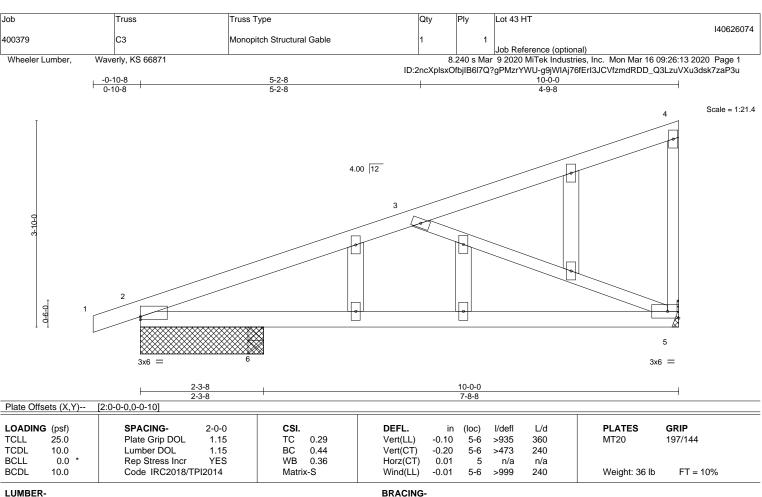
Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals.



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





LUMBER-

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2

WEBS 2x3 SPF No.2 **OTHERS** 2x4 SPF No.2 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

REACTIONS. (size) 5=Mechanical, 2=2-3-8, 6=0-3-8

Max Horz 2=158(LC 5)

Max Uplift 5=-112(LC 8), 2=-172(LC 4)

Max Grav 5=398(LC 1), 2=349(LC 1), 6=346(LC 3)

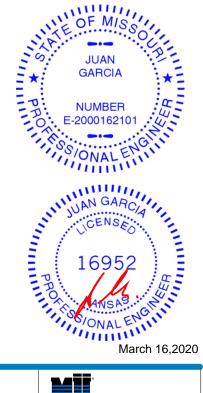
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-619/203

BOT CHORD 2-6=-217/526 5-6=-217/526

WEBS 3-5=-545/271

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) 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) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 5=112, 2=172.
- 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.

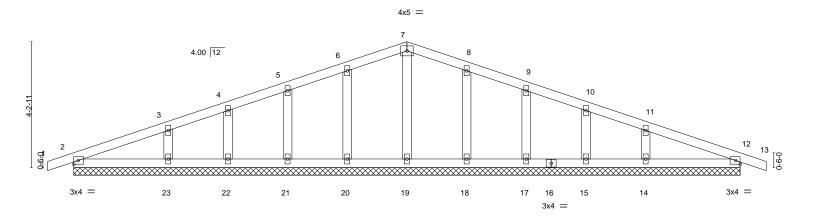






Job	Truss	Truss Type	Qty	Ply	Lot 43 HT	
						I40626075
400379	D1	Common Supported Gable	1	1		
					Job Reference (optional)	
Wheeler Lumber, V	Vaverly, KS 66871			3.240 s Mar	9 2020 MiTek Industries, Inc. Mon Mar 16 09:2	6:14 2020 Page 1
	•		ID:2ncXplsxOf	bjIB6l7Q?g	PMzrYWU-8LHuVWkmtzMhvCuO2NU?AflRrqV\	/iQrg6jNPHZzaP3t
₁ 0-10-8		11-2-0			22-4-0	23-2-8
0-10-8		11-2-0			11-2-0	0-10-8

Scale = 1:38.6



			22-4-0 22-4-0						
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.09 BC 0.06 WB 0.03 Matrix-S	DEFL. Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 0.00	(loc) 13 13 12	l/defl n/r n/r n/a	L/d 120 120 n/a	PLATES MT20 Weight: 77 lb	GRIP 197/144 FT = 10%

BRACING-TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 **OTHERS** 2x4 SPF No.2

REACTIONS. All bearings 22-4-0.

(lb) - Max Horz 2=71(LC 12) Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 23, 18, 17, 15, 14, 12

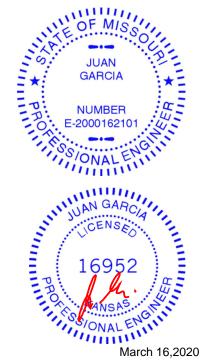
All reactions 250 lb or less at joint(s) 2, 19, 20, 21, 22, 18, 17, 15, 12 except 23=275(LC 21), Max Grav

14=275(LC 22)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 20, 21, 22, 23, 18, 17, 15, 14, 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.



Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

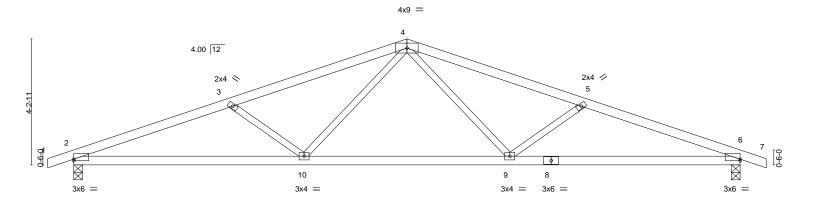


MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.



Job		Truss	Truss Type	C	Qty	Ply	Lot 43 HT		
									I40626076
4003	379	D2	Common	5	5	1			
							Job Reference (o	ptional)	
Wł	neeler Lumber, Wave	erly, KS 66871			8.:	240 s Mar	9 2020 MiTek Inc	lustries, Inc. Mon Mar 16 09:26:15 2020	Page 1
				ID:2n	cXplsxOt	fbjlB6l7Q?	gPMzrYWU-cXrHj	slOdHUYXMTbc4?EislWhEgrRrkqLN6y	p0zaP3s
	_T 0-10-8	5-3-15	11-2-0			17-0-1		22-4-0	23-2-8
	0-10-8	5-3-15	5-10-1			5-10-1		5-3-15	0-10-8

Scale = 1:38.6



<u> </u>	7-8-10		14-7-6	I .	22-4-0
	7-8-10	ı	6-10-12		7-8-10
Plate Offsets (X,Y)	[2:0-0-0,0-0-10], [6:0-0-0,0-0-10]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc)	I/defl L/d	PLATES GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.47	Vert(LL) -0.12 9-10	>999 360	MT20 197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.69	Vert(CT) -0.25 6-9	>999 240	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.19	Horz(CT) 0.07 6	n/a n/a	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.08 9-10	>999 240	Weight: 68 lb FT = 10%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2

WEBS 2x3 SPF No.2

REACTIONS. (size) 2=0-3-8, 6=0-3-8 Max Horz 2=71(LC 8)

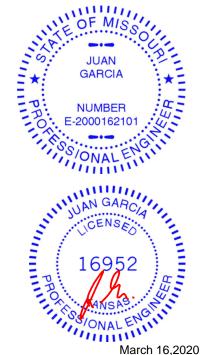
Max Uplift 2=-189(LC 4), 6=-189(LC 5) Max Grav 2=1063(LC 1), 6=1063(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-2232/355, 3-4=-1909/259, 4-5=-1909/260, 5-6=-2232/355

BOT CHORD 2-10=-333/2049, 9-10=-127/1406, 6-9=-280/2049 4-9=-59/541, 5-9=-418/221, 4-10=-58/541, 3-10=-418/221 WFBS

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=189. 6=189.
- 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.



Structural wood sheathing directly applied or 3-7-2 oc purlins.

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



Job Truss Truss Type Qty Lot 43 HT 140626077 400379 E1 Roof Special Structural Gable Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:16 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-4kOfwBl0OacP9W2nAnXTF4re2e1RAl9za1sWLSzaP3r 0-10-8 0-10-8 4-3-8 4-3-8 6-6-0 8-8-8 13-0-0 2-2-8 2-2-8 4-3-8 0-10-8 Scale = 1:34.7 3x6 = 4x5 || 4 2x4 || 2x4 || 8.00 12 5 3 2x4 || 9 10 5x12 = 5x12 = 6.00 12 8x12 > 4-3-8 4-5-0 Plate Offsets (X,Y)--SPACING-LOADING (psf) CSI. DEFL. (loc) I/defl L/d **PLATES** GRIP **TCLL** 25.0 Plate Grip DOL 1.15 TC 0.69 Vert(LL) -0.16 9-10 >968 360 MT20 197/144 **TCDL** 10.0 Lumber DOL 1.15 ВС 0.61 Vert(CT) -0.29 9-10 >511 240 **BCLL** 0.0 Rep Stress Incr YES WB 0.17 Horz(CT) 0.27 8 n/a n/a Code IRC2018/TPI2014 FT = 10% **BCDL** Matrix-S Wind(LL) 9-10 >999 240 Weight: 50 lb 10.0 0.08 LUMBER-**BRACING-**TOP CHORD Structural wood sheathing directly applied or 5-3-11 oc purlins,

BOT CHORD

except end verticals

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

TOP CHORD 2x4 SPF 2100F 1.8E 2x4 SPF No.2 **BOT CHORD**

WEBS 2x3 SPF No.2 *Except* 2-11,6-8: 2x6 SP DSS

OTHERS 2x4 SPF No.2

REACTIONS.

(size) 11=0-3-8, 8=0-3-8 Max Horz 11=154(LC 7)

Max Uplift 11=-88(LC 8), 8=-88(LC 9) Max Grav 11=642(LC 1), 8=642(LC 1)

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

TOP CHORD 2-3=-1287/152, 3-4=-1079/272, 4-5=-1069/195, 5-6=-1287/84, 2-11=-1009/165,

6-8=-1009/102

BOT CHORD 10-11=-127/1104, 9-10=0/624, 8-9=-11/1029

WEBS 4-9=-180/520, 4-10=-219/592

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) 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) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Bearing at joint(s) 11, 8 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, 8.
- 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.



