



RE: 400423
Lot 44 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
Wind Code: N/A
Roof Load: 45.0 psf

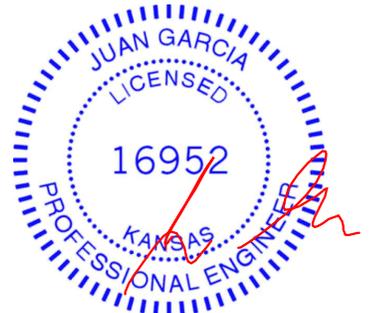
Design Program: MiTek 20/20 8.4
Wind Speed: 115 mph
Floor Load: N/A psf

This package includes 71 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I42087951	A5	7/21/2020	27	I42087977	E8	7/21/2020
2	I42087952	A6	7/21/2020	28	I42087978	E9	7/21/2020
3	I42087953	A7	7/21/2020	29	I42087979	E10	7/21/2020
4	I42087954	A8	7/21/2020	30	I42087980	E11	7/21/2020
5	I42087955	A9	7/21/2020	31	I42087981	G1	7/21/2020
6	I42087956	B1	7/21/2020	32	I42087982	G2	7/21/2020
7	I42087957	B2	7/21/2020	33	I42087983	H1	7/21/2020
8	I42087958	C1	7/21/2020	34	I42087984	H2	7/21/2020
9	I42087959	C2	7/21/2020	35	I42087985	H3	7/21/2020
10	I42087960	C3	7/21/2020	36	I42087986	J1	7/21/2020
11	I42087961	C4	7/21/2020	37	I42087987	J2	7/21/2020
12	I42087962	C5	7/21/2020	38	I42087988	J3	7/21/2020
13	I42087963	C6	7/21/2020	39	I42087989	J4	7/21/2020
14	I42087964	C7	7/21/2020	40	I42087990	J5	7/21/2020
15	I42087965	C8	7/21/2020	41	I42087991	J6	7/21/2020
16	I42087966	C9	7/21/2020	42	I42087992	J7	7/21/2020
17	I42087967	C10	7/21/2020	43	I42087993	J8	7/21/2020
18	I42087968	D1	7/21/2020	44	I42087994	J9	7/21/2020
19	I42087969	D2	7/21/2020	45	I42087995	J10	7/21/2020
20	I42087970	E1	7/21/2020	46	I42087996	J11	7/21/2020
21	I42087971	E2	7/21/2020	47	I42087997	J12	7/21/2020
22	I42087972	E3	7/21/2020	48	I42087998	J13	7/21/2020
23	I42087973	E4	7/21/2020	49	I42087999	J14	7/21/2020
24	I42087974	E5	7/21/2020	50	I42088000	J15	7/21/2020
25	I42087975	E6	7/21/2020	51	I42088001	J16	7/21/2020
26	I42087976	E7	7/21/2020	52	I42088002	J17	7/21/2020

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. Kansas COA: E-943

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.





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Site Information:

Project Customer: Project Name:
Lot/Block:
Address:
City, County:

Subdivision:

State:

No.	Seal#	Truss Name	Date
53	I42088003	J18	7/21/2020
54	I42088004	J19	7/21/2020
55	I42088005	K1	7/21/2020
56	I42088006	K2	7/21/2020
57	I42088007	K3	7/21/2020
58	I42088008	L1	7/21/2020
59	I42088009	L2	7/21/2020
60	I42088010	L3	7/21/2020
61	I42088011	LAY1	7/21/2020
62	I42088012	LAY2	7/21/2020
63	I42088013	LAY3	7/21/2020
64	I42088014	V1	7/21/2020
65	I42088015	V3	7/21/2020
66	I42088016	V4	7/21/2020
67	I42088017	V5	7/21/2020
68	I42088018	V6	7/21/2020
69	I42088019	V7	7/21/2020
70	I42088020	V8	7/21/2020
71	I42088021	V9	7/21/2020



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

Design Code: IRC2018/TPI2014
Wind Code: N/A
Roof Load: 45.0 psf

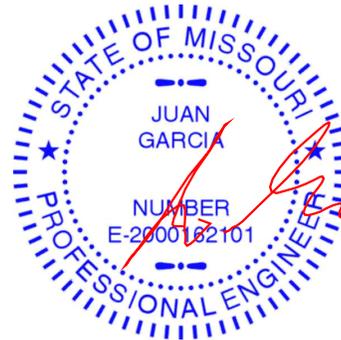
Design Program: MiTek 20/20 8.4
Wind Speed: 115 mph
Floor Load: N/A psf

This package includes 71 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
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3	I42087953	A7	7/21/2020	29	I42087979	E10	7/21/2020
4	I42087954	A8	7/21/2020	30	I42087980	E11	7/21/2020
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6	I42087956	B1	7/21/2020	32	I42087982	G2	7/21/2020
7	I42087957	B2	7/21/2020	33	I42087983	H1	7/21/2020
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9	I42087959	C2	7/21/2020	35	I42087985	H3	7/21/2020
10	I42087960	C3	7/21/2020	36	I42087986	J1	7/21/2020
11	I42087961	C4	7/21/2020	37	I42087987	J2	7/21/2020
12	I42087962	C5	7/21/2020	38	I42087988	J3	7/21/2020
13	I42087963	C6	7/21/2020	39	I42087989	J4	7/21/2020
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16	I42087966	C9	7/21/2020	42	I42087992	J7	7/21/2020
17	I42087967	C10	7/21/2020	43	I42087993	J8	7/21/2020
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20	I42087970	E1	7/21/2020	46	I42087996	J11	7/21/2020
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23	I42087973	E4	7/21/2020	49	I42087999	J14	7/21/2020
24	I42087974	E5	7/21/2020	50	I42088000	J15	7/21/2020
25	I42087975	E6	7/21/2020	51	I42088001	J16	7/21/2020
26	I42087976	E7	7/21/2020	52	I42088002	J17	7/21/2020

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 Missouri is December 31, 2020. Missouri COA: 001193

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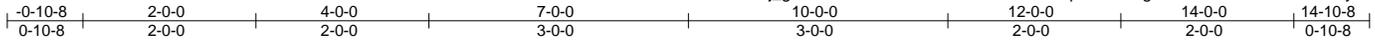
No.	Seal#	Truss Name	Date
53	I42088003	J18	7/21/2020
54	I42088004	J19	7/21/2020
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57	I42088007	K3	7/21/2020
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66	I42088016	V4	7/21/2020
67	I42088017	V5	7/21/2020
68	I42088018	V6	7/21/2020
69	I42088019	V7	7/21/2020
70	I42088020	V8	7/21/2020
71	I42088021	V9	7/21/2020

Job	Truss	Truss Type	Qty	Ply	Lot 44 HT	I42087951
400423	A5	Hip Girder	1	1		

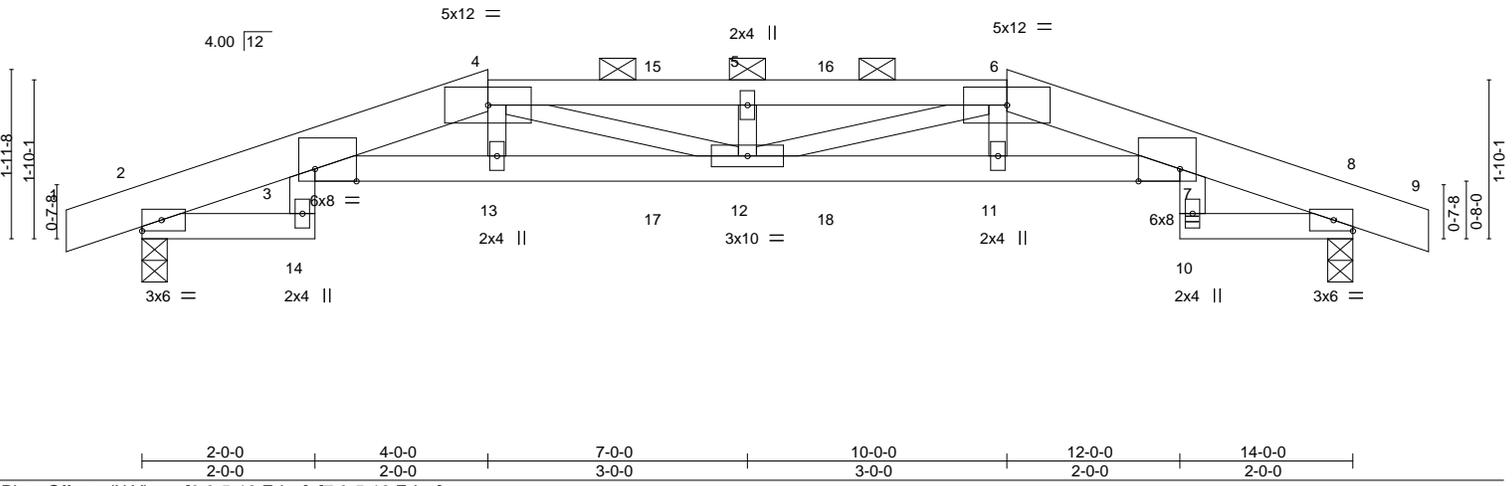
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:03 2020 Page 1

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Scale = 1:26.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.65	Vert(LL)	-0.21	12	>786	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.38	12	>432	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.19	Horz(CT)	0.24	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.17	12	>989	240	Weight: 55 lb	FT = 10%

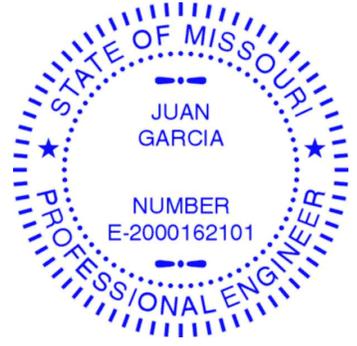
LUMBER-	BRACING-
TOP CHORD 2x6 SP DSS *Except* 4-6: 2x4 SPF 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied or 3-9-3 oc purlins, except 2-0-0 oc purlins (3-9-2 max.): 4-6.
BOT CHORD 2x4 SPF 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 3-14,7-10: 2x4 SPF No.2	

REACTIONS. (size) 2=0-3-8, 8=0-3-8
 Max Horz 2=28(LC 33)
 Max Uplift 2=-217(LC 4), 8=-217(LC 5)
 Max Grav 2=1028(LC 1), 8=1028(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-447/102, 3-4=-3431/606, 4-5=-3883/671, 5-6=-3883/671, 6-7=-3431/592,
 7-8=-447/99
 BOT CHORD 3-13=-576/3427, 12-13=-572/3435, 11-12=-537/3435, 7-11=-541/3427
 WEBS 4-12=-94/539, 6-12=-94/539

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=217, 8=217.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 81 lb down and 52 lb up at 4-0-0, 81 lb down and 52 lb up at 6-0-0, and 81 lb down and 52 lb up at 8-0-0, and 81 lb down and 52 lb up at 10-0-0 on top chord, and 231 lb down and 65 lb up at 4-0-0, 34 lb down at 6-0-0, and 34 lb down at 8-0-0, and 231 lb down and 65 lb up at 9-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 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



July 20,2020

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job 400423	Truss A5	Truss Type Hip Girder	Qty 1	Ply 1	Lot 44 HT Job Reference (optional)	I42087951
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:03 2020 Page 2
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LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-70, 4-6=-70, 6-9=-70, 2-14=-20, 3-7=-20, 8-10=-20

Concentrated Loads (lb)

Vert: 4=-37(F) 6=-37(F) 13=-231(F) 11=-231(F) 15=-37(F) 16=-37(F) 17=-34(F) 18=-34(F)

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



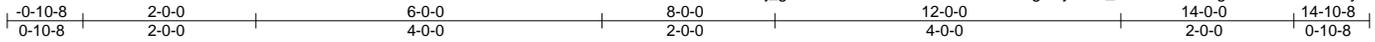
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 HT	I42087952
400423	A6	Hip	1	1		

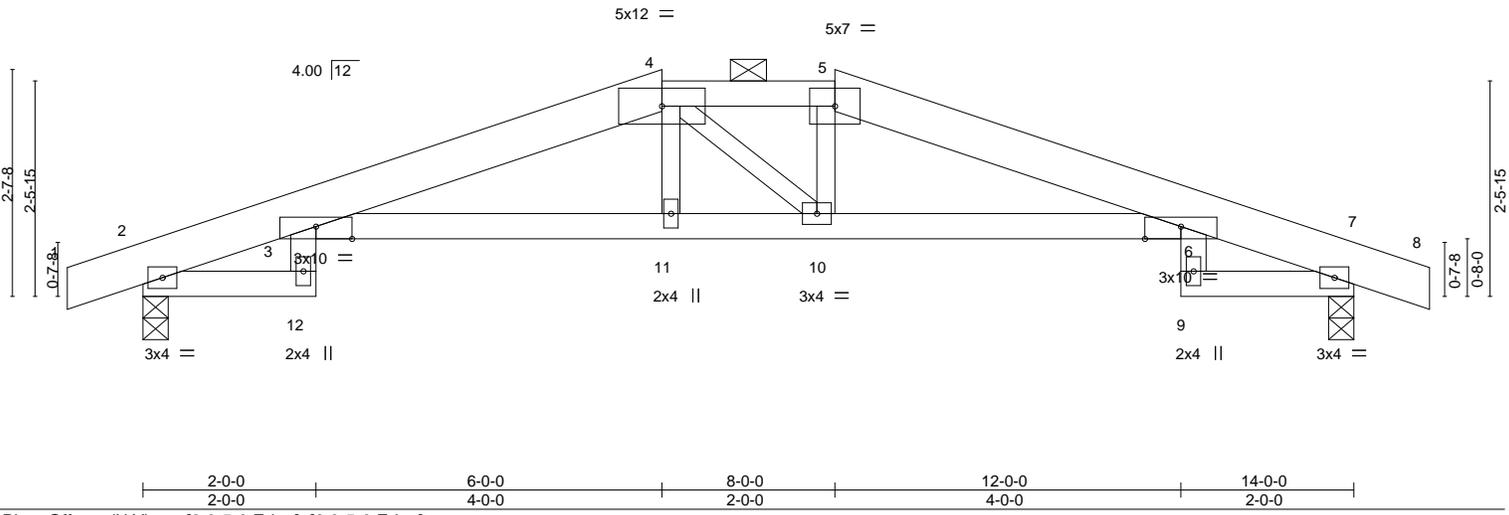
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:04 2020 Page 1

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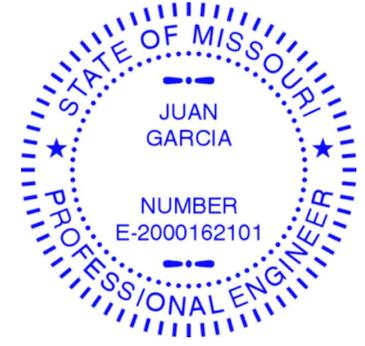
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.72	Vert(LL)	-0.15	6-10	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.28	3-11	>596		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.23	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.11	3-11	>999	Weight: 50 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2 *Except* 4-5: 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-11-11 oc purlins, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (4-10-5 max.): 4-5.
WEBS 2x3 SPF No.2 *Except* 3-12,6-9: 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
 Max Horz 2=-40(LC 13)
 Max Uplift 2=-141(LC 4), 7=-141(LC 5)
 Max Grav 2=688(LC 1), 7=688(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-284/69, 3-4=-1439/199, 4-5=-1387/198, 5-6=-1440/185, 6-7=-284/62
 BOT CHORD 3-11=-156/1386, 10-11=-152/1387, 6-10=-124/1386

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=141, 7=141.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



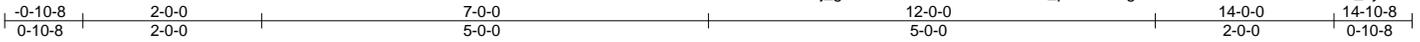
July 20,2020

Job 400423	Truss A7	Truss Type Roof Special	Qty 2	Ply 1	Lot 44 HT Job Reference (optional)	I42087953
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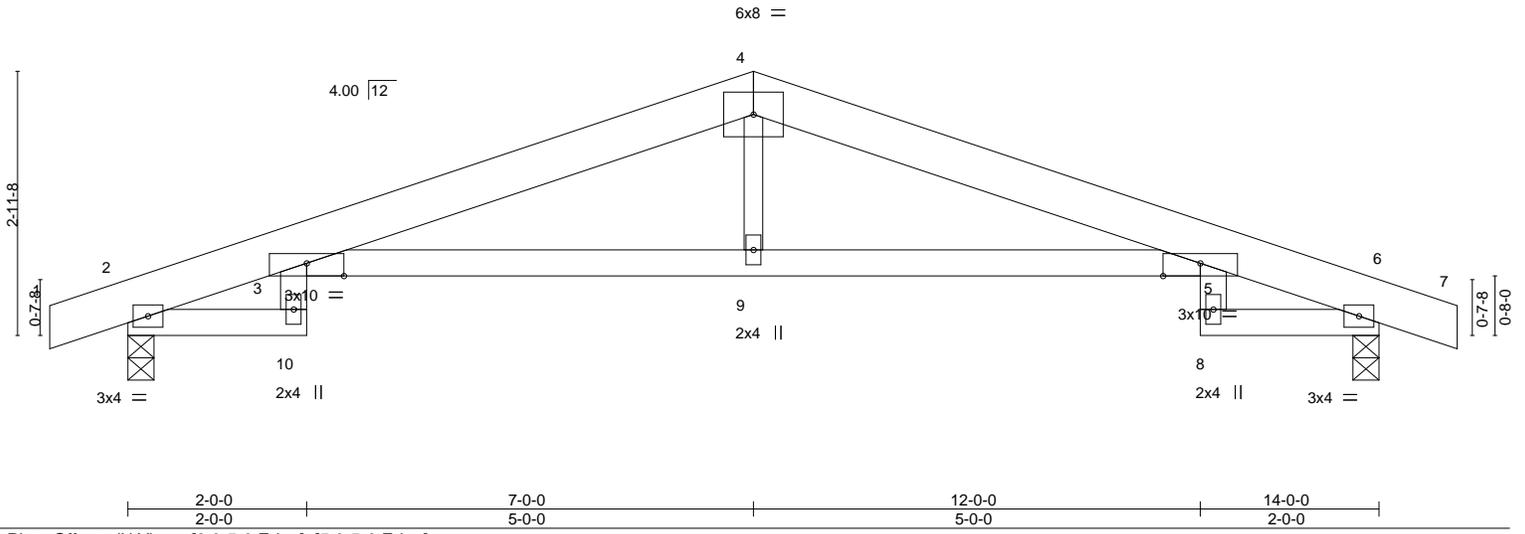
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:05 2020 Page 1

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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.74	Vert(LL)	-0.16	5-9	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.30	5-9	>544	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.24	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.12	3-9	>999	240	Weight: 49 lb	FT = 10%

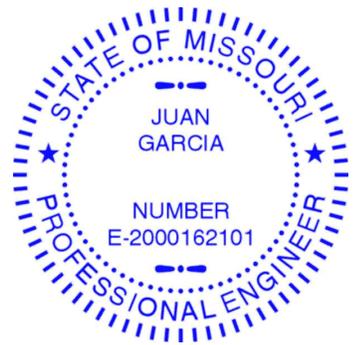
LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
4-9: 2x3 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=-46(LC 13)
Max Uplift 2=-134(LC 4), 6=-134(LC 5)
Max Grav 2=688(LC 1), 6=688(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-284/70, 3-4=-1365/147, 4-5=-1365/161, 5-6=-284/59
BOT CHORD 3-9=-102/1304, 5-9=-102/1304

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=134, 6=134.
 - 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.



July 20,2020

Job 400423	Truss A8	Truss Type Roof Special	Qty 1	Ply 1	Lot 44 HT	I42087954
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:06 2020 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-AwFIC9GwZpC9H9rM1o80795HetMjfDEXpVglWPYwC9t



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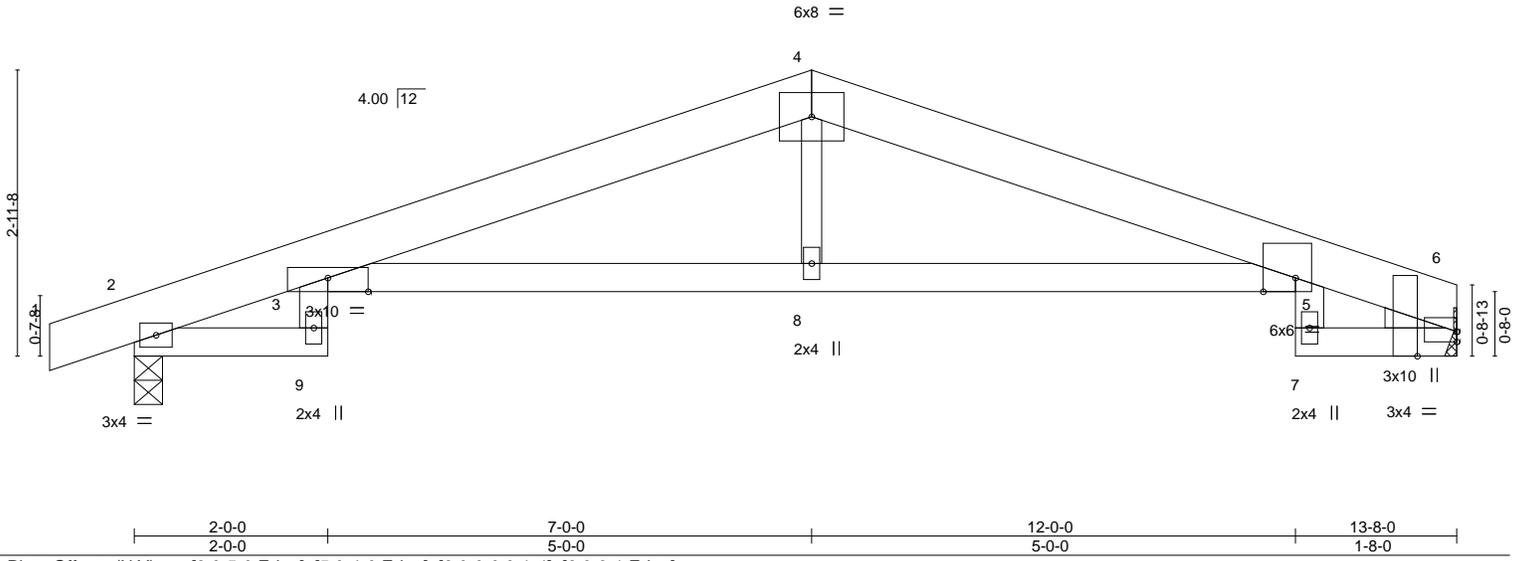


Plate Offsets (X, Y)--	[3:0-5-0,Edge], [5:0-4-0,Edge], [6:0-0-0,0-1-4], [6:0-3-1,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.15	3-8	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.28	3-8	>571		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.23	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.11	3-8	>999	Weight: 47 lb	FT = 10%

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
4-8: 2x3 SPF No.2

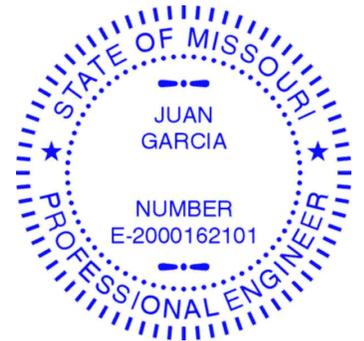
BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-11-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEDGE
Right: 2x3 SPF No.2

REACTIONS. (size) 2=0-3-8, 6=Mechanical
Max Horz 2=47(LC 12)
Max Uplift 2=-134(LC 4), 6=-87(LC 5)
Max Grav 2=680(LC 1), 6=603(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-279/67, 3-4=-1325/148, 4-5=-1330/160, 5-6=-315/60
BOT CHORD 3-8=-101/1264, 5-8=-101/1264

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - 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.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=-134.
 - 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.



July 20,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400423	Truss B1	Truss Type Monopitch	Qty 5	Ply 1	Lot 44 HT	I42087956
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:07 2020 Page 1

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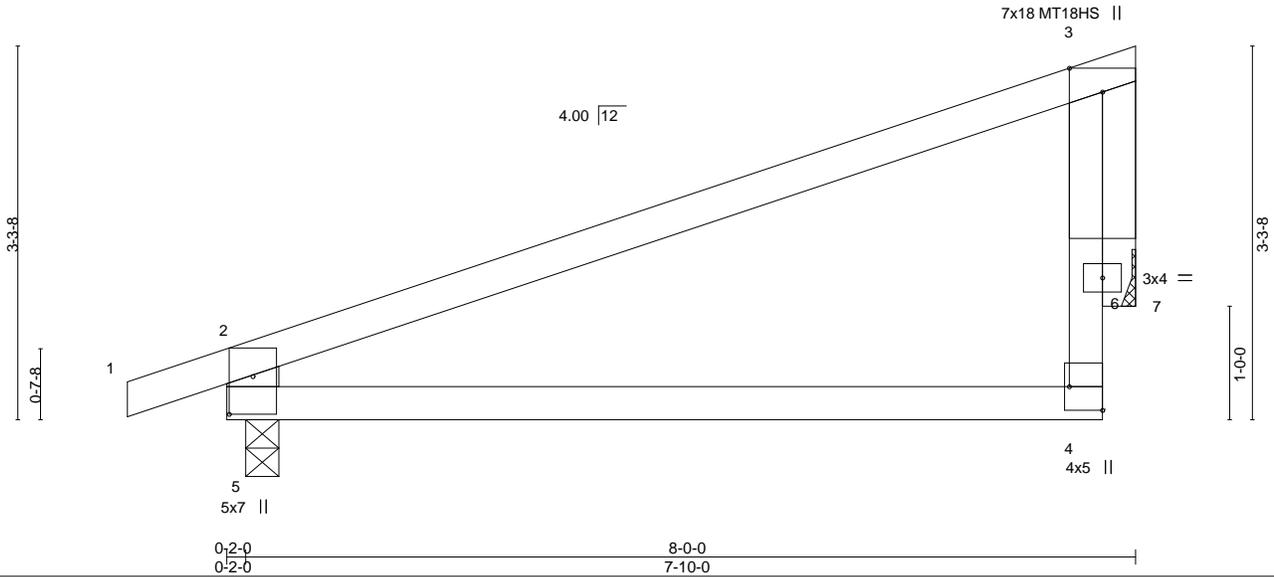


Plate Offsets (X,Y)--	[4:Edge,0-3-8], [5:0-4-0,0-2-8]
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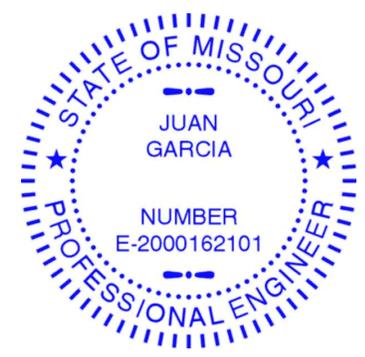
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.62	Vert(LL)	-0.06	4-5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.13	4-5	>710	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.39	Horz(CT)	0.01	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.04	4-5	>999		
								Weight: 25 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2 *Except*	
OTHERS 2-5: 2x6 SPF No.2	
2x4 SPF No.2	

REACTIONS. (size) 5=0-3-8, 7=Mechanical
 Max Horz 5=99(LC 5)
 Max Uplift 5=94(LC 4), 7=77(LC 8)
 Max Grav 5=429(LC 1), 7=308(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-306/27, 3-6=-295/241, 2-5=-385/152

- 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; MWFERS (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) All plates are MT20 plates unless otherwise indicated.
 - 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) 5, 7.
 - 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.

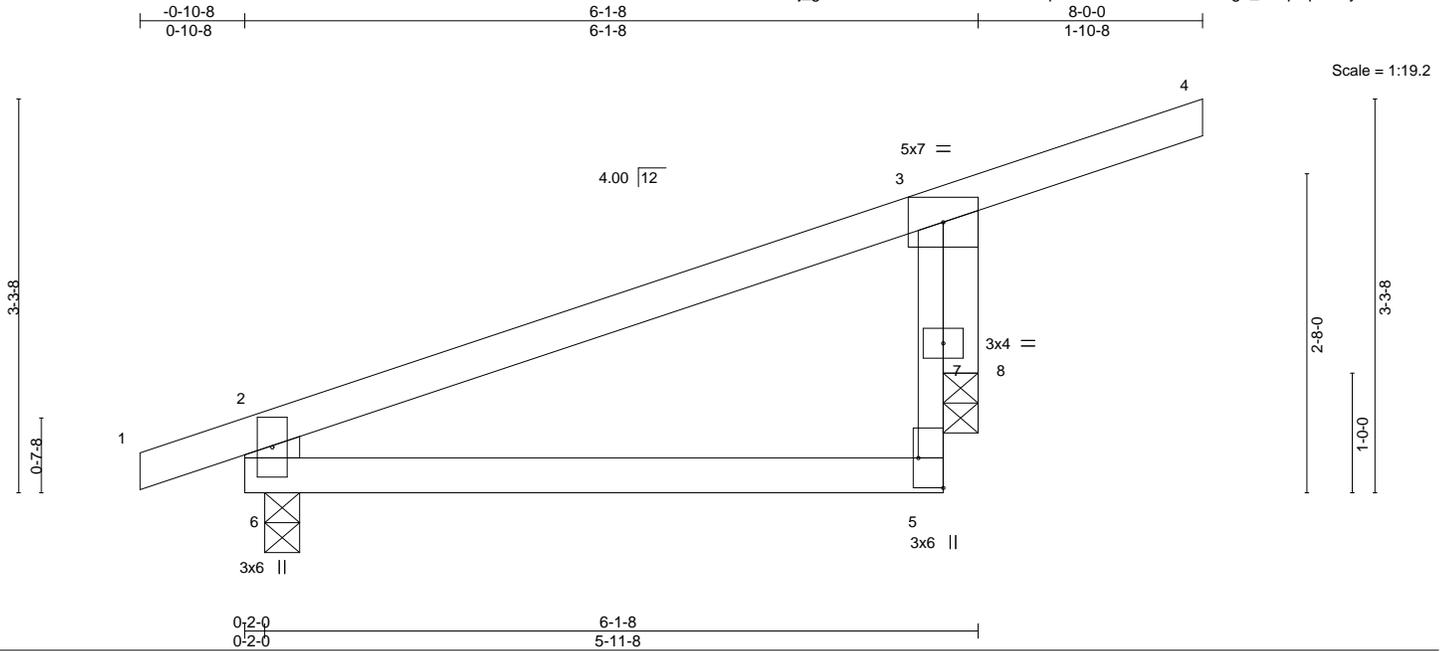


July 20,2020

Job 400423	Truss B2	Truss Type Monopitch	Qty 3	Ply 1	Lot 44 HT	I42087957
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:08 2020 Page 1
ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-6JM2dqIA5RSiXt?I9DBUCaAiRg8_77npHp9sblywC9r



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.39	Vert(LL) -0.02 5-6 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.19	Vert(CT) -0.05 5-6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) -0.00 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.01 5-6 >999 240	Weight: 21 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except*	
OTHERS 2-6: 2x6 SPF No.2	
2x4 SPF No.2	

REACTIONS. (size) 6=0-3-8, 8=0-3-8
 Max Horz 6=113(LC 5)
 Max Uplift 6=-63(LC 4), 8=-130(LC 8)
 Max Grav 6=318(LC 1), 8=413(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-6=-278/108

- 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; MWFERS (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) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 8=130.
 - 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.



