



RE: 400384
Lot 59 H4

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

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

Design Code: IRC2018/TPI2014

Design Program: MiTek 20/20 8.2

Wind Code: N/A

Wind Speed: 115 mph

Roof Load: 45.0 psf

Floor Load: N/A psf

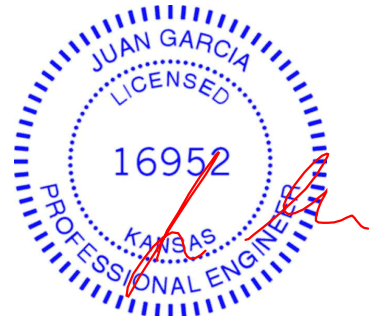
This package includes 71 individual, dated Truss Design Drawings and 0 Additional Drawings.

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/21/2020

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I41015190	A1	6/29/2020	27	I41015216	H3	6/29/2020
2	I41015191	A2	6/29/2020	28	I41015217	H4	6/29/2020
3	I41015192	B1	6/29/2020	29	I41015218	H5	6/29/2020
4	I41015193	B2	6/29/2020	30	I41015219	H6	6/29/2020
5	I41015194	B3	6/29/2020	31	I41015220	H7	6/29/2020
6	I41015195	C1	6/29/2020	32	I41015221	J1	6/29/2020
7	I41015196	C2	6/29/2020	33	I41015222	J2	6/29/2020
8	I41015197	C3	6/29/2020	34	I41015223	J3	6/29/2020
9	I41015198	C4	6/29/2020	35	I41015224	J4	6/29/2020
10	I41015199	D1	6/29/2020	36	I41015225	J5	6/29/2020
11	I41015200	D2	6/29/2020	37	I41015226	J6	6/29/2020
12	I41015201	D3	6/29/2020	38	I41015227	J7	6/29/2020
13	I41015202	E1	6/29/2020	39	I41015228	J8	6/29/2020
14	I41015203	E2	6/29/2020	40	I41015229	J9	6/29/2020
15	I41015204	E3	6/29/2020	41	I41015230	J10	6/29/2020
16	I41015205	E4	6/29/2020	42	I41015231	J11	6/29/2020
17	I41015206	E5	6/29/2020	43	I41015232	J12	6/29/2020
18	I41015207	E6	6/29/2020	44	I41015233	J13	6/29/2020
19	I41015208	E7	6/29/2020	45	I41015234	J14	6/29/2020
20	I41015209	G1	6/29/2020	46	I41015235	J15	6/29/2020
21	I41015210	G2	6/29/2020	47	I41015236	J16	6/29/2020
22	I41015211	G3	6/29/2020	48	I41015237	J17	6/29/2020
23	I41015212	G4	6/29/2020	49	I41015238	J18	6/29/2020
24	I41015213	G5	6/29/2020	50	I41015239	J20	6/29/2020
25	I41015214	H1	6/29/2020	51	I41015240	J21	6/29/2020
26	I41015215	H2	6/29/2020	52	I41015241	J22	6/29/2020

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.



June 29, 2020



RE: 400384 - Lot 59 H4

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Site Information:

Project Customer: Project Name:

Lot/Block:

Subdivision:

Address:

City, County:

State:

No.	Seal#	Truss Name	Date
53	I41015242	J23	6/29/2020
54	I41015243	J24	6/29/2020
55	I41015244	J25	6/29/2020
56	I41015245	J26	6/29/2020
57	I41015246	J27	6/29/2020
58	I41015247	J28	6/29/2020
59	I41015248	J29	6/29/2020
60	I41015249	J30	6/29/2020
61	I41015250	J31	6/29/2020
62	I41015251	LAY1	6/29/2020
63	I41015252	LAY2	6/29/2020
64	I41015253	LAY3	6/29/2020
65	I41015254	LAY4	6/29/2020
66	I41015255	LAY5	6/29/2020
67	I41015256	LAY6	6/29/2020
68	I41015257	V1	6/29/2020
69	I41015258	V2	6/29/2020
70	I41015259	V3	6/29/2020
71	I41015260	V4	6/29/2020



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Chesterfield, MO 63017
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General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014

Design Program: MiTek 20/20 8.2

Wind Code: N/A

Wind Speed: 115 mph

Roof Load: 45.0 psf

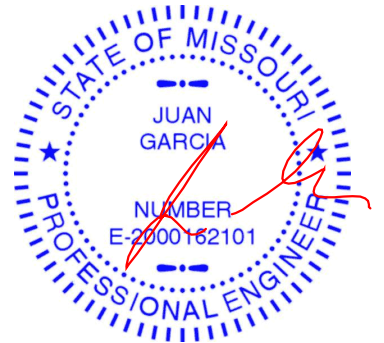
Floor Load: N/A psf

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

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I41015190	A1	6/29/2020	27	I41015216	H3	6/29/2020
2	I41015191	A2	6/29/2020	28	I41015217	H4	6/29/2020
3	I41015192	B1	6/29/2020	29	I41015218	H5	6/29/2020
4	I41015193	B2	6/29/2020	30	I41015219	H6	6/29/2020
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24	I41015213	G5	6/29/2020	50	I41015239	J20	6/29/2020
25	I41015214	H1	6/29/2020	51	I41015240	J21	6/29/2020
26	I41015215	H2	6/29/2020	52	I41015241	J22	6/29/2020

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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June 29, 2020



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16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Site Information:

Project Customer: Project Name:

Lot/Block:

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Address:

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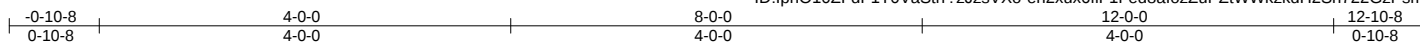
No.	Seal#	Truss Name	Date
53	I41015242	J23	6/29/2020
54	I41015243	J24	6/29/2020
55	I41015244	J25	6/29/2020
56	I41015245	J26	6/29/2020
57	I41015246	J27	6/29/2020
58	I41015247	J28	6/29/2020
59	I41015248	J29	6/29/2020
60	I41015249	J30	6/29/2020
61	I41015250	J31	6/29/2020
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66	I41015255	LAY5	6/29/2020
67	I41015256	LAY6	6/29/2020
68	I41015257	V1	6/29/2020
69	I41015258	V2	6/29/2020
70	I41015259	V3	6/29/2020
71	I41015260	V4	6/29/2020

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015190
400384	A1	Hip Girder	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:01 2020 Page 1

ID:lpnO10ZFdfF1T0VaStrr?zJzsVXo-en2xux6fF1Fed8alozZuPZtWWkzdH2Sn722GzPsm8



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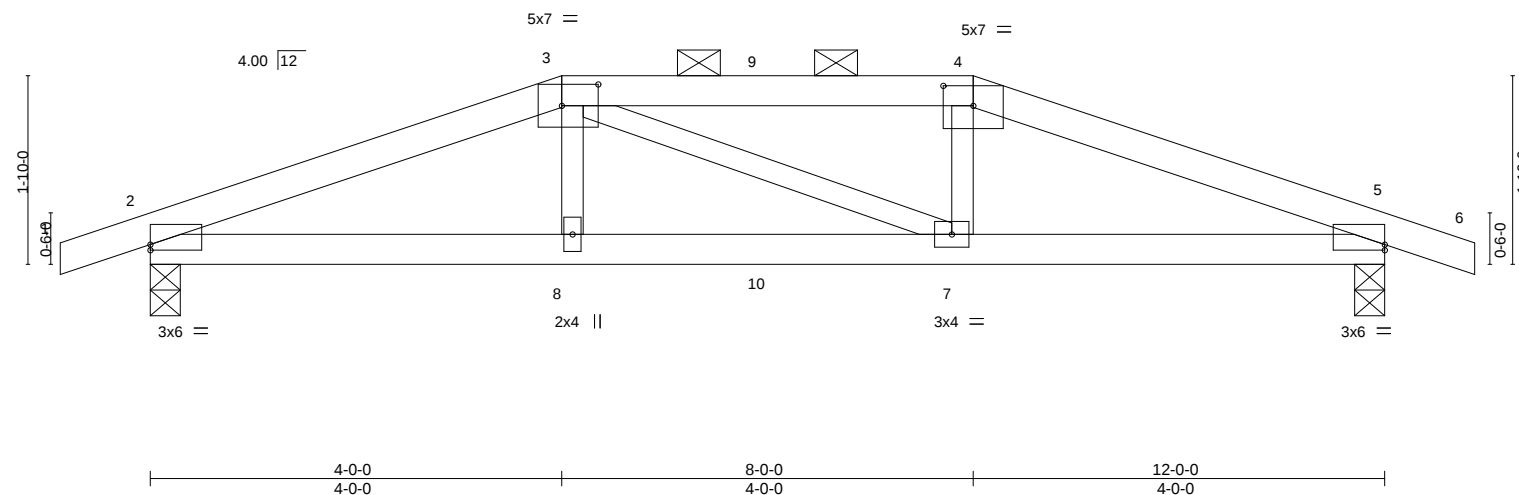


Plate Offsets (X, Y)--		[2:0-0-0,0-0-10], [3:0-4-4,0-2-8], [4:0-3-8,0-2-5], [5:0-0-0,0-0-10]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.47	in (loc) l/defl L/d
TCCL 10.0	Plate Grip DOL 1.15	BC 0.52	Vert(LL) -0.06 7-8 >999 360
BCLL 0.0 *	Lumber DOL 1.15	WB 0.11	Vert(CT) -0.10 7-8 >999 240
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.03 5 n/a n/a
	Code IRC2018/TPI2014		Wind(LL) 0.05 7-8 >999 240
			PLATES MT20
			GRIP 197/144
			Weight: 35 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 4-1-5 oc purlins, except 2-0-0 oc purlins (4-0-9 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 9-8-7 oc bracing.

REACTIONS.

(size) 2=0-3-8, 5=0-3-8
Max Horz 2=-29(LC 13)
Max Uplift 2=-233(LC 4), 5=-233(LC 5)
Max Grav 2=899(LC 1), 5=899(LC 5)

FORCES.

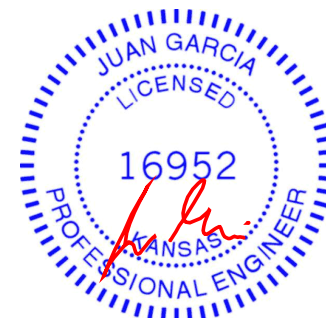
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1828/423, 3-4=-1673/414, 4-5=-1829/422
BOT CHORD 2-8=-370/1652, 7-8=-370/1672, 5-7=-351/1653
WEBS 3-8=0/315, 4-7=-6/325

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=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=233, 5=233.
- 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) 83 lb down and 72 lb up at 4-0-0, and 83 lb down and 72 lb up at 6-0-0, and 83 lb down and 72 lb up at 8-0-0 on top chord, and 212 lb down and 69 lb up at 4-0-0, and 36 lb down at 6-0-0, and 212 lb down and 69 lb up at 7-11-4 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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 2-5=-20



April 17, 2020

Continued on page 2

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015190
400384	A1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:02 2020 Page 2
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-6zcJ5H7HWZ96FmjmsWVoRd62Gv4BT4XCgRtcjzPsm7

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 3=-53(F) 4=-53(F) 8=-212(F) 7=-212(F) 9=-53(F) 10=-18(F)

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015191
400384	A2	Common	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:02 2020 Page 1

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0-10-8	6-0-0	6-0-0	0-10-8

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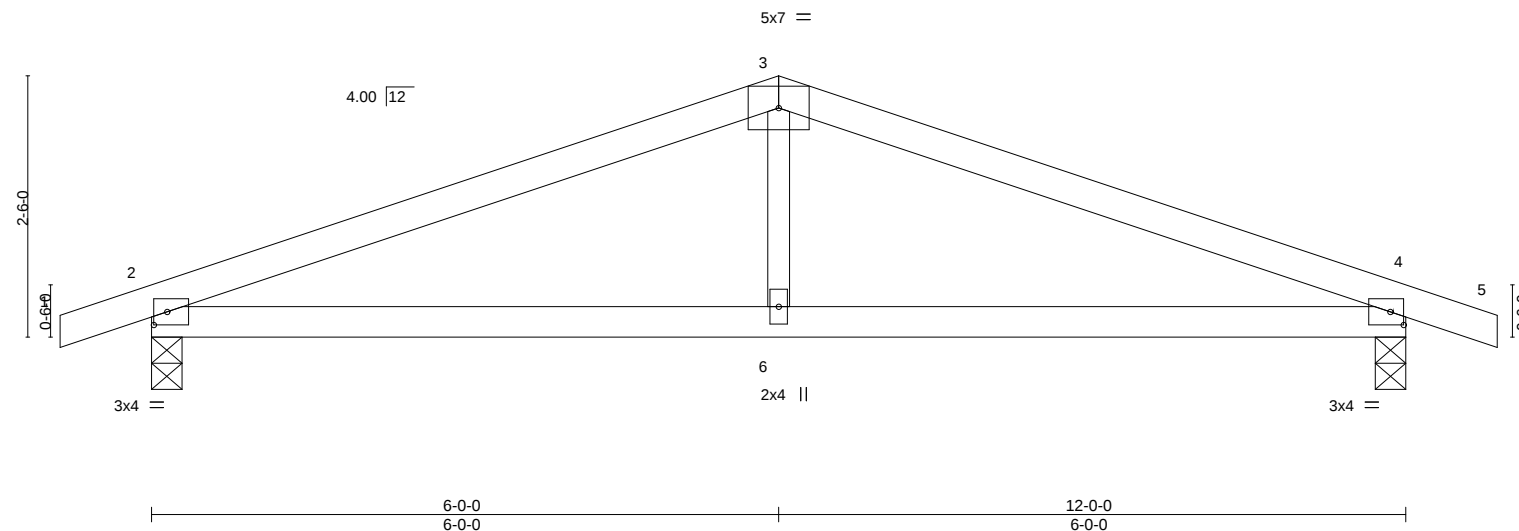


Plate Offsets (X,Y)--		[2:0-1-9,0-1-8], [4:0-1-9,0-1-8]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.50	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.38	Vert(LL) -0.03 2-6 >999 360
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Vert(CT) -0.08 2-6 >999 240
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.02 4 n/a n/a
			Wind(LL) 0.03 2-6 >999 240
			Weight: 32 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 5-0-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 4=0-3-8
Max Horz 2=40(LC 12)
Max Uplift 2=-121(LC 4), 4=-121(LC 5)
Max Grav 2=598(LC 1), 4=598(LC 1)

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

TOP CHORD 2-3=-914/108, 3-4=-914/107
BOT CHORD 2-6=-57/791, 4-6=-57/791
WEBS 3-6=0/281

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=121, 4=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.