March 16,2020







Job Truss Truss Type Qty Lot 43 HT 140626078 400379 E2 Roof Special Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:17 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-Ywy18Xme9ukGmgdzkV2inHNqs2JqvlE7ohb3tuzaP3q 8-7-0 12-10-8 4-2-0 2-2-8 2-2-8 4-3-8 Scale = 1:32.4 4x5 || 3 2x4 || 8.00 12 2x4 || 3x6 5x12 = 5x12 0-11-0 0-10-0 \mathbb{X} 6.00 12 3x6 ≥ 3x6 / 8-7-0 12-10-8 Plate Offsets (X,Y)--[6:0-0-12,0-1-8], [9:0-0-12,0-1-8] SPACING-DEFL. GRIP LOADING (psf) CSI. (loc) I/defl L/d **PLATES TCLL** 25.0 Plate Grip DOL 1.15 TC 0.62 Vert(LL) -0.24 7-8 >610 360 MT20 197/144 **TCDL** 10.0 Lumber DOL 1.15 ВС 0.85 Vert(CT) -0.45 7-8 >331 240

Horz(CT)

Wind(LL)

BRACING-

TOP CHORD

BOT CHORD

0.40

0.14

6

7-8

n/a

>999

except end verticals.

n/a

240

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

Structural wood sheathing directly applied or 4-2-13 oc purlins,

LUMBER-

BCLL

BCDL

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 WEBS

0.0

10.0

2x3 SPF No.2 *Except* 1-9,5-6: 2x6 SP DSS

REACTIONS. (size) 9=0-2-0, 6=0-3-8 Max Horz 9=-135(LC 4)

Max Uplift 9=-61(LC 8), 6=-62(LC 9)

Rep Stress Incr

Code IRC2018/TPI2014

Max Grav 9=559(LC 1), 6=559(LC 1)

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

1-2=-1235/160, 2-3=-1049/277, 3-4=-1082/227, 4-5=-1263/97, 1-9=-874/141, TOP CHORD

YES

WB

Matrix-S

0.18

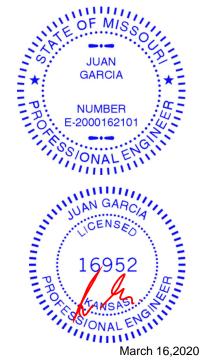
5-6=-889/100

8-9=-143/1032, 7-8=-1/594, 6-7=-38/1012

BOT CHORD WEBS 3-8=-218/570, 3-7=-197/548

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Bearing at joint(s) 9, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 9.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 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.



FT = 10%

Weight: 44 lb





Job Truss Truss Type Qty Lot 43 HT 140626079 400379 E3 Common Supported Gable Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:22 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-vtmwBFqn_QNZtRVxW2dtUL4p83DTa0ysyzJqZ6zaP3l 20-10-8 0-10-8 -0-10-8 0-10-8 10-0-0 10-0-0 10-0-0

4x5 =

7 8 6 8.00 12 10 11 12 13 24 23 22 20 19 18 16 15 3x10 || 3x10 || 20-0-0

Plate Off	fsets (X,Y)	[14:0-5-10,0-1-8], [24:0-5-10,0-1-8]			
LOADIN	G (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC 0.07	Vert(LL) -0.00 13 n/r 120	MT20 197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.06	Vert(CT) -0.00 13 n/r 120	
BCLL	0.0 *	Rep Stress Incr YES	WB 0.15	Horz(CT) 0.00 14 n/a n/a	
BCDL	10.0	Code IRC2018/TPI2014	Matrix-R		Weight: 95 lb FT = 10%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

OTHERS

REACTIONS.

TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2 **WEBS** 2x4 SPF No.2

(lb) -

2x4 SPF No.2 All bearings 20-0-0.

Max Horz 24=-213(LC 6) Max Uplift All uplift 100 lb or less at joint(s) 24, 14, 20, 21, 22, 18, 17, 16 except 23=-121(LC 8),

15=-112(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 24, 14, 19, 20, 21, 22, 23, 18, 17, 16, 15

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate
- 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 14, 20, 21, 22, 18, 17, 16 except (it=lb) 23=121, 15=112.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Structural wood sheathing directly applied or 6-0-0 oc purlins,

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

except end verticals.

March 16,2020

Scale = 1:46.9





Job Truss Truss Type Qty Ply Lot 43 HT 140626080 400379 E4 COMMON GIRDER 3 Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:24 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-rGtgcxs1W2dH6lfJeTgLamA1ksqU2pJ9PHoxd_zaP3j -0-10-8 0-10-8 5-9-13 5-9-13 14-2-2 20-0-0

4-2-3

4-2-2

5-9-14 Scale = 1:45.9 5x7 ||

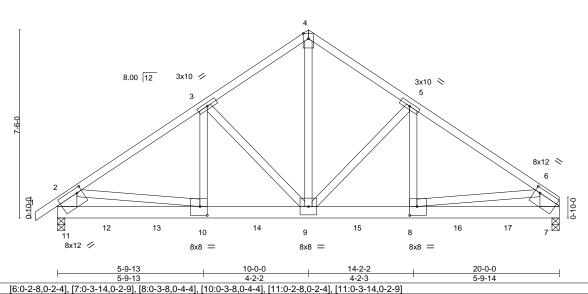


Plate Offsets (X,Y)--SPACING-GRIP LOADING (psf) CSI. DEFL. (loc) I/defI L/d **PLATES TCLL** 25.0 Plate Grip DOL 1.15 TC 0.58 Vert(LL) -0.08 8-9 >999 360 MT20 197/144 TCDL 10.0 Lumber DOL 1.15 ВС 0.34 Vert(CT) -0.14 8-9 >999 240 **BCLL** 0.0 Rep Stress Incr NO WB 0.61 Horz(CT) 0.02 n/a n/a Code IRC2018/TPI2014 Wind(LL) FT = 10% **BCDL** 10.0 Matrix-S 0.04 9-10 >999 240 Weight: 362 lb

LUMBER-

WEBS

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x6 SP 2400F 2.0E

2x4 SPF No.2 *Except* 2-11,6-7: 2x10 SP DSS **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

REACTIONS.

(size) 11=0-3-8 (req. 0-4-4), 7=0-3-8 (req. 0-4-3)

Max Horz 11=208(LC 5)

Max Uplift 11=-282(LC 8), 7=-402(LC 9) Max Grav 11=8073(LC 1), 7=7984(LC 1)

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

 $2\text{-}3\text{--}9667/322,\ 3\text{-}4\text{--}7075/324,\ 4\text{-}5\text{--}7097/324,\ 5\text{-}6\text{--}9671/370,\ 2\text{-}11\text{--}6262/281,}$ TOP CHORD 6-7=-6168/268

 $10\text{-}11\text{=-}253/2853, \, 9\text{-}10\text{=-}276/7930, \, 8\text{-}9\text{=-}233/7949, \, 7\text{-}8\text{=-}220/2745}$

4-9=-268/7467, 5-9=-3052/283, 5-8=-102/3308, 3-9=-3025/218, 3-10=-34/3314, **WEBS**

2-10=-87/5119, 6-8=-63/5245

BOT CHORD

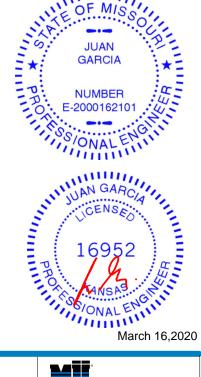
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc, 2x10 - 2 rows staggered 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.

- 2) 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.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) WARNING: Required bearing size at joint(s) 11, 7 greater than input bearing size.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=282, 7=402,
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1659 lb down and 39 lb up at 2-0-0, 1659 lb down and 39 lb up at 4-0-0, 1583 lb down and 39 lb up at 6-0-0, 1583 lb down and 39 lb up at 8-0-0, 1668 lb down and 39 lb up at 10-0-0, 1664 lb down and 40 lb up at 12-0-0, 1664 lb down and 40 lb up at 14-0-0, and 1583 lb down and 39 lb up at 16-0-0, and 1578 lb down and 219 lb up at 18-0-0 on bottom chord. The design/selection of such connection device(s) is the



Contines and resilipitity of others

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



Job	Truss	Truss Type	Qty	Ply	Lot 43 HT	
400070		OOM MACH CIPPED			140626080	30
400379	E4	COMMON GIRDER	1	3	Job Reference (optional)	

Wheeler Lumber,

Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:25 2020 Page 2 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-JSR3pGsfHLl8kvEWCABa6ziCUGAjnGZlexXUARzaP3i

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-4=-70, 4-6=-70, 7-11=-20

Concentrated Loads (lb)

Vert: 9=-1583(B) 8=-1587(B) 10=-1583(B) 12=-1578(B) 13=-1578(B) 14=-1583(B) 15=-1587(B) 16=-1583(B) 17=-1578(B)



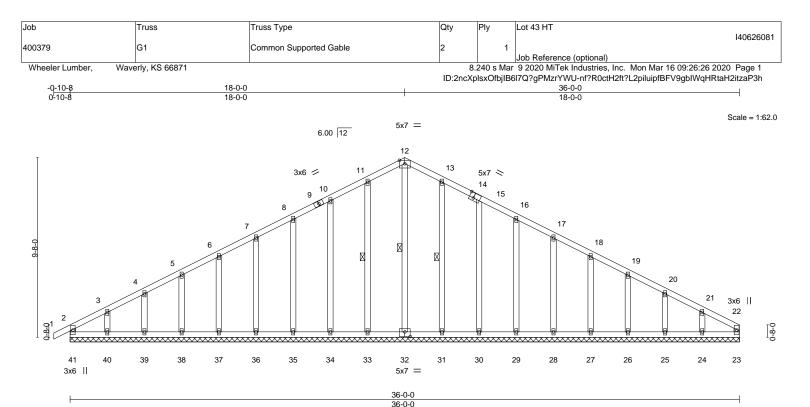


Plate Off	fsets (X,Y)	[14:0-0-0,0-1-12], [14:0-2	2-12,0-3-4], [15	:0-1-15,0-0-0	0], [32:0-3-8,0	0-3-0]						
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	23	n/a	n/a		
BCDL	10.0	Code IRC2018/Ti	PI2014	Matri	x-R						Weight: 183 lb	FT = 10%

LUMBER-

OTHERS

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 **WEBS** 2x4 SPF No.2 **BRACING-**

BOT CHORD

WEBS

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

except end verticals.

Rigid ceiling directly applied or 10-0-0 oc bracing. 12-32, 11-33, 13-31 1 Row at midpt

REACTIONS. All bearings 36-0-0.