July 20, 2020

Job	Truss	Truss Type	Qty	Ply	Lot 44 HT	142087958
400423	C1	Roof Special Supported Gable	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:09 2020 Page 1
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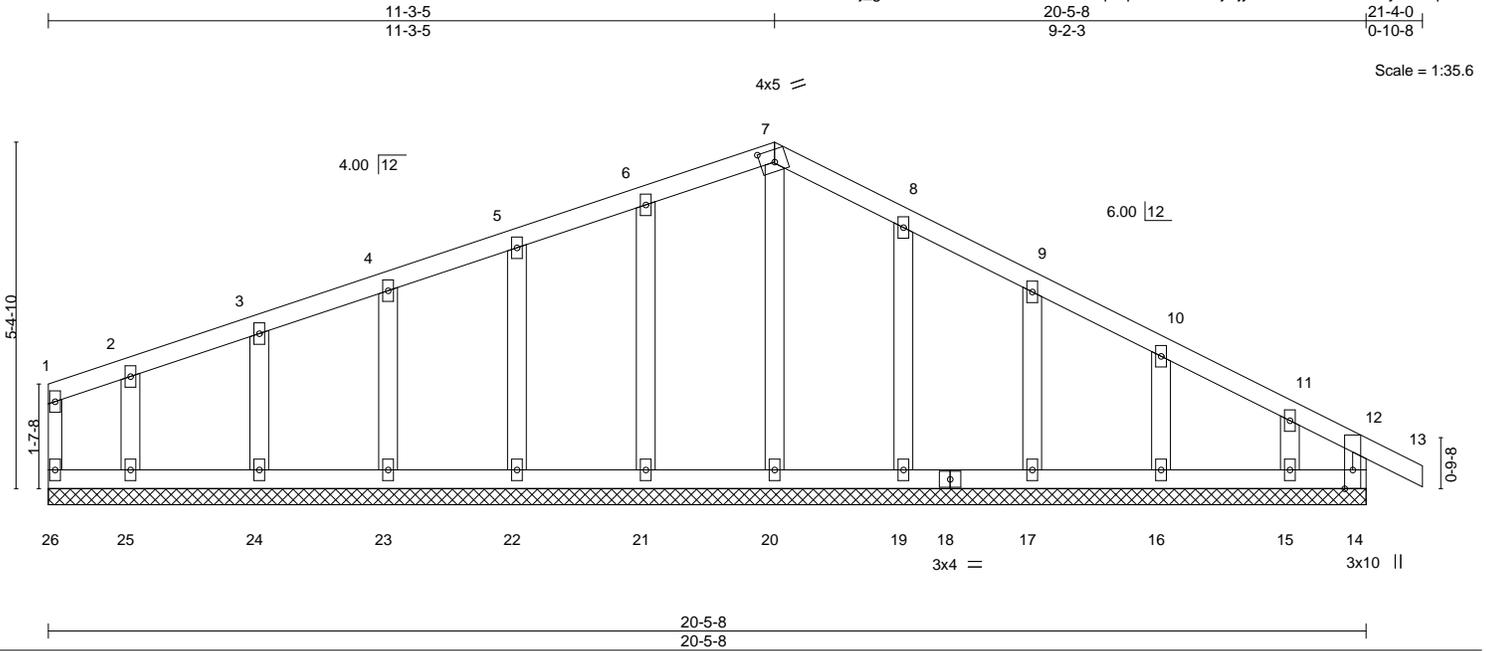


Plate Offsets (X,Y)--	[7:0-2-11,0-2-4]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.07	Vert(LL) -0.00 13 n/r 120	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) -0.00 13 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) 0.00 14 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R		Weight: 83 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x3 SPF No.2	
OTHERS 2x4 SPF No.2	

REACTIONS. All bearings 20-5-8.
 (lb) - Max Horz 26=84(LC 7)
 Max Uplift All uplift 100 lb or less at joint(s) 26, 14, 21, 22, 23, 24, 25, 19, 17, 16, 15
 Max Grav All reactions 250 lb or less at joint(s) 26, 14, 20, 21, 22, 23, 24, 25, 19, 17, 16, 15

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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
 - 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.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 26, 14, 21, 22, 23, 24, 25, 19, 17, 16, 15.
 - 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.



July 20,2020

Job 400423	Truss C2	Truss Type Roof Special	Qty 1	Ply 1	Lot 44 HT	I42087959
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:10 2020 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-3iUp1WKRd2ibmm87GeDyH?FzjUihbx76k7ezfAyc9p
16-9-15 5-6-11 20-5-8 3-7-9 21-4-0 0-10-8

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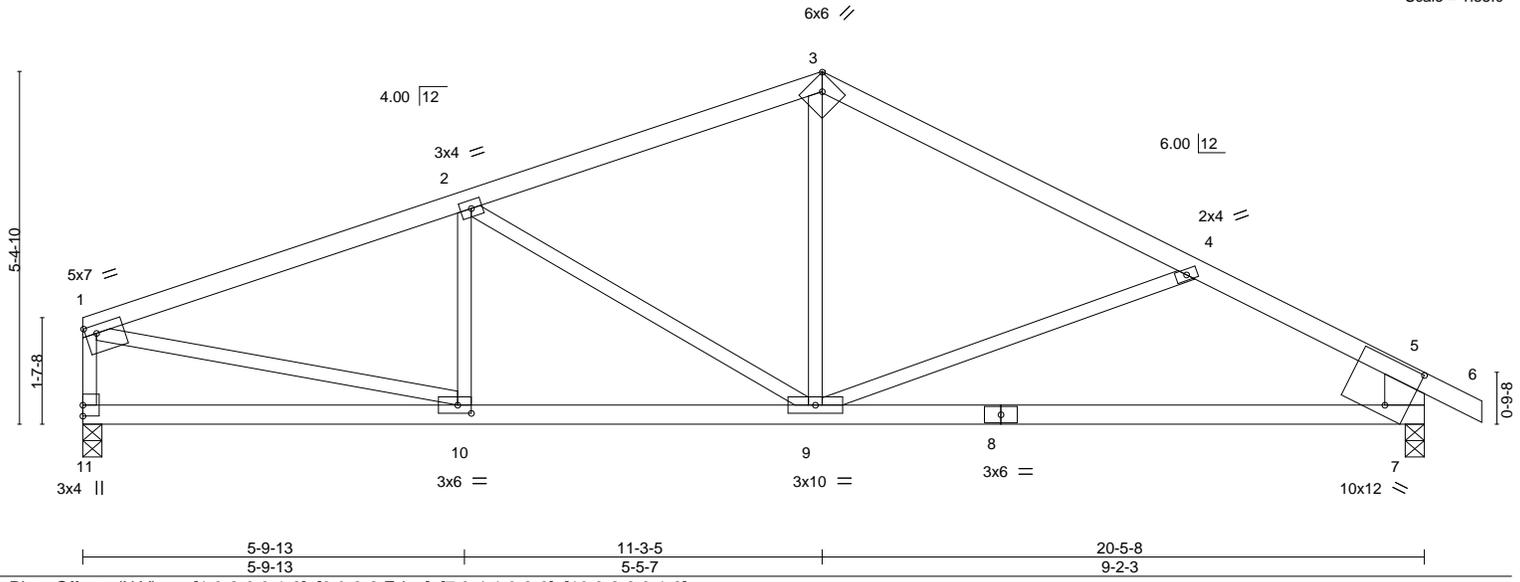


Plate Offsets (X,Y)-- [1:0-2-0,0-1-8], [3:0-2-8,Edge], [7:0-4-1,0-8-2], [10:0-2-8,0-1-8]

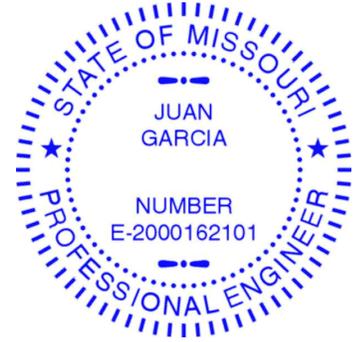
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.72	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.58	Vert(LL) -0.17 7-9 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.39	Vert(CT) -0.33 7-9 >721 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 7 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.05 9-10 >999 240	Weight: 73 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 3-6: 2x4 SPF 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied or 4-7-1 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 5-7: 2x8 SP DSS	

REACTIONS. (size) 11=0-3-8, 7=0-3-8
 Max Horz 11=86(LC 7)
 Max Uplift 11=-130(LC 4), 7=-130(LC 9)
 Max Grav 11=900(LC 1), 7=987(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-1319/196, 2-3=-1034/150, 3-4=-1083/158, 4-5=-1296/210, 1-11=-841/160,
 5-7=-889/178
 BOT CHORD 9-10=-159/1198, 7-9=-128/1046
 WEBS 2-9=-388/153, 3-9=-0/409, 1-10=-141/1142

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=130, 7=130.
 - 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.



July 20,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 HT	142087960
400423	C3	Roof Special Girder	1	1		

Wheeler Lumber, Waverly, KS 66871

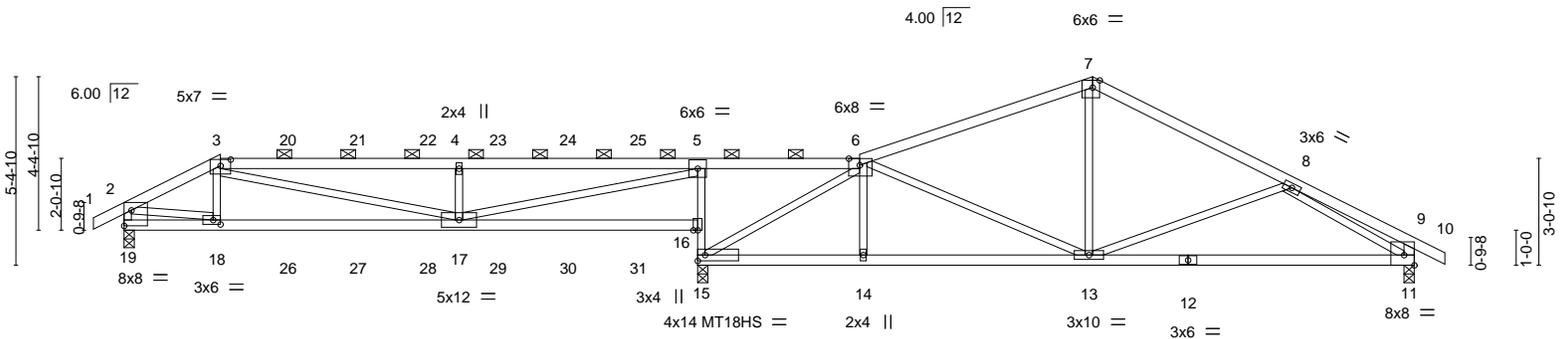
8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:12 2020 Page 1

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Job Reference (optional)

0-10-8	2-9-0	9-6-12	16-4-8	21-0-0	27-7-13	33-2-8	36-10-0	37-8-8
0-10-8	2-9-0	6-9-12	6-9-12	4-7-8	6-7-13	5-6-11	3-7-8	0-10-8

Scale = 1:65.5



2-9-0	3-2-0	9-6-12	16-4-8	16-6-4	21-0-0	21-7-8	27-7-13	36-10-0
2-9-0	0-5-0	6-4-12	6-9-12	0-1'-12	4-5-12	0-7-8	6-0-5	9-2-3

Plate Offsets (X, Y)-- [3:0-3-8,0-2-3], [6:0-3-12,0-2-4], [7:0-2-6,Edge], [11:Edge,0-3-8], [18:0-2-8,0-1-8], [19:Edge,0-5-5]

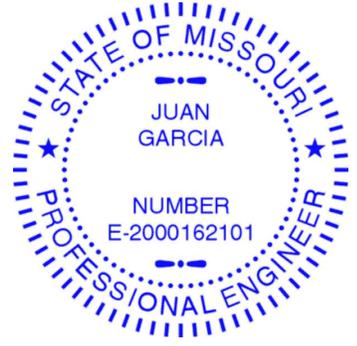
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.83	Vert(LL)	-0.18 11-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.70	Vert(CT)	-0.36 11-13	>676	240	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.95	Horz(CT)	-0.02 15	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.13 17-18	>999	240		Weight: 131 lb FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 3-6: 2x4 SPF 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied or 3-8-2 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-10 max.): 3-6.
BOT CHORD 2x4 SPF No.2 *Except* 5-15: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 3-7-7 oc bracing.
WEBS 2x3 SPF No.2 *Except* 9-11: 2x4 SPF No.2	

REACTIONS. (size) 19=0-3-8, 15=0-3-8, 11=0-3-8
 Max Horz 19=-93(LC 9)
 Max Uplift 19=-264(LC 8), 15=-363(LC 8), 11=-151(LC 30)
 Max Grav 19=1129(LC 21), 15=2021(LC 1), 11=944(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1691/370, 3-4=-2431/562, 4-5=-2431/562, 6-7=-1003/180, 7-8=-1066/175, 8-9=-360/0, 2-19=-1132/258, 9-11=-287/38
 BOT CHORD 17-18=-335/1507, 15-16=-1278/307, 5-16=-1169/350, 14-15=-194/966, 13-14=-191/970, 11-13=-180/1085
 WEBS 3-17=-242/954, 4-17=-682/331, 5-17=-562/2657, 6-15=-1342/185, 7-13=-3/383, 8-13=-298/206, 2-18=-284/1472, 8-11=-1025/294

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=264, 15=363, 11=151.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 100 lb down and 68 lb up at 4-8-2, 100 lb down and 68 lb up at 6-8-2, 100 lb down and 68 lb up at 8-8-2, 100 lb down and 68 lb up at 10-8-2, and 100 lb down and 68 lb up at 12-8-2, and 100 lb down and 68 lb up at 14-8-2 on top chord, and 217 lb down and 84 lb up at 2-9-0, 33 lb down at 4-8-2, 33 lb down at 6-8-2, 33 lb down at 8-8-2, 33 lb down at 10-8-2, and 33 lb down at 12-8-2, and 33 lb down at 14-8-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- On the CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



July 20,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400423	Truss C3	Truss Type Roof Special Girder	Qty 1	Ply 1	Lot 44 HT Job Reference (optional)	I42087960
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:13 2020 Page 2
ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-THAxgYMJwz4AdEtixmfnvdtSKhi5oA6ZQ5tdGVywc9m

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, 3-6=-70, 6-7=-70, 7-9=-70, 9-10=-70, 16-19=-20, 11-15=-20

Concentrated Loads (lb)

Vert: 18=-217(B) 20=-50(B) 21=-50(B) 22=-50(B) 23=-50(B) 24=-50(B) 25=-50(B) 26=-24(B) 27=-24(B) 28=-24(B) 29=-24(B) 30=-24(B) 31=-24(B)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 HT	I42087962
400423	C5	Roof Special	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-PfHi5ENZRaKusX153Bp7_2zq7VOZG4nruPMkL0ywC9k

0-10-8	5-9-0	11-0-12	16-4-8	20-11-4	25-6-0	27-7-13	33-5-7	36-10-0	37-8-8
0-10-8	5-9-0	5-3-12	5-3-12	4-6-12	4-6-12	2-1-13	5-9-10	3-4-9	0-10-8

Scale = 1:65.6

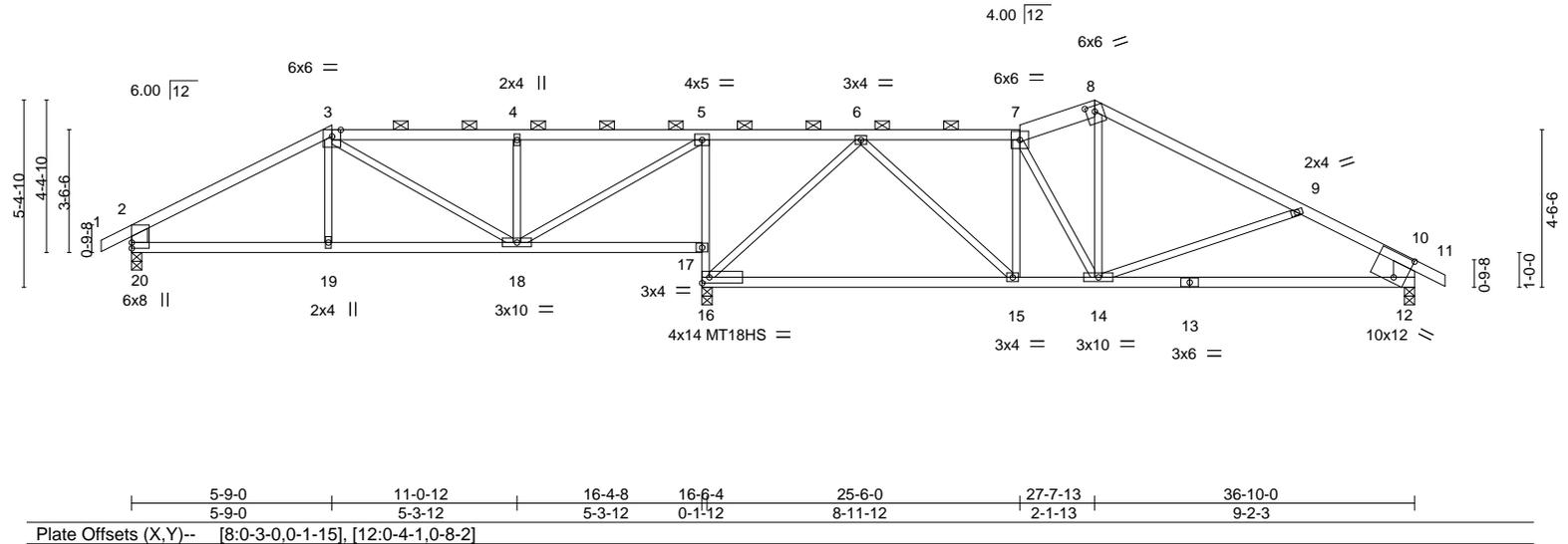


Plate Offsets (X,Y)-- [8:0-3-0,0-1-15], [12:0-4-1,0-8-2]

LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.68	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.64	Vert(LL) -0.19 15-16 >999 360	MT18HS	197/144
BCLL 0.0 *	Lumber DOL 1.15	WB 0.94	Vert(CT) -0.39 15-16 >614 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.04 16 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.05 18-19 >999 240	Weight: 136 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
7-8: 2x6 SPF No.2, 8-11: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
5-16: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-20: 2x6 SPF No.2, 10-12: 2x8 SP DSS

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-11-5 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-14 max.): 3-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 17-18
4-4-0 oc bracing: 16-17.

REACTIONS. (size) 20=0-3-8, 16=0-3-8, 12=0-3-8
Max Horz 20=-90(LC 9)
Max Uplift 20=-154(LC 8), 16=-277(LC 8), 12=-147(LC 9)
Max Grav 20=776(LC 21), 16=1706(LC 1), 12=953(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-956/186, 3-4=-764/199, 4-5=-762/197, 6-7=-994/162, 7-8=-921/174,
8-9=-1032/147, 9-10=-1236/239, 2-20=-699/188, 10-12=-855/194
BOT CHORD 19-20=-111/760, 18-19=-113/758, 16-17=-941/211, 5-17=-878/236, 15-16=-73/608,
14-15=-55/998, 12-14=-155/996
WEBS 4-18=-411/173, 5-18=-182/1016, 6-16=-1000/175, 6-15=0/532, 7-14=-365/86,
8-14=-25/415

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=154, 16=277, 12=147.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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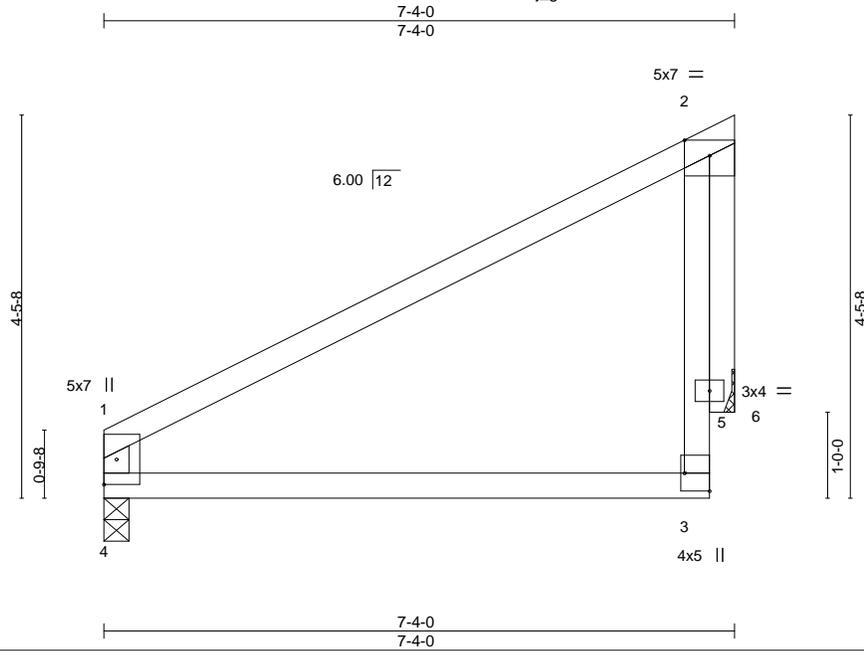


Job 400423	Truss C6	Truss Type Monopitch	Qty 1	Ply 1	Lot 44 HT Job Reference (optional)	I42087963
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Wheeler Lumber, Waverly, KS 66871

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Scale = 1:26.7

Plate Offsets (X,Y)-- [3:Edge,0-3-8]		CSI.				DEFL.				PLATES	GRIP
LOADING (psf)	SPACING-	2-0-0	TC	0.53	in	(loc)	l/defl	L/d	MT20	197/144	
TCLL 25.0	Plate Grip DOL	1.15	BC	0.30	Vert(LL)	-0.05	3-4	>999	Weight: 26 lb	FT = 10%	
TCDL 10.0	Lumber DOL	1.15	WB	0.34	Vert(CT)	-0.10	3-4	>822			
BCLL 0.0 *	Rep Stress Incr	YES	Matrix-R		Horz(CT)	-0.01	6	n/a			
BCDL 10.0	Code IRC2018/TPI2014				Wind(LL)	0.04	3-4	>999			

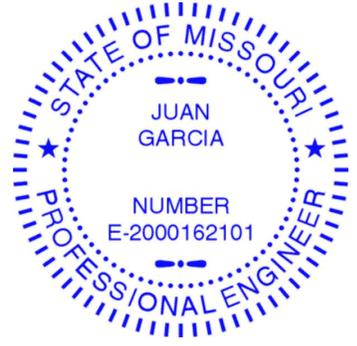
LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2
 OTHERS 2x4 SPF No.2

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) 4=0-3-8, 6=Mechanical
 Max Horz 4=113(LC 8)
 Max Uplift 4=-18(LC 8), 6=-96(LC 8)
 Max Grav 4=320(LC 1), 6=288(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-4=-281/78

- 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) 4, 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.



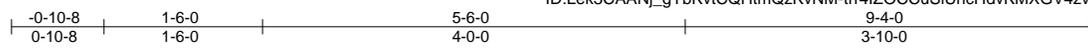
July 20,2020

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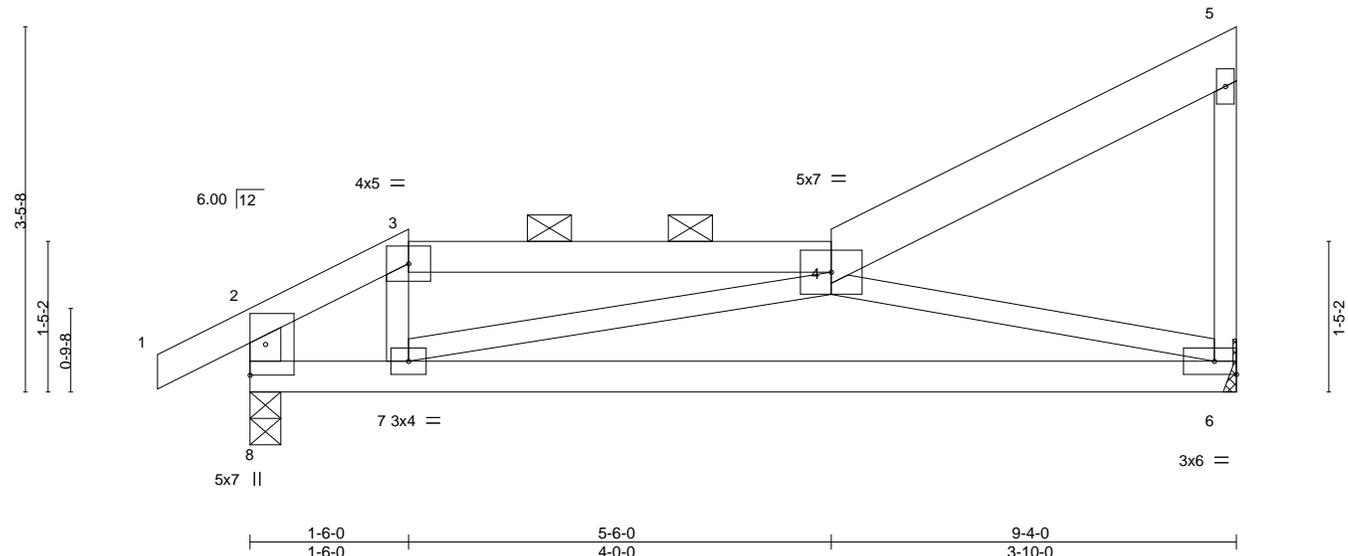


Job 400423	Truss C7	Truss Type Roof Special Girder	Qty 1	Ply 1	Lot 44 HT	I42087964
Wheeler Lumber, Waverly, KS 66871					8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:16 2020 Page 1	
					Job Reference (optional)	

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-trr4IZOCCuSIUhcHdvKMXGV4zvmU?h??735HtqywC9j



Scale = 1:21.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	-0.11	6-7	>971	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.23	6-7	>467	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.30	Horz(CT)	0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	6-7	>999	240	Weight: 36 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 4-5: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-8: 2x4 SPF No.2	

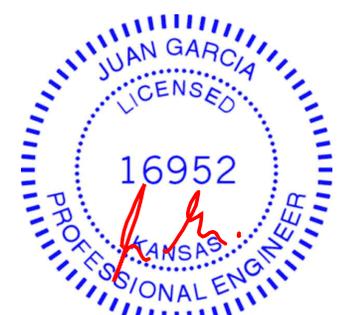
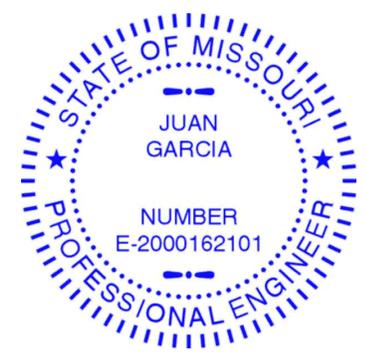
REACTIONS. (size) 6=Mechanical, 8=0-3-8
 Max Horz 8=133(LC 5)
 Max Uplift 6=-85(LC 8), 8=-92(LC 8)
 Max Grav 6=405(LC 1), 8=483(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-562/14, 3-4=-438/35, 2-8=-439/35
 BOT CHORD 7-8=-60/449, 6-7=-192/732
 WEBS 3-7=0/286, 4-7=-306/180, 4-6=-748/236

- NOTES-**
- 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
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 76 lb up at 1-6-0 on top chord, and 11 lb down and 1 lb up at 1-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 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

- 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, 6-8=-20
 Concentrated Loads (lb)
 Vert: 7=1(F)



July 20,2020

Job 400423	Truss C8	Truss Type Roof Special	Qty 1	Ply 1	Lot 44 HT	I42087965
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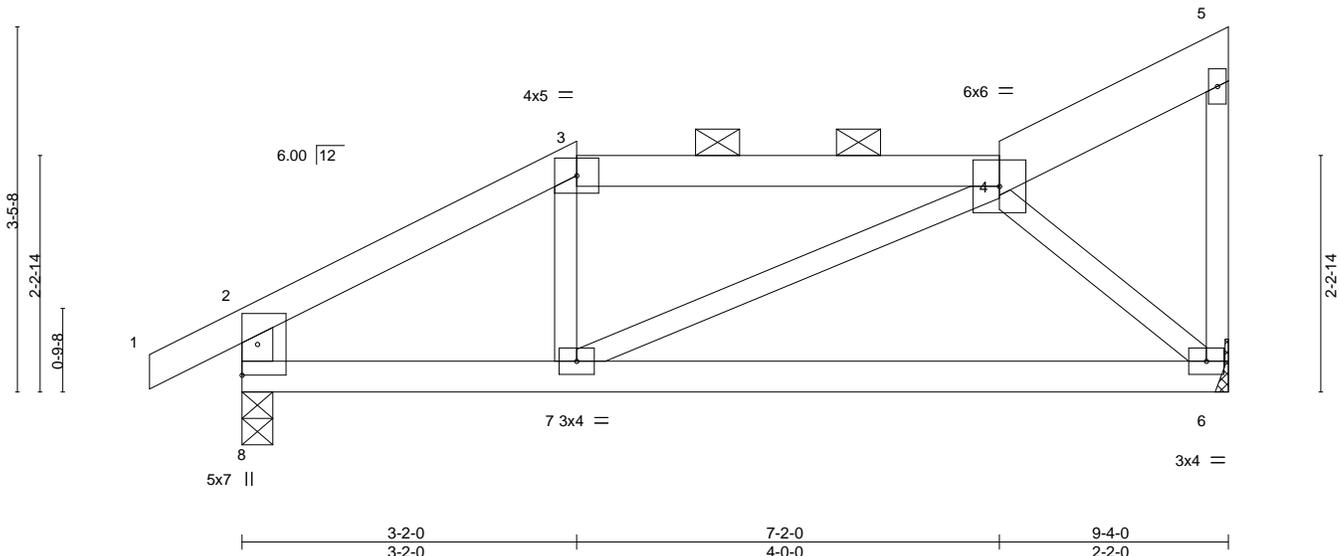
Wheeler Lumber, Waverly, KS 66871