April 17, 2020

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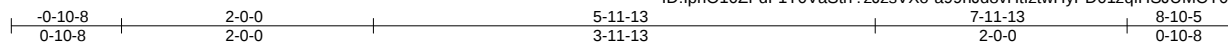
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015192
400384	B1	Hip Girder	1	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:03 2020 Page 1

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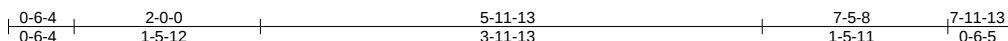
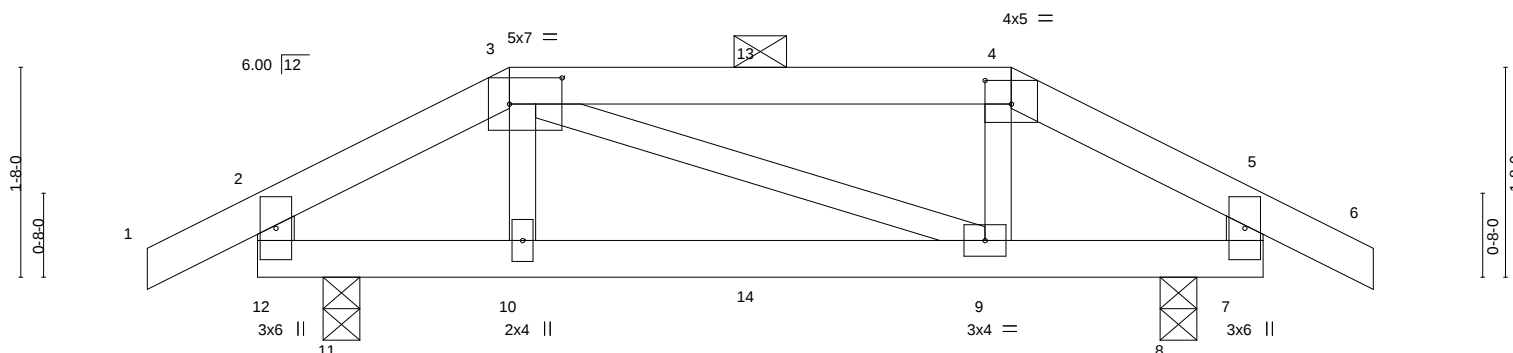


Plate Offsets (X,Y)--		[3:0-5-0,0-2-8], [4:0-2-8,0-2-4]									
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.02 9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.02 9-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00 8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.02 9-10	>999	240	Weight: 27 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-12,5-7: 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) 11=0-3-8, 8=0-3-8
Max Horz 11=35(LC 7)
Max Uplift 11=-159(LC 8), 8=-170(LC 9)
Max Grav 11=352(LC 45), 8=373(LC 43)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-254/149, 4-5=-280/158

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) 11=159, 8=170.
- 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) 45 lb down and 33 lb up at 2-0-0, and 52 lb down and 31 lb up at 3-11-14, and 113 lb down and 119 lb up at 5-11-13 on top chord, and 62 lb down and 111 lb up at 2-0-0, and 2 lb down and 65 lb up at 3-11-14, and 62 lb down and 111 lb up at 5-11-1 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, 5-6=-70, 7-12=-20
 - Concentrated Loads (lb)
Vert: 4=80(F) 10=59(F) 9=59(F) 14=23(F)



April 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015193
400384	B2	Common	2	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:04 2020 Page 1

ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-2Mj3Wz9X2AQqV4s9zxXGW1BQijqCx?IV8IMjfbzPsm5



4x5 =

Scale = 1:18.5

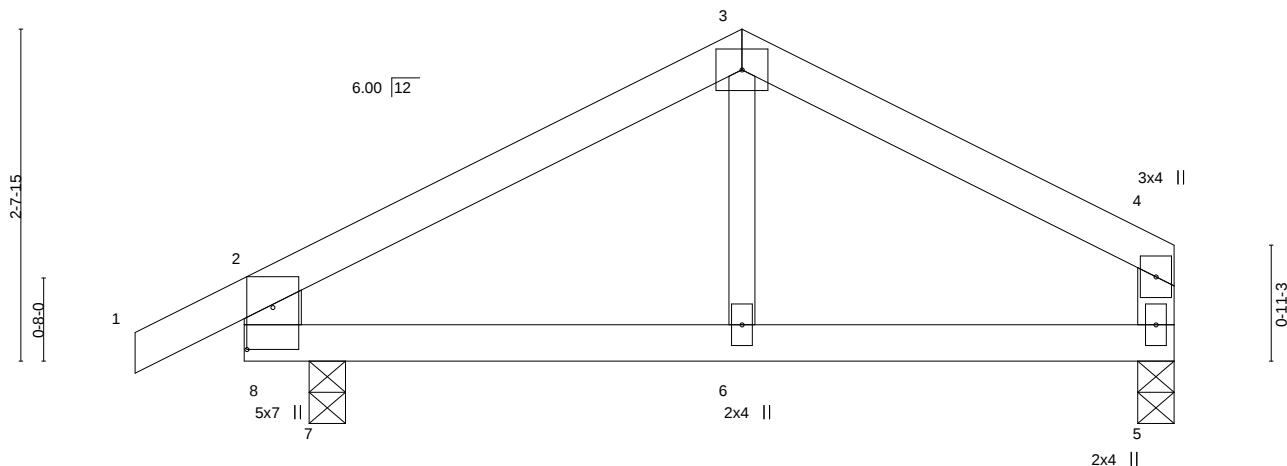


Plate Offsets (X,Y)-- [8:0-4-1,0-2-8]

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 0.28	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	-0.02	6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	6	>999	240	Weight: 22 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2 *Except*
 3-6: 2x3 SPF No.2, 2-8: 2x6 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) 5=0-3-8, 7=0-3-8
 Max Horz 7=59(LC 5)
 Max Uplift 5=-35(LC 9), 7=-71(LC 8)
 Max Grav 5=286(LC 1), 7=429(LC 1)

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

TOP CHORD 2-3=-281/49, 3-4=-264/45, 2-8=-339/94

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) 5, 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.



April 17, 2020

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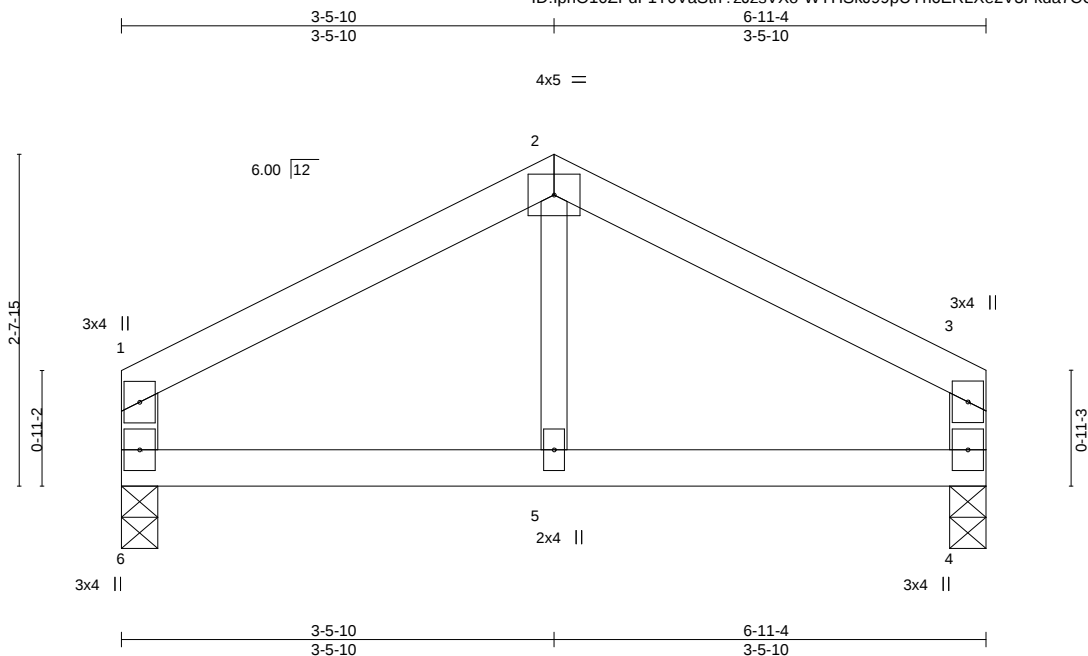
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015194
400384	B3	Common	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:05 2020 Page 1

ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-WYHskJ99pUYh6ERLXe2V3Fkda7CUgSWeNP5GB2zPsm4



Scale = 1:18.5

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 0.15	Vert(LL)	-0.01	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.02	5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	5	>999	240	Weight: 20 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2 *Except*
 2-5: 2x3 SPF No.2

BRACING-

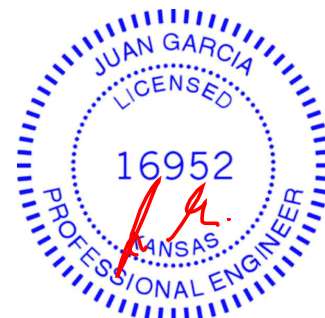
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 4=0-3-8
 Max Horz 6=48(LC 5)
 Max Uplift 6=36(LC 8), 4=36(LC 9)
 Max Grav 6=299(LC 1), 4=299(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-290/50, 2-3=-290/50

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) 6, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 17, 2020

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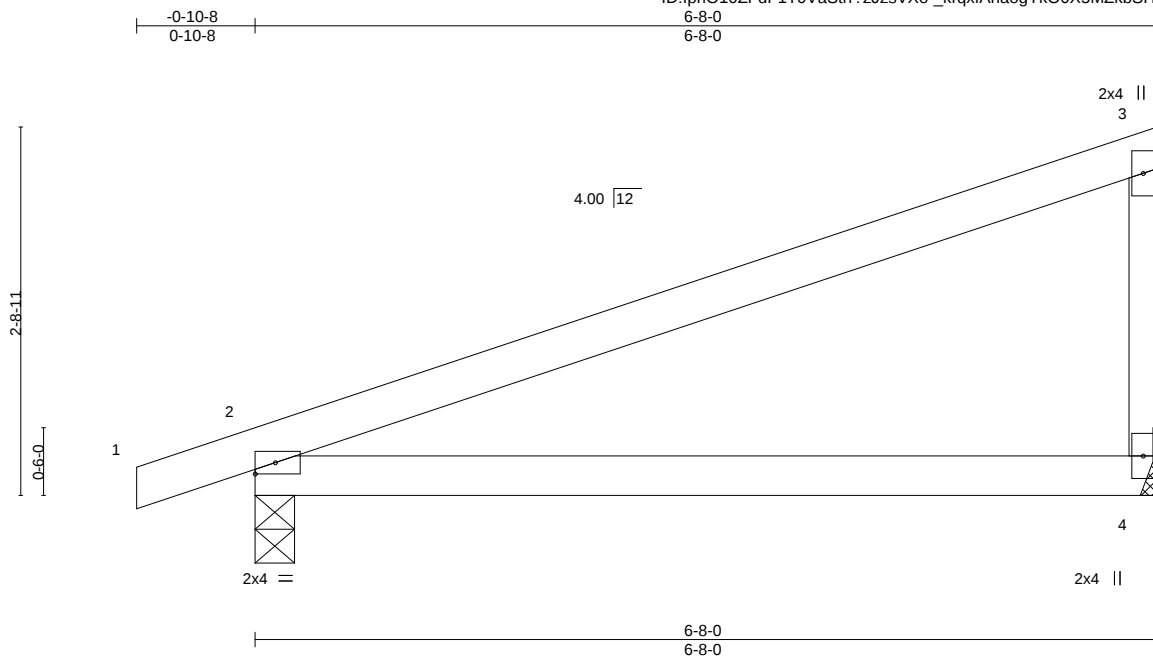


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015196
400384	C2	Monopitch	7	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:06 2020 Page 1
ID:lpnO10ZFdF1T0VaStr?zJzsVXo-_krqxfAnaogYkO0X5MZkbSHeMXTDPvGnb3rpjUzPsm3



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 0.78	Vert(LL)	-0.10	2-4	>757	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.20	2-4	>379	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-P	Wind(LL)	0.00	2	****	240	Weight: 19 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) 4=Mechanical, 2=0-3-8
Max Horz 2=108(LC 5)
Max Uplift 4=-61(LC 8), 2=-92(LC 4)
Max Grav 4=283(LC 1), 2=366(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.



April 17, 2020

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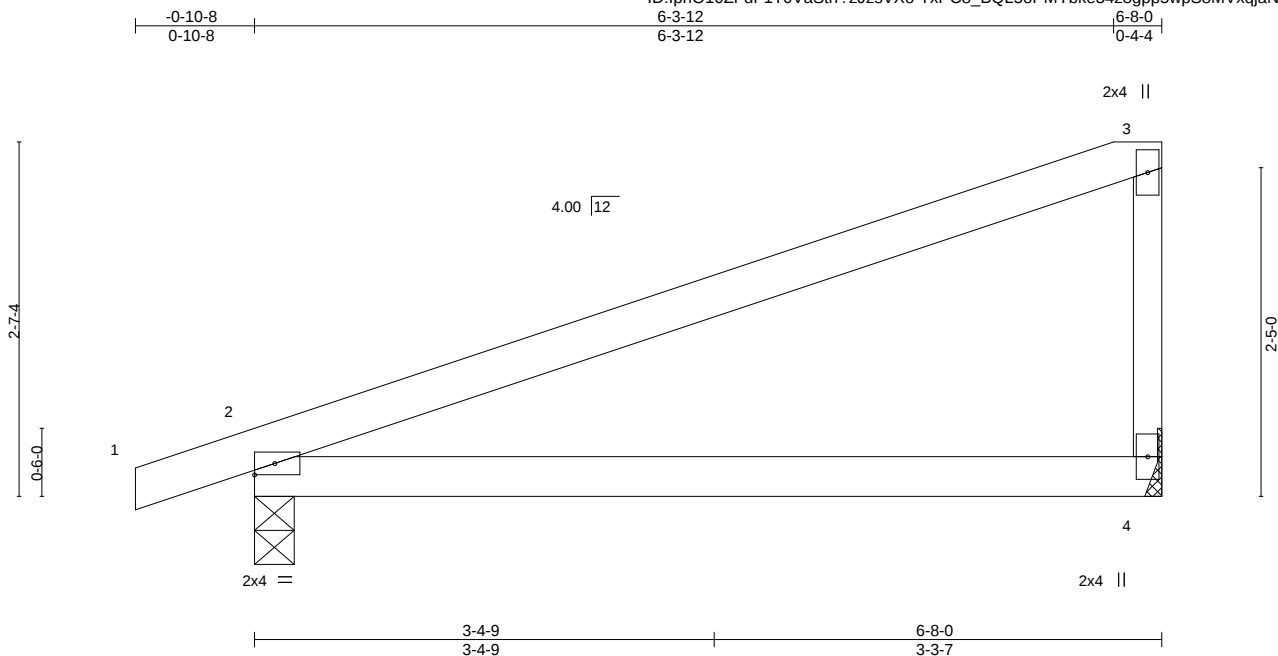
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015197
400384	C3	Half Hip	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:07 2020 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-TxPC8_BQL5oPMYbke34z8gpp5wpS8MVxqjaNGwzPsm2



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.10	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.20				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.00	Weight: 18 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) 4=Mechanical, 2=0-3-8
Max Horz 2=108(LC 5)
Max Uplift 4=-61(LC 8), 2=-92(LC 4)
Max Grav 4=283(LC 1), 2=366(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.