2x4 SPF No.2

(lb) -Max Horz 41=161(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 41, 33, 34, 35, 36, 37, 38, 39, 31, 30, 29, 28, 27, 26, 25

except 40=-112(LC 8), 24=-103(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 41, 23, 32, 33, 34, 35, 36, 37, 38, 39, 40, 31, 30, 29, 28,

27, 26, 25, 24

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

TOP CHORD 11-12=-46/254

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 41, 33, 34, 35, 36, 37, 38, 39, 31, 30, 29, 28, 27, 26, 25 except (jt=lb) 40=112, 24=103.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 16,2020



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



Job Truss Truss Type Qty Lot 43 HT 140626082 400379 G2 Roof Special Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:29 2020 Page 1 Wheeler Lumber, Waverly, KS 66871

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-CEhZfevAKaFZCWXHR0GWHptsptPSj1duZYViJCzaP3e

-0-10-8 0-10-8 18-0-0 22-2-6 26-0-0 5-9-10 8-0-0 4-2-6 4-2-6 3-9-10

> Scale = 1:58.4 4x5 ||

Structural wood sheathing directly applied or 3-3-12 oc purlins,

3-11, 6-10

Rigid ceiling directly applied or 9-3-13 oc bracing.

except end verticals.

1 Row at midpt

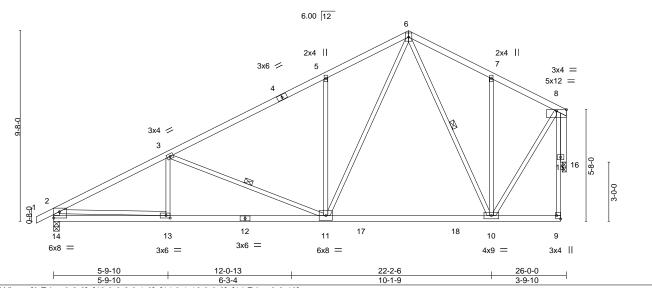


Plate Offsets (X,Y)--[9:Edge,0-2-8], [13:0-2-8,0-1-8], [14:0-1-12,0-0-0], [14:Edge,0-3-13] SPACING-GRIP LOADING (psf) CSI. DEFL. (loc) I/defI L/d **PLATES** Plate Grip DOL **TCLL** 25.0 1.15 TC 0.68 Vert(LL) -0.21 10-11 >999 360 MT20 197/144 **TCDL** 10.0 Lumber DOL 1.15 ВС 0.86 Vert(CT) -0.33 10-11 >923 240 **BCLL** 0.0 Rep Stress Incr YES WB 0.73 Horz(CT) 0.18 16 n/a n/a Code IRC2018/TPI2014 Wind(LL) FT = 10% BCDL 10.0 Matrix-S 0.07 11-13 >999 240 Weight: 118 lb

BRACING-

TOP CHORD

BOT CHORD

WEBS

LUMBER-

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 **WEBS**

2x3 SPF No.2 *Except* 2-14: 2x4 SPF No.2

OTHERS 2x4 SPF No.2

REACTIONS. 14=0-3-8, 16=0-2-8 (size)

Max Horz 14=243(LC 5)

Max Uplift 14=-178(LC 8), 16=-139(LC 8) Max Grav 14=1273(LC 2), 16=1213(LC 2)

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

TOP CHORD 2-3=-2023/262, 3-5=-1401/193, 5-6=-1376/338, 6-7=-718/167, 7-8=-668/113,

2-14=-1178/205

BOT CHORD 13-14=-287/524, 11-13=-392/1763, 10-11=-59/727

WEBS 3-11=-647/234, 5-11=-497/274, 6-11=-283/1095, 6-10=-381/102, 7-10=-342/183,

2-13=-106/1277, 8-10=-99/1005, 8-16=-1219/140

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) The Fabrication Tolerance at joint 2 = 2%
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 16.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=178 16=139
- 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.



March 16,2020



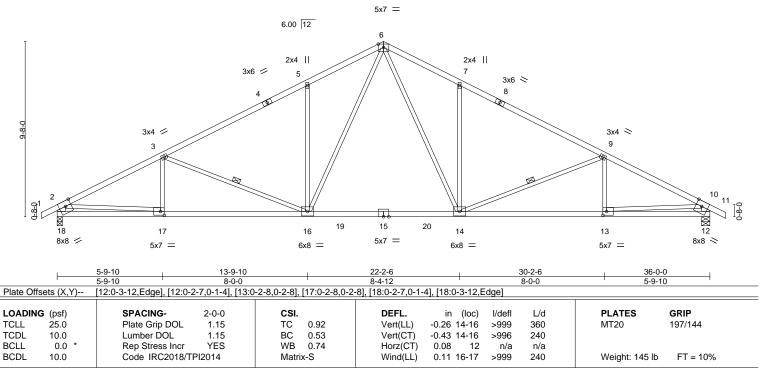
MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not Design Valid for use only with release controlled in the controlle



Job Truss Truss Type Qty Lot 43 HT 140626083 400379 G3 Common | Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:32 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-cpMiHgy2dVd83zGs68pDuSVJO5WRwOIKFWkMvXzaP3b -0-10-8 0-10-8 13-9-10 18-0-0 22-2-6 30-2-6 36-0-0 5-9-10 8-0-0 4-2-6 4-2-6 8-0-0 5-9-10 0-10-8

Scale: 3/16"=1



LUMBER-

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF 2100F 1.8E **WEBS** 2x3 SPF No.2 *Except* 2-18,10-12: 2x6 SPF No.2 **BRACING-**

TOP CHORD **BOT CHORD** WEBS

Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied or 10-0-0 oc bracing. 1 Row at midpt

9-14, 3-16

REACTIONS. (size) 18=0-3-8, 12=0-5-8

Max Horz 18=-150(LC 9)

Max Uplift 18=-224(LC 8), 12=-224(LC 9) Max Grav 18=1743(LC 2), 12=1743(LC 2)

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

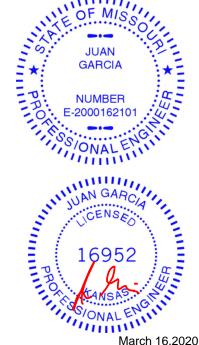
2-3=-2882/343, 3-5=-2373/287, 5-6=-2351/431, 6-7=-2351/431, 7-9=-2373/287, TOP CHORD

9-10=-2882/344, 2-18=-1638/249, 10-12=-1638/248

BOT CHORD 17-18=-226/675, 16-17=-383/2516, 14-16=-63/1605, 13-14=-233/2516, 12-13=-89/598 **WEBS** 6-14=-284/1056, 7-14=-500/276, 9-14=-572/220, 6-16=-284/1056, 5-16=-500/276,

3-16=-572/220, 2-17=-157/1925, 10-13=-144/1925

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=224, 12=224.
- 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.

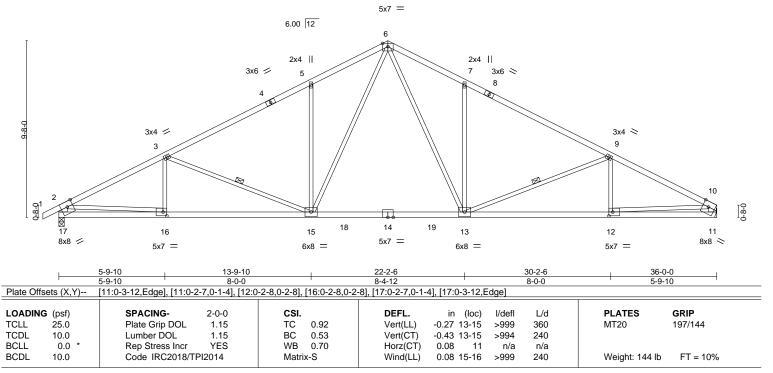


March 16,2020



Job Truss Truss Type Qty Lot 43 HT 140626084 400379 G4 Common Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:35 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-0N2qvh_xwQ0jxR?RnHMwW47qdIX67mjmxUy0WszaP3Y -0-10-8 0-10-8 22-2-6 30-2-6 36-0-0 5-9-10 8-0-0 4-2-6 4-2-6 8-0-0 5-9-10

Scale = 1:63.0



LUMBER-

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF 2100F 1.8E **WEBS** 2x3 SPF No.2 *Except* 2-17,10-11: 2x6 SPF No.2 **BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing. WEBS 1 Row at midpt 9-13, 3-15

REACTIONS.

(size) 17=0-3-8, 11=Mechanical

Max Horz 17=123(LC 5)

Max Uplift 17=-31(LC 8), 11=-19(LC 9) Max Grav 17=1744(LC 2), 11=1679(LC 2)

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

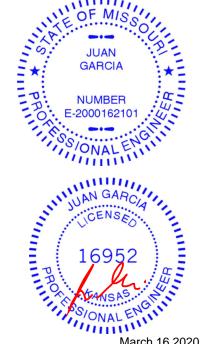
2-3=-2884/46, 3-5=-2375/55, 5-6=-2353/150, 6-7=-2353/150, 7-9=-2377/55, TOP CHORD

9-10=-2890/47, 2-17=-1639/57, 10-11=-1572/45

BOT CHORD 16-17=-107/674, 15-16=-80/2566, 13-15=0/1618, 12-13=0/2530, 11-12=-15/514 **WEBS** 6-13=-117/1074, 7-13=-495/166, 9-13=-586/111, 6-15=-117/1073, 5-15=-500/166,

3-15=-572/109, 2-16=0/1927, 10-12=0/2024

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 11.
- 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.