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Scale = 1:21.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	-0.05	6-7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	-0.11	6-7	>976	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	6-7	>999	240	Weight: 35 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
4-5: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-8: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 8=0-3-8
Max Horz 8=133(LC 5)
Max Uplift 6=-85(LC 8), 8=-91(LC 8)
Max Grav 6=405(LC 1), 8=484(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-535/72, 3-4=-421/90, 2-8=-433/95
BOT CHORD 7-8=-68/420, 6-7=-72/329
WEBS 4-6=-441/143

- 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) Provide adequate drainage to prevent water ponding.
 - 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) 6, 8.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 20, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400423	Truss C9	Truss Type Half Hip	Qty 1	Ply 1	Lot 44 HT	I42087966
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Wheeler Lumber, Waverly, KS 66871

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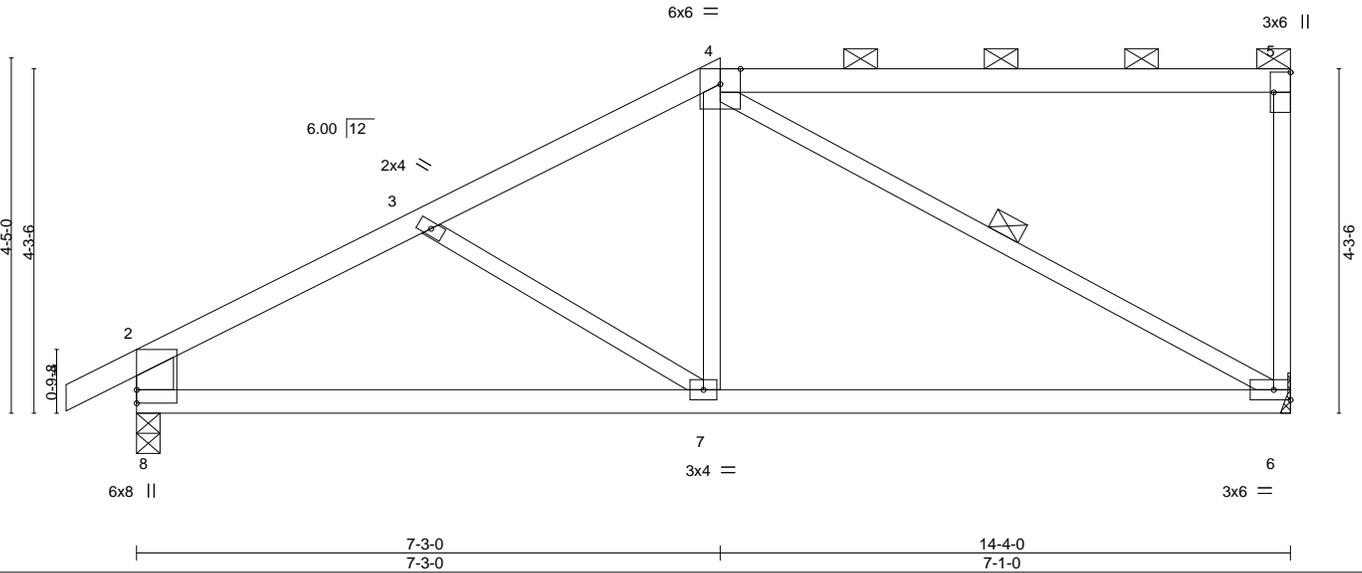


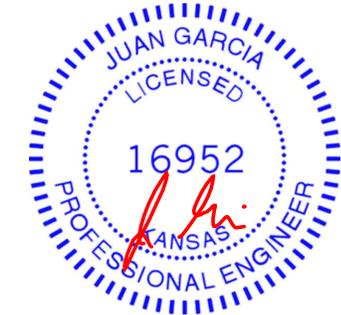
Plate Offsets (X,Y)--	[5:Edge,0-2-8]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.75	Vert(LL)	-0.07	6-7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.15	6-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.40	Horz(CT)	0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03	6-7	>999	240	Weight: 51 lb	FT = 10%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 4-11-2 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2 *Except* 2-8: 2x6 SPF No.2	WEBS	1 Row at midpt 4-6

REACTIONS. (size) 6=Mechanical, 8=0-3-8
 Max Horz 8=174(LC 5)
 Max Uplift 6=113(LC 5), 8=101(LC 8)
 Max Grav 6=627(LC 1), 8=710(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-837/129, 3-4=-687/79, 2-8=-636/135
 BOT CHORD 7-8=-164/656, 6-7=-127/596
 WEBS 4-7=0/306, 4-6=-654/100

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=113, 8=101.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



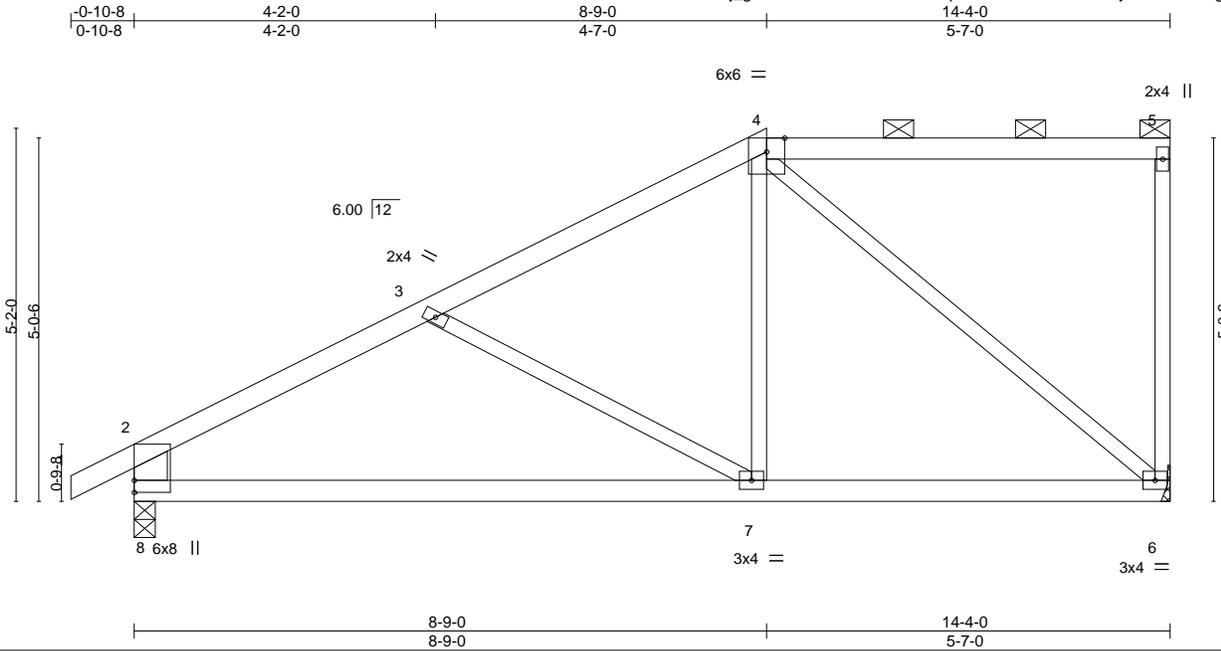
July 20,2020

Job 400423	Truss C10	Truss Type Half Hip	Qty 1	Ply 1	Lot 44 HT	I42087967
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Wheeler Lumber, Waverly, KS 66871

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ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-3iUp1WKRd2ibmm87GeDyH?F0JUKlbrg6k7ezfAyc9p



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.56	Vert(LL)	-0.12	7-8	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.24	7-8	>707		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.81	Horz(CT)	0.01	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	6-7	>999	Weight: 53 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-4-1 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except*	
2-8: 2x6 SPF No.2	

REACTIONS. (size) 6=Mechanical, 8=0-3-8
 Max Horz 8=205(LC 5)
 Max Uplift 6=110(LC 5), 8=108(LC 8)
 Max Grav 6=627(LC 1), 8=710(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-842/157, 3-4=-584/80, 2-8=-621/153
 BOT CHORD 7-8=-178/670, 6-7=-107/475
 WEBS 4-7=0/351, 4-6=-616/85

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 6=110, 8=108.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 20, 2020

Job 400423	Truss D1	Truss Type Common Supported Gable	Qty 1	Ply 1	Lot 44 HT Job Reference (optional)	I42087968
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Wheeler Lumber, Waverly, KS 66871

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4x5 =

Scale = 1:45.8

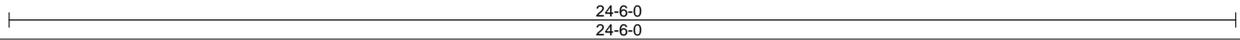
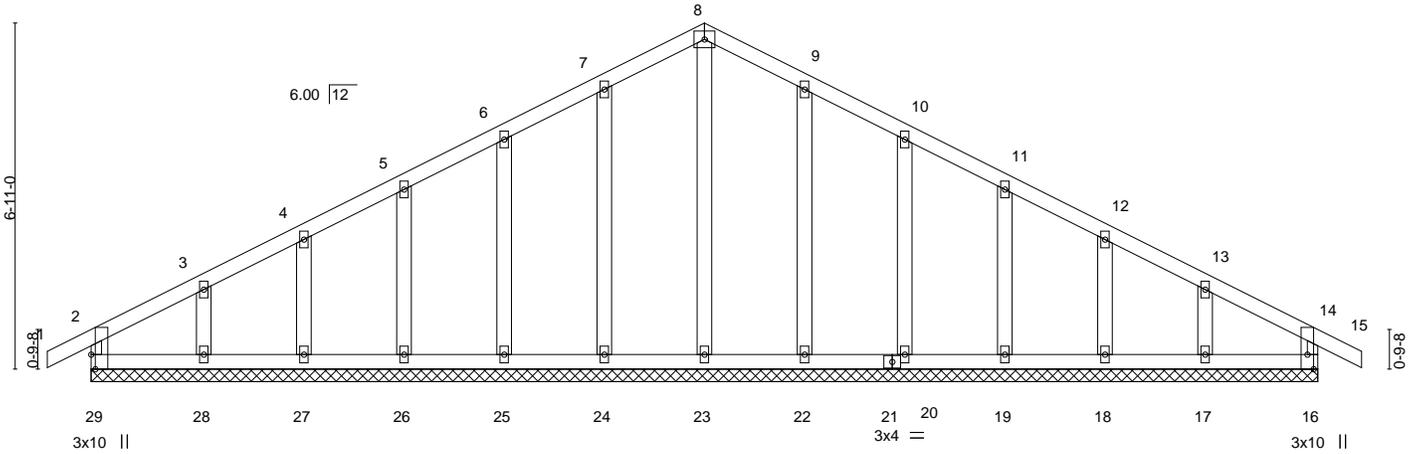


Plate Offsets (X,Y)-- [29:0-3-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	15	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	15	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.00	16	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						
								Weight: 108 lb	FT = 10%

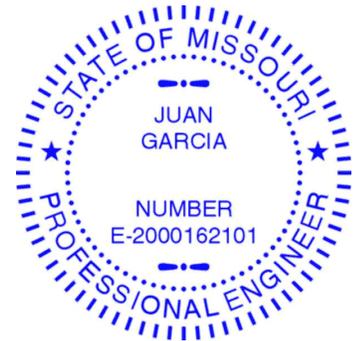
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x4 SPF No.2

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. All bearings 24-6-0.
(lb) - Max Horz 29=105(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 29, 16, 24, 25, 26, 27, 28, 22, 20, 19, 18, 17
Max Grav All reactions 250 lb or less at joint(s) 29, 16, 23, 24, 25, 26, 27, 28, 22, 20, 19, 18, 17

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) 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) 29, 16, 24, 25, 26, 27, 28, 22, 20, 19, 18, 17.
 - 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.



July 20,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400423	Truss D2	Truss Type Common	Qty 7	Ply 1	Lot 44 HT	I42087969
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Wheeler Lumber, Waverly, KS 66871

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4x5 =

Scale: 1/4"=1'

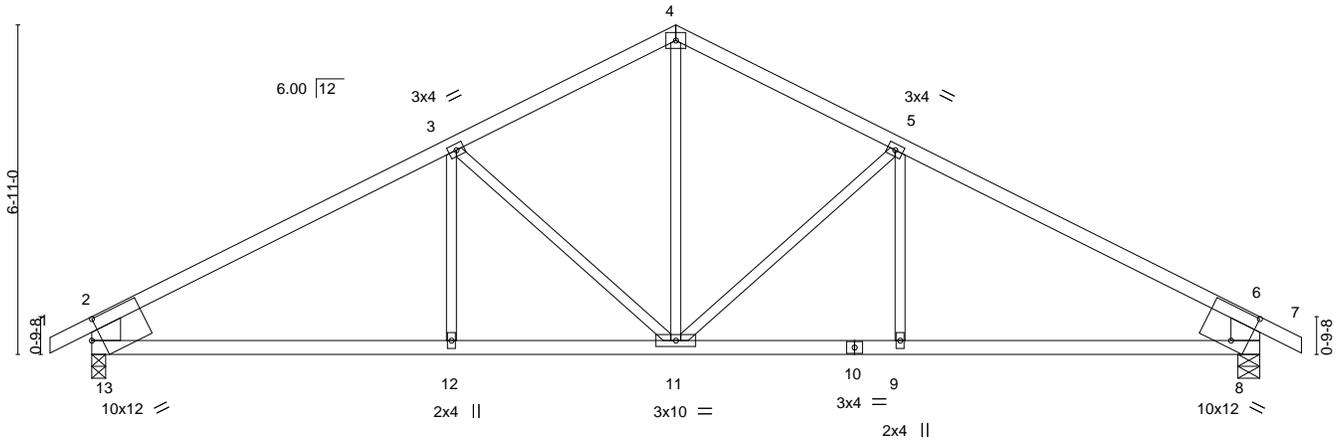


Plate Offsets (X,Y)-- [8:0-4-1,0-8-2], [13:0-2-7,0-4-14]

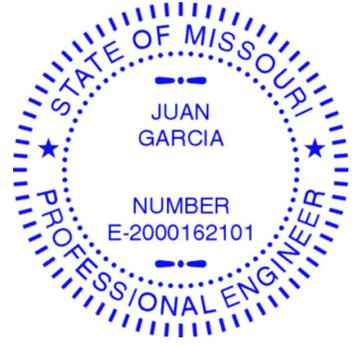
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.13	9-11	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.66	Vert(CT)	-0.24	9-11	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.45	Horz(CT)	0.05	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07	9-11	>999	Weight: 86 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied or 4-10-1 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-13,6-8: 2x8 SP DSS	

REACTIONS. (size) 13=0-3-8, 8=0-5-8
 Max Horz 13=109(LC 7)
 Max Uplift 13=-160(LC 8), 8=-160(LC 9)
 Max Grav 13=1158(LC 1), 8=1158(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1586/195, 3-4=-1178/200, 4-5=-1178/200, 5-6=-1586/195, 2-13=-1056/206, 6-8=-1056/206
 BOT CHORD 12-13=-168/1286, 11-12=-168/1286, 9-11=-74/1286, 8-9=-74/1286
 WEBS 4-11=-100/662, 5-11=-455/187, 3-11=-455/186

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 13=160, 8=160.
 - 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.



July 20,2020

Job 400423	Truss E1	Truss Type Common Structural Gable	Qty 1	Ply 1	Lot 44 HT	142087970
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Wheeler Lumber, Waverly, KS 66871

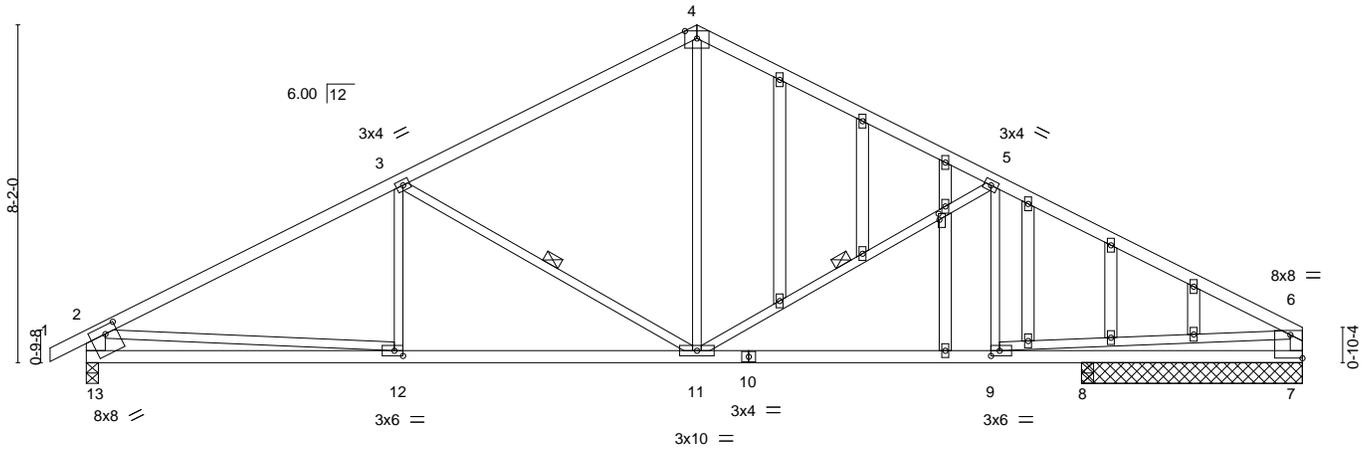
8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:21 2020 Page 1

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5x7 =

Scale = 1:55.4



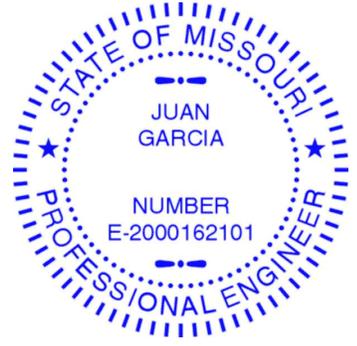
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.69	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.61	Vert(LL) -0.12 9-11 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.44	Vert(CT) -0.26 9-11 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.05 7 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.08 9-11 >999 240	Weight: 134 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-0-14 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except*	WEBS 1 Row at midpt 3-11, 5-11
OTHERS 2-13: 2x6 SPF No.2, 6-7: 2x4 SPF No.2	
2x4 SPF No.2	

REACTIONS. (size) 7=5-4-0, 13=0-3-8, 8=0-3-8
 Max Horz 13=127(LC 7)
 Max Uplift 7=-174(LC 9), 13=-191(LC 8)
 Max Grav 7=1135(LC 1), 13=1348(LC 1), 8=210(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2016/263, 3-4=-1433/240, 4-5=-1436/242, 5-6=-1847/272, 2-13=-1273/231, 6-7=-1117/208
 BOT CHORD 12-13=-285/604, 11-12=-262/1700, 9-11=-168/1561, 8-9=-99/293, 7-8=-99/293
 WEBS 3-11=-656/235, 4-11=-61/717, 5-11=-520/251, 2-12=-13/1100, 6-9=-78/1272

- NOTES-**
- Unbraced roof live loads have been considered for this design.
 - 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
 - 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.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=174, 13=191.
 - 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.



July 20,2020

Job 400423	Truss E2	Truss Type Common	Qty 2	Ply 1	Lot 44 HT	I42087971
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Wheeler Lumber, Waverly, KS 66871

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5x7 =

Scale = 1:54.6

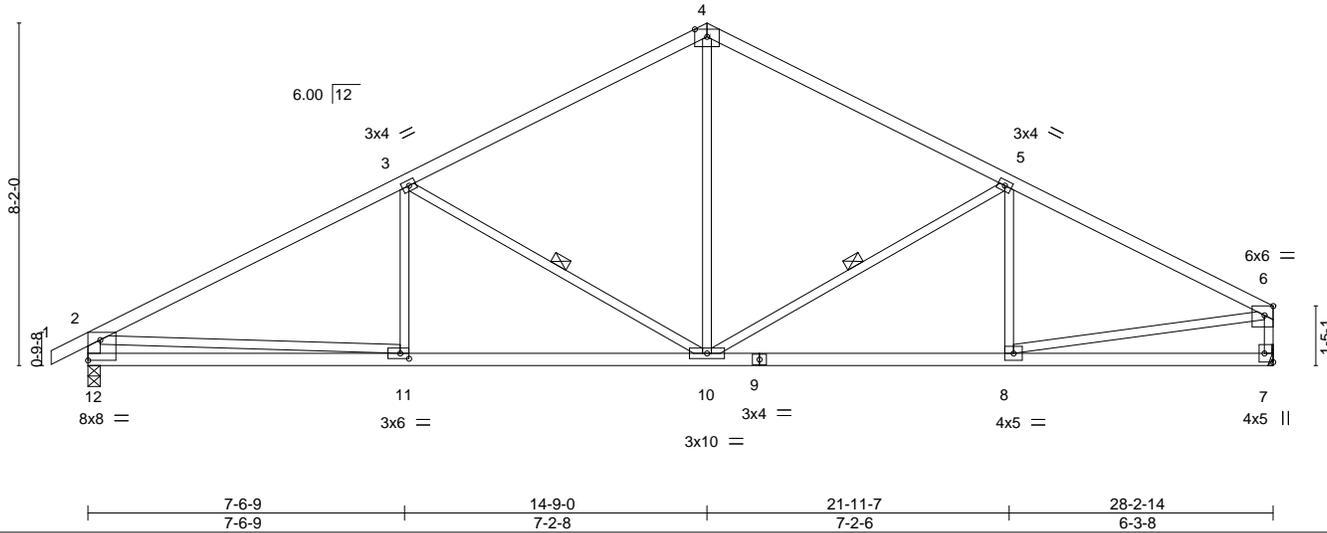


Plate Offsets (X, Y)-- [6:0-2-8,Edge], [7:Edge,0-2-8], [11:0-2-8,0-1-8], [12:Edge,0-5-13]

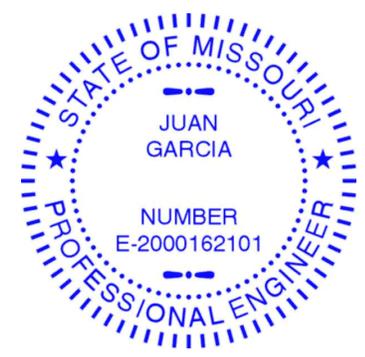
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.66	Vert(LL)	-0.09	10-11	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.55	Vert(CT)	-0.18	10-11	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.49	Horz(CT)	0.05	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06	10-11	>999	Weight: 107 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-6-8 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-12: 2x4 SPF 2100F 1.8E	WEBS 1 Row at midpt 3-10, 5-10

REACTIONS. (size) 12=0-3-8, 7=Mechanical
 Max Horz 12=142(LC 5)
 Max Uplift 12=183(LC 8), 7=150(LC 9)
 Max Grav 12=1332(LC 1), 7=1258(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2015/252, 3-4=-1409/221, 4-5=-1408/229, 5-6=-1771/217, 2-12=-1258/224, 6-7=-1199/179
 BOT CHORD 11-12=-295/642, 10-11=-256/1700, 8-10=-143/1513
 WEBS 3-10=-677/238, 4-10=-49/689, 5-10=-492/207, 2-11=0/1060, 6-8=-112/1425

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - The Fabrication Tolerance at joint 2 = 2%
 - 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.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=183, 7=150.
 - 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.



July 20,2020

Job 400423	Truss E3	Truss Type Common	Qty 4	Ply 1	Lot 44 HT	I42087972
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Wheeler Lumber, Waverly, KS 66871

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5x7 =

Scale = 1:54.1

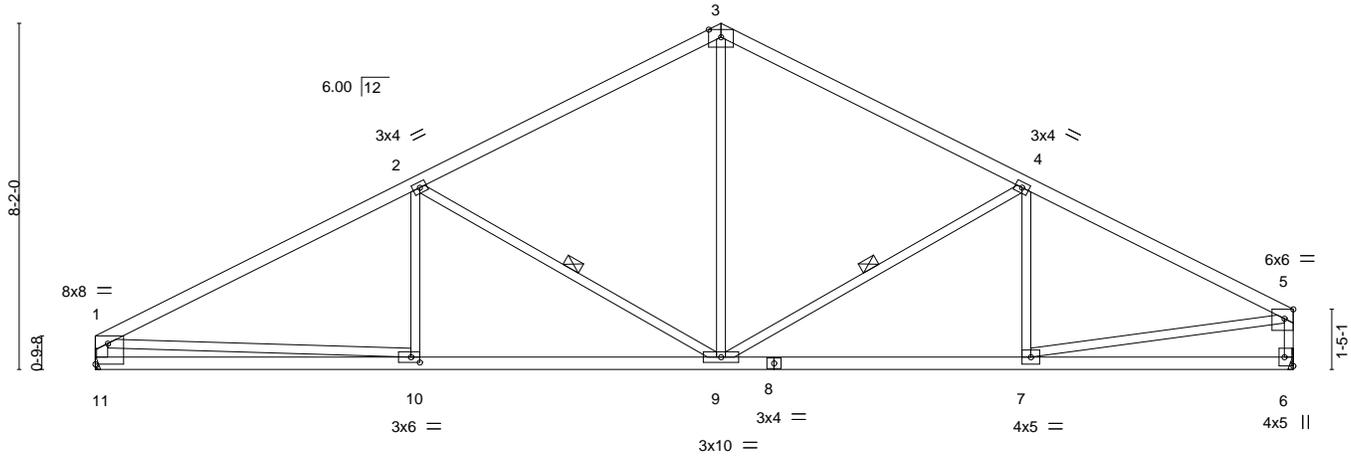


Plate Offsets (X,Y)-- [1:Edge,0-5-13], [5:0-2-8,Edge], [6:Edge,0-2-8], [10:0-2-8,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.74	Vert(LL)	-0.09	9-10	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.55	Vert(CT)	-0.19	9-10	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.49	Horz(CT)	0.04	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05	9-10	>999	Weight: 106 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 1-11: 2x4 SPF No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 2-9, 4-9

REACTIONS. (size) 11=Mechanical, 6=Mechanical
 Max Horz 11=113(LC 7)
 Max Uplift 11=-17(LC 8), 6=-11(LC 9)
 Max Grav 11=1260(LC 1), 6=1260(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-2020/42, 2-3=-1413/69, 3-4=-1411/74, 4-5=-1774/35, 1-11=-1184/57, 5-6=-1200/41
 BOT CHORD 10-11=-96/480, 9-10=-42/1713, 7-9=0/1515
 WEBS 2-9=-690/115, 3-9=0/698, 4-9=-492/108, 1-10=0/1239, 5-7=0/1428

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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
 - 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.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 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.



July 20,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss E4	Truss Type Common	Qty 1	Ply 1	Lot 44 HT	I42087973
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Wheeler Lumber, Waverly, KS 66871

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ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-3z0EcKX5dGrBJNyPmj1xTaSrdKXW4c9cfGGMmhywC9Y

Job Reference (optional)



5x7 =

Scale = 1:54.8

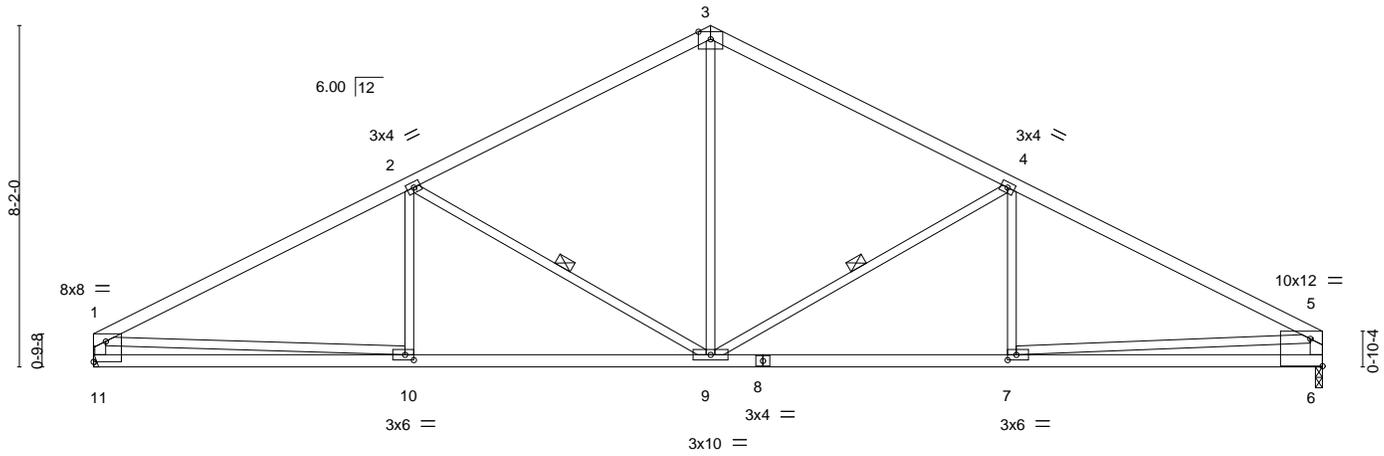


Plate Offsets (X, Y)-- [1:Edge,0-5-13], [5:Edge,0-7-13], [7:0-2-8,0-1-8], [10:0-2-8,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.77	Vert(LL)	-0.10	9-10	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.21	7-9	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.47	Horz(CT)	0.05	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07	9-10	>999		
								Weight: 109 lb	FT = 10%

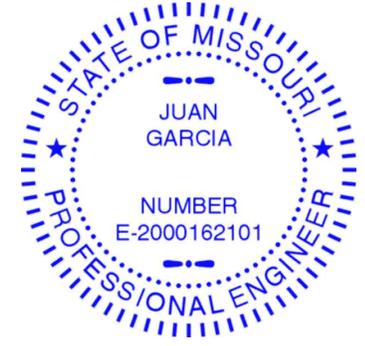
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-11,5-6: 2x4 SPF No.2

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 2-9, 4-9

REACTIONS. (size) 11=Mechanical, 6=0-2-0
Max Horz 11=117(LC 7)
Max Uplift 11=-162(LC 8), 6=-161(LC 9)
Max Grav 11=1309(LC 1), 6=1309(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2116/258, 2-3=-1515/236, 3-4=-1515/237, 4-5=-2090/255, 1-11=-1233/202, 5-6=-1234/200
BOT CHORD 10-11=-209/487, 9-10=-263/1798, 7-9=-152/1778, 6-7=-93/419
WEBS 2-9=-686/242, 3-9=-59/795, 4-9=-665/238, 1-10=-57/1315, 5-7=-68/1364

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - Bearing capacity is increased by the plate at joint(s) 6. Plate must be within 1/4 in of bearing surface.
 - 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.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 11=162, 6=161.
 - 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.