April 17, 2020

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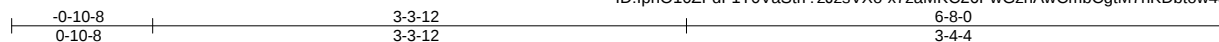
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015198
400384	C4	Half Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:08 2020 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-x7zaMKC26PwGzhAwCmbCgtM7hKDbtow43NKwoMzPsm1



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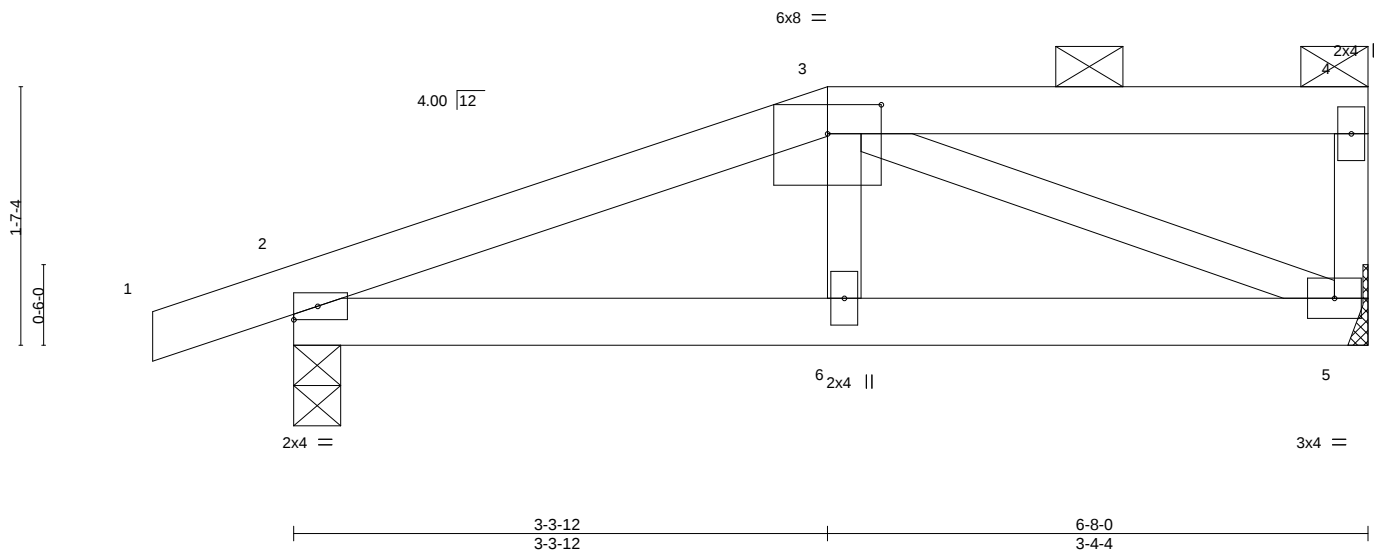


Plate Offsets (X,Y)-- [3:0-4-0,0-2-3]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.12	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.01	6	>999	240	Weight: 21 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, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=Mechanical, 2=0-3-8
Max Horz 2=60(LC 5)
Max Uplift 5=60(LC 5), 2=-103(LC 4)
Max Grav 5=281(LC 1), 2=364(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-416/64
BOT CHORD 2-6=-79/341, 5-6=-75/347
WEBS 3-5=-374/69

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) 5 except (jt=lb) 2=103.
- 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) 85 lb down and 71 lb up at 3-3-12 on top chord, and 6 lb down and 4 lb up at 3-3-12 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: 1-3=-70, 3-4=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 6=4(F)



April 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015199
400384	D1	Hip Girder	1	1		

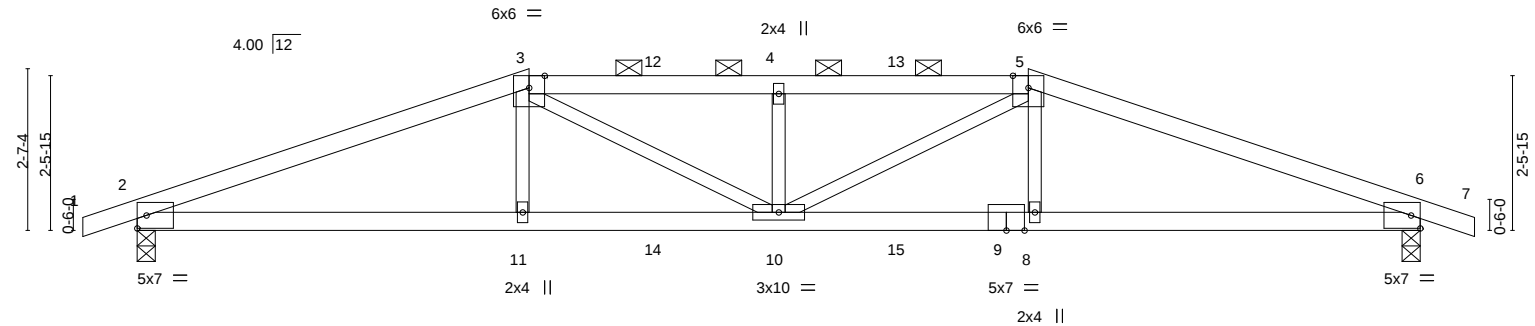
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:09 2020 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-PJXyZgCgtj27brl6mU7RD5vBjkMcDKE13TKpzPsm0

0-10-8	6-3-12	10-4-0	14-4-4	20-8-0	21-6-8
0-10-8	6-3-12	4-0-4	4-0-4	6-3-12	0-10-8

Scale = 1:37.1



	6-3-12	10-4-0	14-4-4	20-8-0	
	6-3-12	4-0-4	4-0-4	6-3-12	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc) l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.67	Vert(LL)	-0.18 10 >999 360
TCDL 10.0	Lumber DOL	1.15	BC 0.97	Vert(CT)	-0.32 10 >753 240
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.24	Horz(CT)	0.10 6 n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.16 10 >999 240
				PLATES	GRIP
				MT20	197/144
				Weight: 62 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
3-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-6-3 oc purlins, except 2-0-0 oc purlins (2-9-14 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 7-1-11 oc bracing.

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=41(LC 33)
Max Uplift 2=-352(LC 4), 6=-352(LC 5)
Max Grav 2=1396(LC 1), 6=1395(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3185/758, 3-4=-3397/857, 4-5=-3397/857, 5-6=-3184/759
BOT CHORD 2-11=-680/2923, 10-11=-680/2904, 8-10=-648/2903, 6-8=-649/2922
WEBS 3-11=-7/406, 3-10=-185/685, 4-10=-469/219, 5-10=-185/686, 5-8=-7/405

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=352, 6=352.
- 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) 85 lb down and 75 lb up at 6-3-12, 85 lb down and 75 lb up at 8-4-8, 85 lb down and 75 lb up at 10-4-0, and 85 lb down and 75 lb up at 12-3-8, and 85 lb down and 75 lb up at 14-4-4 on top chord, and 260 lb down and 93 lb up at 6-3-12, 31 lb down at 8-4-8, 31 lb down at 10-4-0, and 31 lb down at 12-3-8, and 260 lb down and 93 lb up at 14-3-8 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: 1-3=-70, 3-5=-70, 5-7=-70, 2-6=-20



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Continued on page 2

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015199
400384	D1	Hip Girder	1	1	Job Reference (optional)	

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 3=-45(B) 5=-45(B) 9=-23(B) 11=-260(B) 10=-23(B) 4=-45(B) 8=-237(B) 12=-45(B) 13=-45(B) 14=-23(B) 15=-23(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015200
400384	D2	Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-tW5Ln0Die0A_D?KJKBegllRR48mNLfzNWWhp1sFzPsm?

0-10-8	4-5-7	9-3-12	11-4-4	16-2-9	20-8-0	21-6-8
0-10-8	4-5-7	4-10-5	2-0-8	4-10-5	4-5-7	0-10-8

Scale = 1:37.1

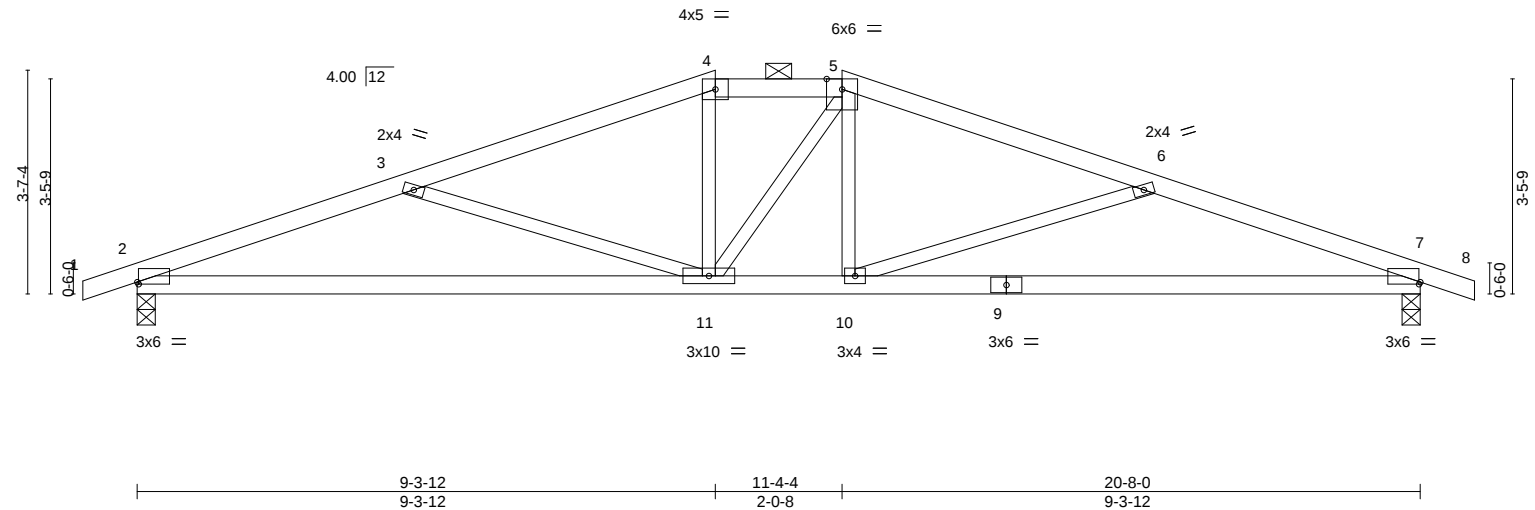


Plate Offsets (X,Y)-- [2:0-0-4,0-0-6], [7:0-0-4,0-0-6]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	-0.20 7-10	>999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.75	Vert(CT)	-0.43 7-10	>573	GRIP
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.27	Horz(CT)	0.06 7	n/a	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07 11	>999	Weight: 67 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 3-11-1 oc purlins, except
2-0-0 oc purlins (4-9-3 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 9-9-7 oc bracing.

REACTIONS.

(size) 2=0-3-8, 7=0-3-8
Max Horz 2=-59(LC 13)
Max Uplift 2=-185(LC 4), 7=-185(LC 5)
Max Grav 2=988(LC 1), 7=988(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2010/369, 3-4=-1612/217, 4-5=-1471/230, 5-6=-1610/217, 6-7=-2010/370
BOT CHORD 2-11=-341/1843, 10-11=-115/1470, 7-10=-297/1843
WEBS 3-11=-416/229, 4-11=-3/268, 5-10=0/268, 6-10=-417/229

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=185, 7=185.
- 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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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015201
400384	D3	Common	2	1		

Wheeler Lumber, Waverly, KS 66871

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ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-Liej_MEwPKlrq9vVtv9vIW_c4Y8747IXILYaPhzPsm_

0-10-8	5-3-13	10-4-0	15-4-3	20-8-0	21-6-8
0-10-8	5-3-13	5-0-3	5-0-3	5-3-13	0-10-8

Scale = 1:35.9

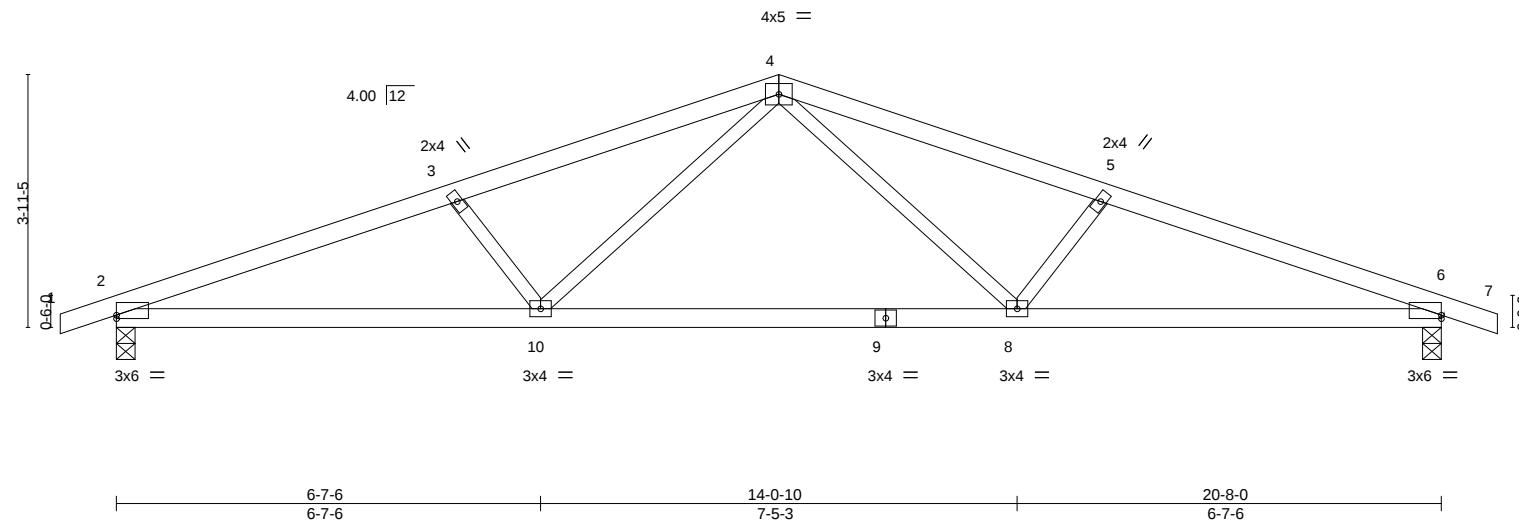


Plate Offsets (X,Y)--		[2:0-0-0,0-0-10], [6:Edge,0-0-10]							
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.10 8-10 >999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.22 8-10 >999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.05 6 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07 8-10 >999	Weight: 62 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 3-8-15 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=66(LC 12)
Max Uplift 2=178(LC 4), 6=178(LC 5)
Max Grav 2=988(LC 1), 6=988(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2045/297, 3-4=-1836/268, 4-5=-1836/268, 5-6=-2045/297
BOT CHORD 2-10=-275/1859, 8-10=-118/1278, 6-8=-225/1859
WEBS 4-8=-84/598, 5-8=-327/179, 4-10=-83/598, 3-10=-327/179

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=178, 6=178.
- 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.