March 16,2020



Job Truss Truss Type Qty Lot 43 HT 140626085 400379 G5 Roof Special Job Reference (optional) 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Mar 16 11:42:29 2020 Page 1 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-80c1cYiBdPSuDM8l66wJT5rl3DQWdUXzy5AUjEzaN48 Wheeler Lumber, Waverly, KS 66871 -0-10-8 2-3-8 0-10-8 2-3-8 5-9-9 13-6-0 18-0-0 22-2-6 30-2-6 36-0-0 3-6-1 7-8-7 4-6-0 4-2-6 8-0-0 Scale: 3/16"=1 6x8 | 6.00 12 2x4 || 2x4 || 6x8 / 8 3x6 > 6 9 5 4x5 / 10 3x6 || 0-8-0 17 Bx8 18 8x12 = 1_{[1}12 2x4 || 15 / 19 16 14 13 3x6 =6x8 > 2x4 || 3x6 5x12 = 5x7 = 2-3-8 5-9-9 13-6-0 22-2-6 30-2-6 36-0-0 3-6-1 8-8-6 8-0-0 5-9-10 Plate Offsets (X,Y)--[1:Edge,0-0-1], [3:Edge,0-0-10], [5:0-4-0,Edge], [12:0-3-4,0-2-0], [12:0-2-7,0-1-4], [13:0-2-8,0-2-8] LOADING (psf) SPACING-2-0-0 CSI. DEFL. I/defl L/d **PLATES** GRIP in (loc) Plate Grip DOL TC Vert(LL) Vert(CT) TCLL 25.0 1 15 0.91 -0.32 17-18 >999 360 MT20 197/144 TCDL ВС 10.0 Lumber DOL 0.80 -0.64 17-18 240 1.15 >666 Horz(CT) **BCLL** 0.0 Rep Stress Incr YES WB 1.00 0.33 12 n/a n/a Code IRC2018/TPI2014 **BCDL** 10.0 Matrix-S Wind(LL) 0.17 17-18 >999 240 Weight: 174 lb FT = 10%

BRACING-

WEBS

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*

5-7: 2x6 SPF No.2, 1-5: 2x8 SP DSS

BOT CHORD 2x4 SPF No.2 *Except*

3-17: 2x4 SPF 2100F 1.8E, 6-16: 2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except*

2-19.11-12: 2x6 SPF No.2

WEDGE

Left: 2x4 SPF No.2

REACTIONS. (lb/size) 1=1596/0-3-8, 12=1603/Mechanical

Max Horz 1=116(LC 5)

Max Uplift 1=-24(LC 8), 12=-19(LC 9)

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

1-2=-856/62, 2-3=-65/705, 3-4=-4018/76, 4-5=-2649/37, 5-6=-2467/57, 6-7=-2589/150, TOP CHORD

7-8=-2230/147, 8-9=-2043/54, 9-10=-2269/33, 10-11=-2774/50, 11-12=-1537/46

BOT CHORD 3-18=-128/3829, 17-18=-127/3832, 6-17=-445/156, 13-14=-2/2416, 12-13=-13/447 WFBS 4-18=0/341, 4-17=-1643/148, 14-17=0/1525, 7-17=-113/1338, 7-14=-124/834,

8-14=-478/164, 10-14=-581/115, 11-13=0/1976

NOTES-

1) Unbalanced roof live loads have been considered for this design.

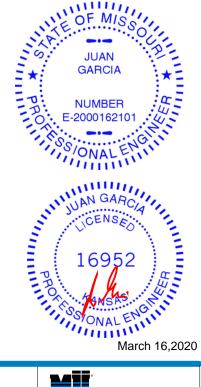
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.

6) Refer to girder(s) for truss to truss connections.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 1 and 19 lb uplift at
- 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.



Structural wood sheathing directly applied, except end verticals.

4-17, 10-14

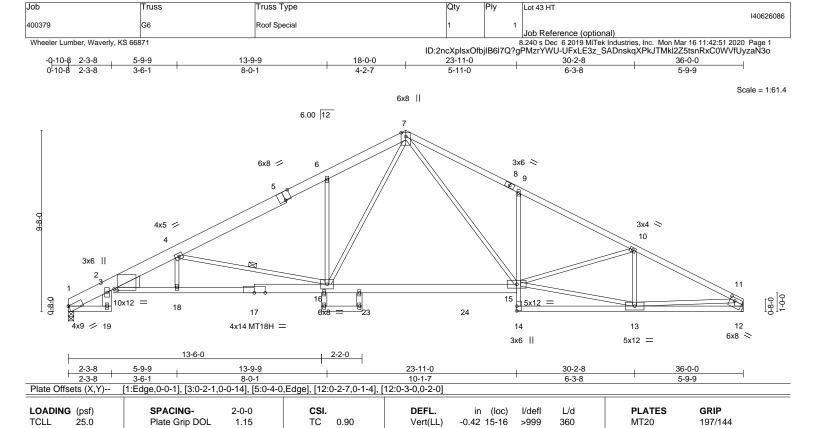
Rigid ceiling directly applied or 10-0-0 oc bracing.

1 Row at midpt

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 Design Valid for use only with release controlled in the controlle





Vert(CT)

Horz(CT)

Wind(LL)

BRACING-

TOP CHORD

BOT CHORD

WEBS

-0.7315-16

0.35

0.17

LUMBER-

TCDL

BCLL

BCDL

TOP CHORD 2x4 SPF No.2 *Except*

10.0

0.0

10.0

5-7: 2x6 SPF No.2, 1-5: 2x8 SP DSS

Lumber DOL

Rep Stress Incr

BOT CHORD 2x4 SPF No.2 *Except*

3-17: 2x4 SPF 2100F 1.8E, 9-14: 2x3 SPF No.2, 15-17: 2x6 SPF No.2

Code IRC2018/TPI2014

WEBS 2x3 SPF No.2 *Except*

2-19.11-12: 2x6 SPF No.2. 16-20.21-22: 2x4 SPF No.2

Left: 2x8 SP DSS

WEDGE

REACTIONS. (lb/size) 1=1596/0-3-8, 12=1603/Mechanical

Max Horz 1=116(LC 7)

Max Uplift 1=-24(LC 8), 12=-19(LC 9) Max Grav 1=1674(LC 2), 12=1688(LC 2)

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

1-2=-926/62, 2-3=-65/799, 3-4=-4155/92, 4-5=-2860/18, 5-6=-2710/39, 6-7=-2803/132, TOP CHORD 7-8=-2977/142, 8-9=-2989/110, 9-10=-2971/44, 10-11=-2880/40, 11-12=-1583/47

1.15

YES

BOT CHORD 3-18=-142/4047, 17-18=-141/4049, 16-17=-139/4053, 16-23=0/1837, 23-24=0/1837, 15-24=0/1837, 9-15=-455/151, 12-13=-29/525

WFBS 4-16=-1625/180, 6-16=-446/156, 7-16=-80/1390, 7-15=-112/1342, 13-15=0/2483,

10-13=-458/74, 11-13=0/1995

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

BC

WB

Matrix-S

0.98

1.00

- 3) All plates are MT20 plates unless otherwise indicated.
- 4) All plates are 2x4 MT20 unless otherwise indicated
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 1 and 19 lb uplift at ioint 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.



240

n/a

240

MT18H

Structural wood sheathing directly applied or 2-2-0 oc purlins, except

Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

4-16

Weight: 185 lb

197/144

FT = 10%

>589

>999

n/a

2-2-0 oc bracing: 16-18.

1 Row at midpt

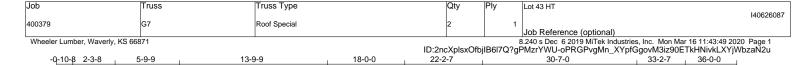
12

18



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





4-2-7

8-4-9

8-4-9

except end verticals.

1 Row at midpt

Structural wood sheathing directly applied or 2-10-2 oc purlins,

3-18, 9-16

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

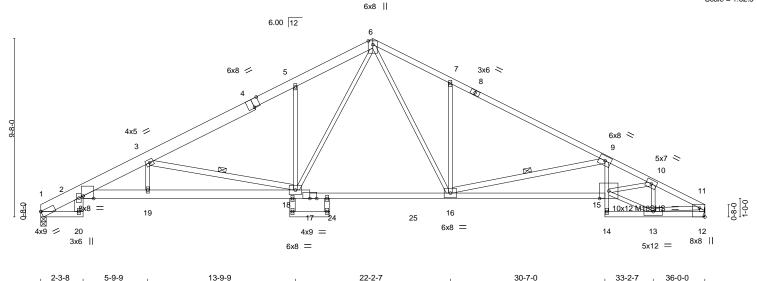
4-2-7

Scale = 1:62.5

2-9-10

2-9-10

2-7-6



T IGIO OTIO	3010 (71,1)	[1.Lago,0 0 1], [2.0 0 11,Lago], [1.0 1	o,Lagoj, [12.0 0 0,0 1 12],	[12.2490,000]	
LOADING	G (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC 0.75	Vert(LL) -0.35 16-18 >999 360	MT20 197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.73	Vert(CT) -0.63 15-16 >676 240	M18SHS 197/144
BCLL	0.0 *	Rep Stress Incr YES	WB 0.84	Horz(CT) 0.40 12 n/a n/a	
BCDL	10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.15 18-19 >999 240	Weight: 184 lb FT = 10%

BRACING-

TOP CHORD

BOT CHORD

WEBS

8-4-13

LUMBER-

0-10-8 2-3-8

3-6-1

8-0-1

TOP CHORD 2x6 SPF No.2 *Except*

6-8: 2x4 SPF No.2, 1-4: 2x8 SP DSS, 8-11: 2x4 SPF 2100F 1.8E

8-0-1

[1:Edge 0-0-1] [2:0-6-14 Edge] [4:0-4-0 Edge] [12:0-0-0 0-1-12] [12:Edge 0-3-8]

BOT CHORD 2x4 SPF No.2 *Except*

2-17: 2x6 SPF 1650F 1.4E, 9-14: 2x3 SPF No.2

15-17: 2x4 SPF 2100F 1.8E

3-6-1

WEBS 2x3 SPF No.2 *Except*

2-20: 2x6 SPF No.2, 3-18,9-16,11-12,18-21,22-23: 2x4 SPF No.2

(lb/size) 1=1607/0-3-8, 12=1607/Mechanical REACTIONS.