July 20,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job 400423	Truss E5	Truss Type Common	Qty 1	Ply 1	Lot 44 HT	I42087974
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Wheeler Lumber, Waverly, KS 66871

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5x7 =

Scale = 1:55.4

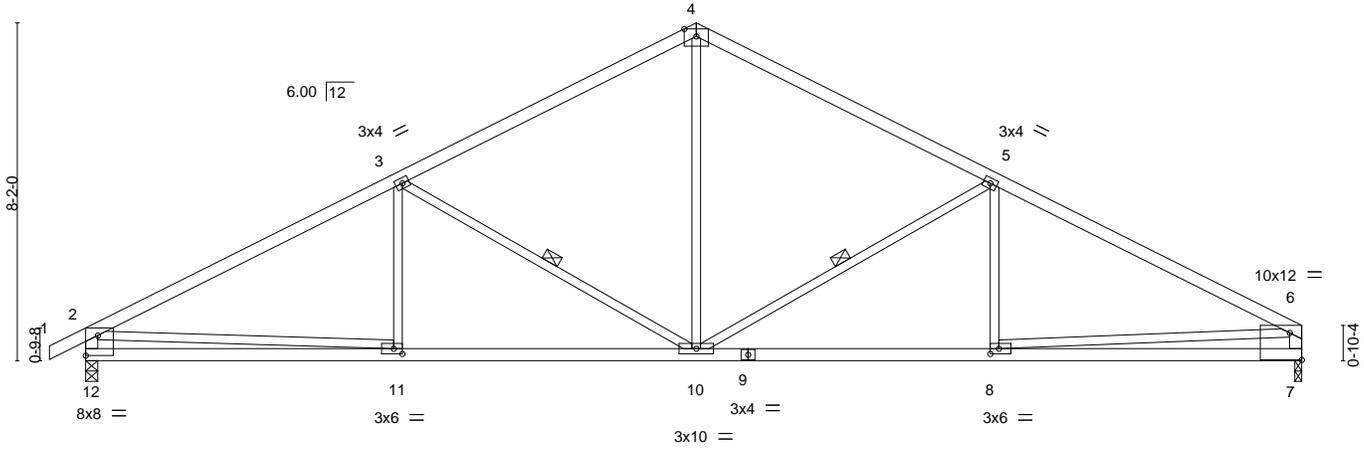


Plate Offsets (X,Y)-- [6:Edge,0-7-13], [8:0-2-8,0-1-8], [11:0-2-8,0-1-8], [12:Edge,0-5-13]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.72	Vert(LL)	-0.10	8-10	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.21	8-10	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.47	Horz(CT)	0.05	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07	8-10	>999		
								Weight: 111 lb	FT = 10%

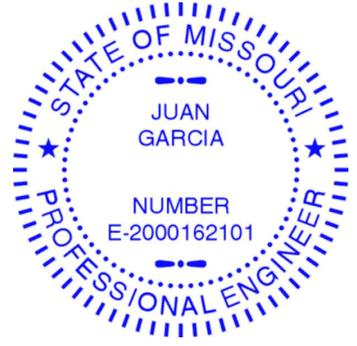
LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-12: 2x4 SPF 2400F 2.0E, 6-7: 2x4 SPF No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 3-10, 5-10

REACTIONS. (size) 12=0-3-8, 7=0-2-0
 Max Horz 12=128(LC 12)
 Max Uplift 12=186(LC 8), 7=161(LC 9)
 Max Grav 12=1381(LC 1), 7=1307(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2111/258, 3-4=-1511/235, 4-5=-1512/236, 5-6=-2088/255, 2-12=-1307/226, 6-7=-1233/200
 BOT CHORD 11-12=-295/656, 10-11=-259/1785, 8-10=-152/1775, 7-8=-93/419
 WEBS 3-10=-673/237, 4-10=-57/786, 5-10=-665/238, 2-11=-6/1132, 6-8=-67/1362

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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
 - The Fabrication Tolerance at joint 2 = 2%
 - Bearing capacity is increased by the plate at joint(s) 7. Plate must be within 1/4 in of bearing surface.
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate at joint(s) 7.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 12=186, 7=161.
 - 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.



July 20,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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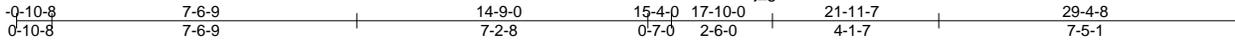
Job 400423	Truss E6	Truss Type Roof Special	Qty 1	Ply 1	Lot 44 HT	142087975
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Wheeler Lumber, Waverly, KS 66871

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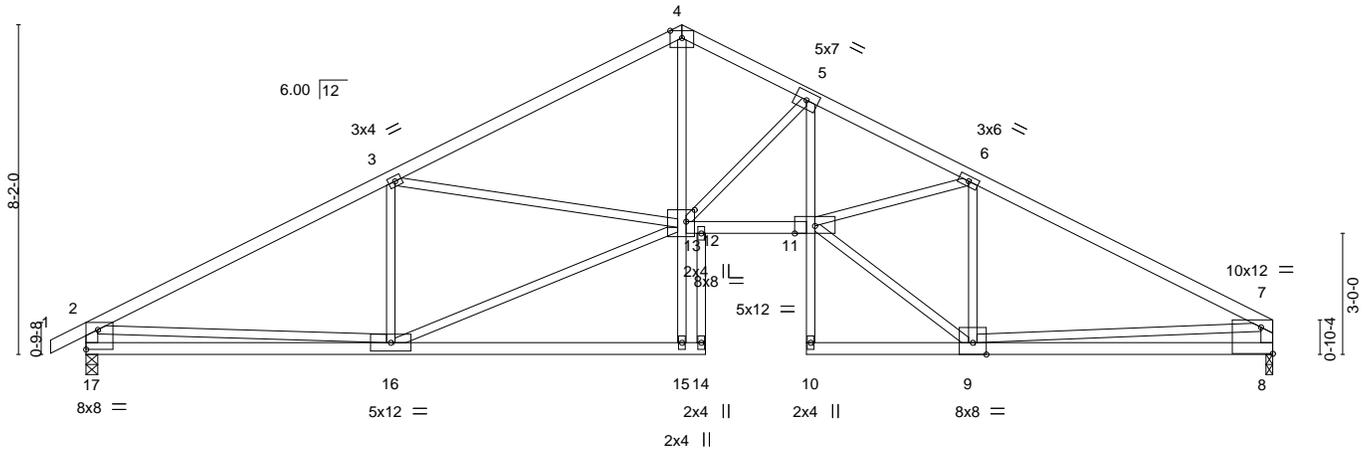
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Job Reference (optional)



5x7 =

Scale = 1:56.8



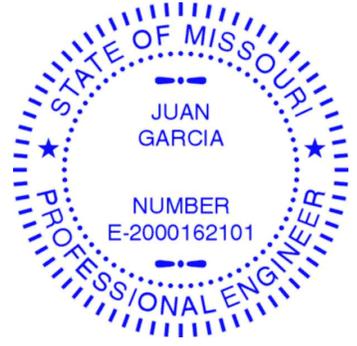
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.93	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.83	Vert(LL) -0.21 10 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.75	Vert(CT) -0.37 10 >937 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.22 8 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.13 11 >999 240	Weight: 128 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SPF No.2 *Except* 5-10: 2x3 SPF No.2	BOT CHORD Rigid ceiling applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-17: 2x4 SPF 2100F 1.8E, 7-8: 2x4 SPF No.2	

REACTIONS. (size) 17=0-3-8, 8=0-2-0
 Max Horz 17=128(LC 8)
 Max Uplift 17=-186(LC 8), 8=-161(LC 9)
 Max Grav 17=1381(LC 1), 8=1307(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2114/257, 3-4=-2331/248, 4-5=-2264/282, 5-6=-3277/293, 6-7=-2066/246,
 2-17=-1308/226, 7-8=-1230/201
 BOT CHORD 16-17=-296/647, 12-13=-127/2844, 11-12=-128/2846, 5-11=-115/1173, 8-9=-111/461
 WEBS 3-16=-665/201, 3-13=-48/318, 13-15=0/394, 4-13=-101/1605, 5-13=-1215/198,
 9-11=-176/2189, 6-11=-46/1139, 6-9=-1336/196, 2-16=-11/1145, 7-9=-64/1294,
 13-16=-283/1921

- 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) Bearing capacity is increased by the plate at joint(s) 8. Plate must be within 1/4 in of bearing surface.
 - 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) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 8.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=186, 8=161.
 - 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.

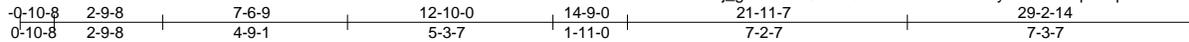


July 20,2020

Job 400423	Truss E7	Truss Type Roof Special	Qty 2	Ply 1	Lot 44 HT	I42087976
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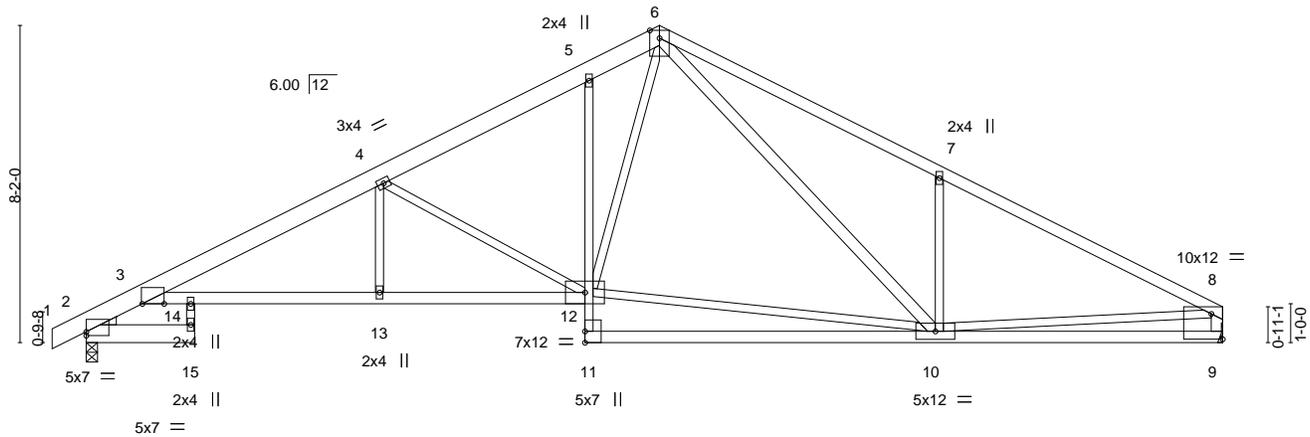
Wheeler Lumber, Waverly, KS 66871, Mitek

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8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 15:57:22 2020 Page 1



6x8 ||

Scale = 1:59.0



Job 400423	Truss E8	Truss Type Roof Special	Qty 1	Ply 1	Lot 44 HT Job Reference (optional)	I42087977
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Wheeler Lumber, Waverly, KS 66871

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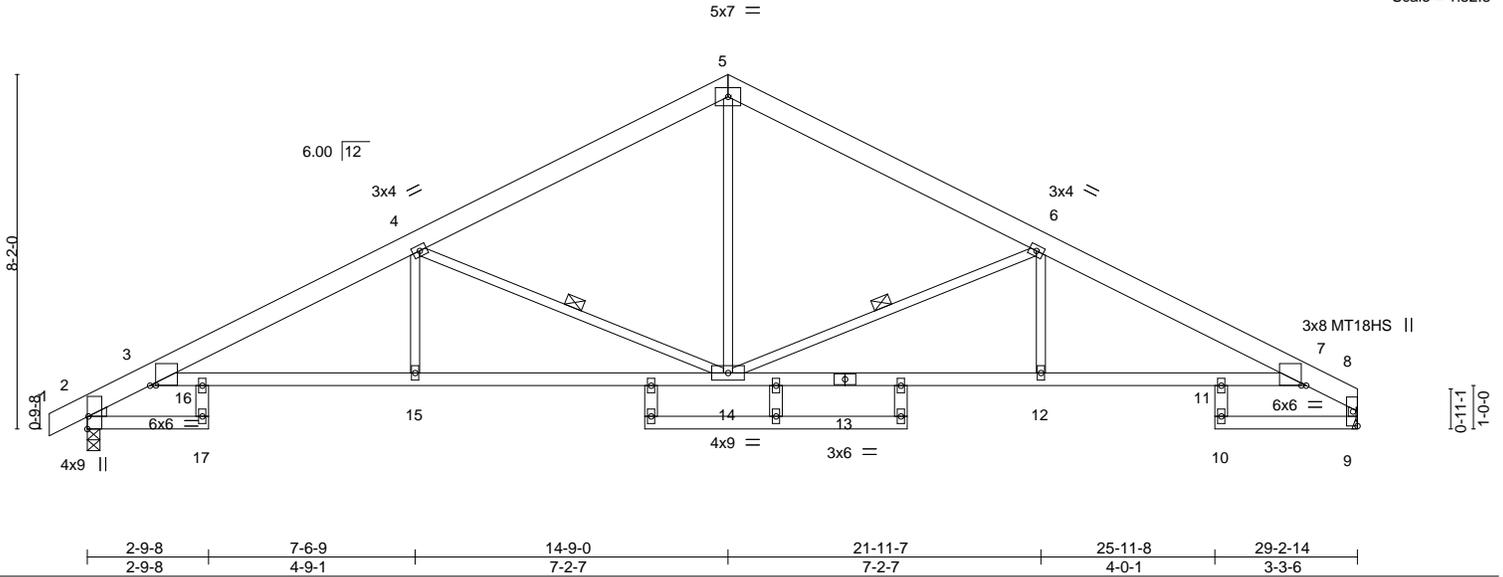


Plate Offsets (X,Y)--	[2:Edge,0-0-5], [3:0-1-9,0-0-1], [7:0-1-5,0-0-1]
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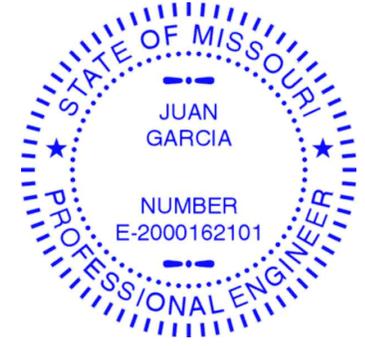
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.61	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.67	Vert(LL) -0.24 15-16 >999 360	MT18HS	197/144
BCLL 0.0 *	Lumber DOL 1.15	WB 0.66	Vert(CT) -0.45 15-16 >769 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.42 9 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.14 15-16 >999 240	Weight: 151 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SP DSS *Except*	TOP CHORD Structural wood sheathing directly applied or 3-8-11 oc purlins, except end verticals.
5-8: 2x6 SP 2400F 2.0E	
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
3-13,7-13: 2x4 SPF 2100F 1.8E	10-0-0 oc bracing: 12-14
WEBS 2x3 SPF No.2 *Except*	WEBS 1 Row at midpt 4-14, 6-14
16-17,10-11,18-20,19-21,22-23: 2x4 SPF No.2	
WEDGE	
Left: 2x3 SPF No.2	

REACTIONS.
(size) 2=0-3-8, 9=Mechanical
Max Horz 2=101(LC 7)
Max Uplift 2=-27(LC 8), 9=-15(LC 9)
Max Grav 2=1377(LC 1), 9=1303(LC 1)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-817/42, 3-4=-2750/55, 4-5=-1730/48, 5-6=-1727/59, 6-7=-2701/31, 7-8=-474/14, 8-9=-1291/36
BOT CHORD 3-16=-54/2473, 15-16=-54/2473, 14-15=-54/2473, 12-14=0/2417, 11-12=0/2417, 7-11=0/2417
WEBS 4-15=0/328, 4-14=-1146/135, 5-14=0/1024, 6-14=-1084/118, 6-12=0/320

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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) 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) 2, 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.



July 20,2020

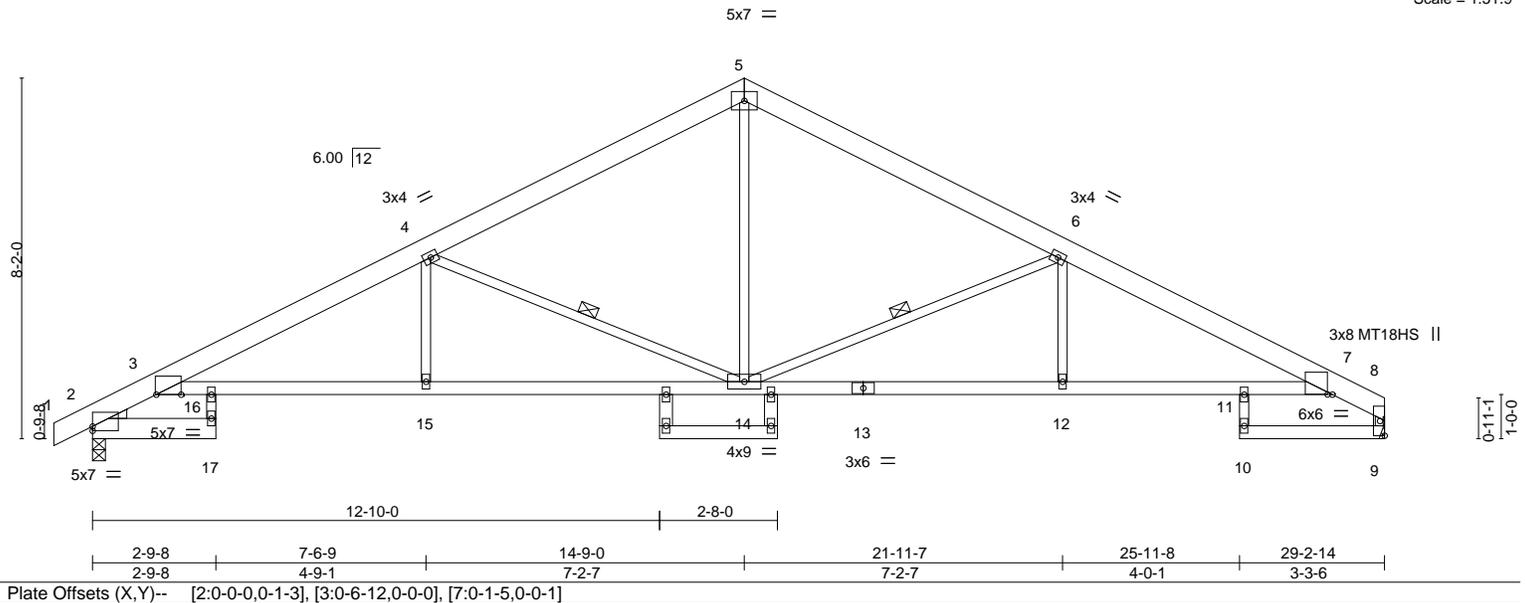
Job 400423	Truss E9	Truss Type Roof Special	Qty 1	Ply 1	Lot 44 HT	I42087978
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Wheeler Lumber, Waverly, KS 66871, Mitek

8.410 s May 22 2020 Mitek Industries, Inc. Mon Jul 20 15:57:30 2020 Page 1
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Scale = 1:51.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.60	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.67	Vert(LL) -0.24 15-16 >999 360	MT18HS	197/144
BCLL 0.0 *	Lumber DOL 1.15	WB 0.66	Vert(CT) -0.44 15-16 >793 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.39 9 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.19 15-16 >999 240		
				Weight: 147 lb	FT = 10%

LUMBER-
 TOP CHORD 2x6 SP 2400F 2.0E
 BOT CHORD 2x4 SPF 2100F 1.8E *Except*
 2-17: 2x6 SPF No.2, 9-10,18-19: 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 18-20,19-21: 2x4 SPF No.2
 WEDGE
 Left: 2x3 SPF No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 4-8-2 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 4-14, 6-14

REACTIONS. (lb/size) 2=1377/0-3-8, 9=1303/Mechanical
 Max Horz 2=141(LC 12)
 Max Uplift 2=-187(LC 8), 9=-161(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-825/149, 3-4=-2750/354, 4-5=-1729/224, 5-6=-1727/242, 6-7=-2701/311,
 7-8=-474/66, 8-9=-1290/185
 BOT CHORD 3-16=-360/2471, 15-16=-360/2471, 14-15=-360/2471, 13-14=-208/2417, 12-13=-208/2417,
 11-12=-208/2417, 7-11=-208/2417
 WEBS 4-15=0/332, 4-14=-1143/326, 5-14=-63/1022, 6-14=-1084/293, 6-12=0/320

- 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) 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.
 - 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 187 lb uplift at joint 2 and 161 lb uplift at joint 9.
 - 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.



July 20,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with Mitek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss E11	Truss Type GABLE	Qty 1	Ply 1	Lot 44 HT	142087980
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:24 2020 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-eOK6_IUDKLTcSwDq5aTEsyqR87YqfF3Ay1i9MywC9b

Job Reference (optional)

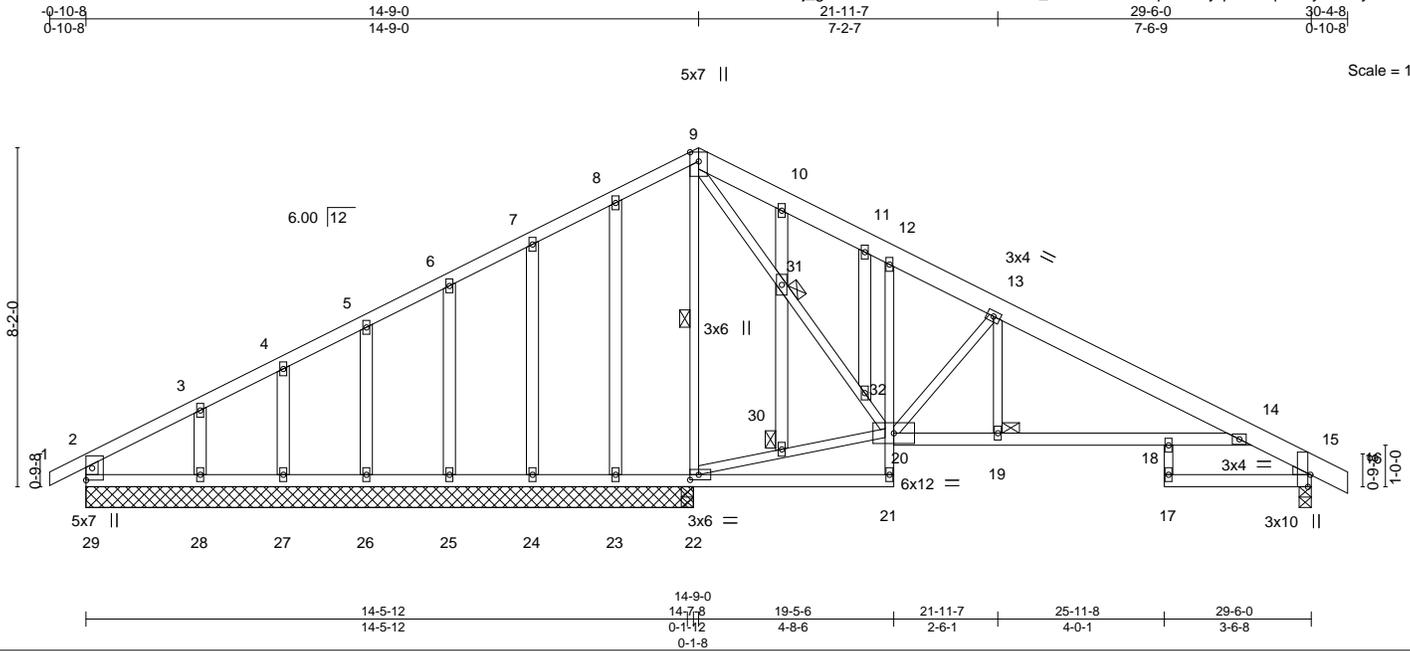


Plate Offsets (X,Y)--	[15:0-3-8,Edge], [22:0-2-8,0-1-8]
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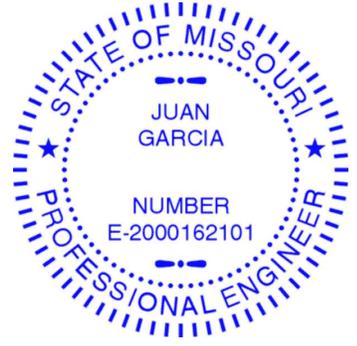
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.08	18	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.18	18-19	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.55	Horz(CT)	0.08	15	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07	18	>999	Weight: 154 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 9-16: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2 *Except* 12-21: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 21-22,20-21,15-17. 10-0-0 oc bracing: 19-20, 18-19
WEBS 2x3 SPF No.2 *Except* 2-29: 2x4 SPF No.2	WEBS 1 Row at midpt 9-22
OTHERS 2x4 SPF No.2	JOINTS 1 Brace at Jt(s): 19, 30, 31
WEDGE Right: 2x3 SPF No.2	

REACTIONS. All bearings 14-7-8 except (jt=length) 15=0-3-8.
 (lb) - Max Horz 29=-132(LC 9)
 Max Uplift All uplift 100 lb or less at joint(s) 23, 24, 25, 26, 27 except
 29=-292(LC 22), 15=-104(LC 9), 22=-131(LC 9), 28=-121(LC 8)
 Max Grav All reactions 250 lb or less at joint(s) 29, 23, 24, 25, 26, 27 except
 15=488(LC 1), 22=1238(LC 1), 22=1238(LC 1), 28=395(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-145/587, 3-4=-76/529, 4-5=-37/548, 5-6=-8/544, 6-7=0/543, 7-8=0/550,
 8-9=0/534, 13-14=-391/99, 2-29=-35/261
 BOT CHORD 28-29=-463/243, 27-28=-463/243, 26-27=-463/243, 25-26=-463/243, 24-25=-463/243,
 23-24=-463/243, 22-23=-463/243, 19-20=-14/321, 18-19=-14/321, 14-18=-14/321
 WEBS 9-31=-178/655, 31-32=-166/613, 20-32=-174/650, 22-30=-500/240, 20-30=-480/230,
 13-20=-648/168, 13-19=0/256, 3-28=-268/127, 9-22=-966/106

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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
 - 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.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 24, 25, 26, 27 except (jt=lb) 29=292, 15=104, 22=131, 28=121.
 - 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.



July 20,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400423	Truss G1	Truss Type Roof Special	Qty 1	Ply 1	Lot 44 HT	I42087981
Wheeler Lumber, Waverly, KS 66871					Job Reference (optional)	

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:33 2020 Page 1
 ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-u7NVsNbsC6bK1IPY6z7Ljriv4YFTN7V1CjhzLywC9S



4x5 ||

Scale = 1:30.4

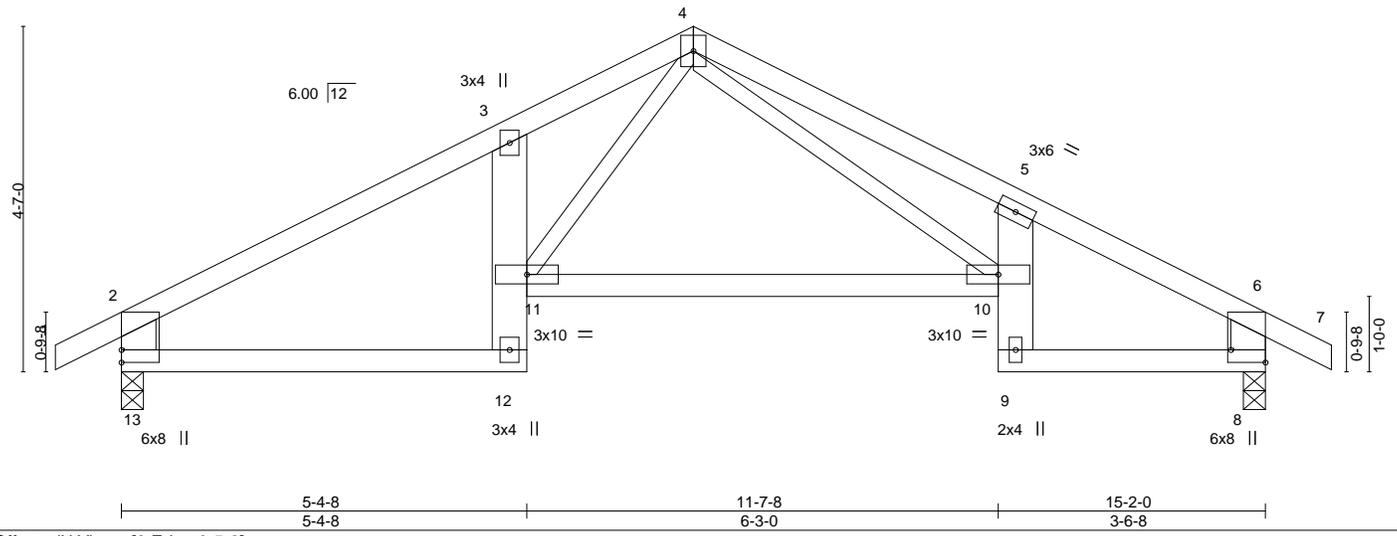


Plate Offsets (X,Y)--	[8:Edge,0-5-8]
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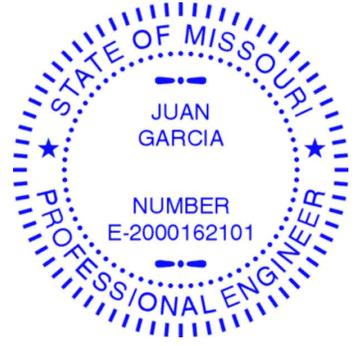
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.65	Vert(LL)	-0.11	10-11	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.65	Vert(CT)	-0.25	10-11	>701		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.31	Horz(CT)	0.11	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06	10-11	>999	Weight: 56 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-2-4 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2 *Except* 3-12,5-9: 2x6 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 9-10.
WEBS 2x6 SPF No.2 *Except* 4-11,4-10: 2x3 SPF No.2	

REACTIONS. (size) 13=0-3-8, 8=0-3-8
 Max Horz 13=-77(LC 6)
 Max Uplift 13=-107(LC 8), 8=-107(LC 9)
 Max Grav 13=739(LC 1), 8=739(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-883/117, 3-4=-1211/208, 4-5=-1675/258, 5-6=-845/113, 2-13=-674/141,
 6-8=-667/122
 BOT CHORD 12-13=-87/689, 3-11=-345/158, 10-11=-26/725, 5-10=-493/171, 8-9=-48/650
 WEBS 4-11=-115/561, 4-10=-177/901

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=107, 8=107.
 - 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.