April 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	
400384	E1	Hip Girder	1	2		I41015202

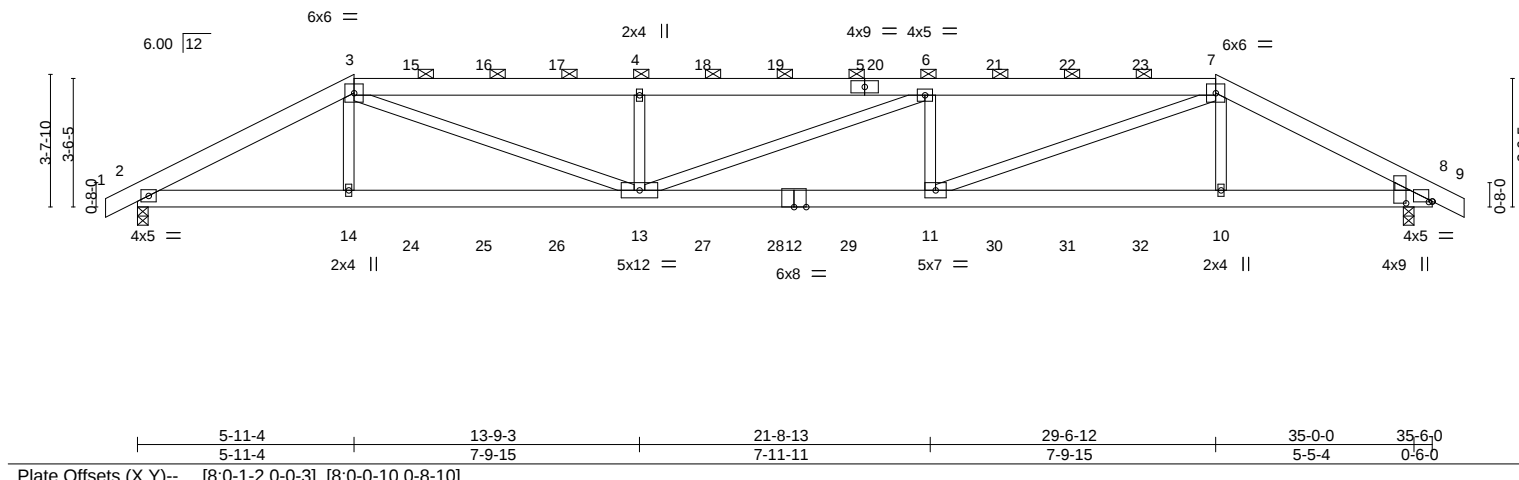
Wheeler Lumber, Waverly, KS 66871

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ID: bWuMDBN0tjF5cDvSpwhpH1zCzbQ-IHKrcOGphFgPhcd4Z1icw8c1alB1HQizRlnE_OzPslx

-0-10-8	5-11-4	13-9-3	21-8-13	29-6-12	35-6-0	35-6-0
0-10-8	5-11-4	7-9-15	7-11-11	7-9-15	5-11-4	0-10-8

Scale = 1:63.2



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 0.77	Vert(LL)	-0.27 11-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.49 11-13	>855	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.48	Horz(CT)	0.08 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.19 11-13	>999	240	Weight: 387 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2
 BOT CHORD 2x6 SP 2400F 2.0E
 WEBS 2x4 SPF No.2
 WEDGE
 Right: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
 2-0-0 oc purlins (4-6-4 max.): 3-7.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 8=0-3-8
 Max Horz 2=-59(LC 34)
 Max Uplift 2=-373(LC 5), 8=-371(LC 4)
 Max Grav 2=3032(LC 1), 8=2962(LC 1)

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

TOP CHORD 2-3=-5938/775, 3-4=-8597/1122, 4-6=-8595/1121, 6-7=-8583/1125, 7-8=-5785/769
 BOT CHORD 2-14=-667/5160, 13-14=-668/5128, 11-13=-1066/8580, 10-11=-624/4996, 8-10=-624/5024
 WEBS 3-14=0/709, 3-13=-487/3803, 4-13=-1052/364, 6-11=-1090/371, 7-11=-497/3929,
 7-10=0/644

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.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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; 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=373, 8=371.
- 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.



April 17, 2020

Continued on page 2

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4
400384	E1	Hip Girder	1	2	I41015202

Wheeler Lumber, Waverly, KS 66871

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NOTES-

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 129 lb down and 65 lb up at 5-11-4, 114 lb down and 65 lb up at 7-6-0, 114 lb down and 65 lb up at 9-6-0, 114 lb down and 65 lb up at 11-6-0, 114 lb down and 65 lb up at 13-6-0, 114 lb down and 65 lb up at 15-6-0, 114 lb down and 65 lb up at 17-6-0, 114 lb down and 65 lb up at 19-6-0, 114 lb down and 65 lb up at 21-6-0, 114 lb down and 65 lb up at 23-6-0, 114 lb down and 65 lb up at 25-6-0, and 114 lb down and 65 lb up at 27-6-0, and 129 lb down and 65 lb up at 29-6-12 on top chord, and 412 lb down and 119 lb up at 5-11-4, 66 lb down at 7-6-0, 66 lb down at 9-6-0, 66 lb down at 11-6-0, 66 lb down at 13-6-0, 66 lb down at 15-6-0, 66 lb down at 17-6-0, 66 lb down at 19-6-0, 66 lb down at 21-6-0, 66 lb down at 23-6-0, 66 lb down at 25-6-0, and 66 lb down at 27-6-0, and 338 lb down and 116 lb up at 29-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-3=-70, 3-7=-70, 7-9=-70, 2-8=-20
- Concentrated Loads (lb)
- Vert: 3=-105(F) 14=-412(F) 13=-51(F) 4=-105(F) 6=-105(F) 11=-51(F) 7=-105(F) 10=-338(F) 15=-105(F) 16=-105(F) 17=-105(F) 18=-105(F) 19=-105(F) 20=-105(F) 21=-105(F) 22=-105(F) 23=-105(F) 24=-51(F) 25=-51(F) 26=-51(F) 27=-51(F) 28=-51(F) 29=-51(F) 30=-51(F) 31=-51(F) 32=-51(F)

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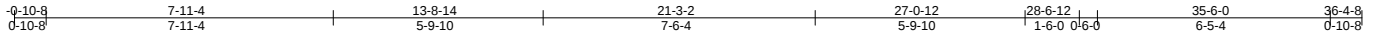
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015203
400384	E2	Roof Special	1	1		
Job Reference (optional)						

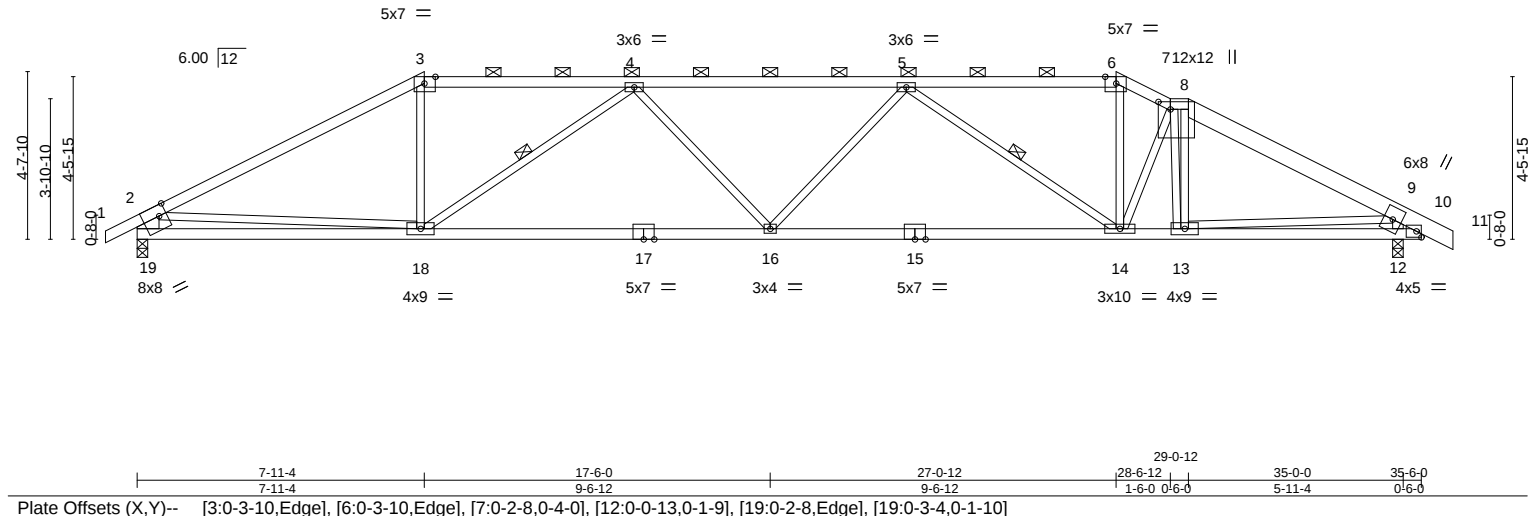
Wheeler Lumber, Waverly, KS 66871

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Scale: 3/16"=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 0.99	Vert(LL)	-0.22	16	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.98	Vert(CT)	-0.50	14-16	>825		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.59	Horz(CT)	0.12	12	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.16	16	>999	Weight: 138 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x4 SPF 2100F 1.8E, 8-11: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-19: 2x8 SP DSS, 9-12: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-7-4 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-6, 7-8.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 4-18, 5-14

REACTIONS. (size) 19=0-3-8, 12=0-3-8
Max Horz 19=-73(LC 9)
Max Uplift 19=-165(LC 5), 12=-159(LC 4)
Max Grav 19=1636(LC 1), 12=1675(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2603/323, 3-4=-2197/314, 4-5=-3165/441, 5-6=-2214/310, 6-7=-2418/325, 7-8=-2191/298, 8-9=-2494/303, 9-10=-604/2, 2-19=-1568/203
BOT CHORD 18-19=-353/972, 16-18=-449/3069, 14-16=-430/3082, 13-14=-200/2183, 12-13=-60/684, 10-12=-60/684
WEBS 3-18=-45/752, 4-18=-1166/290, 4-16=0/274, 5-16=0/265, 5-14=-1138/279, 6-14=-36/691, 7-14=-47/258, 7-13=-585/83, 8-13=-49/439, 2-18=-188/1436, 9-13=-186/1442, 9-12=-1368/273

- 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) 19=165, 12=159.
 - 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.



April 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	
400384	E3	Roof Special	1	1		I41015204
Job Reference (optional)						

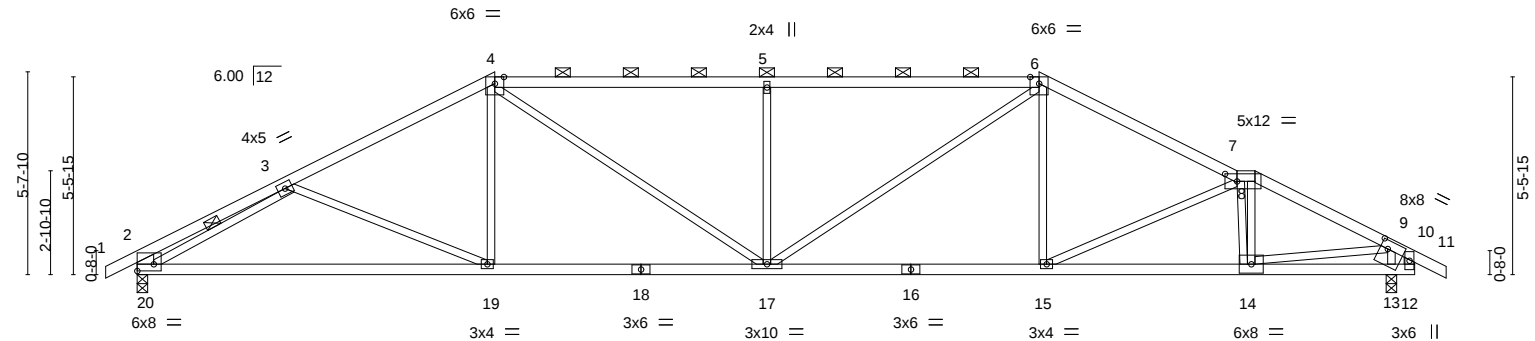
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:16 2020 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-ffSc13i3Dsw7xwnSgSi4?ZhNwZnRIHmGvcGL3vzPslv

-0-10-8	4-2-13	9-11-4	17-6-0	25-0-12	30-6-12	31-0-12	35-0-0	36-4-8
0-10-8	4-2-13	5-8-7	7-6-12	7-6-12	5-6-0	0-6-0	4-5-4	0-10-8

Scale: 3/16"=1'



	9-11-4	17-6-0	25-0-12	30-6-12	31-0-12	35-0-0	36-4-8
	9-11-4	7-6-12	7-6-12	5-6-0	0-6-0	3-11-4	0-6-0
Plate Offsets (X,Y)--	[2:0-2-12,0-1-6], [7:0-4-0,0-2-8], [9:0-2-8,0-2-12], [13:0-1-2,0-0-9], [20:Edge,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 0.71	Vert(LL)	-0.22	19-20	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.84	Vert(CT)	-0.47	19-20	>879		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.64	Horz(CT)	0.11	13	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.12	17	>999	Weight: 134 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins,
4-6: 2x4 SPF 2100F 1.8E	except end verticals, and 2-0-0 oc purlins (3-11-4 max.): 4-6, 7-8.
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 3-20
2-20: 2x6 SPF No.2, 10-12: 2x4 SPF No.2	

REACTIONS.	(size) 20=0-3-8, 13=0-3-8
	Max Horz 20=-86(LC 6)
	Max Uplift 20=-151(LC 8), 13=-159(LC 9)
	Max Grav 20=1634(LC 1), 13=1676(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-669/8, 3-4=-2442/265, 4-5=-2675/357, 5-6=-2675/357, 6-7=-2426/270,
	7-8=-2114/198, 8-9=-2354/200, 2-20=-497/63
BOT CHORD	19-20=-261/2211, 17-19=-198/2109, 15-17=-141/2109, 14-15=-142/2242
WEBS	4-19=0/352, 4-17=-196/812, 5-17=-646/260, 6-17=-184/815, 6-15=0/328,
	7-14=-1146/154, 8-14=-84/879, 3-20=-1972/274, 9-14=-116/1858, 9-13=-1461/212

- 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) 20=151, 13=159.
 - 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.