Max Horz 1=115(LC 5)

Max Uplift 1=-19(LC 8), 12=-19(LC 9) Max Grav 1=1685(LC 2), 12=1685(LC 2)

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

1-2=-932/61, 2-3=-4354/94, 3-4=-2822/26, 4-5=-2673/47, 5-6=-2779/138, 6-7=-2725/129, TOP CHORD

7-8=-2574/34, 8-9=-2770/12, 9-10=-4642/68, 10-11=-2625/25, 11-12=-1592/33 2-19=-139/4220, 18-19=-137/4223, 17-18=0/1849, 17-24=0/1842, 24-25=0/1842,

16-25=0/1842, 15-16=-30/4263, 9-15=0/912, 12-13=-18/451

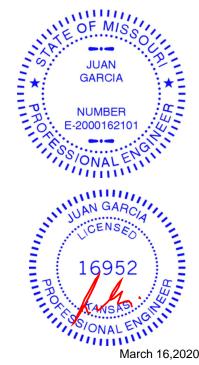
WFBS 3-18=-1834/169, 5-18=-457/157, 6-18=-109/1319, 6-16=-108/1243, 7-16=-490/168,

9-16=-1946/155, 13-15=0/2436, 10-15=-24/1927, 10-13=-1327/22, 11-13=0/1860

NOTES-

BOT CHORD

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) The Fabrication Tolerance at joint 11 = 6%
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 1 and 19 lb uplift at
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 16,2020



Job Truss Truss Type Qty Lot 43 HT 140626088 400379 G8 Roof Special Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:41 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-rXP6Al3hWGmsfMSa8XTLmLNrPjX0XRPfKQPKkVzaP3S

22-2-8

3-5-8

30-2-7

7-11-15

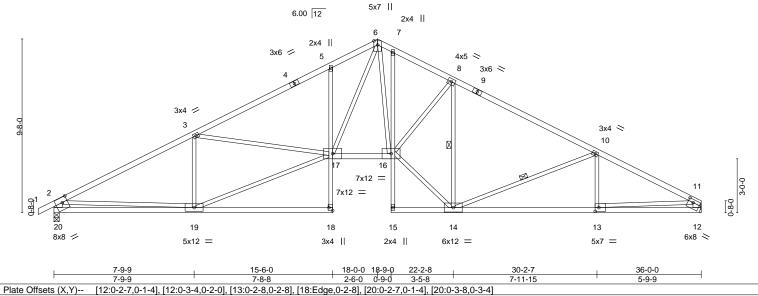
18-0-0 18-9-0 2-6-0 0-9-0

7-8-8

Scale: 3/16"=1

36-0-0

5-9-9



SPACING-(loc) GRIP LOADING (psf) CSI. DEFL. I/defI L/d **PLATES** Plate Grip DOL **TCLL** 25.0 1.15 TC 0.96 Vert(LL) -0.26 16-17 >999 360 MT20 197/144 **TCDL** 10.0 Lumber DOL 1.15 ВС 0.75 Vert(CT) -0.49 18-19 >866 240 **BCLL** 0.0 Rep Stress Incr YES WB 0.87 Horz(CT) 0.25 12 n/a n/a Code IRC2018/TPI2014 Wind(LL) BCDL 10.0 Matrix-S 0.17 5-17 >999 240 Weight: 162 lb FT = 10%

BRACING-

WEBS

TOP CHORD

BOT CHORD

LUMBER-

-0-10-8 0-10-8

7-9-9

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 *Except*

5-18,7-15: 2x3 SPF No.2 **WEBS** 2x3 SPF No.2 *Except* 2-20,11-12: 2x6 SP DSS

REACTIONS. 20=0-3-8, 12=Mechanical (size)

Max Horz 20=160(LC 8)

Max Uplift 20=-224(LC 8), 12=-199(LC 9) Max Grav 20=1678(LC 1), 12=1598(LC 1)

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

TOP CHORD $2-3=-2726/327,\ 3-5=-3238/390,\ 5-6=-3176/505,\ 6-7=-2576/350,\ 7-8=-2755/346,$

8-10=-2254/291, 10-11=-2768/343, 2-20=-1603/265, 11-12=-1535/221

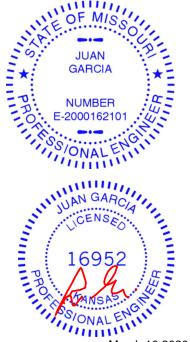
BOT CHORD 19-20=-378/884, 5-17=-415/237, 16-17=-101/2233, 13-14=-254/2411, 12-13=-75/444 **WEBS** 3-19=-840/241, 17-19=-376/2476, 3-17=0/469, 6-17=-359/1440, 6-16=-167/1003,

14-16=-118/2546, 8-16=-25/743, 8-14=-1344/150, 2-19=-6/1449, 11-13=-179/1974,

10-14=-588/217

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=224, 12=199.
- 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



Structural wood sheathing directly applied, except end verticals.

8-14, 10-14

Rigid ceiling directly applied or 9-5-12 oc bracing.

1 Row at midpt

March 16,2020



Job Truss Truss Type Qty Lot 43 HT 140626089 400379 J1 Diagonal Hip Girder Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:42 2020 Page 1

Wheeler Lumber, Waverly, KS 66871

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-JkzUN43KHaujGW1nhF_alZw9t7?6G5loY49uGyzaP3R

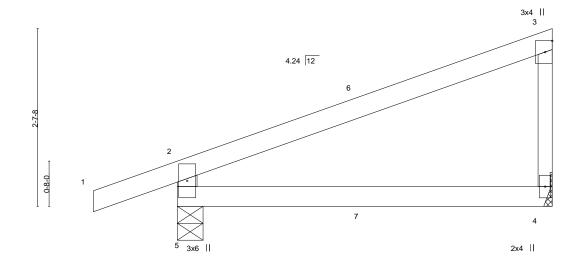
Structural wood sheathing directly applied or 5-6-6 oc purlins,

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

except end verticals

1-2-14 5-6-6

Scale = 1:17.0



LOADING (psf) SPACING-2-0-0 CSI. DEFL. **PLATES** GRIP (loc) I/defI L/d TCLL 25.0 Plate Grip DOL Vert(LL) -0.03 >999 197/144 1.15 TC 0.41 4-5 360 MT20 **TCDL** 10.0 Lumber DOL 1.15 ВС 0.25 Vert(CT) -0.07 4-5 >967 240 **BCLL** 0.0 Rep Stress Incr NO WB 0.00 Horz(CT) -0.00 4 n/a n/a BCDL 10.0 Code IRC2018/TPI2014 Matrix-R Wind(LL) 0.01 4-5 >999 240 Weight: 16 lb FT = 10%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SPF No.2 2x4 SPF No.2 **BOT CHORD**

2x4 SPF No.2 *Except* **WEBS**

3-4: 2x3 SPF No.2

REACTIONS. (size) 5=0-4-9, 4=Mechanical

Max Horz 5=111(LC 24)

Max Uplift 5=-101(LC 4), 4=-50(LC 8) Max Grav 5=346(LC 1), 4=224(LC 1)

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

TOP CHORD 2-5=-306/140

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=101
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 36 lb up at 2-9-8, and 69 lb down and 36 lb up at 2-9-8 on top chord, and 3 lb down and 1 lb up at 2-9-8, and 3 lb down and 1 lb up at 2-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

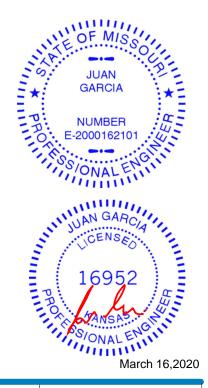
LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15. Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 4-5=-20 Concentrated Loads (lb)

Vert: 7=2(F=1, B=1)





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



Job Truss Truss Type Qty Lot 43 HT 140626090 400379 J2 Jack-Open Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:43 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-nwXsbQ4y1t0augczFyWprmSNoWNG?YYxnkuRoOzaP3Q 0-10-8 4-0-0 Scale = 1:16.2 6.00 12 2-3-5 0-8-0

			1	4-0-0		1	
LOADING	(psf)	SPACING- 2-0-0	CSI.	DEFL. in	(loc) I/defl	L/d	PLATES GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC 0.20	Vert(LL) -0.01	4-5 >999	360	MT20 197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.13	Vert(CT) -0.02	4-5 >999	240	
BCLL	0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.01	3 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.01	4-5 >999	240	Weight: 11 lb FT = 10%

4-0-0

BRACING-

TOP CHORD

BOT CHORD

LUMBER-TOP CHORD **BOT CHORD**

REACTIONS.

2x4 SPF No.2 2x4 SPF No.2

WEBS 2x4 SPF No.2

> 5=0-3-8, 3=Mechanical, 4=Mechanical (size)

Max Horz 5=89(LC 8)

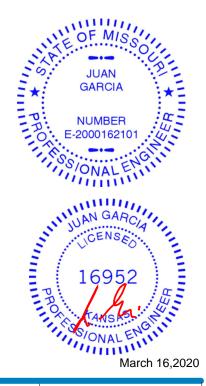
Max Uplift 5=-30(LC 8), 3=-66(LC 8)

Max Grav 5=252(LC 1), 3=116(LC 1), 4=71(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



Structural wood sheathing directly applied or 4-0-0 oc purlins,

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

except end verticals.



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



Job Truss Truss Type Qty Lot 43 HT 140626091 400379 J3 Jack-Open Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:46 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-CVD?DS7qKoO9l7LYw53WTO4v6kQcCvIOTi75PjzaP3N 1-10-15 0-10-8 1-10-15 Scale = 1:11.0 0-4-11 6.00 12 2 1-2-13 0-8-0 3x6 || 1-10-15 1-10-15

LOADING (psf) SPACING-2-0-0 CSI. DEFL. L/d **PLATES** GRIP (loc) I/defI TCLL 25.0 Plate Grip DOL Vert(LL) -0.00 >999 197/144 1.15 TC 0.07 5 360 MT20 **TCDL** 10.0 Lumber DOL 1.15 ВС 0.02 Vert(CT) -0.00 5 >999 240

BRACING-

TOP CHORD

BCLL 0.0 Rep Stress Incr YES WB 0.00 Horz(CT) -0.00 3 n/a n/a Code IRC2018/TPI2014 BCDL 10.0 Matrix-R Wind(LL) 0.00 5 >999 240

Weight: 6 lb FT = 10%

Structural wood sheathing directly applied or 1-10-15 oc purlins, except end verticals BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing

REACTIONS.