July 20,2020

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 16023 Swingley Ridge Rd Chesterfield, MO 63017
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Job 400423	Truss G2	Truss Type Common Supported Gable	Qty 1	Ply 1	Lot 44 HT	I42087982
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Wheeler Lumber, Waverly, KS 66871

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ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-MJxu4jcUzQjBeS_lghfaG3FDv91gCuXeGsSEWnywC9R

Job Reference (optional)

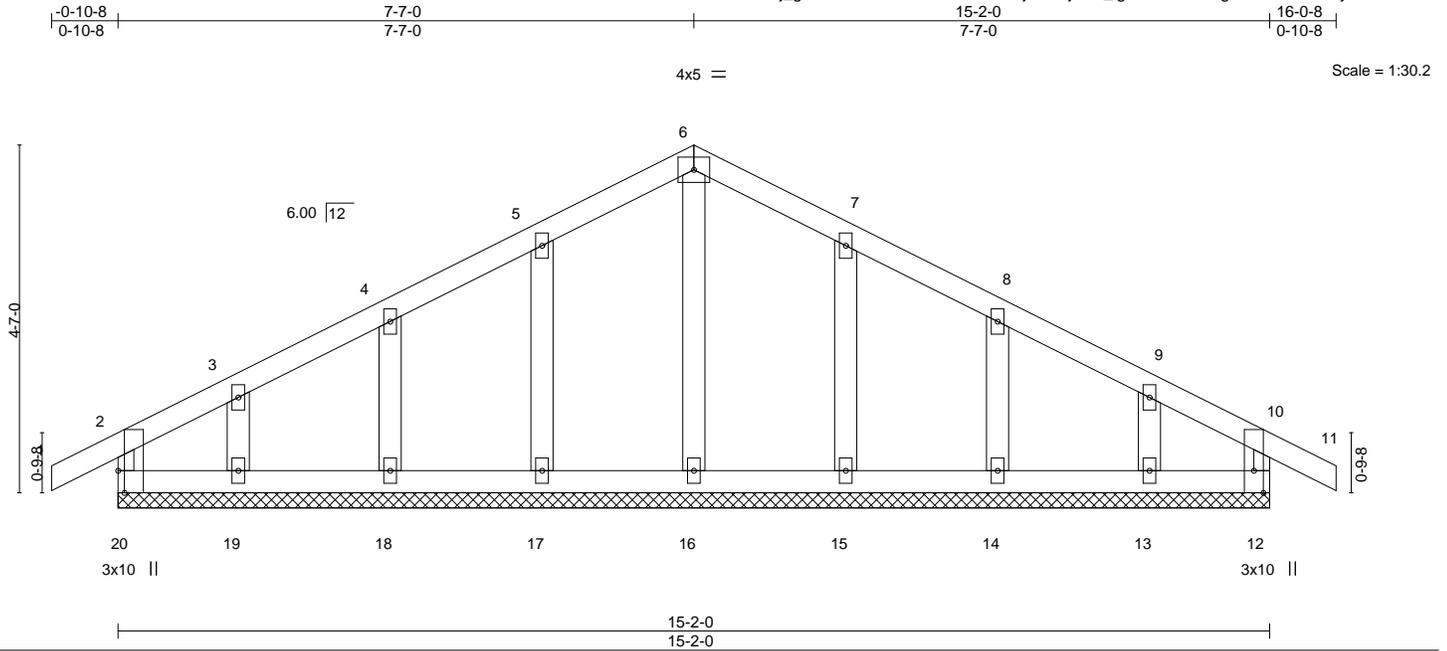


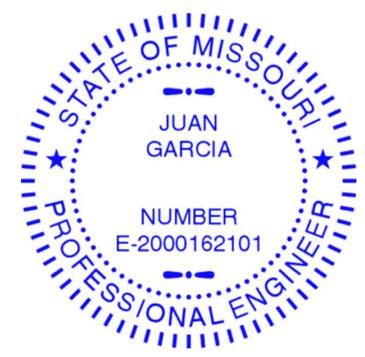
Plate Offsets (X,Y)--	[20:0-3-8,Edge]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.07	Vert(LL) -0.00	11	n/r	120		MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.02	Vert(CT) -0.00	11	n/r	120			
BCLL 0.0 *	Rep Stress Incr YES		WB 0.04	Horz(CT) 0.00	12	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 58 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x3 SPF No.2	
OTHERS 2x4 SPF No.2	

REACTIONS. All bearings 15-2-0.
 (lb) - Max Horz 20=-75(LC 6)
 Max Uplift All uplift 100 lb or less at joint(s) 20, 12, 17, 18, 19, 15, 14, 13
 Max Grav All reactions 250 lb or less at joint(s) 20, 12, 16, 17, 18, 19, 15, 14, 13

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) 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) 20, 12, 17, 18, 19, 15, 14, 13.
 - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

Job 400423	Truss H1	Truss Type Common Supported Gable	Qty 1	Ply 1	Lot 44 HT	I42087983
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Wheeler Lumber, Waverly, KS 66871

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ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-qVVGH3d6kjr2GcZxEoApoGoOfZNVxL?oUJWCn2DywC9Q

Job Reference (optional)



4x5 =

Scale = 1:23.7

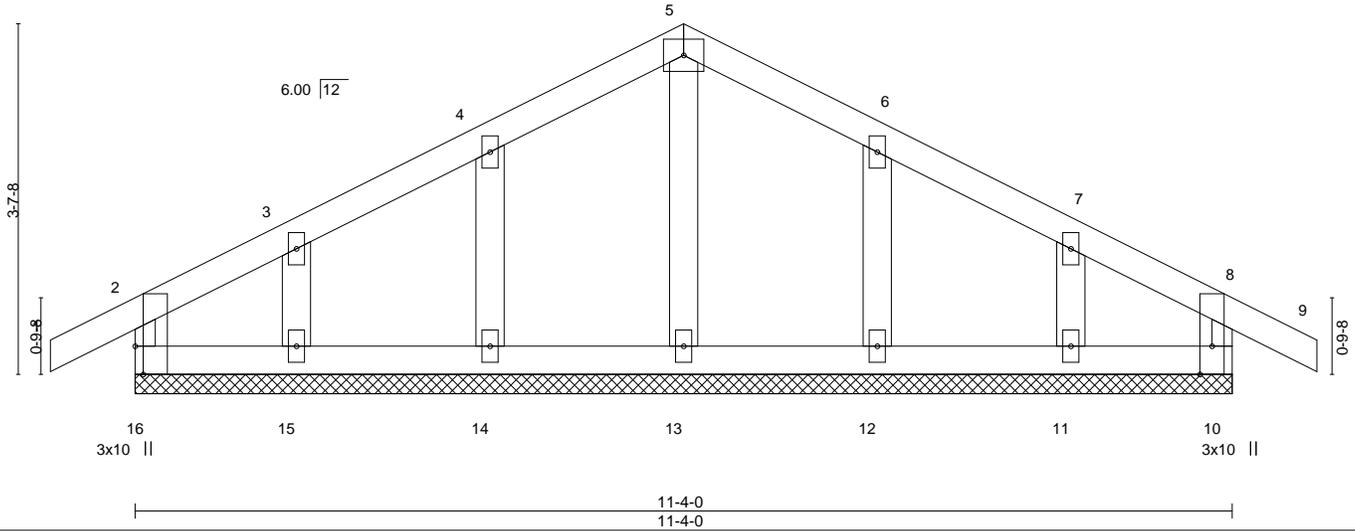


Plate Offsets (X,Y)--	[16:0-3-8,Edge]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/def	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	9	n/r	120
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	9	n/r	120
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	10	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					
								PLATES
								MT20
								GRIP
								197/144
								Weight: 41 lb
								FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2
 OTHERS 2x4 SPF No.2

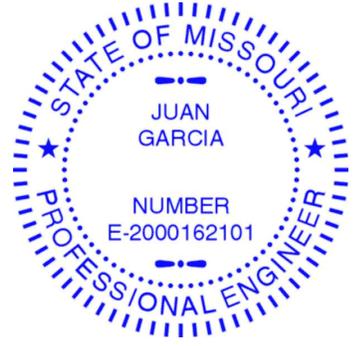
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 11-4-0.
 (lb) - Max Horz 16=-63(LC 6)
 Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 15, 12, 11
 Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=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) 16, 10, 14, 15, 12, 11.
- 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.



July 20,2020

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Job 400423	Truss H2	Truss Type Common	Qty 1	Ply 1	Lot 44 HT	I42087984
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Wheeler Lumber, Waverly, KS 66871

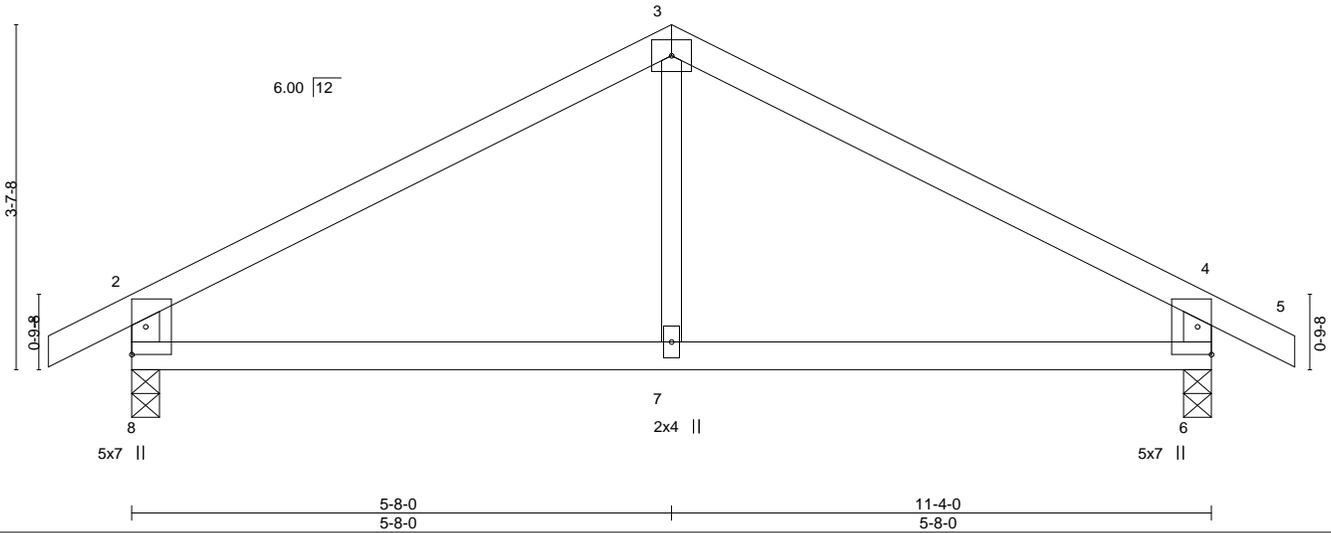
8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:36 2020 Page 1

ID:Lek3CAAAnj_gYbKvtCQHtmQzKvNM-li3eVPekV1_vum87o6h2LUKUBzgvgnZxjAxLagywC9P



4x5 =

Scale: 1/2"=1'



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.02	6-7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	-0.05	6-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	7-8	>999	240		
									Weight: 33 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2 *Except*
 3-7: 2x3 SPF No.2

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) 8=0-3-8, 6=0-3-8
 Max Horz 8=63(LC 6)
 Max Uplift 8=84(LC 8), 6=84(LC 9)
 Max Grav 8=568(LC 1), 6=568(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-588/85, 3-4=-588/85, 2-8=-510/123, 4-6=-510/123
 BOT CHORD 7-8=-12/438, 6-7=-12/438

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFERS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20, 2020

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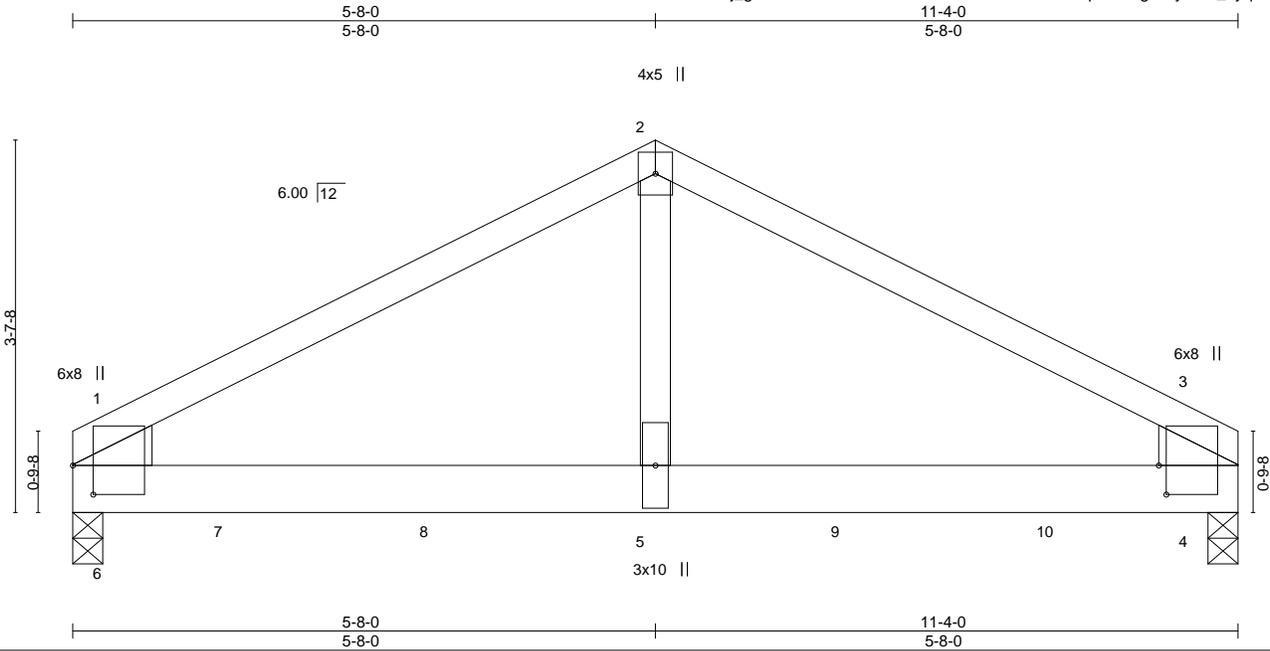
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss H3	Truss Type Common Girder	Qty 1	Ply 2	Lot 44 HT Job Reference (optional)	I42087985
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Wheeler Lumber, Waverly, KS 66871

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Scale = 1:22.3

Plate Offsets (X,Y)--	[1:0-3-6,0-2-6], [3:0-3-6,0-0-14]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.34	Vert(LL) -0.06 4-5 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.48	Vert(CT) -0.10 4-5 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.38	Horz(CT) 0.01 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.03 5-6 >999 240	Weight: 95 lb	FT = 10%

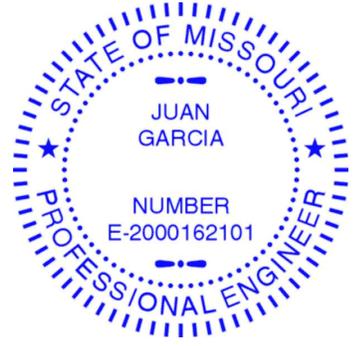
LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x10 SP DSS *Except* 2-5: 2x4 SPF No.2	

REACTIONS. (size) 6=0-3-8, 4=0-3-8
 Max Horz 6=-57(LC 25)
 Max Uplift 6=-260(LC 8), 4=-145(LC 9)
 Max Grav 6=3667(LC 1), 4=3531(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-3884/198, 2-3=-3884/198, 1-6=-1917/149, 3-4=-1917/151
 BOT CHORD 5-6=-123/3384, 4-5=-123/3384
 WEBS 2-5=-52/3113

- NOTES-**
- 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, 2x10 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=260, 4=145.
 - 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.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1289 lb down and 182 lb up at 1-6-12, 1240 lb down and 37 lb up at 3-6-12, 1240 lb down and 37 lb up at 5-6-12, and 1240 lb down and 37 lb up at 7-6-12, and 1240 lb down and 37 lb up at 9-6-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



July 20,2020

Continued on page 2

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>16023 Swingley Ridge Rd Chesterfield, MO 63017</p>
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Job 400423	Truss H3	Truss Type Common Girder	Qty 1	Ply 2	Lot 44 HT Job Reference (optional)	I42087985
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:37 2020 Page 2
ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-mud0ileNGL6mVwiKLpCHthtgwMyAPA_5yqhu66ywC9O

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, 4-6=-20
 Concentrated Loads (lb)
 Vert: 5=-1240(B) 7=-1289(B) 8=-1240(B) 9=-1240(B) 10=-1240(B)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 HT	
400423	J1	Diagonal Hip Girder	2	1		142087986
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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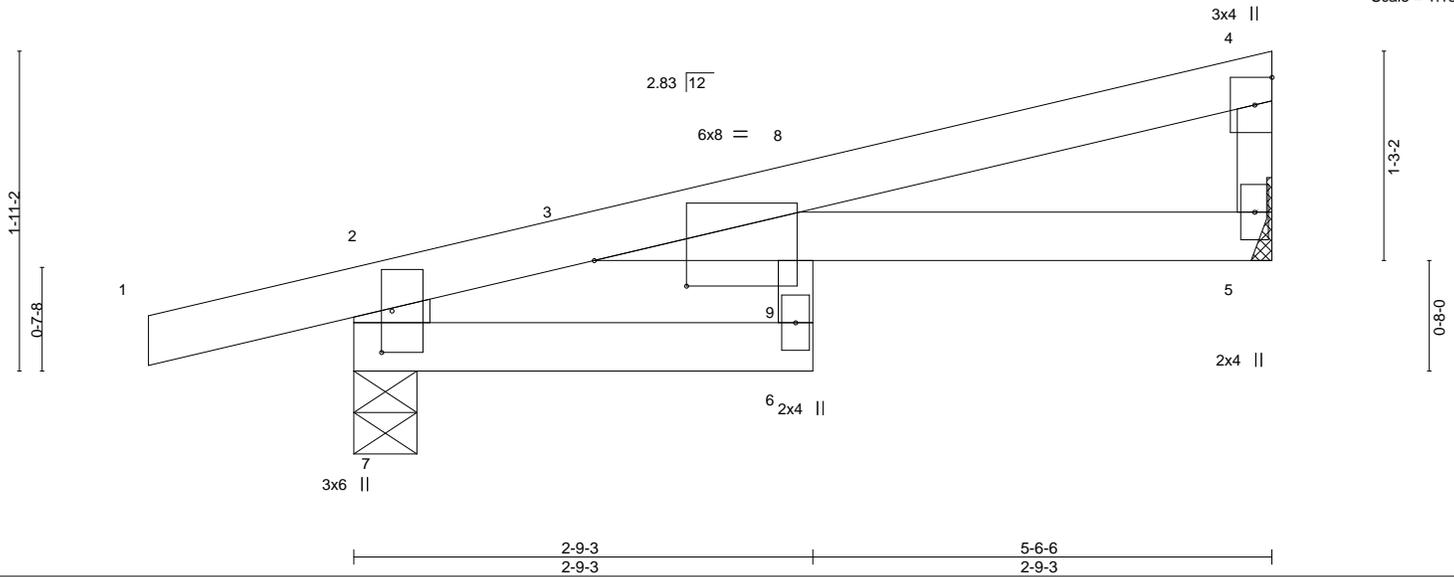


Plate Offsets (X,Y)--	[3:0-6-11,0-1-14], [7:0-3-0,0-0-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.38	Vert(LL)	-0.06	6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	-0.14	6	>433	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.04	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.07	6	>891	240	Weight: 17 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-6-6 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2 *Except* 3-6: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x6 SPF No.2 *Except* 4-5: 2x3 SPF No.2	

REACTIONS. (size) 7=0-4-9, 5=Mechanical
 Max Horz 7=63(LC 5)
 Max Uplift 7=-99(LC 4), 5=-40(LC 8)
 Max Grav 7=364(LC 1), 5=225(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-7=-342/112

- 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) 7, 5.
 - 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) 66 lb down and 27 lb up at 2-9-8, and 66 lb down and 27 lb up at 2-9-8 on top chord, and 4 lb down and 3 lb up at 2-7-15, and 4 lb down and 3 lb up at 2-7-15 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, 3-4=-70, 6-7=-20, 3-5=-20

Concentrated Loads (lb)
 Vert: 6=6(F=3, B=3)



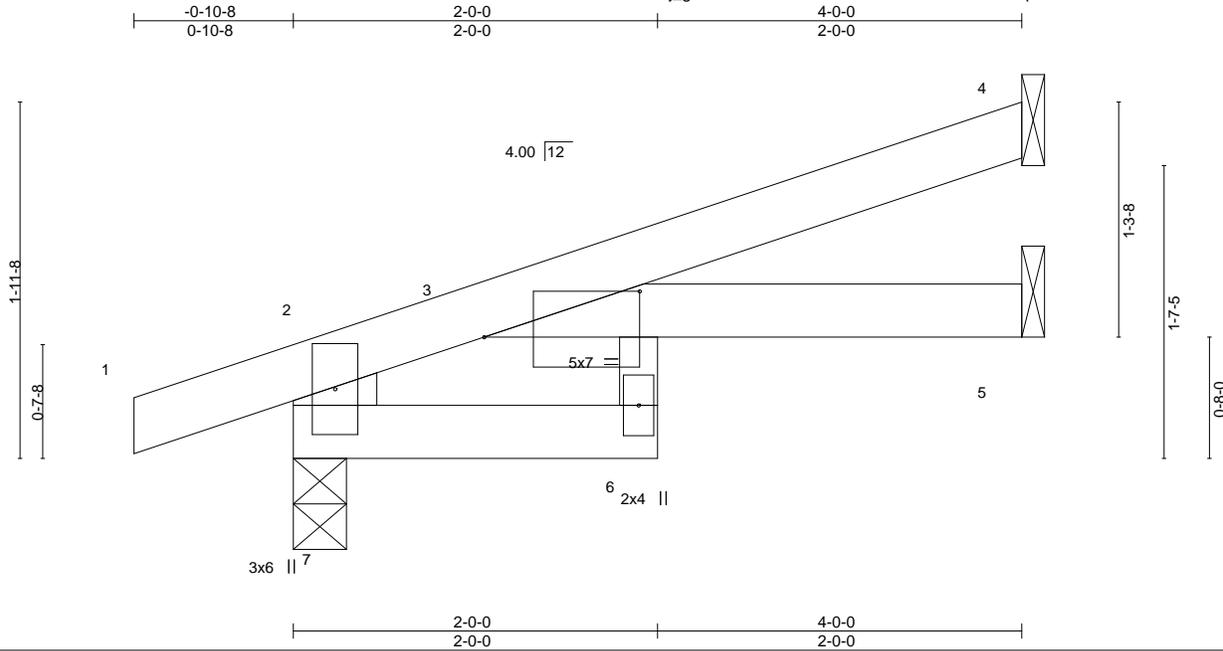
July 20,2020

Job 400423	Truss J2	Truss Type Jack-Open	Qty 4	Ply 1	Lot 44 HT 142087987
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:45 2020 Page 1

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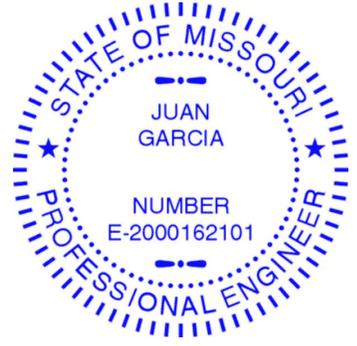
Plate Offsets (X,Y)--	[3:0-10-4,0-3-0]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.16	Vert(LL) -0.01 6 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.15	Vert(CT) -0.03 6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.01 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.02 6 >999 240	Weight: 12 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2 *Except* 3-6: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x6 SPF No.2	

REACTIONS. (size) 7=0-3-8, 4=Mechanical, 5=Mechanical
 Max Horz 7=64(LC 4)
 Max Uplift 7=-63(LC 4), 4=-44(LC 8)
 Max Grav 7=267(LC 1), 4=107(LC 1), 5=71(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-7=-252/75

- 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) 7, 4.
 - 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.



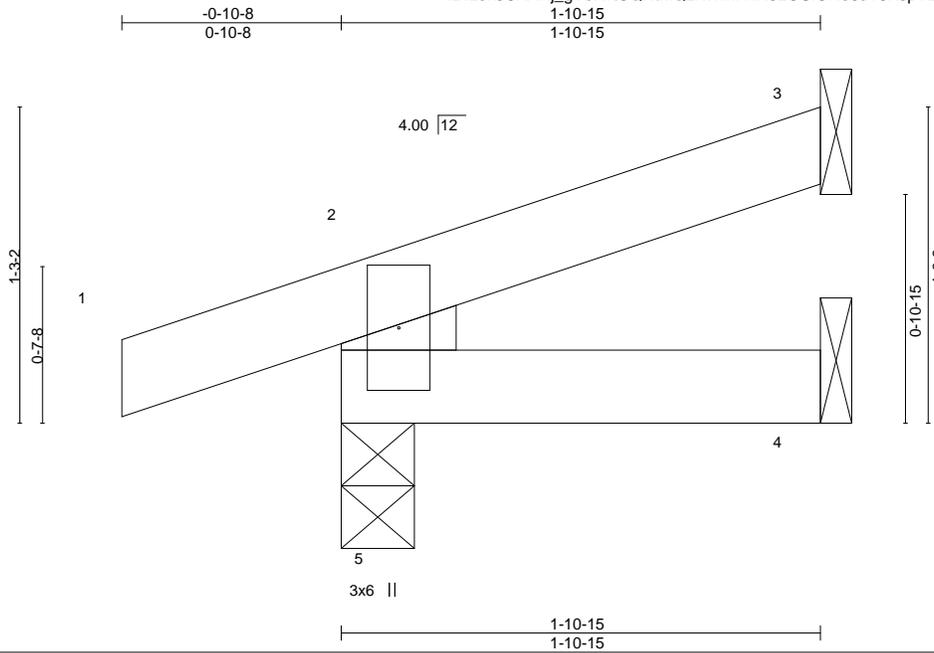
July 20,2020

Job 400423	Truss J3	Truss Type Jack-Open	Qty 4	Ply 1	Lot 44 HT Job Reference (optional)	I42087988
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:45 2020 Page 1

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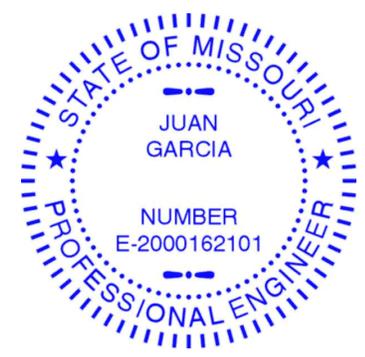
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	5 >999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	5 >999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3 n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5 >999	240	Weight: 6 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SPF No.2	

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
 Max Horz 5=36(LC 4)
 Max Uplift 5=-65(LC 4), 3=-22(LC 8)
 Max Grav 5=178(LC 1), 3=40(LC 1), 4=28(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.

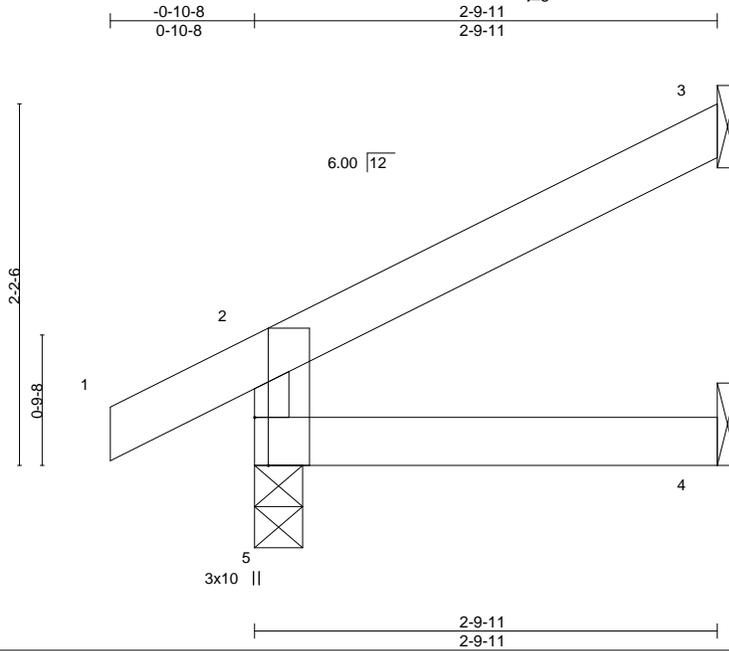


July 20,2020

Job 400423	Truss J4	Truss Type Jack-Open	Qty 1	Ply 1	Lot 44 HT Job Reference (optional)	I42087989
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:46 2020 Page 1
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Scale = 1:13.9

Plate Offsets (X,Y)--	[5:0-3-8,Edge]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 8 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

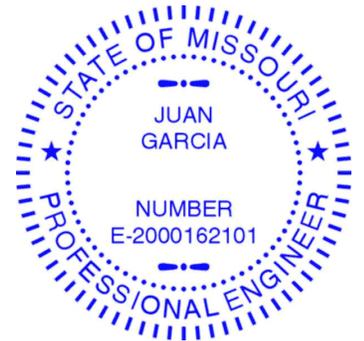
BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-9-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=63(LC 8)
Max Uplift 5=-23(LC 8), 3=-49(LC 8)
Max Grav 5=200(LC 1), 3=78(LC 1), 4=50(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.