April 17,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015205
400384	E4	Roof Special Girder	1	1		

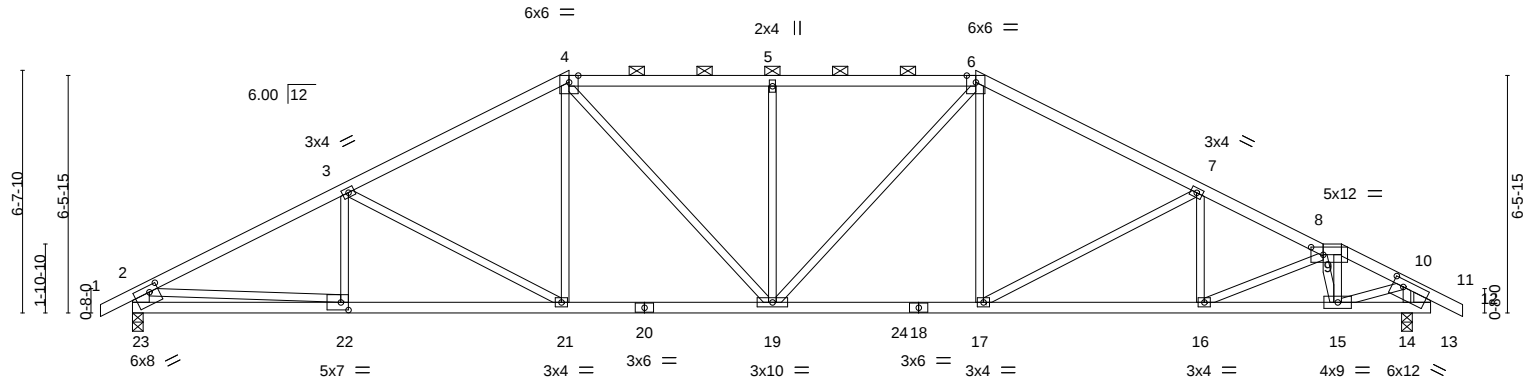
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:18 2020 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-e2ZMSIJJIUBrAExrotnY4_mhOMU6DBcZMwIS7nzPsIt

-0-10-8	5-9-10	11-11-4	17-6-0	23-0-12	29-2-8	32-6-12	33-0-12	35-6-0	36-4-8
0-10-8	5-9-10	6-1-10	5-6-12	5-6-12	6-1-11	3-4-4	0-6-0	2-5-4	0-10-8

Scale = 1:63.0



	5-9-10	11-11-4	17-6-0	23-0-12	29-2-8	32-6-12	33-0-12	35-0-0	35-6-0
	5-9-10	6-1-10	5-6-12	5-6-12	6-1-11	3-4-4	0-6-0	1-11-4	0-6-0

Plate Offsets (X,Y)-- [8:0-4-0,0-2-8], [11:0-3-1,0-0-0], [13:0-3-8,0-2-4], [13:0-2-7,0-1-4], [14:0-1-2,0-0-9], [22:0-2-8,0-2-8], [23:0-2-7,0-1-4], [23:0-3-0,0-2-0]									
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 0.84	Vert(LL)	-0.17 17-19	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.30 19-21	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.62	Horz(CT)	0.10 14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09 19	>999	240	Weight: 142 lb	FT = 10%

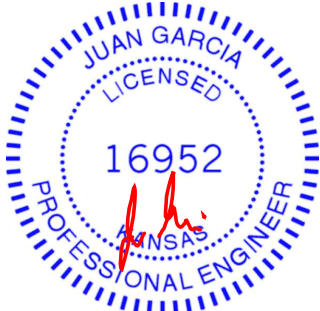
LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (3-6-7 max.): 4-6, 8-9.
WEBS 2x3 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
2-23,11,13: 2x6 SPF No.2	

REACTIONS. (size) 23=0-3-8, 14=0-3-8
Max Horz 23=100(LC 7)
Max Uplift 23=-177(LC 8), 14=-237(LC 9)
Max Grav 23=1697(LC 2), 14=1737(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2766/249, 3-4=-2390/212, 4-5=-2335/240, 5-6=-2335/240, 6-7=-2397/217,
7-8=-2725/276, 8-9=-1793/230, 9-10=-1982/243, 2-23=-1591/206, 11-13=-279/36
BOT CHORD 22-23=-186/638, 21-22=-240/2405, 19-21=-136/2067, 17-19=-84/2071, 16-17=-162/2433,
15-16=-198/2112
WEBS 3-21=-410/189, 4-21=-20/438, 4-19=-133/528, 5-19=-476/190, 6-19=-130/529,
6-17=-25/448, 7-17=-432/205, 8-16=-52/403, 8-15=-1322/112, 9-15=-33/688,
2-22=-54/1795, 10-15=-194/1750, 10-14=-1337/204

- 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, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 23=177, 14=237.
 - 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) 60 lb down and 105 lb up at 33-0-12 on top chord, and 27 lb down and 52 lb up at 33-0-12 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



April 17,2020

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015205
400384	E4	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-e2ZMSIJJIUBrAExrotnY4_mhOMU6DBcZMwIS7nzPslt

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 4-6=-70, 6-8=-70, 8-9=-70, 9-11=-70, 11-12=-70, 13-23=-20

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015206
400384	E5	Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID: bWuMDBN0tjF5cDvSpwhpH1zCzbQ-6E7kg5KxWnJioOW1LaIndCJt9mqmycDibaV?gEzPsls

0-10-8	7-9-10	13-11-4	21-0-12	27-2-6	34-10-3
0-10-8	7-9-10	6-1-10	7-1-8	6-1-10	7-7-13

Scale = 1:60.7

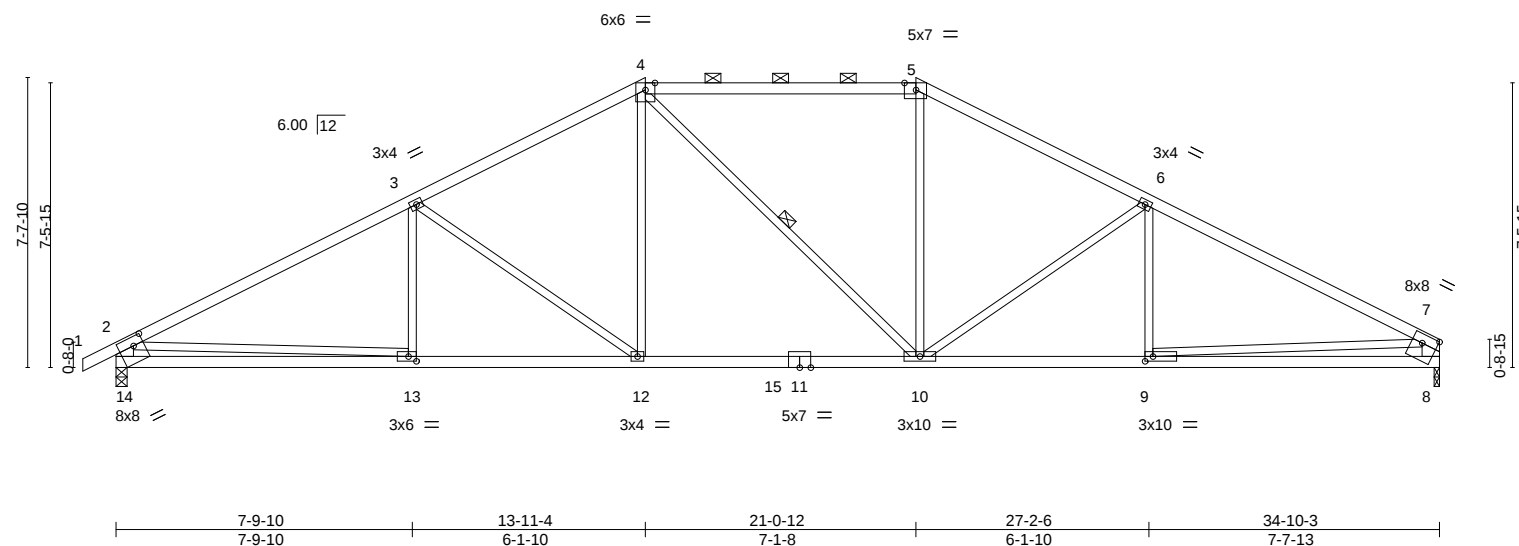


Plate Offsets (X,Y)-- [5:0-3-10,Edge], [7:Edge,0-2-12], [8:0-2-7,0-1-4], [9:0-2-8,0-1-8], [13:0-2-8,0-1-8], [14:0-3-4,0-2-12], [14:0-2-7,0-1-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.21 10-12 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.36 10-12 >999 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.09 8 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08 12 >999 240	Weight: 135 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
1-4: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-14: 2x6 SP DSS, 7-8: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-7-10 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 9-10-14 oc bracing.
WEBS 1 Row at midpt 4-10

REACTIONS.

(size) 14=0-3-8, 8=0-1-11 (req. 0-2-8)
Max Horz 14=123(LC 8)
Max Uplift 14=-192(LC 8), 8=-164(LC 9)
Max Grav 14=1684(LC 2), 8=1613(LC 2)

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

TOP CHORD 2-3=-2706/264, 3-4=-2200/229, 4-5=-1876/242, 5-6=-2183/228, 6-7=-2656/260, 2-14=-1549/236, 7-8=-1478/206
BOT CHORD 13-14=-345/964, 12-13=-251/2326, 10-12=-76/1893, 9-10=-152/2292, 8-9=-117/625
WEBS 3-12=-542/214, 4-12=-44/593, 5-10=-9/558, 6-10=-524/216, 2-13=0/1391, 7-9=-35/1672

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, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 8 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) 14=192, 8=164.
- 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.



April 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015207
400384	E6	Hip	1	1		

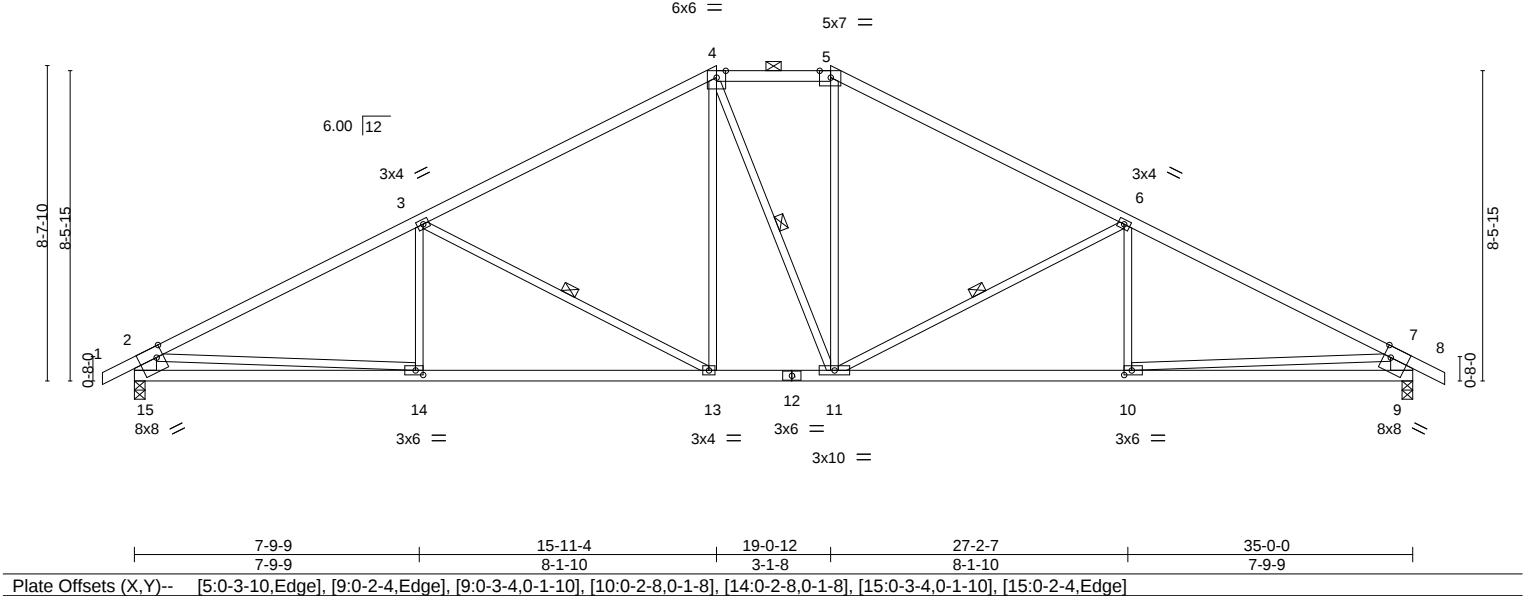
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:20 2020 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-aRh6tRLZH5RZPX5Evlp09Ps4QABeh66rpEEZCgzPslr

-0-10-8	7-9-9	15-11-4	19-0-12	27-2-7	35-0-0	35-10-8
0-10-8	7-9-9	8-1-10	3-1-8	8-1-10	7-9-9	0-10-8

Scale = 1:63.1



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 0.62	Vert(LL) -0.13 13-14 >999 360	MT20	197/144
TCDL 10.0		Lumber DOL 1.15	BC 0.70	Vert(CT) -0.31 13-14 >999 240		
BCLL 0.0 *		Rep Stress Incr YES	WB 0.55	Horz(CT) 0.09 9 n/a n/a		
BCDL 10.0		Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.08 13-14 >999 240	Weight: 141 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD	TOP CHORD
2x4 SPF 2100F 1.8E *Except*	Structural wood sheathing directly applied or 4-1-11 oc purlins,
4-5: 2x4 SPF No.2	except end verticals, and 2-0-0 oc purlins (4-3-7 max.): 4-5.
BOT CHORD	BOT CHORD
2x4 SPF No.2	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	WEBS
2x3 SPF No.2 *Except*	1 Row at midpt
2-15,7-9: 2x8 SP DSS	3-13, 4-11, 6-11

REACTIONS.	(size)	15=0-3-8, 9=0-3-8
	Max Horz	15=130(LC 12)
	Max Uplift	15=-209(LC 8), 9=-209(LC 9)
	Max Grav	15=1630(LC 1), 9=1630(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2612/298, 3-4=-1948/237, 4-5=-1619/268, 5-6=-1950/237, 6-7=-2611/299,
	2-15=-1556/248, 7-9=-1556/248
BOT CHORD	14-15=-295/766, 13-14=-294/2233, 11-13=-66/1618, 10-11=-164/2233, 9-10=-179/767
WEBS	3-14=0/266, 3-13=-718/257, 4-13=-56/444, 5-11=-52/444, 6-11=-717/257, 6-10=0/265,
	2-14=-1/1471, 7-10=-15/1469

- 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) 15=209, 9=209.
 - 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.