TOP CHORD

BOT CHORD

LUMBER-

WEBS

5=0-3-8, 3=Mechanical, 4=Mechanical (size)

Max Horz 5=48(LC 8)

2x4 SPF No.2

2x4 SPF No.2

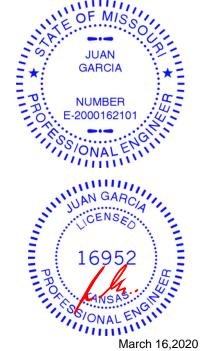
2x4 SPF No.2

Max Uplift 5=-26(LC 8), 3=-30(LC 8)

Max Grav 5=171(LC 1), 3=44(LC 1), 4=31(LC 3)

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.





Job	Truss	Truss Type	Qty	Ply	Lot 43 HT
400379	и	Jack-Closed Supported Gable	2	1	140626092
400373	07	Sack Glosed Supported Gable	_		Job Reference (optional)

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:47 2020 Page 1 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-ghmNQo7S56W0NHvkUoal?cd5Y8lwxLYXiMsfx9zaP3M

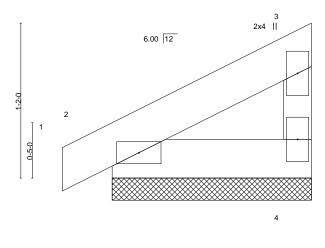
Structural wood sheathing directly applied or 1-6-0 oc purlins,

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

except end verticals.

1-6-0 0-4-8 1-6-0

Scale = 1:8.7



2x4 || 2x4 =

LOADING	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.Ó	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	-0.00	` í	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI	2014	Matri	x-P	, ,					Weight: 5 lb	FT = 10%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

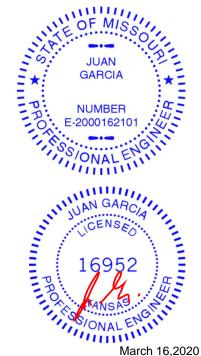
TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2

WEBS 2x3 SPF No.2

> 4=1-6-0, 2=1-6-0 (size) Max Horz 2=35(LC 5) Max Uplift 4=-15(LC 8), 2=-17(LC 8) Max Grav 4=59(LC 1), 2=93(LC 1)

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate
- 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 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.





Job	Truss	Truss Type	Qty	Ply	Lot 43 HT
400379	15	Jack-Closed	2	1	140626093
400379		Jack-Closed	2	'	Job Reference (optional)

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:49 2020 Page 1 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-c4u7rU9jdjmkcb37cDcD41iR4xRPPF1q9fLm02zaP3K

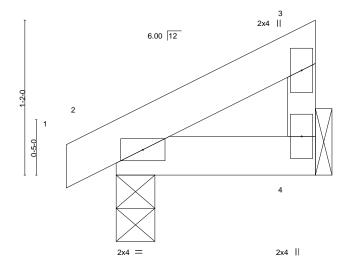
Structural wood sheathing directly applied or 1-6-0 oc purlins,

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

except end verticals.

1-6-0 0-4-8 1-6-0

Scale = 1:8.7



LOADING	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	-0.00	2	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	2	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI	I2014	Matri	x-P	Wind(LL)	0.00	2	****	240	Weight: 5 lb	FT = 10%

1-6-0

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

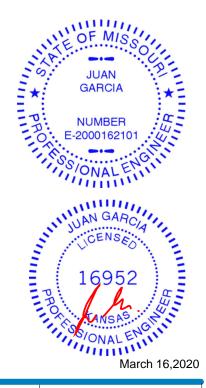
TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2

WEBS 2x3 SPF No.2

> 4=Mechanical, 2=0-3-8 (size) Max Horz 2=35(LC 5) Max Uplift 4=-15(LC 8), 2=-17(LC 8) Max Grav 4=57(LC 1), 2=94(LC 1)

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 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.





Job Truss Truss Type Qty Ply Lot 43 HT 140626094 400379 R1 Common Girder | **Z** | Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:50 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-4GSV3qALO1vbEleJ9w8SdEFTKLiC8X5zOJ5JYUzaP3J -0-10-8 0-10-8 22-2-6 25-10-8 30-2-6 36-0-0

4-2-6

3-8-2

4-3-14

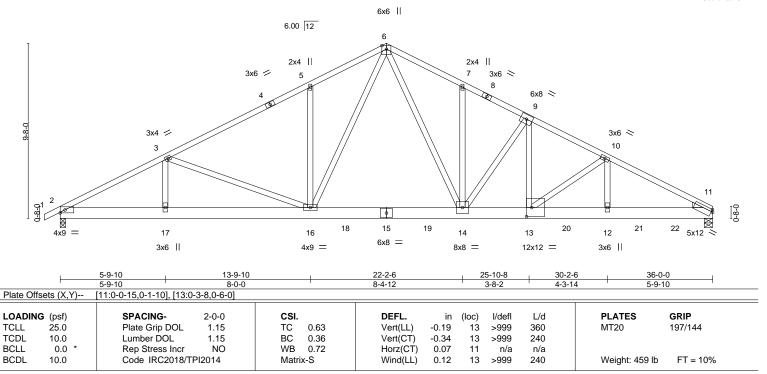
Structural wood sheathing directly applied or 4-3-12 oc purlins.

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

4-2-6

Scale: 3/16"=1

5-9-10



BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*

1-4,8-11: 2x4 SPF 2100F 1.8E

5-9-10

8-0-0

BOT CHORD 2x8 SP 2400F 2.0E WEBS 2x4 SPF No.2

WEDGE

Right: 2x4 SP No.3

REACTIONS. (size) 2=0-3-8. 11=0-5-8

Max Horz 2=108(LC 24)

Max Uplift 2=-193(LC 8), 11=-594(LC 9) Max Grav 2=3144(LC 2), 11=6326(LC 1)

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

TOP CHORD 2-3=-5931/375, 3-5=-5449/400, 5-6=-5412/494, 6-7=-7210/696, 7-9=-7209/630,

9-10=-10168/935, 10-11=-11530/1079

BOT CHORD 2-17=-372/5146, 16-17=-372/5146, 14-16=-248/4365, 13-14=-704/9043,

12-13=-886/10008, 11-12=-886/10008

WEBS 6-14=-548/4919, 7-14=-272/114, 10-13=-1422/224, 10-12=-146/1587, 6-16=-146/1101,

5-16=-472/166, 3-16=-637/228, 9-14=-4622/567, 9-13=-544/4883

NOTES-

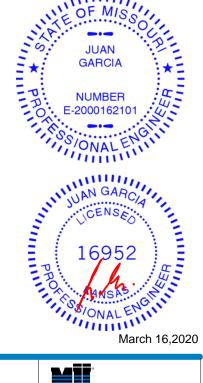
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.

Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-2-0 oc.

Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.

- 2) 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.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=193, 11=594.
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 4163 lb down and 450 lb up at 25-10-7, 539 lb down and 82 lb up at 27-11-4, 539 lb down and 82 lb up at 29-11-4, and 539 lb down and 82 lb up at 31-11-4, and 539 lb down and 82 lb up at 33-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of



Continues on page 2

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



Qty Ply Job Truss Truss Type Lot 43 HT 140626094 R1 400379 Common Girder

Wheeler Lumber,

Waverly, KS 66871

LOAD CASE(S) Standard

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

Vert: 1-6=-70, 6-11=-70, 2-11=-20

Concentrated Loads (lb)

Vert: 13=-3956(F) 12=-539(F) 20=-539(F) 21=-539(F) 22=-539(F)



Job Truss Truss Type Qty Lot 43 HT 140626095 Flat Girder 400379 R2 | **Z** | Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:51 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-YS0uG9Az9L1RruDVjefhASnjJl?Ot?47dzqs4wzaP3l 12-10-8 4-4-1 Scale = 1:22.1 3x4 || 2x4 || 5x12 = 2 3 \mathbf{x} ****11 12 13 6 7 5x12 = 2x4 || 5x14 MT18H = 4x5 = 12-10-8 4-4-1 LOADING (psf) SPACING-2-0-0 CSI. DEFL. L/d **PLATES** GRIP (loc) I/defI Plate Grip DOL Vert(LL) -0.05 197/144 **TCLL** 1.15 TC 0.30 6-7 >999 360 MT20 **TCDL** 10.0 Lumber DOL 1.15 BC 0.56 Vert(CT) -0.09 6-7 >999 240 MT18H 197/144

Horz(CT)

Wind(LL)

BRACING-

TOP CHORD

BOT CHORD

0.02

0.03

5

6-7

n/a

>999

n/a

240

2-0-0 oc purlins (6-0-0 max.): 1-4, except end verticals.

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

Weight: 156 lb

FT = 10%

LUMBER-

BCLL

BCDL

TOP CHORD 2x6 SP DSS 2x6 SPF No.2 **BOT CHORD WEBS** 2x4 SPF No.2

0.0

10.0

REACTIONS.

8=0-2-0 (req. 0-2-15), 5=Mechanical

Code IRC2018/TPI2014

Max Horz 8=-77(LC 4)

Max Uplift 8=-378(LC 4), 5=-430(LC 5) Max Grav 8=3713(LC 2), 5=4198(LC 2)

Rep Stress Incr

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

TOP CHORD 1-8=-3608/390, 1-2=-4787/489, 2-3=-4787/489, 4-5=-1234/150

BOT CHORD 6-7=-514/4839, 5-6=-514/4839

WEBS 1-7=-561/5455, 2-7=-2772/342, 3-5=-5514/569

NOTES-

1) 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, 2x6 - 2 rows staggered at 0-9-0 oc.

NO

Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.

Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.

2) 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.

WB

Matrix-S

0.67

- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 4) Provide adequate drainage to prevent water ponding
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) WARNING: Required bearing size at joint(s) 8 greater than input bearing size.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=378, 5=430,
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1155 lb down and 142 lb up at 1-10-8, 1155 lb down and 142 lb up at 3-10-8, 1155 lb down and 142 lb up at 5-10-8, 1155 lb down and 142 lb up at 7-10-8, and 1155 lb down and 142 lb up at 9-10-8, and 1159 lb down and 142 lb up at 11-10-8 on top chord. The design/selection of such connection device(s) is the responsibility of others

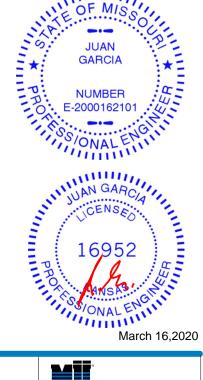
LOAD CASE(S) Standard

Continued on page 2

M 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 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.