July 20, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



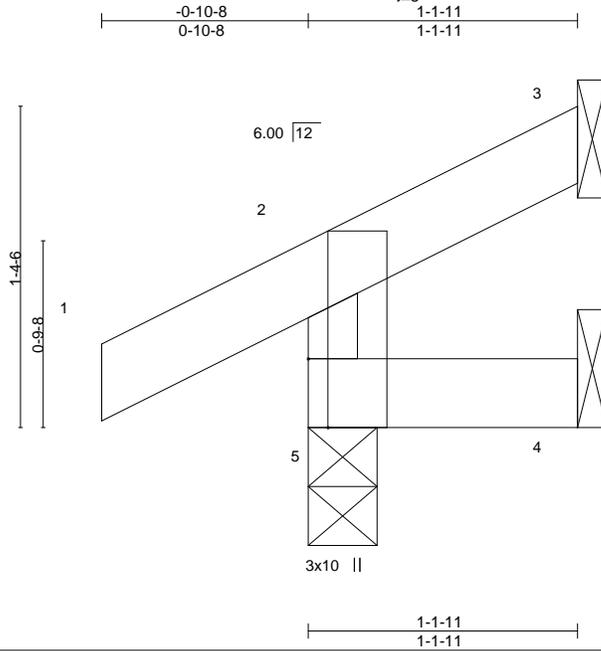
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400423	Truss J5	Truss Type Jack-Open	Qty 1	Ply 1	Lot 44 HT 142087990
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Wheeler Lumber, Waverly, KS 66871

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Scale = 1:9.7

Plate Offsets (X,Y)--	[5:0-3-8,Edge]					
LOADING (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 5 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT) -0.00 5 >999 240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT) -0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL) 0.00 5 >999 240	Weight: 4 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 1-1-11 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
 Max Horz 5=34(LC 5)
 Max Uplift 5=-23(LC 8), 3=-16(LC 8), 4=-1(LC 5)
 Max Grav 5=147(LC 1), 3=9(LC 15), 4=18(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; TC DL=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, 4.
- 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.

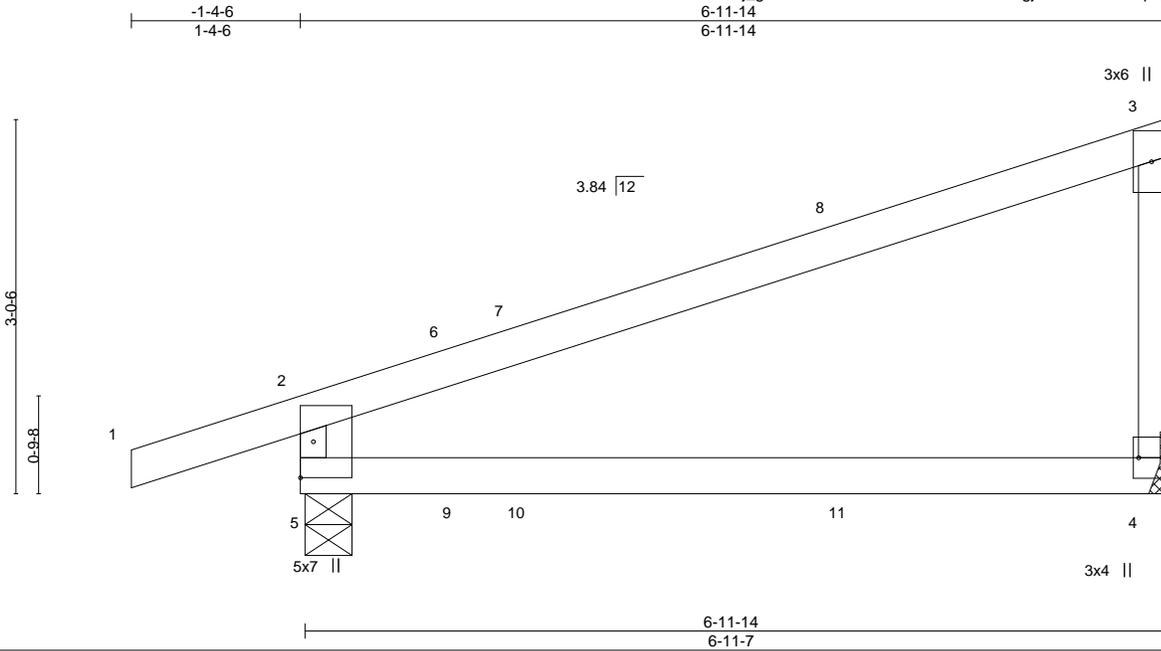


July 20,2020

Job 400423	Truss J6	Truss Type Roof Special Girder	Qty 1	Ply 1	Lot 44 HT Job Reference (optional)	I42087991
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:48 2020 Page 1
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Scale = 1:18.5

Plate Offsets (X,Y)--	[4:Edge,0-2-8]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.73	Vert(LL) -0.09 4-5 >937 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.44	Vert(CT) -0.18 4-5 >446 240		
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) 0.04 4-5 >999 240	Weight: 20 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	

REACTIONS. (size) 4=Mechanical, 5=0-4-9
 Max Horz 5=126(LC 5)
 Max Uplift 4=-79(LC 8), 5=-128(LC 4)
 Max Grav 4=299(LC 1), 5=419(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-5=-367/174

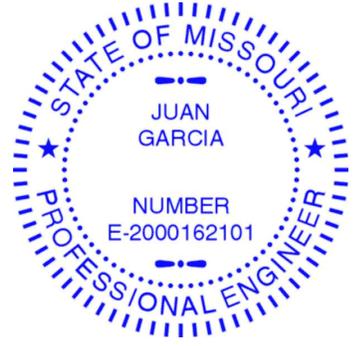
- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed 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) 4 except (jt=lb) 5=128.
 - 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) 73 lb down and 15 lb up at 1-4-1, 63 lb down and 16 lb up at 1-10-6, and 95 lb down and 67 lb up at 4-5-8, and 77 lb down and 57 lb up at 4-5-10 on top chord, and 2 lb down and 3 lb up at 1-4-1, 3 lb down and 6 lb up at 1-10-6, and 17 lb down at 4-5-8, and 13 lb down at 4-5-10 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: 8=-1(B) 9=3(B) 10=2(F) 11=-9(F=-2, B=-7)



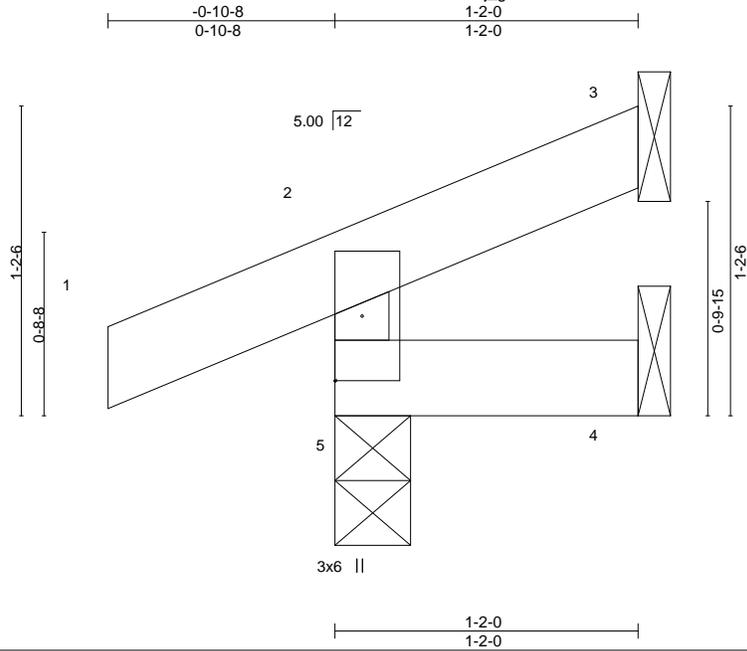
July 20,2020

Job 400423	Truss J7	Truss Type Jack-Open	Qty 1	Ply 1	Lot 44 HT Job Reference (optional)	I42087992
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Wheeler Lumber, Waverly, KS 66871

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Scale = 1:8.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	5 >999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	5 >999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3 n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5 >999	240		
								Weight: 4 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 1-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
 Max Horz 5=30(LC 5)
 Max Uplift 5=-37(LC 4), 3=-13(LC 8)
 Max Grav 5=148(LC 1), 3=10(LC 1), 4=19(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.



July 20, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



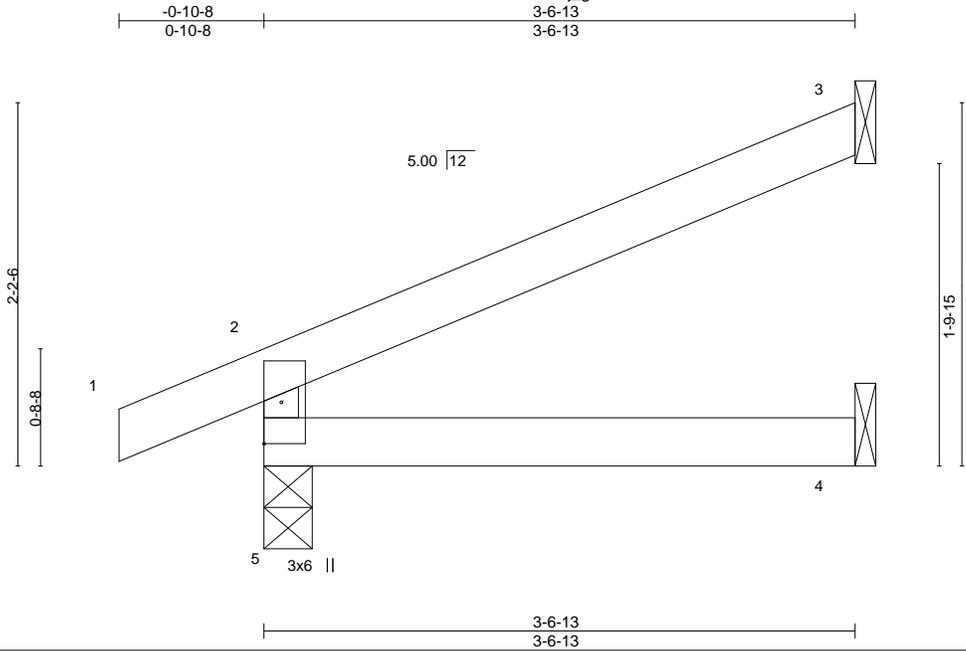
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss J8	Truss Type Jack-Open	Qty 1	Ply 1	Lot 44 HT	I42087993
					Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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Scale = 1:13.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	-0.01	4-5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.01	4-5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	Weight: 10 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 3-6-13 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
 Max Horz 5=66(LC 8)
 Max Uplift 5=34(LC 8), 3=-56(LC 8)
 Max Grav 5=232(LC 1), 3=105(LC 1), 4=65(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.



July 20, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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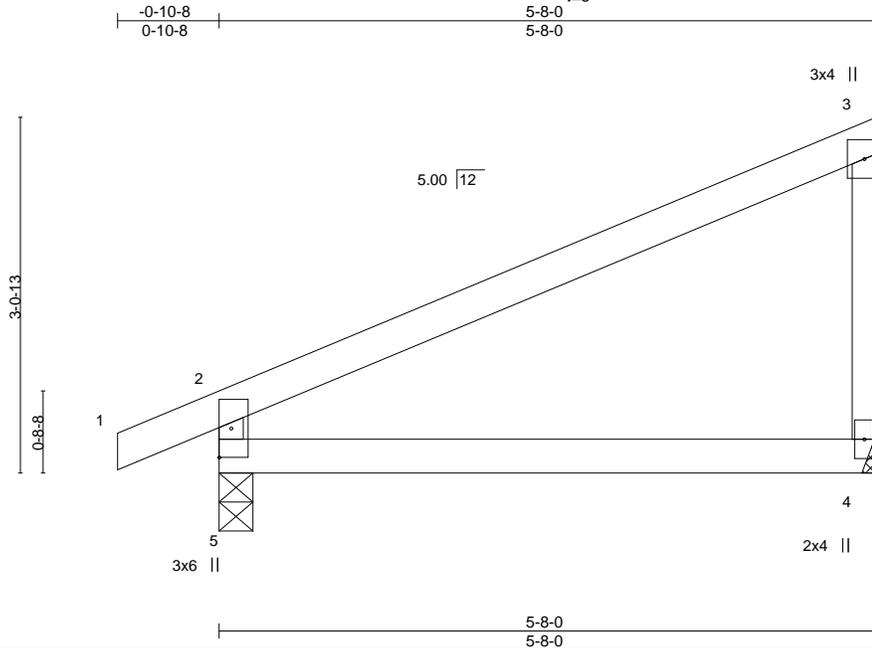
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss J9	Truss Type Jack-Closed	Qty 2	Ply 1	Lot 44 HT Job Reference (optional)	I42087994
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Wheeler Lumber, Waverly, KS 66871

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Scale = 1:19.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.04	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.08	4-5	>831	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/TPI2014		Matrix-R	Wind(LL)	0.02	4-5	>999	240		
									Weight: 17 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 5-8-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 4=Mechanical
 Max Horz 5=125(LC 5)
 Max Uplift 5=-57(LC 8), 4=-58(LC 8)
 Max Grav 5=320(LC 1), 4=239(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-5=-279/98

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, 4.
- 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.



July 20, 2020

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



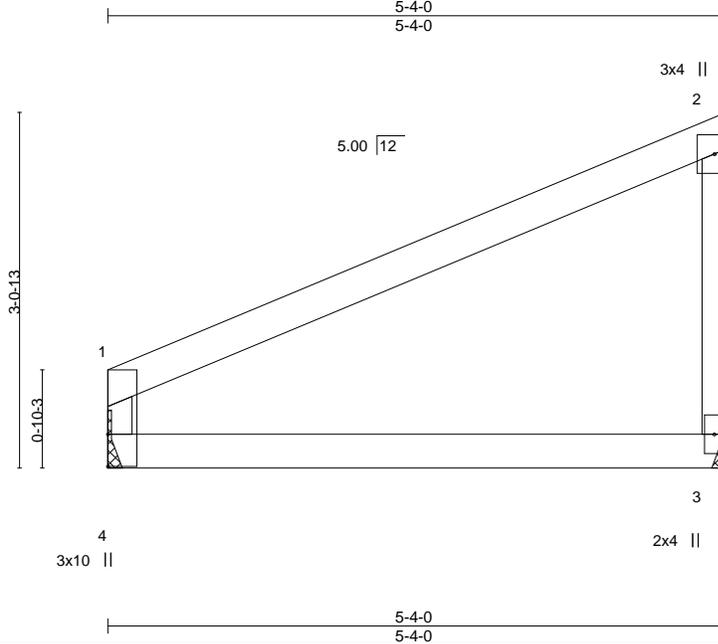
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss J10	Truss Type Jack-Closed	Qty 1	Ply 1	Lot 44 HT Job Reference (optional)	I42087995
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Wheeler Lumber, Waverly, KS 66871

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Scale = 1:19.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	-0.03 3-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	-0.06 3-4	>988	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00 3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01 3-4	>999	240	Weight: 15 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 5-4-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 3=Mechanical
 Max Horz 4=116(LC 5)
 Max Uplift 4=-30(LC 8), 3=-56(LC 8)
 Max Grav 4=231(LC 1), 3=231(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 100 lb uplift at joint(s) 4, 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.



July 20, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

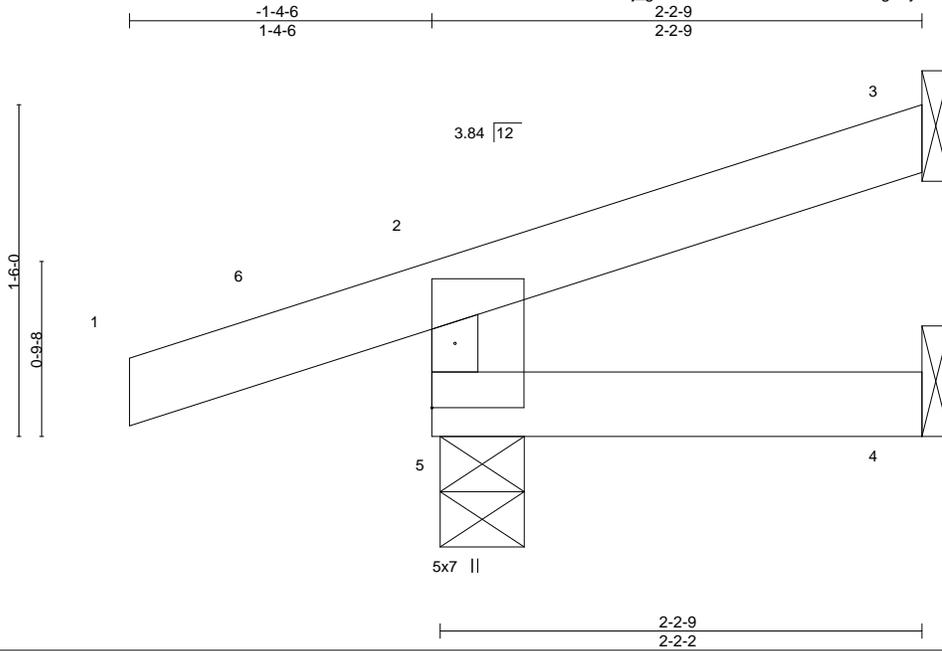


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss J11	Truss Type Jack-Open Girder	Qty 1	Ply 1	Lot 44 HT	I42087996
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8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:39 2020 Page 1
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5	>999	240	Weight: 7 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-9 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
 Max Horz 5=51(LC 7)
 Max Uplift 5=-115(LC 6), 3=-25(LC 12)
 Max Grav 5=78(LC 1), 3=24(LC 1), 4=29(LC 3)

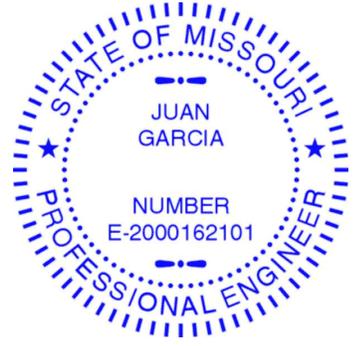
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) 3 except (jt=lb) 5=115.
- 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) 12 lb down and 4 lb up at -1-4-6, and 12 lb down and 4 lb up at -1-4-6 on top 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
 Concentrated Loads (lb)
 Vert: 1=-19(F=-10, B=-10)
 Trapezoidal Loads (plf)
 Vert: 1=-0(F=35, B=35)-to-6=-13(F=28, B=28), 6=0(F=35, B=35)-to-2=-13(F=29, B=29), 2=-13(F=29, B=29)-to-3=-49(F=10, B=10), 5=-4(F=8, B=8)-to-4=-14(F=3, B=3)



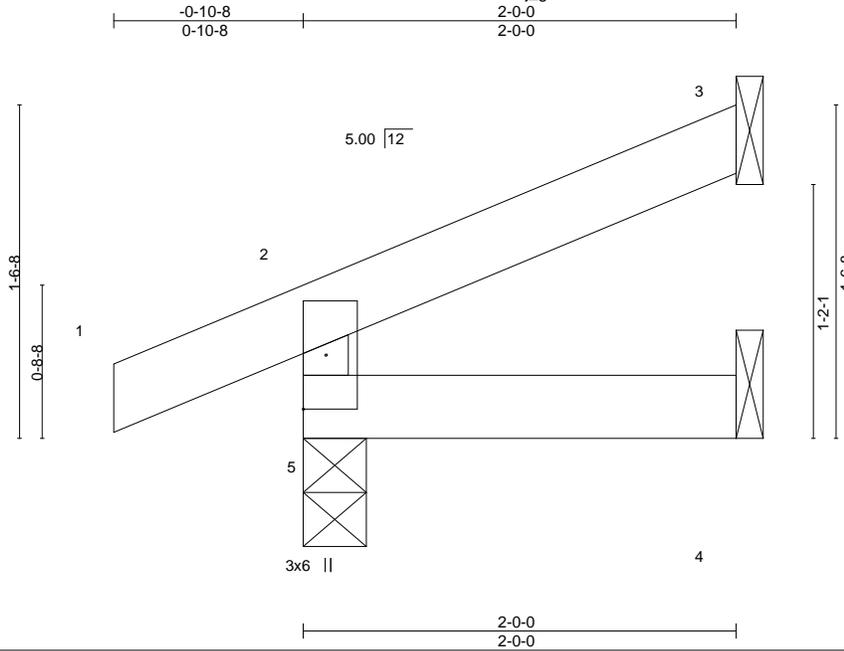
July 20,2020

Job 400423	Truss J12	Truss Type Jack-Open	Qty 1	Ply 1	Lot 44 HT	I42087997
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Wheeler Lumber, Waverly, KS 66871

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Scale = 1:10.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5	>999	240		
									Weight: 6 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
 Max Horz 5=40(LC 8)
 Max Uplift 5=-32(LC 4), 3=-31(LC 8)
 Max Grav 5=171(LC 1), 3=50(LC 1), 4=35(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.



July 20,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss J13	Truss Type Jack-Closed Supported Gable	Qty 2	Ply 1	Lot 44 HT Job Reference (optional)	I42087998
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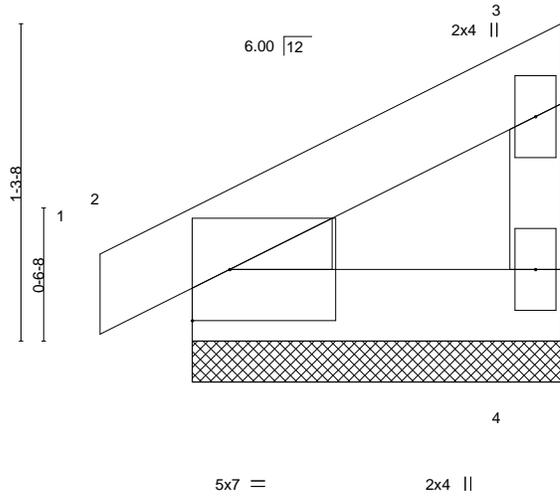
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:40 2020 Page 1

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Scale = 1:9.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	-0.00	1	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 5 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2
 WEDGE
 Left: 2x3 SPF No.2

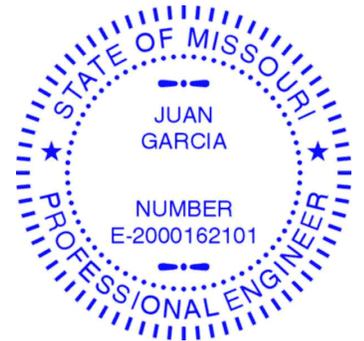
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 1-6-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=1-6-0, 2=1-6-0
 Max Horz 2=38(LC 5)
 Max Uplift 4=-17(LC 8), 2=-15(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.

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) 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.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss J14	Truss Type Jack-Closed	Qty 2	Ply 1	Lot 44 HT Job Reference (optional)	I42087999
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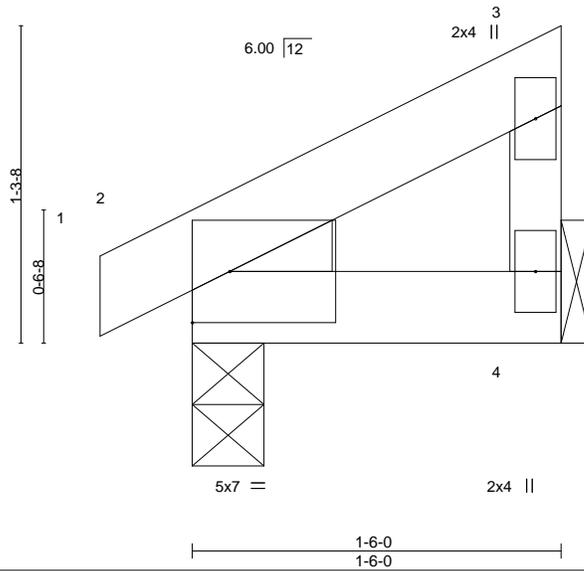
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:41 2020 Page 1

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Scale = 1:9.3



LOADING (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	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	2	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	Weight: 5 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
WEDGE
Left: 2x3 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8
Max Horz 2=38(LC 5)
Max Uplift 4=-17(LC 8), 2=-16(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.

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) 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.



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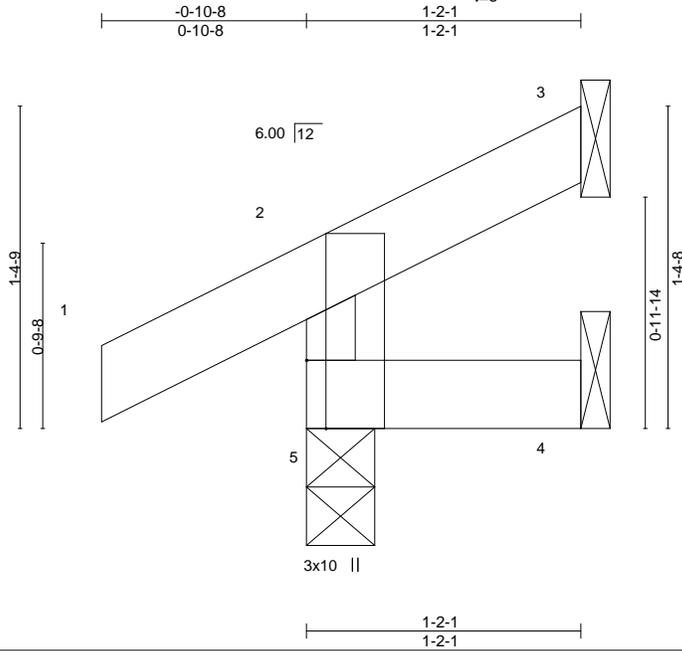
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400423	Truss J15	Truss Type Jack-Open	Qty 1	Ply 1	Lot 44 HT 142088000
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:41 2020 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-ffsXY7itKZcC_X05afHD2X1Q8_QVL3wgtSf6FtywC9K



Scale = 1:9.8

Plate Offsets (X,Y)--	[5:0-3-8,Edge]									
LOADING (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	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5	>999	240	Weight: 4 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-2-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=34(LC 5)
Max Uplift 5=-23(LC 8), 3=-17(LC 8), 4=-1(LC 5)
Max Grav 5=148(LC 1), 3=11(LC 15), 4=19(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; TC DL=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, 4.
 - 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.

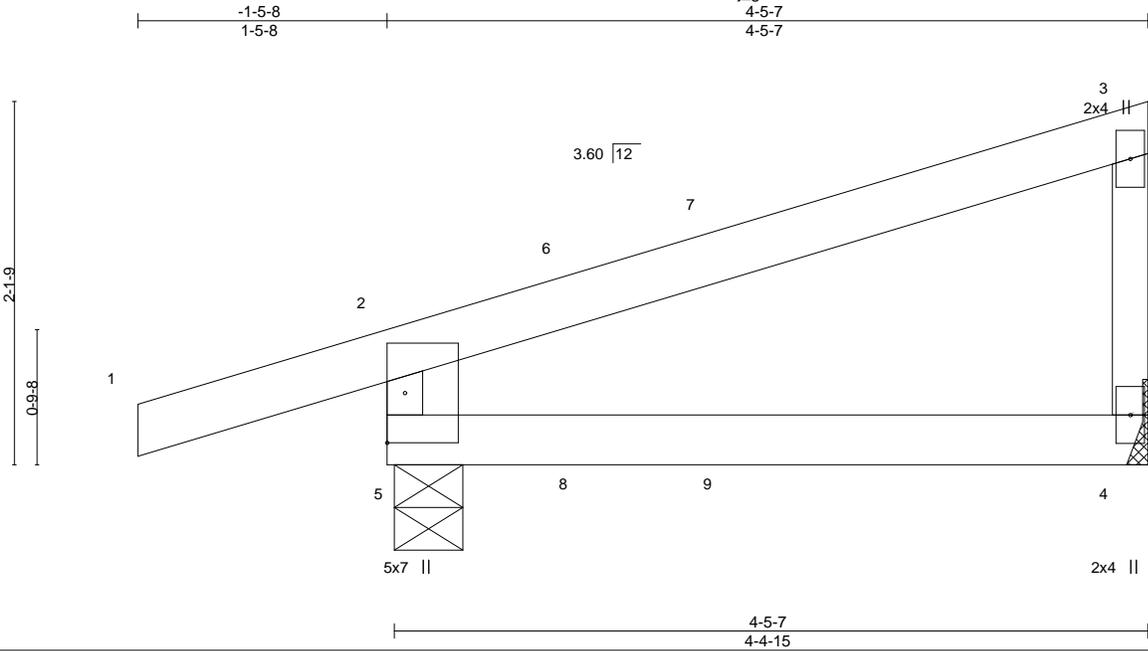


July 20,2020

Job 400423	Truss J16	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	Lot 44 HT Job Reference (optional)	I42088001
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Wheeler Lumber, Waverly, KS 66871

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ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-7sQvISIV5tk3chbH8MoSakaYPNkT4WAq56Of0JywC9J



Scale = 1:13.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.03	4-5	>999	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)	0.00	4-5	>999	240		
									Weight: 14 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-5-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-13, 4=Mechanical
Max Horz 5=86(LC 5)
Max Uplift 5=-110(LC 4), 4=-59(LC 8)
Max Grav 5=317(LC 1), 4=242(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-282/136

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) 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 79 lb down and 15 lb up at 1-2-4, and 61 lb down and 17 lb up at 2-0-6, and 75 lb down and 63 lb up at 4-4-3 on top chord, and 2 lb down and 2 lb up at 1-2-4, and 3 lb down and 6 lb up at 2-0-6, and 33 lb down at 4-4-3 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: 3=-50(B) 4=-23(B) 8=2(B) 9=2(F)



July 20, 2020

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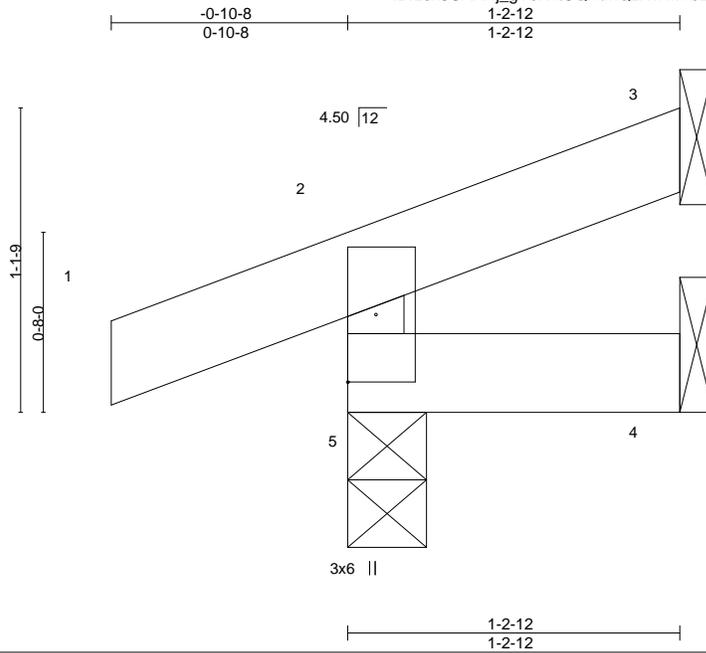
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400423	Truss J17	Truss Type Jack-Open	Qty 1	Ply 1	Lot 44 HT Job Reference (optional)	I42088002
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:43 2020 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-b2_Hzoj7rBsvDrAtI4Jh7y7mgn6zpzQzKm8DKmywC9I



Scale = 1:8.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	5 >999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	5 >999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3 n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5 >999	240	Weight: 4 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 1-2-12 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
 Max Horz 5=29(LC 5)
 Max Uplift 5=-53(LC 4), 3=-13(LC 8)
 Max Grav 5=149(LC 1), 3=14(LC 1), 4=20(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.