April 17,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015208
400384	E7	Roof Special	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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ID:bWuMdbN0tjF5cDvSpwhpH1zCzbQ-2dFV5nMC2PZQ1hfQT?KFidOCRav4QUV?2u_6k6zPslq

0-10-8 5-9-10 11-9-10 17-6-0 18-8-8 21-3-8 27-2-7 35-0-0 35-10-8
0-10-8 5-9-10 6-0-0 5-8-6 1-2-8 2-7-0 5-10-15 7-9-9 0-10-8

Scale = 1:62.9

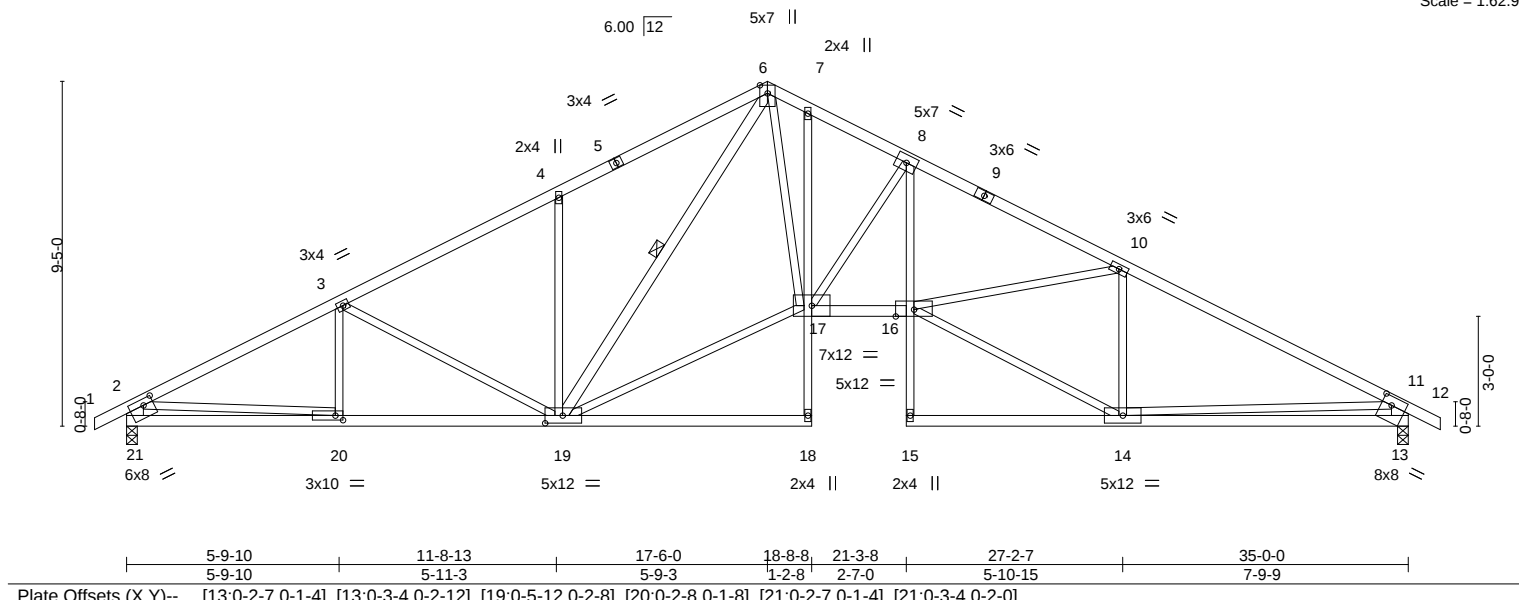


Plate Offsets (X,Y)--		[13:0-2-7,0-1-4], [13:0-3-4,0-2-12], [19:0-5-12,0-2-8], [20:0-2-8,0-1-8], [21:0-2-7,0-1-4], [21:0-3-4,0-2-0]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.79	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.81	Vert(LL) -0.27 16 >999 360
BCLL 0.0 *	Rep Stress Incr YES	WB 0.86	Vert(CT) -0.49 16-17 >854 240
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.26 13 n/a n/a
			Wind(LL) 0.16 16 >999 240
			PLATES MT20
			GRIP 197/144
			Weight: 163 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
7-18,8-15: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
6-19: 2x4 SPF No.2, 2-21: 2x6 SPF No.2, 11-13: 2x6 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-10-4 oc bracing.
WEBS 1 Row at midpt 6-19

REACTIONS.

(size) 21=0-3-8, 13=0-3-8
Max Horz 21=-146(LC 13)
Max Uplift 21=-219(LC 8), 13=-219(LC 9)
Max Grav 21=1632(LC 1), 13=1632(LC 1)

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

TOP CHORD 2-3=-2630/323, 3-4=-2270/297, 4-6=-2272/433, 6-7=-2595/324, 7-8=-2739/328,
8-10=-3641/329, 10-11=-2613/313, 2-21=-1564/249, 11-13=-1554/262
BOT CHORD 20-21=-260/624, 19-20=-353/2267, 16-17=-136/3168, 8-16=-74/1210, 13-14=-257/944
WEBS 3-19=-398/161, 4-19=-440/243, 6-19=-372/147, 6-17=-118/1939, 8-17=-1400/224,
14-16=-194/2497, 10-16=-41/961, 10-14=-1125/179, 2-20=-94/1649, 11-14=-9/1282,
17-19=-103/2204

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) 21=219, 13=219.
- 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.



April 17,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015209
400384	G1	Hip Girder	1	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:23 2020 Page 1

ID: bWuMDBN0tjF5cDvSpwphH1zCzbQ-?0NFVTNSa0p8G?ppaQNjn2UXWNCHuZnIWCTDp?zPslo

0-10-8	2-3-8	5-5-4	11-2-12	14-4-8	16-8-0
0-10-8	2-3-8	3-1-12	5-9-8	3-1-12	2-3-8

Scale = 1:29.7

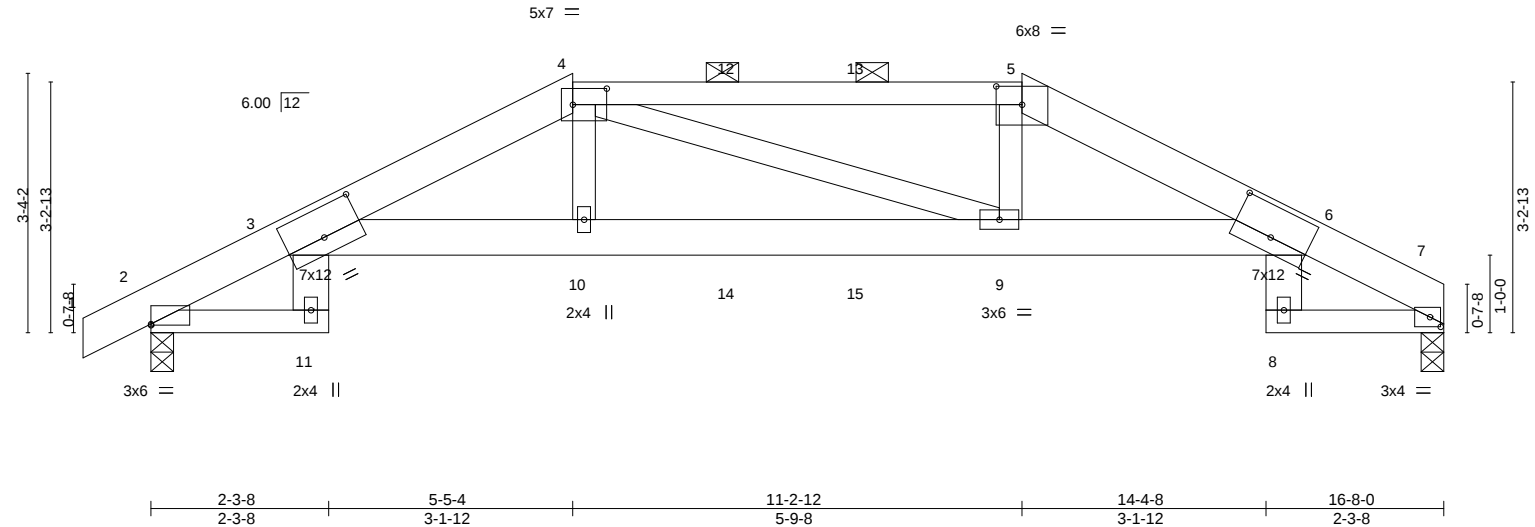


Plate Offsets (X,Y)-- [2:0-0-0,0-0-3], [3:0-6-0,0-4-8], [4:0-5-4,0-2-8], [5:0-4-0,0-2-13], [6:0-6-0,0-4-12], [7:0-1-10,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.20	9-10	>980	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.36	9-10	>550	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.17	Horz(CT)	0.38	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.18	9-10	>999	240	Weight: 79 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E *Except*
4-5: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
3-6: 2x6 SPF 1650F 1.4E
WEBS 2x4 SPF No.2 *Except*
3-11,6-8: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-2 oc purlins, except
2-0-0 oc purlins (3-5-15 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 7=0-3-8, 2=0-3-8
Max Horz 2=59(LC 33)
Max Uplift 7=-338(LC 9), 2=-362(LC 8)
Max Grav 7=1336(LC 1), 2=1411(LC 1)

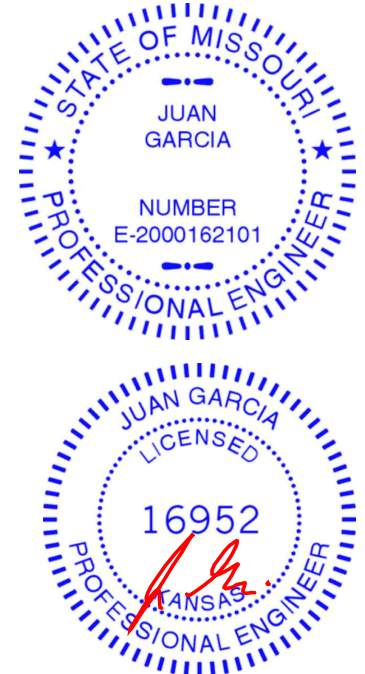
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-757/229, 3-4=-3500/952, 4-5=-3304/906, 5-6=-3499/922, 6-7=-748/216
BOT CHORD 3-10=-865/3249, 9-10=-875/3304, 6-9=-821/3250
WEBS 4-10=-141/699, 5-9=-144/702

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) 7=338, 2=362.
- 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) 108 lb down and 83 lb up at 5-5-4, 108 lb down and 83 lb up at 7-6-0, and 108 lb down and 83 lb up at 9-2-0, and 108 lb down and 83 lb up at 11-2-12 on top chord, and 371 lb down and 159 lb up at 5-5-4, 54 lb down and 22 lb up at 7-6-0, and 54 lb down and 22 lb up at 9-2-0, and 371 lb down and 159 lb up at 11-2-0 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



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Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015209
400384	G1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:23 2020 Page 2
ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-?0NFVTNSa0p8G?ppaQNjn2UXWNCHuZnIWCTDp?zPslo

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-5=-70, 5-7=-70, 2-11=-20, 3-6=-20, 7-8=-20
Concentrated Loads (lb)
Vert: 4=-84(B) 5=-84(B) 10=-371(B) 9=-371(B) 12=-84(B) 13=-84(B) 14=-54(B) 15=-54(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS 66871 8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:24 2020 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-TCxdjoO4LKx_u9O?87uyKF0kVnZkd2lRksCmLRzPsln

0-10-8 2-3-8 7-5-4 9-2-12 14-4-8 16-8-0

0-10-8 2-3-8 5-1-12 1-9-8 5-1-12 2-3-8

Scale = 1:29.8

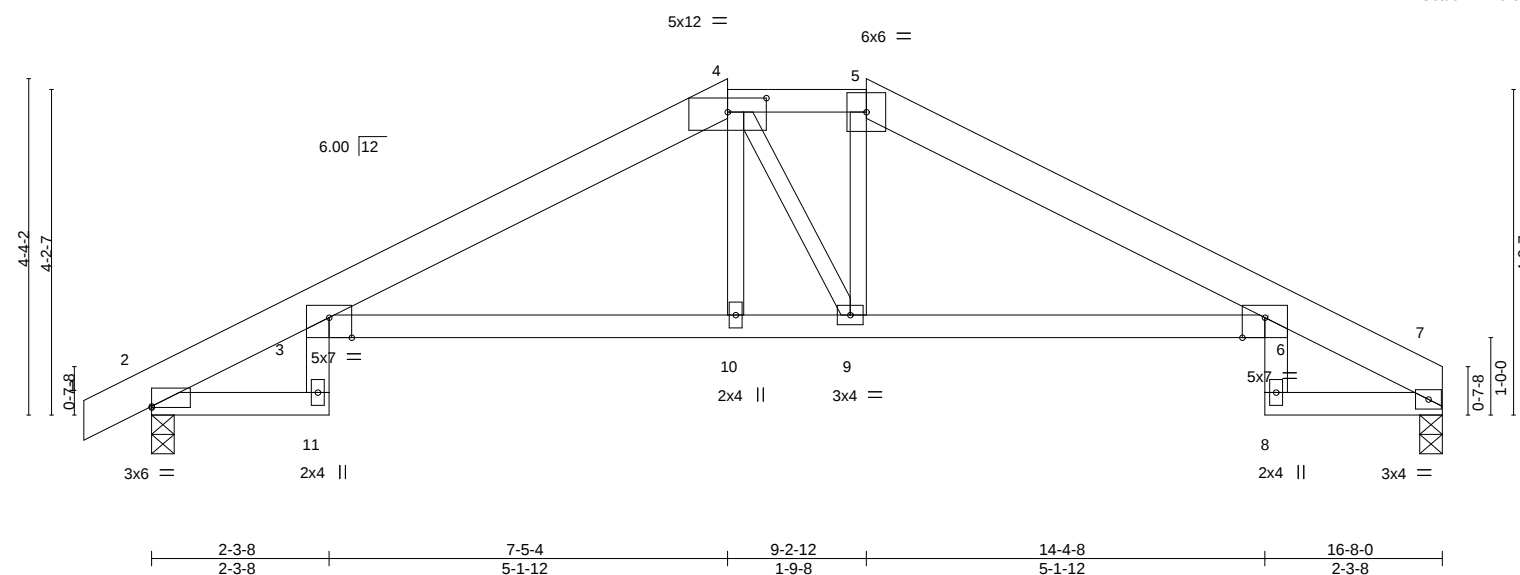


Plate Offsets (X,Y)-- [2:0-0-0,0-0-3], [3:0-3-8,Edge], [4:0-6-0,0-2-3], [6:0-3-8,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.29	6-9	>683	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.53	6-9	>370	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.56	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.21	3-10	>953	240	Weight: 62 lb	FT = 10%

LUMBER-
TOP CHORD 2x6 SPF 1650F 1.4E *Except*
4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-11.6-8: 2x4 SPF No.2

BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 4-8-2 oc purlins, except 2-0-0 oc purlins (4-11-12 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=0-3-8, 2=0-3-8
 Max Horz 2=77(LC 8)
 Max Uplift 7=-85(LC 9), 2=-109(LC 8)
 Max Grav 7=735(LC 1), 2=811(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-415/94, 3-4=-1211/104, 4-5=-1110/118, 5-6=-1213/96, 6-7=-412/69
BOT CHORD 3-10=-57/1106, 9-10=-55/1106, 6-9=-19/1110

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=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) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=109.
- 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.