16023 Swingley Ridge Rd Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 43 HT
400379	R2	Flat Girder	1	2	Ido Reference (optional)

Wheeler Lumber,

Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:51 2020 Page 2 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-YS0uG9Az9L1RruDVjefhASnjJl?Ot?47dzqs4wzaP3l

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-70, 5-8=-20 Concentrated Loads (lb)

Vert: 9=-1061 10=-1061 11=-1061 12=-1061 13=-1061 14=-1066



Job Truss Truss Type Lot 43 HT 140626096 Valley 400379 V1

Wheeler Lumber, Waverly, KS 66871

Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:52 2020 Page 1 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-0faGUVBbwe9lT2oiHLAwifKwn9Sncc_GsdaQdNzaP3H

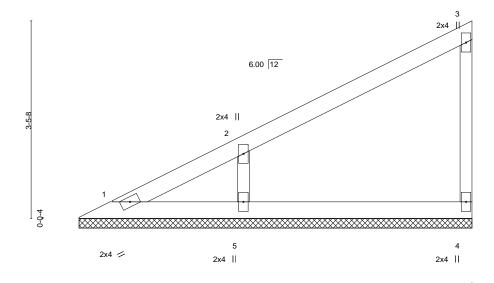
Structural wood sheathing directly applied or 6-0-0 oc purlins,

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

except end verticals.

6-11-0

Scale = 1:20.2



LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TF	PI2014	Matri	x-P						Weight: 19 lb	FT = 10%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2

2x3 SPF No.2 **WEBS OTHERS** 2x3 SPF No.2

REACTIONS. (size) 1=6-10-8, 4=6-10-8, 5=6-10-8

Max Horz 1=129(LC 5)

Max Uplift 4=-27(LC 8), 5=-110(LC 8)

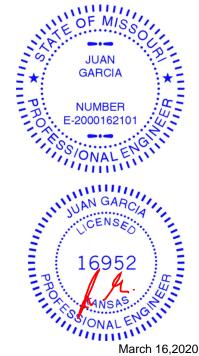
Max Grav 1=66(LC 16), 4=142(LC 1), 5=368(LC 1)

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

2-5=-286/159 **WEBS**

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) Gable requires continuous bottom chord bearing.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=110
- 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.



March 16,2020



Job Truss Truss Type Qty Lot 43 HT 140626097 Valley 400379 V2 Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:54 2020 Page 1

Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-z1h0vBDrSGP0iMy4OmCOn4PFgy7w4WHZJx3WhFzaP3F

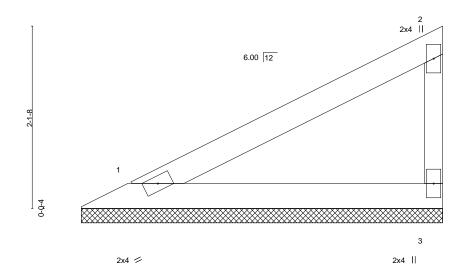
Structural wood sheathing directly applied or 4-3-0 oc purlins,

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

except end verticals.

4-3-0

Scale = 1:13.4



LOADIN TCLL	G (psf) 25.0	SPACING- 2-0-0 Plate Grip DOL 1.15	CSI. TC 0.23	DEFL. Vert(LL)	in (lo	loc) l/de	efl L/d /a 999	PLATES GRIP MT20 197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.12	Vert(CT)	n/a		/a 999	1017111
BCLL BCDL	0.0 * 10.0	Rep Stress Incr YES Code IRC2018/TPI2014	WB 0.00 Matrix-P	Horz(CT)	-0.00	3 n	/a n/a	Weight: 11 lb FT = 10%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2

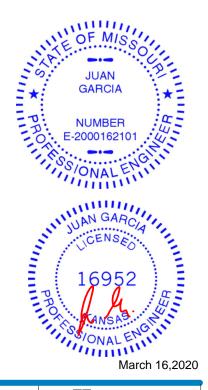
WEBS 2x3 SPF No.2

REACTIONS. 1=4-2-8, 3=4-2-8 (size) Max Horz 1=73(LC 5)

Max Uplift 1=-20(LC 8), 3=-39(LC 8) Max Grav 1=158(LC 1), 3=158(LC 1)

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) Gable requires continuous bottom chord bearing.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.





Job Truss Truss Type Lot 43 HT 140626098 Valley 400379 V3 Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:57 2020 Page 1

Wheeler Lumber, Waverly, KS 66871

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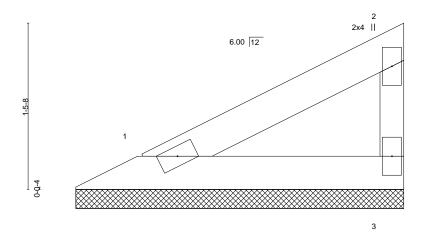
Structural wood sheathing directly applied or 2-11-0 oc purlins,

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

except end verticals.

2-11-0

Scale = 1:10.1



2x4 || 2x4 /

LOADIN TCLL	G (psf) 25.0	SPACING- 2-0-0 Plate Grip DOL 1.15	CSI. TC 0.08	DEFL. Vert(LL)	in (lo	loc) I/d - r	efl L/d n/a 999	PLATES MT20	GRIP 197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.04	Vert(CT)	n/a	- r	n/a 999		
BCLL BCDL	0.0 * 10.0	Rep Stress Incr YES Code IRC2018/TPI2014	WB 0.00 Matrix-P	Horz(CT)	-0.00	3 r	n/a n/a	Weight: 7 lb	FT = 10%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2

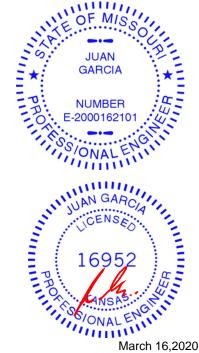
WEBS 2x3 SPF No.2

REACTIONS. 1=2-10-8, 3=2-10-8 (size) Max Horz 1=46(LC 5)

Max Uplift 1=-13(LC 8), 3=-24(LC 8) Max Grav 1=98(LC 1), 3=98(LC 1)

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) Gable requires continuous bottom chord bearing.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.





Job Truss Truss Type Qty Lot 43 HT 140626099 Valley 400379 V4 Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:58 2020 Page 1

Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-rpxXkZGMVUvSBzFrdcHKywat6ZTx0KG9EZ1kq0zaP3B

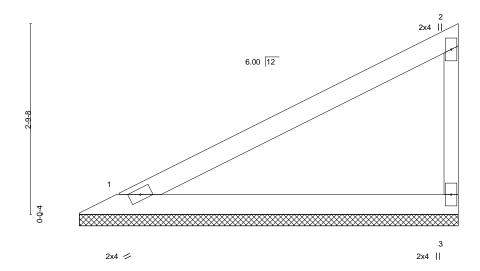
Structural wood sheathing directly applied or 5-7-0 oc purlins,

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

except end verticals.

5-7-0

Scale = 1:16.9



LOADING (psf) TCLL 25.0	SPACING- 2-0-0 Plate Grip DOL 1.15	CSI. TC 0.45	DEFL. in (loc) I/defl L/d Vert(LL) n/a - n/a 999	PLATES GRIP MT20 197/144
TCDL 10.0 BCLL 0.0 * BCDL 10.0	Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	BC 0.24 WB 0.00 Matrix-P	Vert(CT) n/a - n/a 999 Horz(CT) -0.00 3 n/a n/a	Weight: 14 lb FT = 10%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2

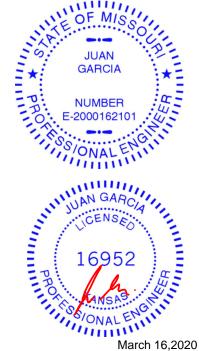
WEBS 2x3 SPF No.2

REACTIONS. 1=5-6-8, 3=5-6-8 (size) Max Horz 1=101(LC 5)

Max Uplift 1=-28(LC 8), 3=-53(LC 8) Max Grav 1=218(LC 1), 3=218(LC 1)

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) Gable requires continuous bottom chord bearing.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.





Job Truss Truss Type Lot 43 HT 140626100 Valley 400379 V5

Wheeler Lumber, Waverly, KS 66871

Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:26:59 2020 Page 1 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-J?VvyuH_Go1Jp7q2BJoZU876Kzq8lnYITDmHMTzaP3A

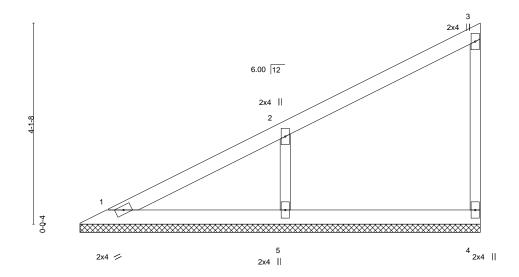
Structural wood sheathing directly applied or 6-0-0 oc purlins,

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

except end verticals.