July 20, 2020

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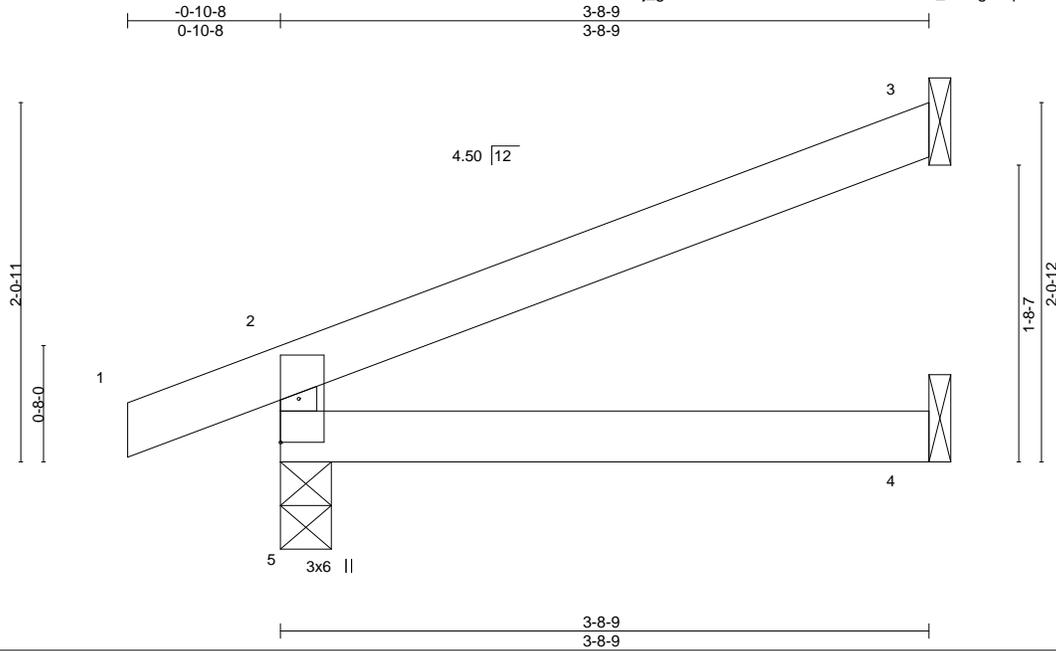


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss J18	Truss Type Jack-Open	Qty 1	Ply 1	Lot 44 HT	I42088003
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:44 2020 Page 1
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Scale = 1:13.1

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.18	Vert(LL)	-0.01	4-5	>999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.11	Vert(CT)	-0.02	4-5	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.01	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-R	Wind(LL)	0.01	4-5	>999		
	Code IRC2018/TPI2014						Weight: 10 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 3-8-9 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
 Max Horz 5=63(LC 4)
 Max Uplift 5=-54(LC 4), 3=-55(LC 8)
 Max Grav 5=238(LC 1), 3=110(LC 1), 4=67(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.



July 20, 2020

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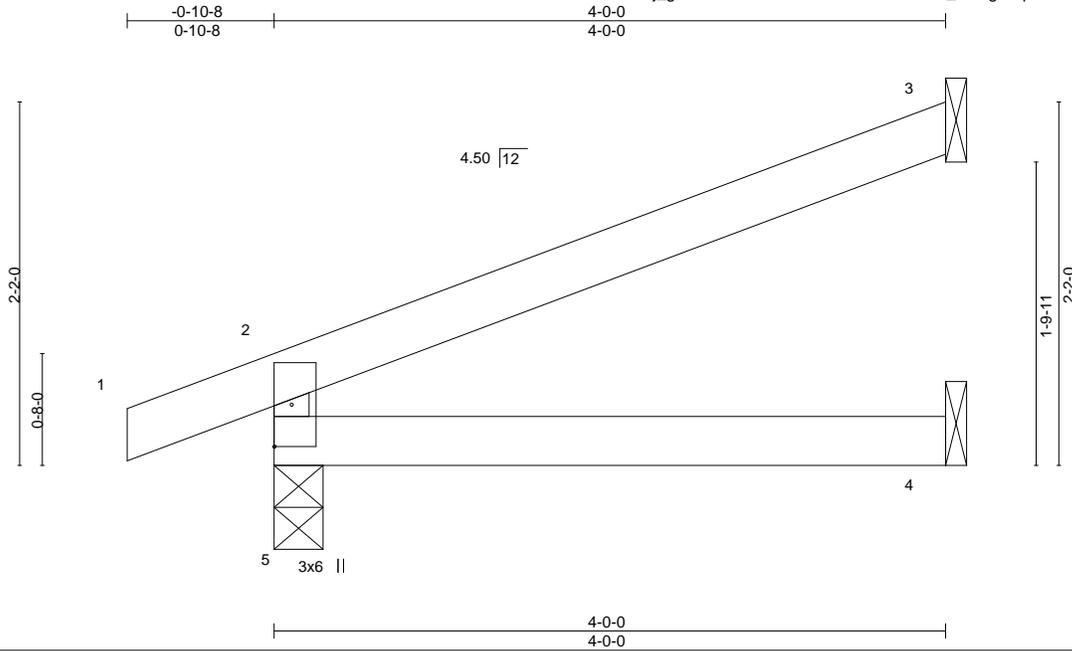
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss J19	Truss Type Jack-Open	Qty 6	Ply 1	Lot 44 HT	I42088004
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:44 2020 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-3EYfA8kmcU_mr?lgFnqwf9fu3BQlYPg7ZQtmS CywC9H



Scale = 1:13.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	-0.01	4-5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.02	4-5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999		
								Weight: 11 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
 Max Horz 5=68(LC 4)
 Max Uplift 5=-55(LC 4), 3=-60(LC 8)
 Max Grav 5=250(LC 1), 3=120(LC 1), 4=73(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.



July 20,2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss K1	Truss Type GABLE	Qty 1	Ply 1	Lot 44 HT Job Reference (optional)	I42088005
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:51 2020 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-MaTJeXp9zetrnB4n0AISZSeS7Y0rMhay9A?4ecllywC9A



3x4 =

Scale = 1:27.5

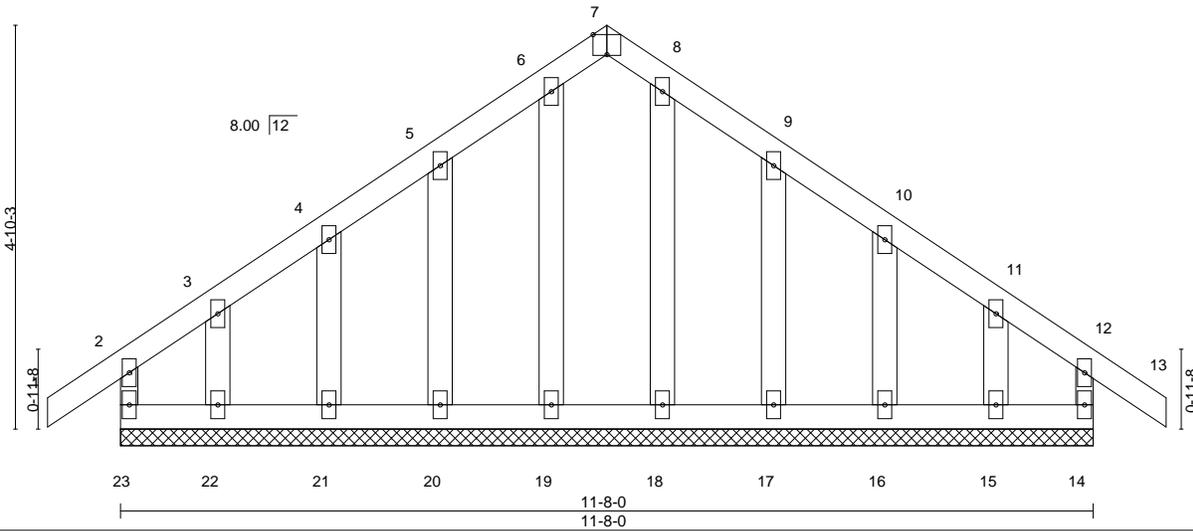


Plate Offsets (X,Y)--	[7:0-2-0,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	13	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	13	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	14	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					Weight: 56 lb	FT = 10%

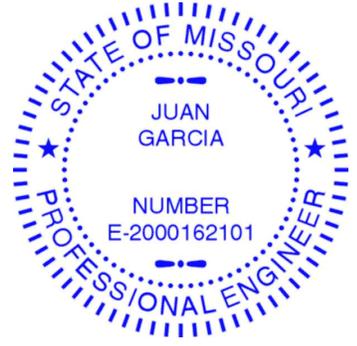
LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x3 SPF No.2	
OTHERS 2x4 SPF No.2	

REACTIONS. All bearings 11-8-0.
 (lb) - Max Horz 23=-144(LC 6)
 Max Uplift All uplift 100 lb or less at joint(s) 23, 14, 22, 21, 20, 17, 16, 15
 Max Grav All reactions 250 lb or less at joint(s) 23, 14, 22, 21, 20, 19, 18, 17, 16, 15

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 14, 22, 21, 20, 17, 16, 15.
- 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.



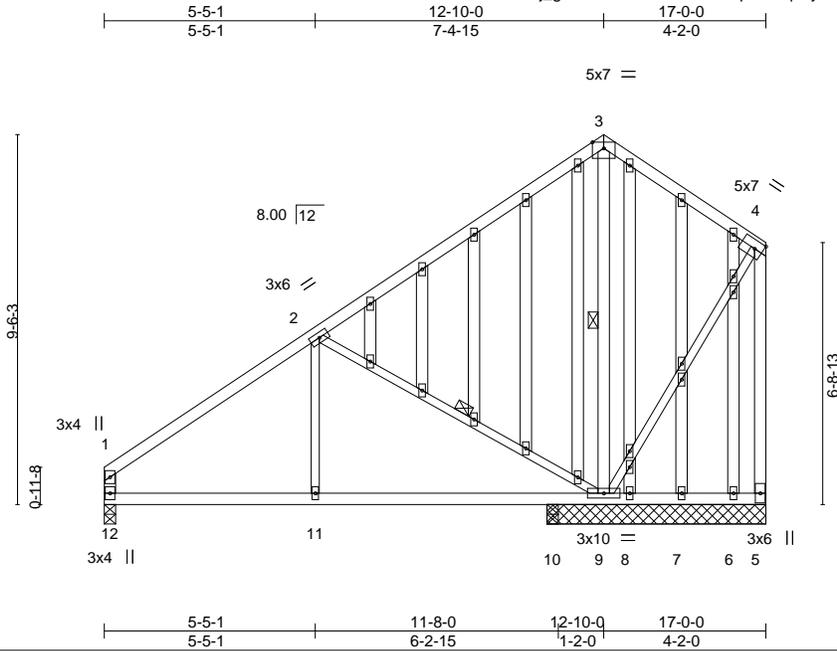
July 20,2020

Job 400423	Truss K2	Truss Type GABLE	Qty 1	Ply 1	Lot 44 HT 142088006
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Wheeler Lumber, Waverly, KS 66871

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ID:Lek3CAANj_gYbKvtCQHTmQzKvNM-qn1hstqny?eoDMCjTzo_r?93P8RQtXIOfpB8kywC99



Scale = 1:58.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.66	Vert(LL)	-0.03 10-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	-0.06 10-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.65	Horz(CT)	0.01 5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.01 11	>999	240		
								Weight: 131 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2 *Except*
 2-11,2-9,4-9; 2x3 SPF No.2
 OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
 WEBS 1 Row at midpt 2-9, 3-9

REACTIONS.

All bearings 5-7-8 except (jt=length) 12=0-3-8, 10=0-3-8.
 (lb) - Max Horz 12=328(LC 5)
 Max Uplift All uplift 100 lb or less at joint(s) 12, 6 except 5=-466(LC 21), 9=-240(LC 8)
 Max Grav All reactions 250 lb or less at joint(s) 5, 8, 7, 6 except 12=397(LC 1), 9=1173(LC 1), 10=274(LC 3)

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

TOP CHORD 1-2=-411/78, 2-3=-38/377, 3-4=0/339, 1-12=-329/82, 4-5=0/460
 BOT CHORD 11-12=-244/397, 10-11=-244/397, 9-10=-244/397
 WEBS 2-9=-588/263, 3-9=-681/60, 4-9=-457/63

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 1'-4"-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 6 except (jt=lb) 5=466, 9=240.
- 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.



July 20,2020

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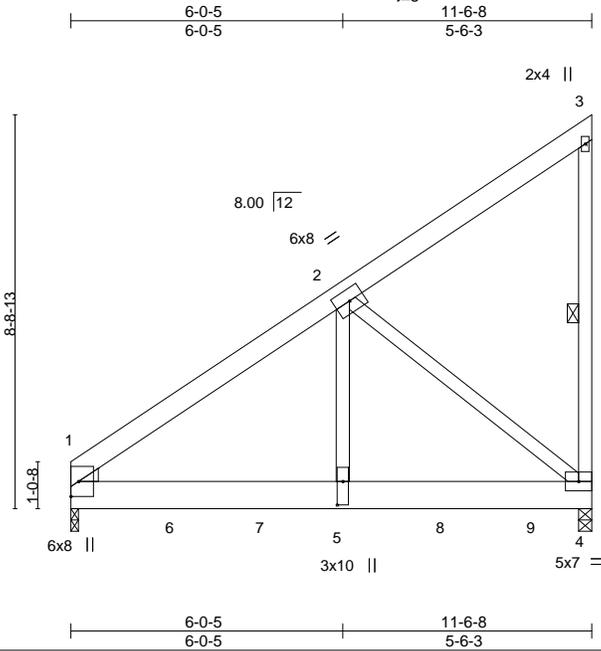
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss K3	Truss Type MONOPITCH GIRDER	Qty 1	Ply 2	Lot 44 HT 142088007
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Wheeler Lumber, Waverly, KS 66871

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ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-lza33DrPVF7VQNxOHAU1X3XLepR69K0RdJZkgBywC98



Scale = 1:50.8

Plate Offsets (X,Y)--	[5:0-6-4,0-1-8]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.61	Vert(LL) -0.04 1-5 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.41	Vert(CT) -0.08 1-5 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.70	Horz(CT) 0.01 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.03 1-5 >999 240	Weight: 164 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 3-4
WEDGE	
Left: 2x4 SPF No.2	

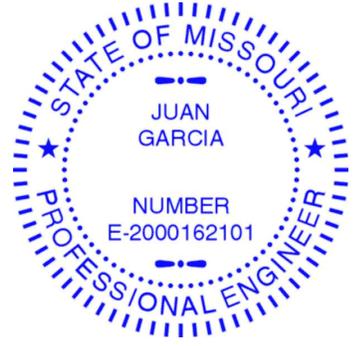
REACTIONS. (size) 4=0-3-8, 1=0-2-0 (req. 0-3-9)
 Max Horz 1=321(LC 22)
 Max Uplift 4=-245(LC 8), 1=-356(LC 8)
 Max Grav 4=3890(LC 1), 1=4571(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-3816/143
 BOT CHORD 1-5=-220/2995, 4-5=-220/2995
 WEBS 2-5=-96/4248, 2-4=-3885/344

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=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
- 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.
- WARNING: Required bearing size at joint(s) 1 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=245, 1=356.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1246 lb down and 162 lb up at 0-1-0, 1238 lb down and 170 lb up at 2-3-12, 1240 lb down and 31 lb up at 4-3-12, 1240 lb down and 31 lb up at 6-3-12, and 1240 lb down and 31 lb up at 8-3-12, and 1240 lb down and 31 lb up at 10-3-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
 Continued on page 2



July 20,2020

Job 400423	Truss K3	Truss Type MONOPITCH GIRDER	Qty 1	Ply 2	Lot 44 HT Job Reference (optional)	I42088007
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Wheeler Lumber, Waverly, KS 66871

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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-3=-70, 1-4=-20
- Concentrated Loads (lb)
 - Vert: 5=-1240(B) 1=-1246(B) 6=-1238(B) 7=-1240(B) 8=-1240(B) 9=-1240(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400423	Truss L1	Truss Type GABLE	Qty 1	Ply 1	Lot 44 HT Job Reference (optional)	I42088008
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:54 2020 Page 1

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3x4 =

Scale = 1:24.3

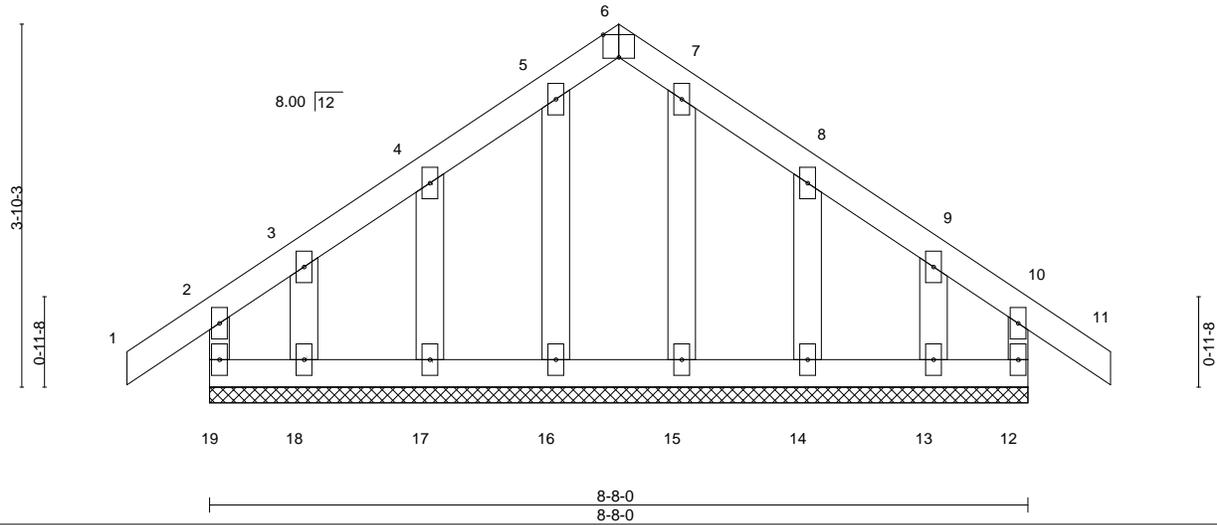


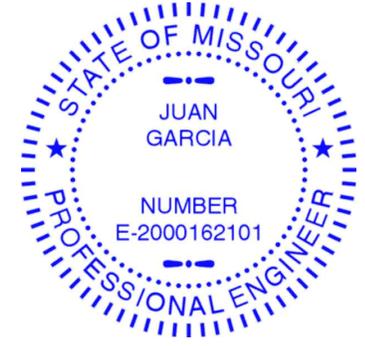
Plate Offsets (X,Y)--	[6:0-2-0,Edge]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL 1.15		TC 0.07	Vert(LL) -0.00	11	n/r	120	
TCDL 10.0	Lumber DOL 1.15		BC 0.03	Vert(CT) -0.00	11	n/r	120	
BCLL 0.0 *	Rep Stress Incr YES		WB 0.02	Horz(CT) 0.00	12	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					
								PLATES MT20
								GRIP 197/144
								Weight: 39 lb FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x3 SPF No.2	
OTHERS 2x4 SPF No.2	

REACTIONS. All bearings 8-8-0.
 (lb) - Max Horz 19=118(LC 7)
 Max Uplift All uplift 100 lb or less at joint(s) 19, 12, 18, 17, 14, 13
 Max Grav All reactions 250 lb or less at joint(s) 19, 12, 18, 17, 16, 15, 14, 13

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - 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.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 12, 18, 17, 14, 13.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

Job	Truss	Truss Type	Qty	Ply	Lot 44 HT	I42088009
400423	L2	Common	4	1		

Wheeler Lumber, Waverly, KS 66871

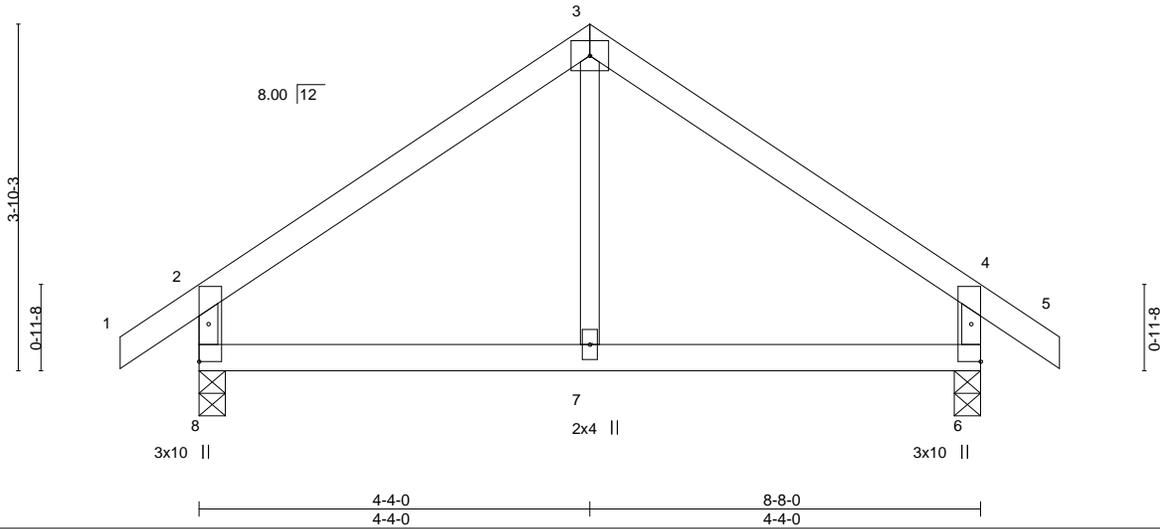
8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:55 2020 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-EMiqUvsf1tNDgh5nPbXVcUdlkdAVdObk5d2r13ywC96



4x5 =

Scale = 1:25.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.38	Vert(LL)	-0.01	7	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.03	7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	7-8	>999		
								Weight: 28 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2

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) 8=0-3-8, 6=0-3-8
 Max Horz 8=118(LC 7)
 Max Uplift 8=64(LC 8), 6=64(LC 9)
 Max Grav 8=449(LC 1), 6=449(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-371/72, 3-4=-371/72, 2-8=-392/96, 4-6=-392/96

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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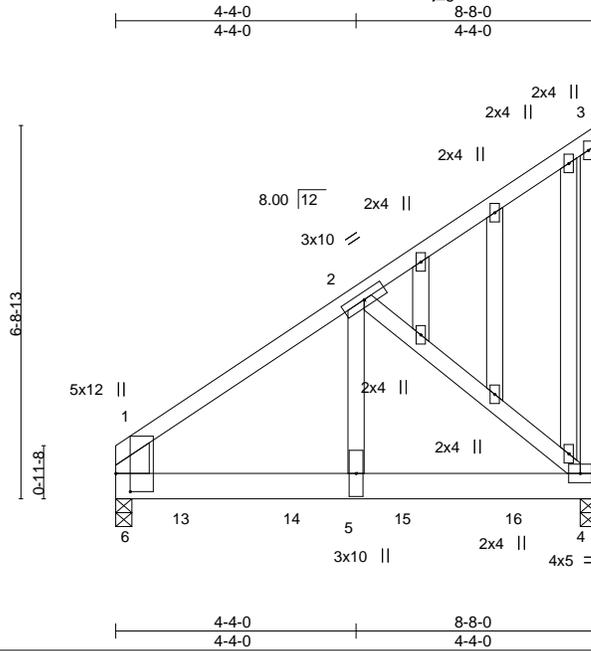
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss L3	Truss Type GABLE	Qty 1	Ply 2	Lot 44 HT 142088010
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:56 2020 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-iYGChFtHoAV3HrfzyI2k9h9y51TXMmOuJHnPHVywC95



Scale = 1:41.3

Plate Offsets (X,Y)--	[1:0-3-15,0-3-2]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.21	Vert(LL) -0.03 4-5 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.36	Vert(CT) -0.06 4-5 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.34	Horz(CT) 0.01 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.02 4-5 >999 240	Weight: 124 lb	FT = 10%

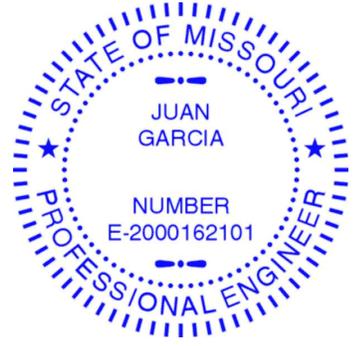
LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2 *Except* 1-6: 2x8 SP DSS	
OTHERS 2x4 SPF No.2	

REACTIONS. (size) 4=0-3-8, 6=0-3-8
 Max Horz 6=247(LC 5)
 Max Uplift 4=-184(LC 8), 6=-207(LC 8)
 Max Grav 4=2820(LC 1), 6=3049(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-2546/108, 1-6=-1534/100
 BOT CHORD 5-6=-177/2037, 4-5=-177/2037
 WEBS 2-5=-68/2746, 2-4=-2607/248

NOTES-

- 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, 2x8 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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
- 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.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=184, 6=207.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1283 lb down and 181 lb up at 1-2-12, 1283 lb down and 35 lb up at 3-2-12, and 1281 lb down and 35 lb up at 5-2-12, and 1281 lb down and 35 lb up at 7-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



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LOAD CASE(S) Standard

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Job 400423	Truss L3	Truss Type GABLE	Qty 1	Ply 2	Lot 44 HT Job Reference (optional)	I42088010
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:56 2020 Page 2
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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-3=-70, 4-6=-20
- Concentrated Loads (lb)
 - Vert: 13=-1283(F) 14=-1283(F) 15=-1281(F) 16=-1281(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400423	Truss LAY1	Truss Type GABLE	Qty 1	Ply 1	Lot 44 HT I42088011
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:57 2020 Page 1

ID:Lek3CAANj_gYbKvtCQHmQzKvNM-BkqavbuvYUdvw?EAW0ZzhviAfQu251a1YxXyqywc94
2-10-13 2-10-13 5-9-10 2-10-13

Scale = 1:21.1

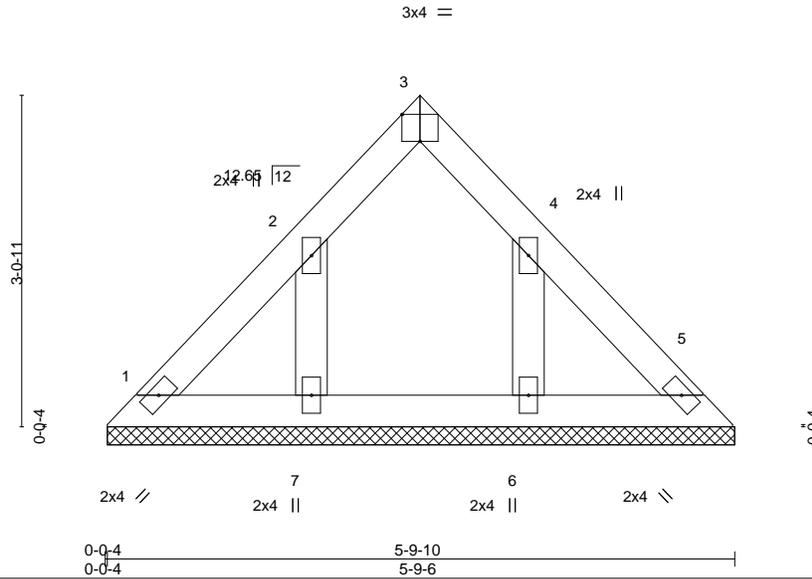


Plate Offsets (X,Y)--	[3:Edge,0-3-0], [4:0-0-0,0-0-0]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.03	Vert(LL) n/a - n/a	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) n/a - n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.02	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P		Weight: 19 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-9-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 5-9-6.
(lb) - Max Horz 1=-72(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 7, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 6

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 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.