April 17, 2020



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015211
400384	G3	Roof Special	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

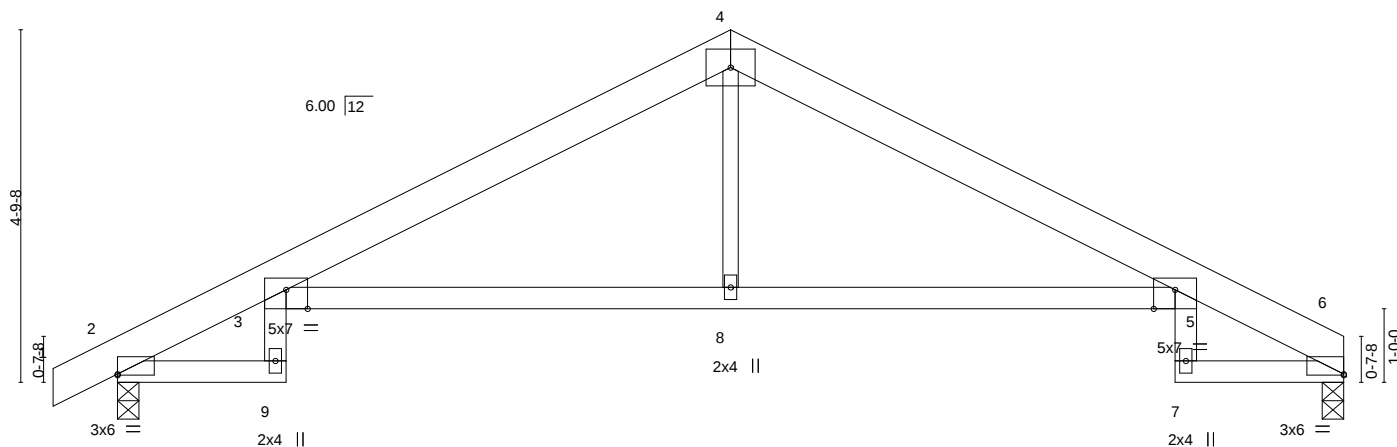
8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:24 2020 Page 1

ID: bWuMDBN0tjF5cDvSpwhpH1zCzbQ-TCxdjoO4LKx_u9O?87uyKF0kEnZed1NRksCmLRzPsln

-0-10-8	2-3-8	4-9-9	8-4-0	11-10-7	14-4-8	16-8-0
0-10-8	2-3-8	2-6-1	3-6-7	3-6-7	2-6-1	2-3-8

6x8 =

Scale = 1:31.3



2-3-8	8-4-0	14-4-8	16-8-0
2-3-8	6-0-8	6-0-8	2-3-8

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

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 0.76	Vert(LL)	-0.31	5-8	>633	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.69	Vert(CT)	-0.57	5-8	>342	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.60	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.24	3-8	>822	240	Weight: 60 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF 1650F 1.4E
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 4-4-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

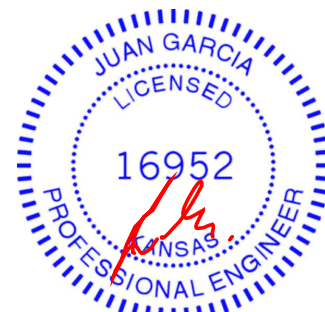
(size) 6=0-3-8, 2=0-3-8
Max Horz 2=85(LC 8)
Max Uplift 6=-91(LC 9), 2=-115(LC 8)
Max Grav 6=735(LC 1), 2=811(LC 1)

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

TOP CHORD 2-3=-415/106, 3-4=-1191/118, 4-5=-1189/143, 5-6=-412/73
BOT CHORD 3-8=-57/1080, 5-8=-57/1080
WEBS 4-8=0/273

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) 6 except (jt=lb) 2=115.
- 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.



April 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015212
400384	G4	Half Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

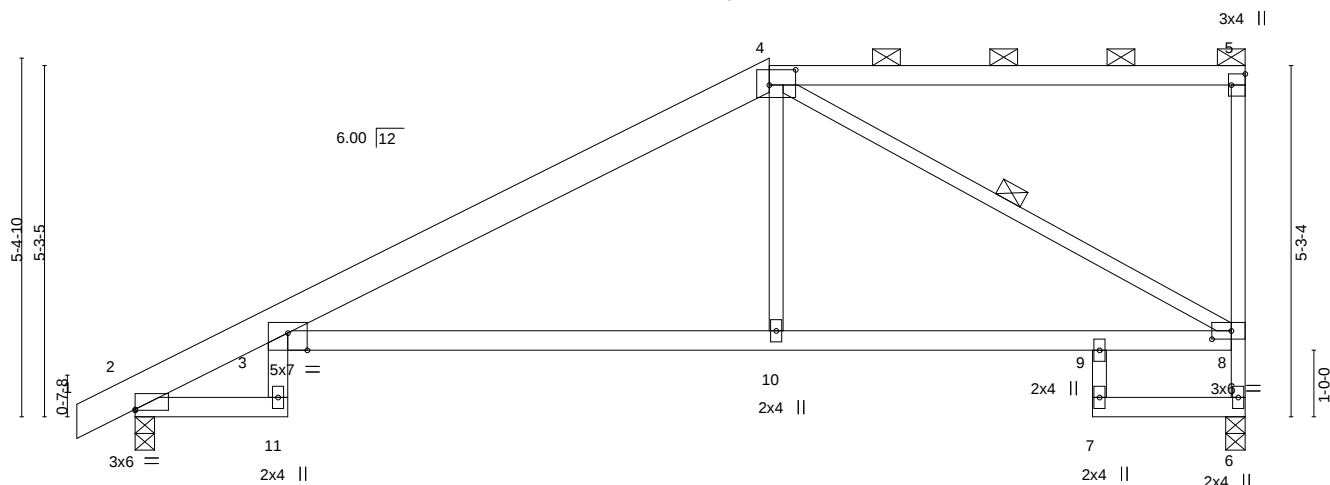
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ID:bWuMDBN0tjF5cDvSpwphH1zCzbQ-xOV?w8Pi6d3rWJzBirPBsTZu_BugMN2azWyKtztPslm

0-10-8	2-3-8	4-11-14	9-6-4	14-4-8	16-8-0
0-10-8	2-3-8	2-8-6	4-6-6	4-10-4	2-3-8

5x7 =

Scale = 1:34.6



2-3-8	9-6-4	14-4-8	16-8-0
2-3-8	7-2-12	4-10-4	2-3-8

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

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 0.82	Vert(LL)	-0.34	3-10	>574	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.70	Vert(CT)	-0.66	3-10	>301	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.57	Horz(CT)	0.40	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.31	3-10	>638	240	Weight: 66 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF 1650F 1.4E *Except*
4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
7-9: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-11: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-5-6 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 6-7.
WEBS 1 Row at midpt 4-8

REACTIONS.

(size) 6=0-3-8, 2=0-3-8
Max Horz 2=211(LC 5)
Max Uplift 6=-127(LC 5), 2=-120(LC 8)
Max Grav 6=737(LC 1), 2=812(LC 1)

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

TOP CHORD 2-3=-441/31, 3-4=-965/87, 6-8=-711/140
BOT CHORD 3-10=-184/856, 9-10=-180/859, 8-9=-195/859
WEBS 4-10=0/337, 4-8=-956/138

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) 6=127, 2=120.
- 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.



April 17, 2020

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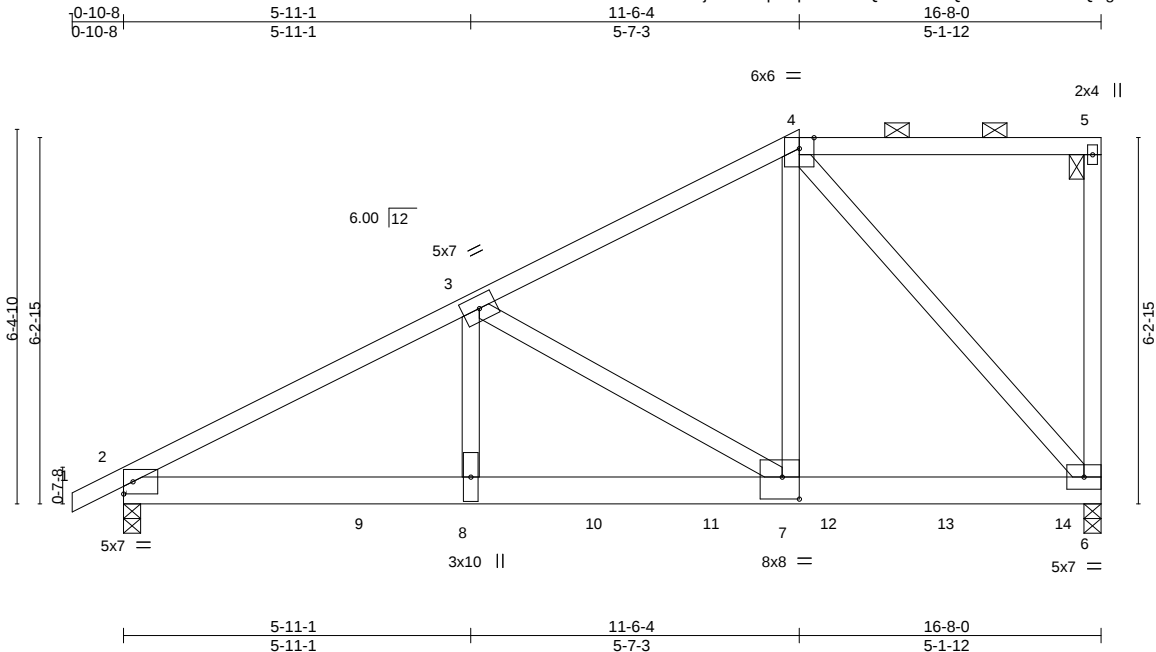
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015213
400384	G5	Half Hip Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-Pb2O8UQKtBi7SYNGYwQPg627aH85jwkCAhtQKzPsll



Job	Truss	Truss Type	Qty	Ply	Lot 59 H4
400384	G5	Half Hip Girder	1	2	I41015213
					Job Reference (optional)

Wheeler Lumber, Waverly, KS 66871

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ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-Pb2O8UQKtxBi7SYNGYwQPg627aH85jwkCAhtQKzPsll

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-5=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 8=-918(F) 9=-1787(F) 10=-892(F) 11=-892(F) 12=-892(F) 13=-918(F) 14=-924(F)

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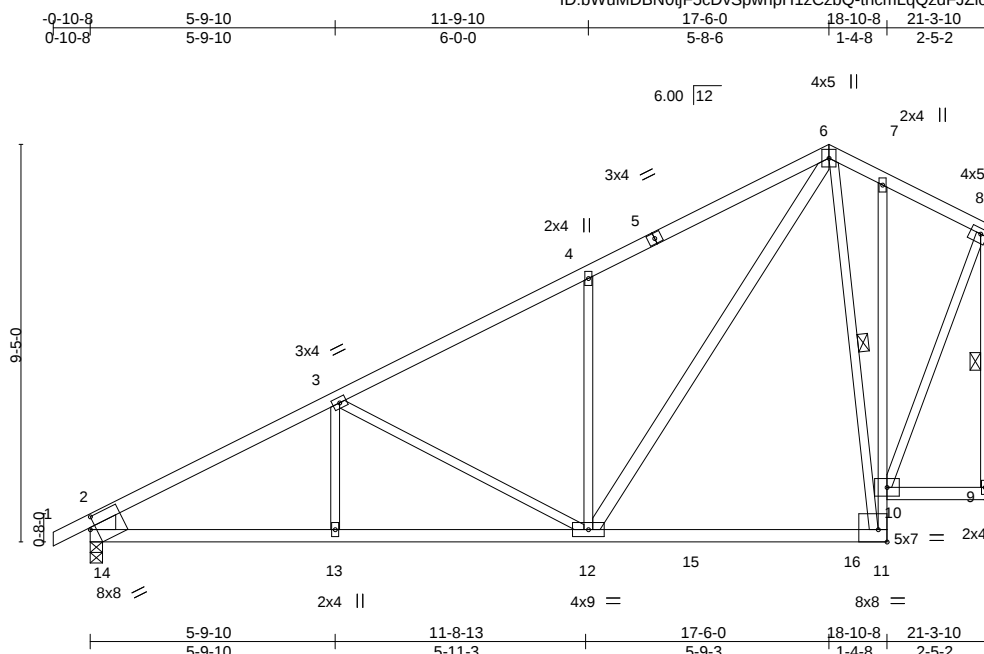
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015214
400384	H1	Roof Special	1	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:27 2020 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-tncmLqQzdFJZlc7apGRfyueEg_ZHq1tQqRQymzPslk



Scale = 1:54.6

Plate Offsets (X,Y)-- [2:0-4-1,0-0-0], [8:0-2-0,0-1-8], [11:Edge,0-3-8], [14:0-1-10,0-3-4], [14:0-3-4,0-1-10]											
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	0.81	Vert(LL)	-0.13 11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.22 11-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.07 9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.05 12-13	>999	240	Weight: 103 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 7-11: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 6-12: 2x4 SPF No.2, 2-14: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-5-2 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 6-11, 8-9

REACTIONS.