8-3-0

Scale = 1:23.6



LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 *	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES	CSI. TC 0.23 BC 0.12 WB 0.06	- '	in (loc) n/a - n/a -	I/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20	GRIP 197/144
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P					Weight: 23 lb	FT = 10%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2

2x3 SPF No.2 **WEBS OTHERS** 2x3 SPF No.2

REACTIONS. (size) 1=8-2-8, 4=8-2-8, 5=8-2-8

Max Horz 1=157(LC 5)

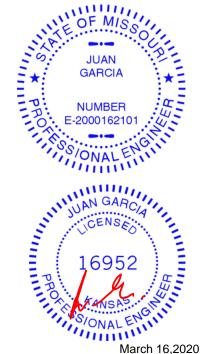
Max Uplift 4=-26(LC 5), 5=-127(LC 8)

Max Grav 1=125(LC 16), 4=135(LC 1), 5=423(LC 1)

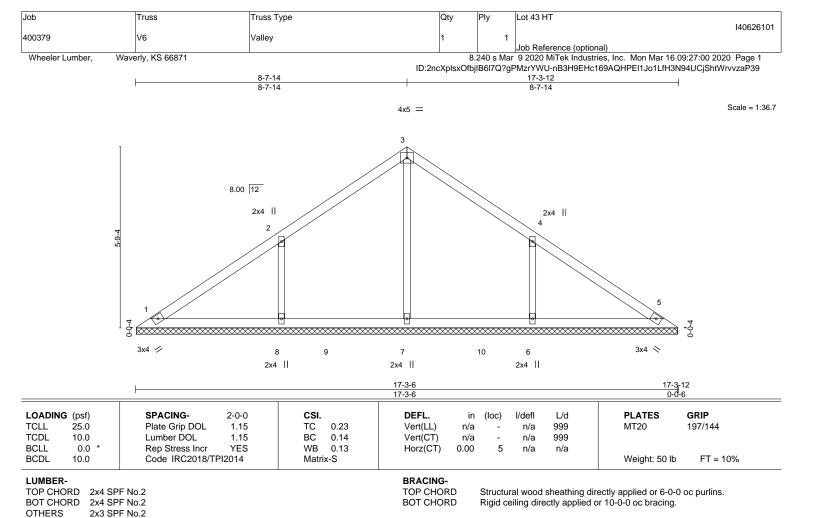
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

2-5=-329/183 **WEBS**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) Gable requires continuous bottom chord bearing.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=127
- 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.







REACTIONS.

All bearings 17-3-0. Max Horz 1=142(LC 7)

Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-176(LC 8), 6=-175(LC 9)

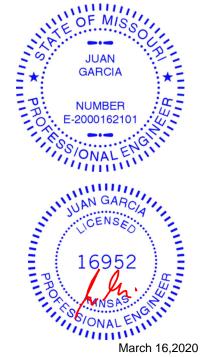
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=350(LC 15), 8=535(LC 15), 6=535(LC 16)

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

2-8=-355/222, 4-6=-355/222 **WEBS**

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) Gable requires continuous bottom chord bearing.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=176 6=175
- 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.







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



Truss Type Qty 140626102 Valley 400379 V7 Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Mar 16 09:27:02 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-kaA2awJsZjPugbZdsSLG6mldUAs8y7kk9B?yznzaP37 14-3-12 7-1-14 Scale = 1:30.2 4x5 = 3 8.00 12 2x4 || 2x4 || 8 7 6 3x4 / 3x4 > 2x4 || 2x4 || 2x4 || 0-0-6 0-0-6 14-3-12 14-3-6 LOADING (psf) SPACING-2-0-0 CSI. DEFL. I/defI L/d **PLATES** GRIP (loc) TCLL 25.0 Plate Grip DOL TC Vert(LL) 999 MT20 197/144 1.15 0.17 n/a n/a **TCDL** 10.0 Lumber DOL 1.15 ВС 0.10 Vert(CT) n/a 999 n/a **BCLL** 0.0 Rep Stress Incr YES WB 0.10 Horz(CT) 0.00 5 n/a n/a Code IRC2018/TPI2014 BCDL 10.0 Matrix-S Weight: 40 lb FT = 10% LUMBER-BRACING-

TOP CHORD

BOT CHORD

Lot 43 HT

2x4 SPF No.2 2x4 SPF No.2

TOP CHORD **BOT CHORD OTHERS** 2x3 SPF No.2

REACTIONS. All bearings 14-3-0.

(lb) - Max Horz 1=-116(LC 4)

Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-146(LC 8), 6=-146(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=280(LC 1), 8=370(LC 15), 6=370(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 2-8=-294/187, 4-6=-294/187 **WEBS**

NOTES-

Job

Truss

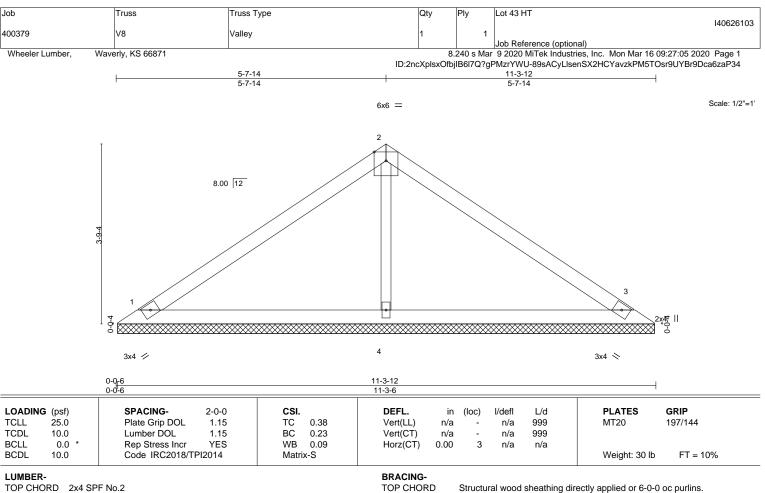
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=146 6=146
- 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.



Structural wood sheathing directly applied or 6-0-0 oc purlins.

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





BOT CHORD

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

2x4 SPF No.2 TOP CHORD 2x4 SPF No.2 BOT CHORD

OTHERS 2x3 SPF No.2

REACTIONS. (size)

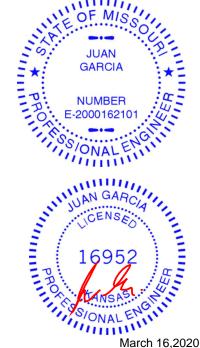
1=11-3-0, 3=11-3-0, 4=11-3-0 Max Horz 1=-90(LC 4) Max Uplift 1=-45(LC 8), 3=-57(LC 9), 4=-18(LC 8) Max Grav 1=239(LC 1), 3=239(LC 1), 4=453(LC 1)

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

WEBS 2-4=-295/75

NOTES-

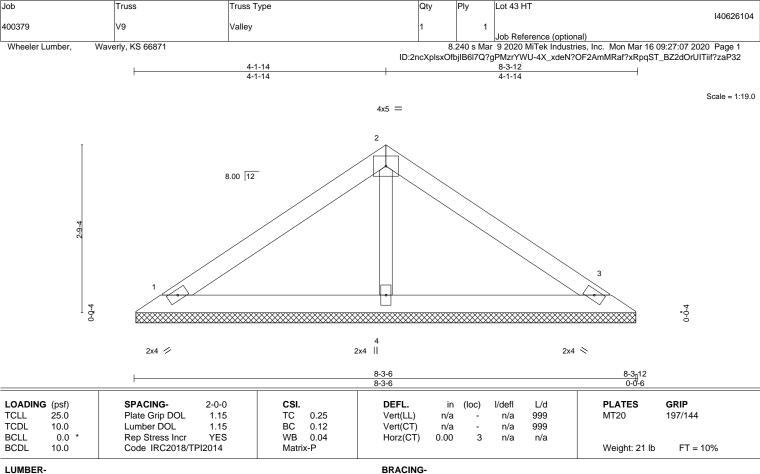
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.





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





TOP CHORD

BOT CHORD

Lot 43 HT

REACTIONS.

Job

2x4 SPF No.2 TOP CHORD **BOT CHORD** 2x4 SPF No.2

OTHERS 2x3 SPF No.2

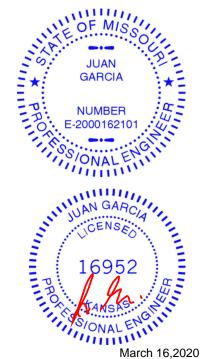
> 1=8-3-0, 3=8-3-0, 4=8-3-0 (size) Max Horz 1=-64(LC 4) Max Uplift 1=-41(LC 8), 3=-49(LC 9)

Max Grav 1=186(LC 1), 3=186(LC 1), 4=289(LC 1)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.



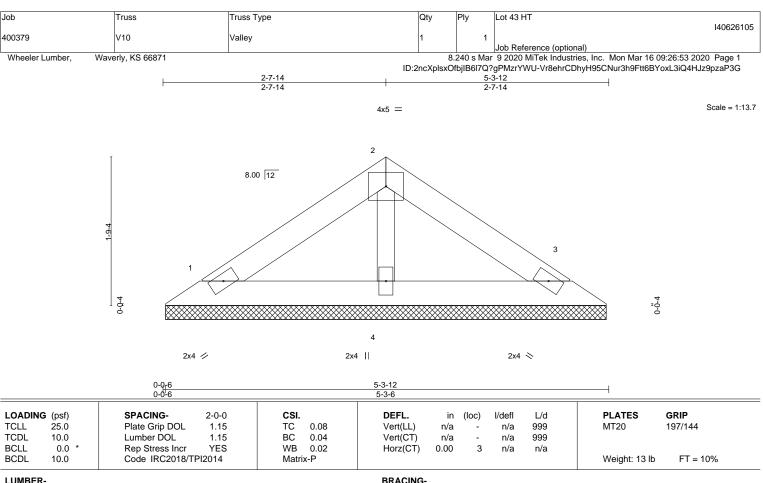
Structural wood sheathing directly applied or 6-0-0 oc purlins.

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



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





TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

2x4 SPF No.2 TOP CHORD 2x4 SPF No.2 **BOT CHORD**

OTHERS 2x3 SPF No.2

> 1=5-3-0, 3=5-3-0, 4=5-3-0 (size) Max Horz 1=-38(LC 4)

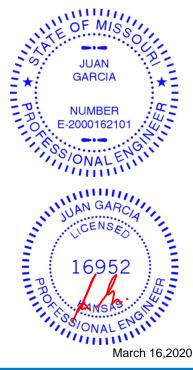
Max Uplift 1=-24(LC 8), 3=-29(LC 9)

Max Grav 1=110(LC 1), 3=110(LC 1), 4=171(LC 1)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.



Structural wood sheathing directly applied or 5-3-12 oc purlins.

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

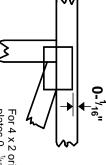


Symbols

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

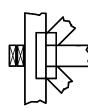
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



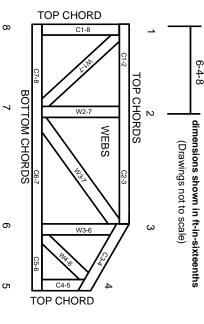
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only

Industry Standards:

National Design Specification for Metal 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.

ANSI/TPI1: DSB-89:

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
- 18. 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.