July 20,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

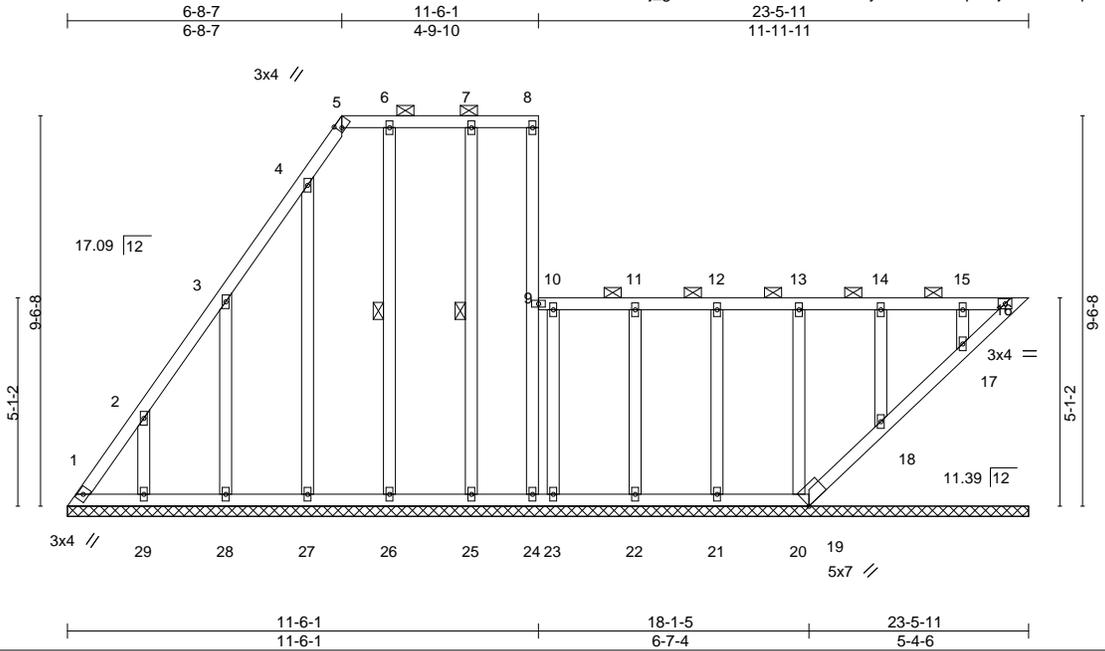
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400423	Truss LAY2	Truss Type GABLE	Qty 1	Ply 1	Lot 44 HT	I42088012
Wheeler Lumber, Waverly, KS 66871					Job Reference (optional)	

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ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-fxOy6xvYJolnX8pM4j4CE6FJGqEAqiYBnbGVMOywc93



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.23	Horz(CT)	-0.01	16	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 133 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-8, 9-24, 9-16.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 17-18,16-17.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 6-26, 7-25
OTHERS 2x4 SPF No.2	

REACTIONS. All bearings 23-5-11.
 (lb) - Max Horz 1=559(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 24, 19, 26, 25, 23, 22, 21, 20, 18, 17 except 1=256(LC 6), 16=-104(LC 8), 29=-200(LC 8), 28=-190(LC 8), 27=-243(LC 8)
 Max Grav All reactions 250 lb or less at joint(s) 24, 16, 19, 29, 28, 26, 25, 23, 22, 21, 20, 18, 17 except 1=588(LC 8), 27=253(LC 15)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-729/366, 2-3=-539/283, 3-4=-342/198
 WEBS 4-27=-213/266

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 19, 26, 25, 23, 22, 21, 20, 18, 17 except (jt=lb) 1=256, 16=104, 29=200, 28=190, 27=243.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 16, 18, 17.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



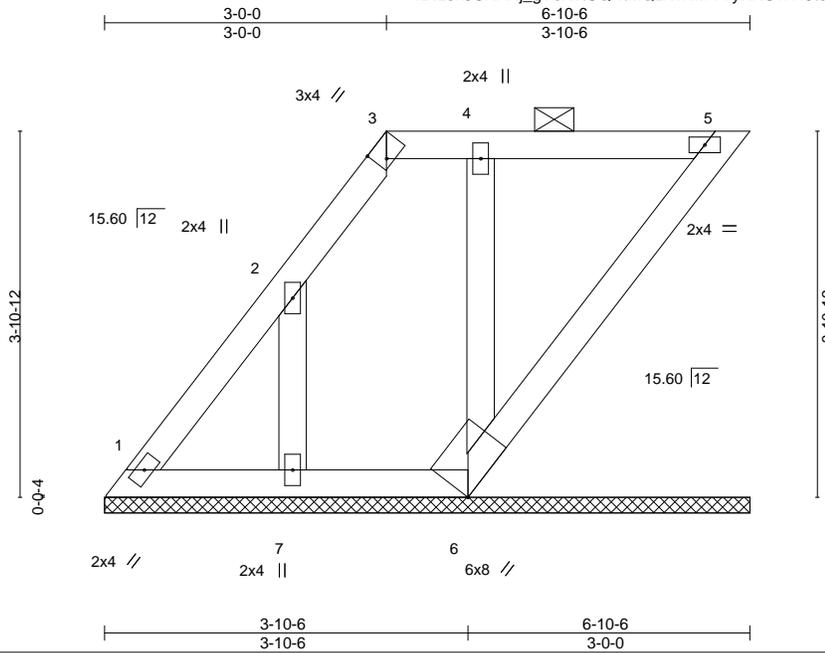
July 20,2020

Job 400423	Truss LAY3	Truss Type GABLE	Qty 1	Ply 1	Lot 44 HT I42088013
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Wheeler Lumber, Waverly, KS 66871

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ID:Lek3CAAj_gYbKvtCQHtmQzKvNM-77yKKGvA45te8IOYeRbRmKnUMEZgZCoK?F03uqywC92



Scale = 1:24.4

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 25 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.); 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 6-10-6.
(lb) - Max Horz 1=147(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 6 except 7=143(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6, 7

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 6 except (jt=lb) 7=143.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 20,2020

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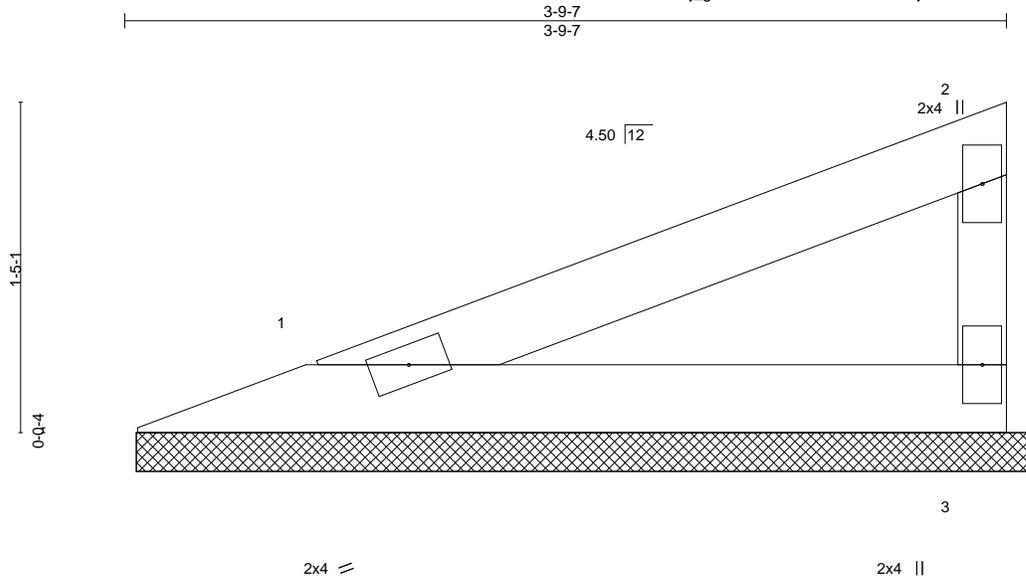
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400423	Truss V1	Truss Type VALLEY	Qty 1	Ply 1	Lot 44 HT	I42088014
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:00 2020 Page 1

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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 9 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 3-9-7 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-10-5, 3=3-10-5
 Max Horz 1=48(LC 5)
 Max Uplift 1=-20(LC 8), 3=-28(LC 8)
 Max Grav 1=128(LC 1), 3=128(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) 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.



July 20, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss V3	Truss Type Valley	Qty 1	Ply 1	Lot 44 HT Job Reference (optional)	I42088015
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Wheeler Lumber, Waverly, KS 66871

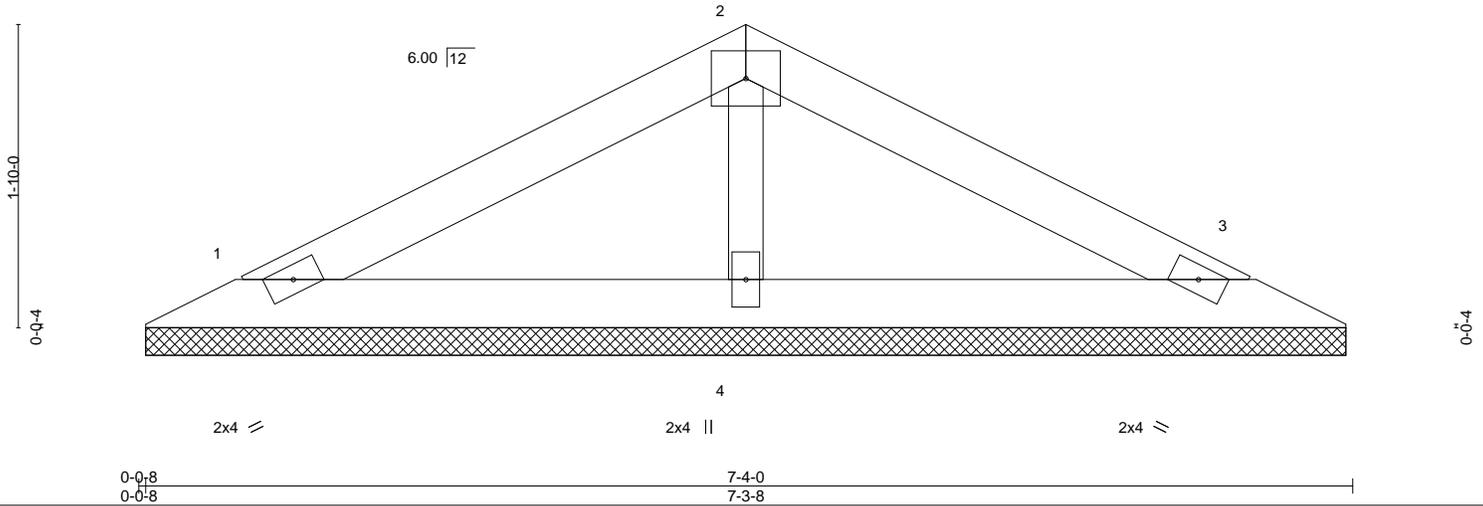
8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:00 2020 Page 1

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Scale = 1:13.9

4x5 =



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
								Weight: 17 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 OTHERS 2x3 SPF No.2

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

REACTIONS. (size) 1=7-3-0, 3=7-3-0, 4=7-3-0
 Max Horz 1=27(LC 12)
 Max Uplift 1=-33(LC 8), 3=-37(LC 9), 4=-3(LC 8)
 Max Grav 1=143(LC 1), 3=143(LC 1), 4=261(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.
- 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.



July 20, 2020

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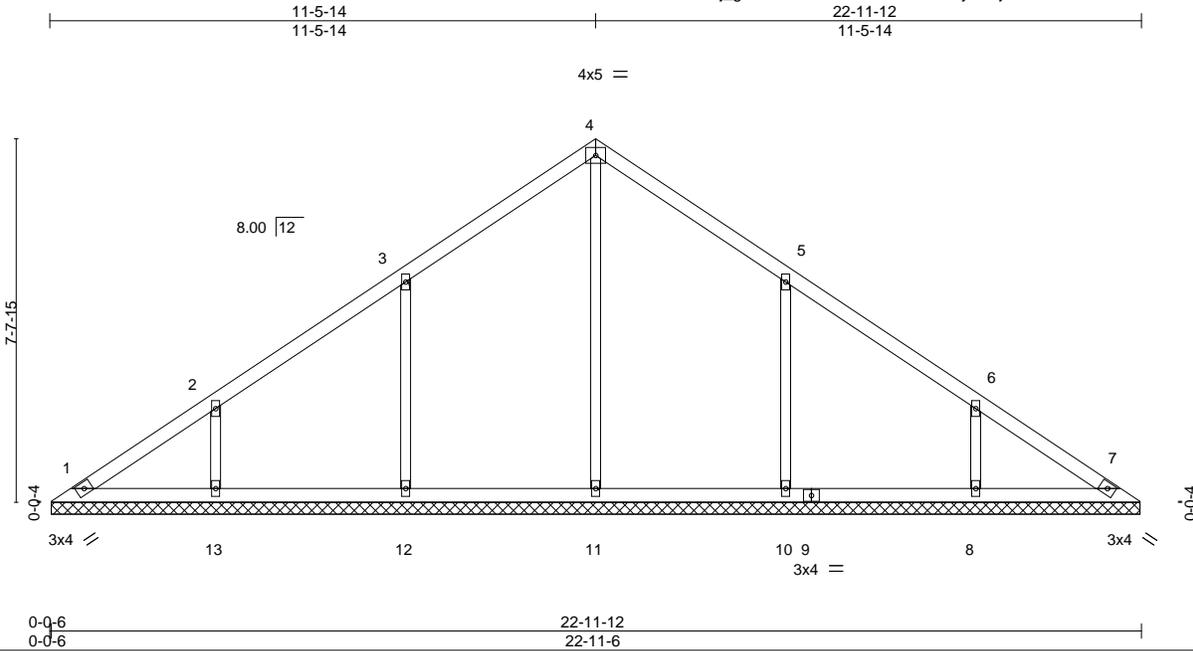


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss V4	Truss Type Valley	Qty 1	Ply 1	Lot 44 HT	I42088016
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:01 2020 Page 1
ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-3W35lyxQcj7MOcYxlsevsIso62D113wdTZV9zjywC90



Scale: 1/4"=1'

LOADING (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	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 72 lb	FT = 10%

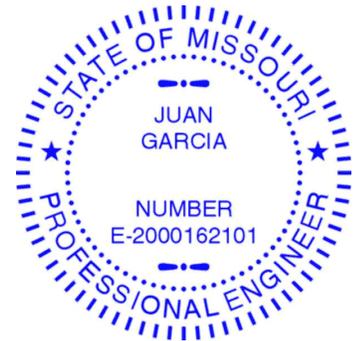
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

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

REACTIONS. All bearings 22-11-0.
(lb) - Max Horz 1=192(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 12=-155(LC 8), 13=-132(LC 8), 10=-154(LC 9), 8=-133(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=400(LC 18), 12=489(LC 15), 13=412(LC 15), 10=488(LC 16), 8=412(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-12=-319/204, 2-13=-275/174, 5-10=-319/204, 6-8=-276/174

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFERS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 12=155, 13=132, 10=154, 8=133.
 - 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.



July 20, 2020

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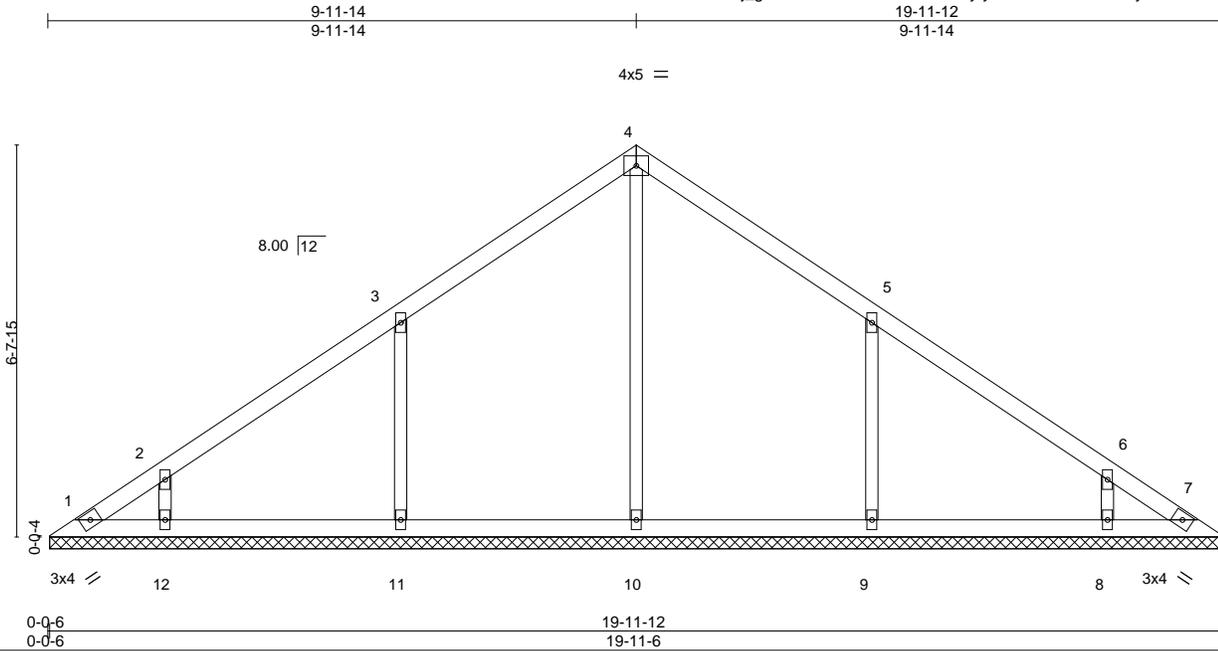


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400423	Truss V5	Truss Type Valley	Qty 1	Ply 1	Lot 44 HT	I42088017
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:02 2020 Page 1
 ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-XidTyly2N0FD?m77JZ98OyPzIRZJmXDmiDEjV9ywC9?



Scale = 1:38.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 61 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 OTHERS 2x3 SPF No.2

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

REACTIONS. All bearings 19-11-0.
 (lb) - Max Horz 1=166(LC 5)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=158(LC 8), 12=111(LC 8), 9=158(LC 9), 8=111(LC 9)
 Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=384(LC 18), 11=499(LC 15), 12=347(LC 15), 9=499(LC 16), 8=347(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 3-11=325/208, 5-9=325/208

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 11=158, 12=111, 9=158, 8=111.
 - 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.



July 20,2020

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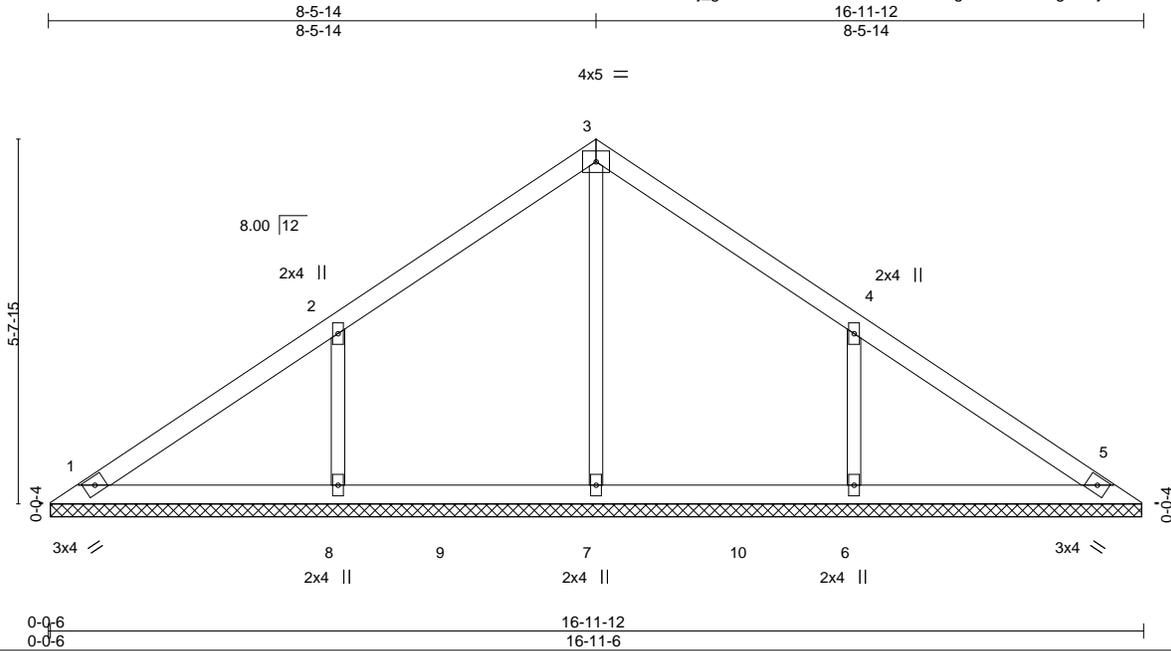
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss V6	Truss Type Valley	Qty 1	Ply 1	Lot 44 HT	I42088018
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:03 2020 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-?uBr9ezg8KN4dwiJtGgNxAY89rvnVzNwwt_G1bywC9_



Scale = 1:35.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 49 lb	FT = 10%

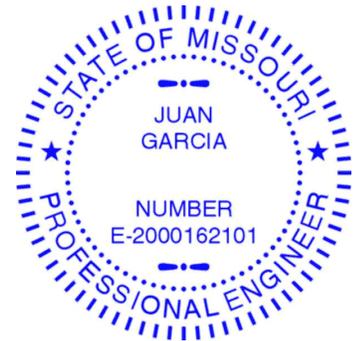
LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 OTHERS 2x3 SPF No.2

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

REACTIONS. All bearings 16-11-0.
 (lb) - Max Horz 1=139(LC 4)
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=172(LC 8), 6=171(LC 9)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=353(LC 15), 8=521(LC 15), 6=521(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-347/218, 4-6=-347/217

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=172, 6=171.
 - 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.



July 20, 2020

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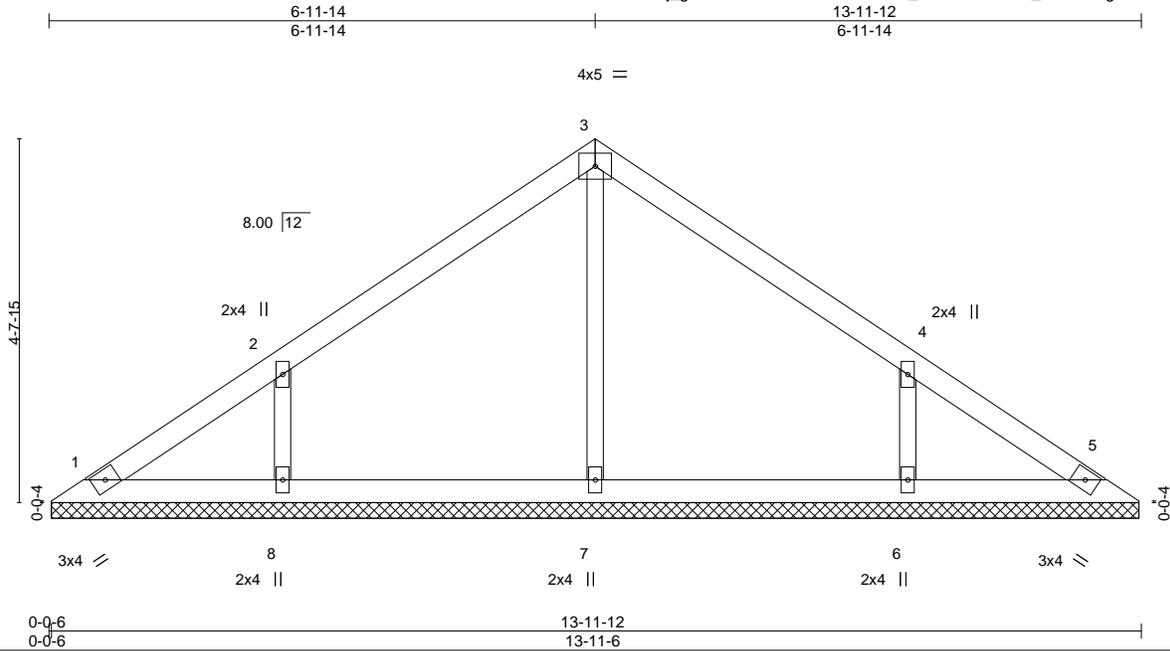
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400423	Truss V7	Truss Type Valley	Qty 1	Ply 1	Lot 44 HT	I42088019
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:04 2020 Page 1

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Scale = 1:29.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	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 0.09	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 39 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 OTHERS 2x3 SPF No.2

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

REACTIONS. All bearings 13-11-0.
 (lb) - Max Horz 1=-113(LC 4)
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-144(LC 8), 6=-143(LC 9)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=282(LC 1), 8=363(LC 15), 6=363(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-290/185, 4-6=-290/185

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=144, 6=143.
 - 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.



July 20, 2020

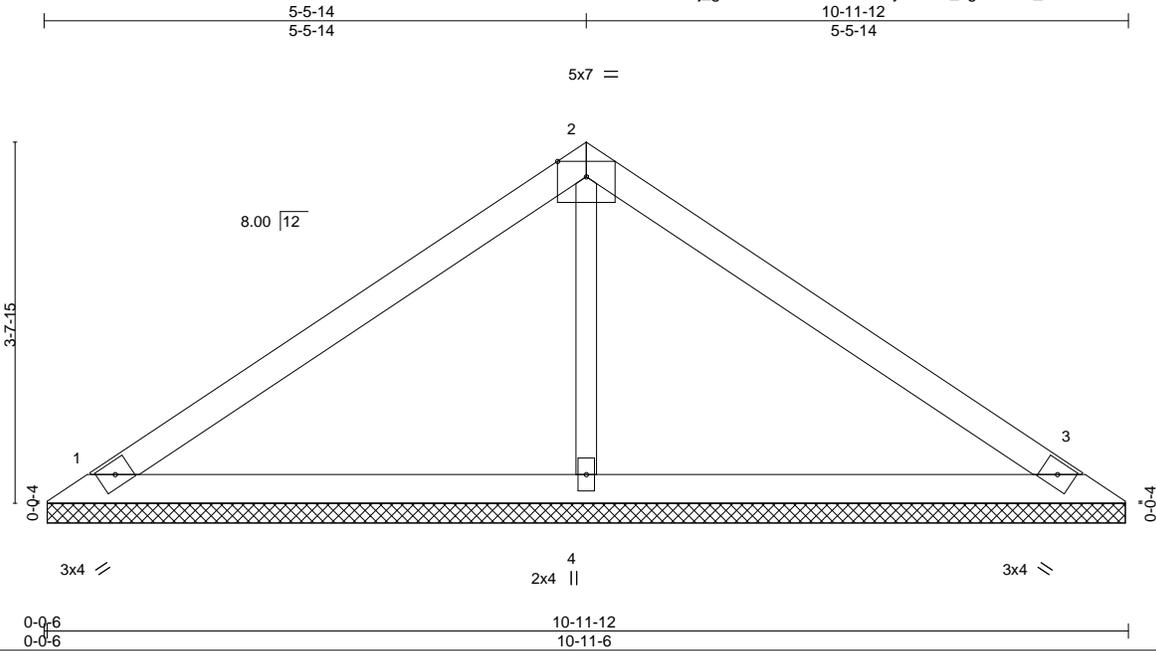
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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Job 400423	Truss V8	Truss Type Valley	Qty 1	Ply 1	Lot 44 HT	I42088020
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:05 2020 Page 1
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Scale = 1:23.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 29 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

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

REACTIONS. (size) 1=10-11-0, 3=10-11-0, 4=10-11-0
Max Horz 1=87(LC 5)
Max Uplift 1=44(LC 8), 3=55(LC 9), 4=17(LC 8)
Max Grav 1=232(LC 1), 3=232(LC 1), 4=438(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-285/73

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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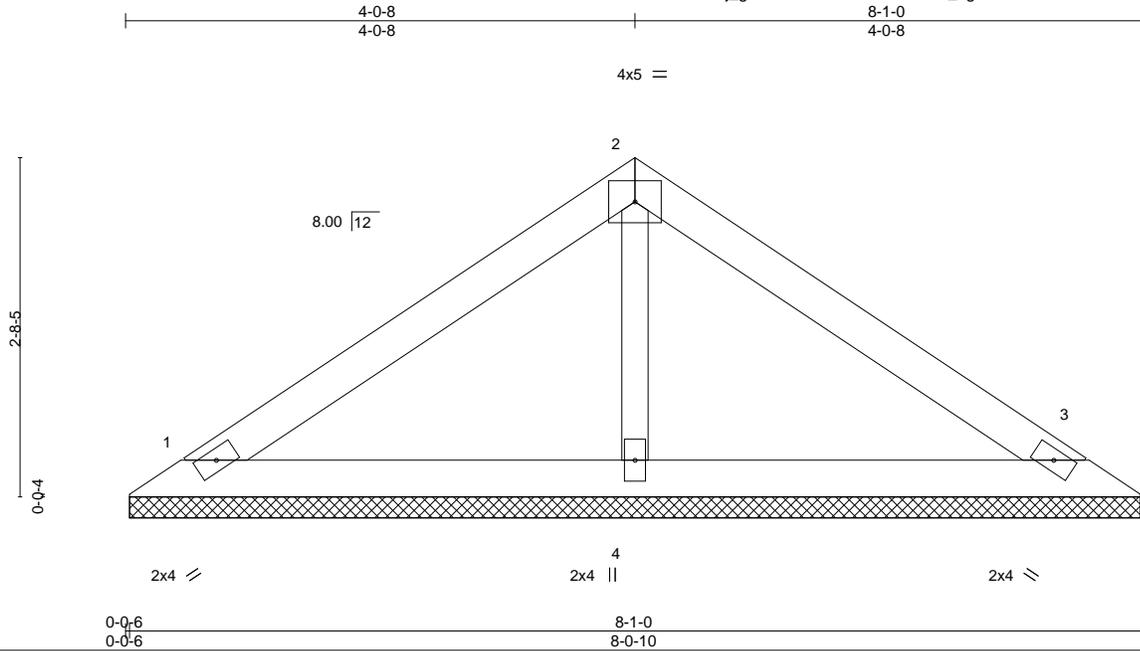
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400423	Truss V9	Truss Type Valley	Qty 1	Ply 1	Lot 44 HT	I42088021
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Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:06 2020 Page 1

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Scale = 1:18.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 21 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 OTHERS 2x3 SPF No.2

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

REACTIONS. (size) 1=8-0-4, 3=8-0-4, 4=8-0-4
 Max Horz 1=-62(LC 4)
 Max Uplift 1=-40(LC 8), 3=-48(LC 9)
 Max Grav 1=180(LC 1), 3=180(LC 1), 4=280(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.
- 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.
- 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.



July 20, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

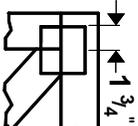
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



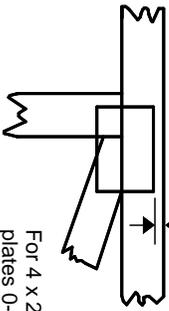
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

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 X 4

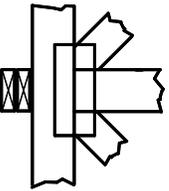
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



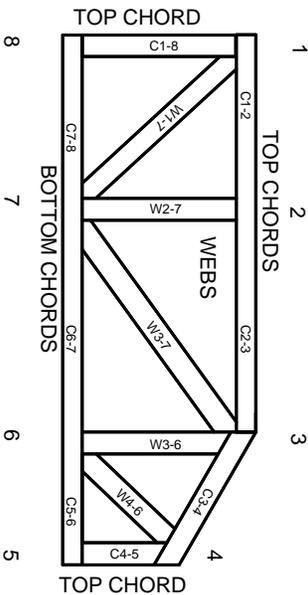
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



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/TP1 section 6.3 These truss designs rely on lumber values established by others.

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. 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.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. 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.
16. 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.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.



MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020