(size) 14=0-3-8, 9=Mechanical
 Max Horz 14=255(LC 5)
 Max Uplift 14=-31(LC 8), 9=-35(LC 8)
 Max Grav 14=1050(LC 13), 9=1014(LC 13)

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

TOP CHORD 2-3=-1481/44, 3-4=-1052/56, 4-6=-1072/152, 6-7=-343/85, 7-8=-379/85, 2-14=-930/65, 8-9=-911/68
 BOT CHORD 13-14=-105/1289, 12-13=-105/1289, 11-12=-46/368, 10-11=-36/687
 WEBS 3-12=-418/85, 4-12=-468/146, 6-12=-119/1045, 6-11=-542/71, 8-10=-16/774

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); 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, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 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.



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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

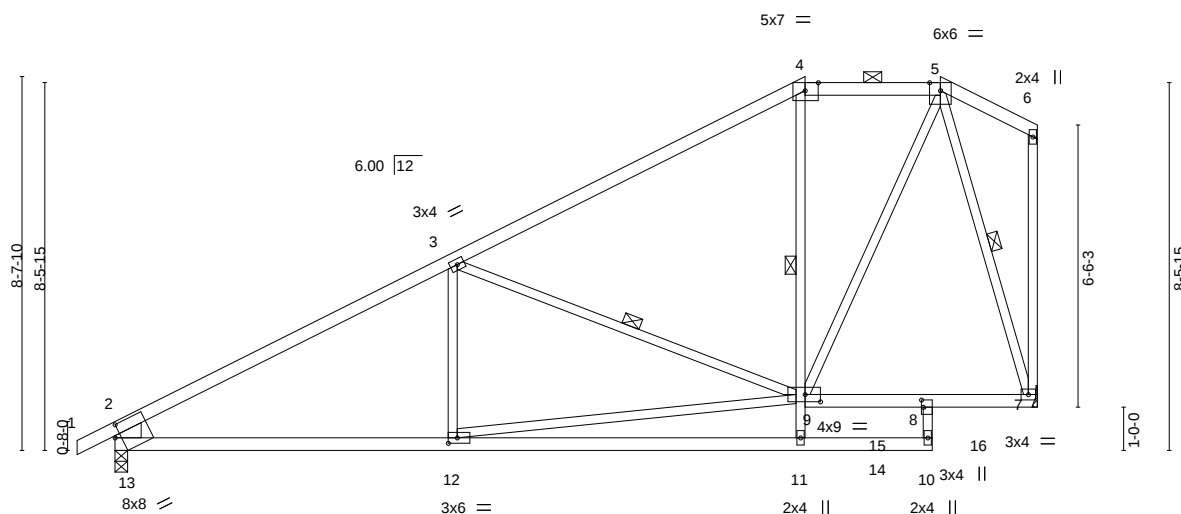
Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015215
400384	H2	Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-LzA8ZARbOYRQNmimNzyuU5BOsOw5Zl?1fUA_UCzPslj

0-10-8	7-9-10	15-11-4	19-0-12	21-3-10
0-10-8	7-9-10	8-1-11	3-1-8	2-2-14



	7-9-10	15-11-4	18-10-8	21-3-10
	7-9-10	8-1-11	2-11-4	2-5-2

Plate Offsets (X,Y)-- [2:0-4-1,0-0-0], [4:0-3-10,Edge], [8:0-2-0,0-0-8], [9:0-4-4,0-2-0], [12:0-2-8,0-1-8], [13:0-3-4,0-1-10], [13:0-1-10,0-3-4]

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 0.84	Vert(LL)	-0.13 11-12	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.66	Vert(CT)	-0.26 11-12	>975	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.49	Horz(CT)	0.03 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03 12	>999	240	Weight: 98 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 8-10: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-13: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 6-0-0 oc bracing: 8-10.
 WEBS 1 Row at midpt 3-9, 4-11, 5-7

REACTIONS.

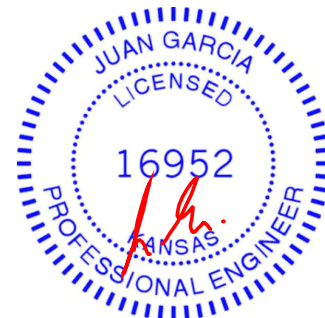
(size) 13=0-3-8, 7=Mechanical
 Max Horz 13=245(LC 5)
 Max Uplift 13=-31(LC 8), 7=-18(LC 8)
 Max Grav 13=1050(LC 2), 7=1045(LC 2)

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

TOP CHORD 2-3=-1456/48, 3-4=-765/55, 4-5=-589/82, 2-13=-936/75
 BOT CHORD 12-13=-89/1248, 7-8=-53/272
 WEBS 3-9=-693/125, 9-11=0/310, 9-12=-85/1151, 5-9=-45/847, 5-7=-901/54

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); 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, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 17,2020

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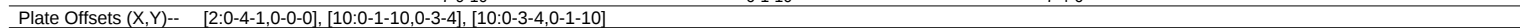
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ID: bWuMDBN0tiE5cDySnwhpH1zCzhO-n9kWmWSD9s7H2wHvxxHl71.1k7OoH2l6iAu8wX0fzPslj



TOP CHORD	Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 4-6

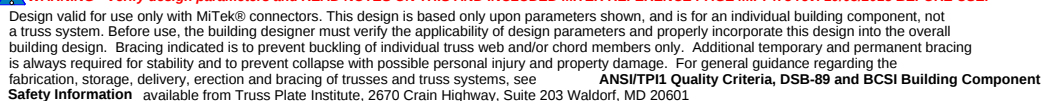
(size) 10=0-3-8, 12=Mechanical
Max Horz 10=187(LC 8)
Max Uplift 10=-10(LC 8), 12=-35(LC 5)
Max Grav 10=1050(LC 2), 12=974(LC 2)

TOP CHORD 2-3=-1421/8, 3-4=-862/18, 6-11=-1/778, 5-11=-1/778, 2-10=-937/60
BOT CHORD 8-10=-118/1177, 7-8=-118/1177, 6-7=-28/693
WEBS 3-8=0/258, 3-7=-602/115, 4-7=0/642, 4-6=-910/52, 5-12=-976/35

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 12.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 17, 2020

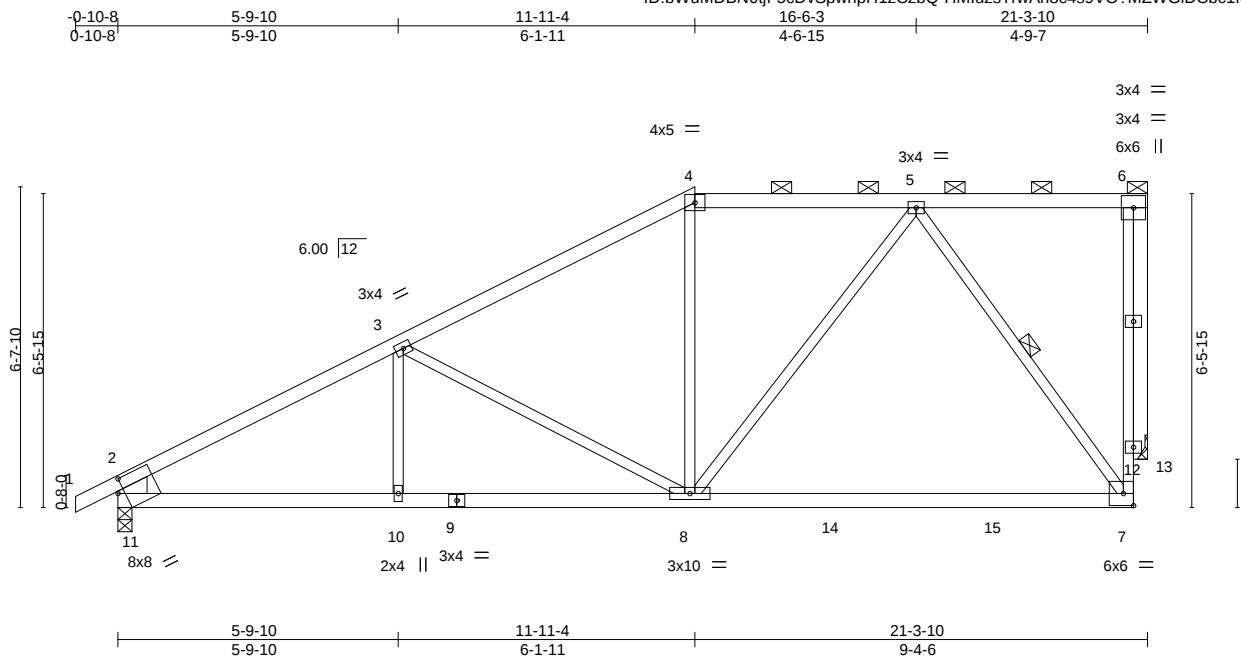


Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015217
400384	H4	Half Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID: bWuMDBN0tjF5cDvSpwphH1zCzbQ-HMluzsTrwAh8c4s9VO?MZWGIDCbc1fdK7of5Z5zPslh



Scale: 1/4"=1'

Plate Offsets (X,Y)-- [2:0-4-1,0-0-0], [11:0-1-10,0-3-4], [11:0-3-4,0-1-10]												
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	0.79	Vert(LL)	-0.27	7-8	>938	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.44	7-8	>568	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.49	Horz(CT)	-0.04	13	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04	8-10	>999	240	Weight: 88 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 7-9: 2x4 SPF 2100F 1.8E
 WEBS 2x3 SPF No.2 *Except*
 2-11: 2x8 SP DSS
 OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 5-7

REACTIONS.

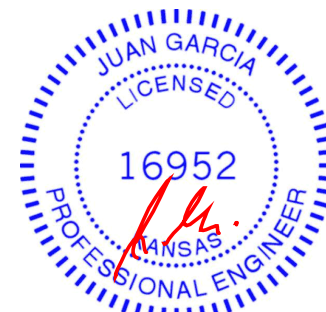
(size) 11=0-3-8, 13=Mechanical
 Max Horz 11=159(LC 8)
 Max Uplift 11=-11(LC 8), 13=-38(LC 5)
 Max Grav 11=1047(LC 2), 13=977(LC 2)

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

TOP CHORD 2-3=-1473/13, 3-4=-1060/5, 4-5=-883/29, 7-12=-10/863, 6-12=-10/863, 2-11=-923/47
 BOT CHORD 10-11=-114/1230, 8-10=-114/1230, 7-8=-49/565
 WEBS 3-8=-420/113, 5-8=-11/540, 5-7=-860/69, 6-13=-978/38

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); 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, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 17, 2020

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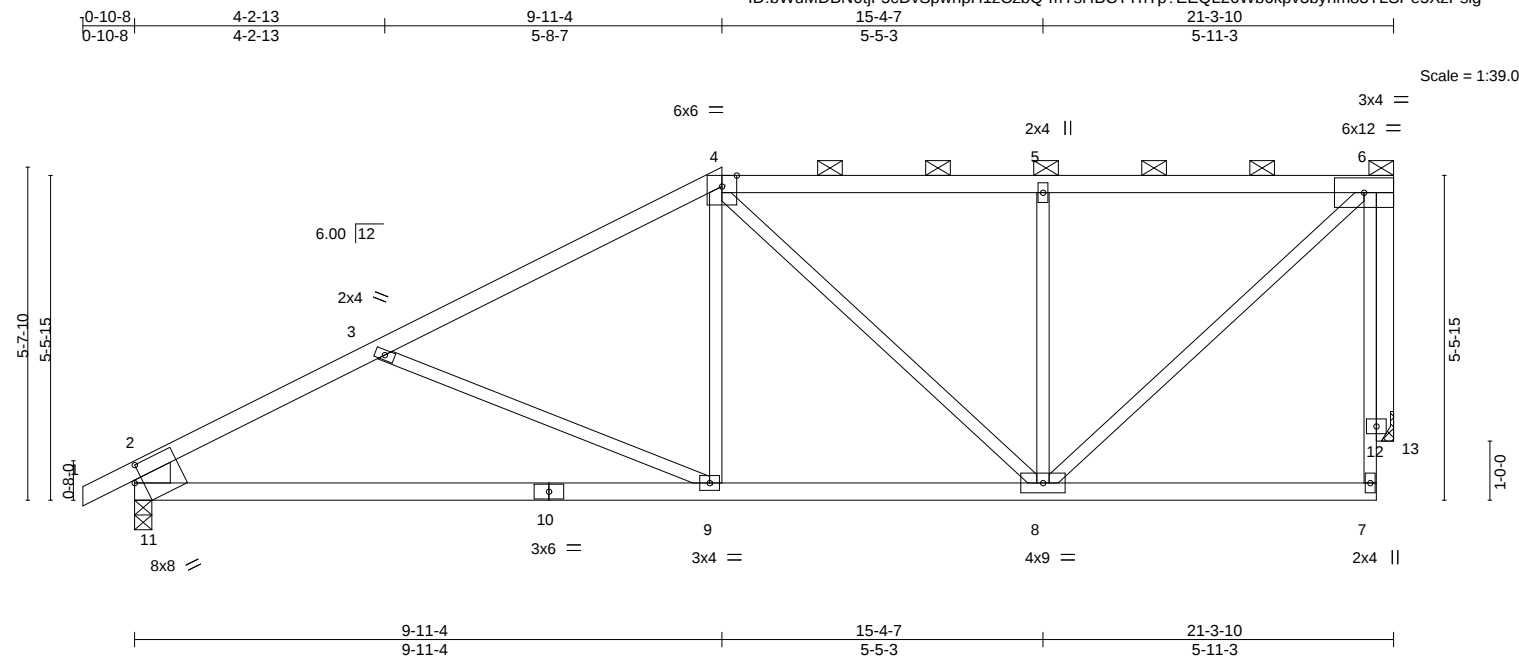
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015218
400384	H5	Half Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID: bWuMDBN0tjF5cDvSpwhpH1zCzbQ-mYSHBCTThTp?EEQL26Wb6kpv3byhm83TLPe5XzPslg



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 0.85	Vert(LL)	-0.21	9-11	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.67	Vert(CT)	-0.42	9-11	>602		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.35	Horz(CT)	0.03	13	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.04	8-9	>999	Weight: 86 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-11: 2x8 SP DSS
 OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-7-4 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 11=0-3-8, 13=Mechanical
 Max Horz 11=130(LC 8)
 Max Uplift 11=-9(LC 8), 13=-40(LC 5)
 Max Grav 11=1025(LC 1), 13=912(LC 1)

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

TOP CHORD 2-3=-1438/51, 3-4=-1161/10, 4-5=-805/38, 5-6=-803/37, 2-11=-920/62
 BOT CHORD 9-11=-130/1189, 8-9=-35/961
 WEBS 4-9=0/355, 5-8=-450/107, 6-8=-46/1005, 6-13=-915/41

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); 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) 11, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 17, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	i41015219
400384	H6	Half Hip	1	1	Job Reference (optional)	

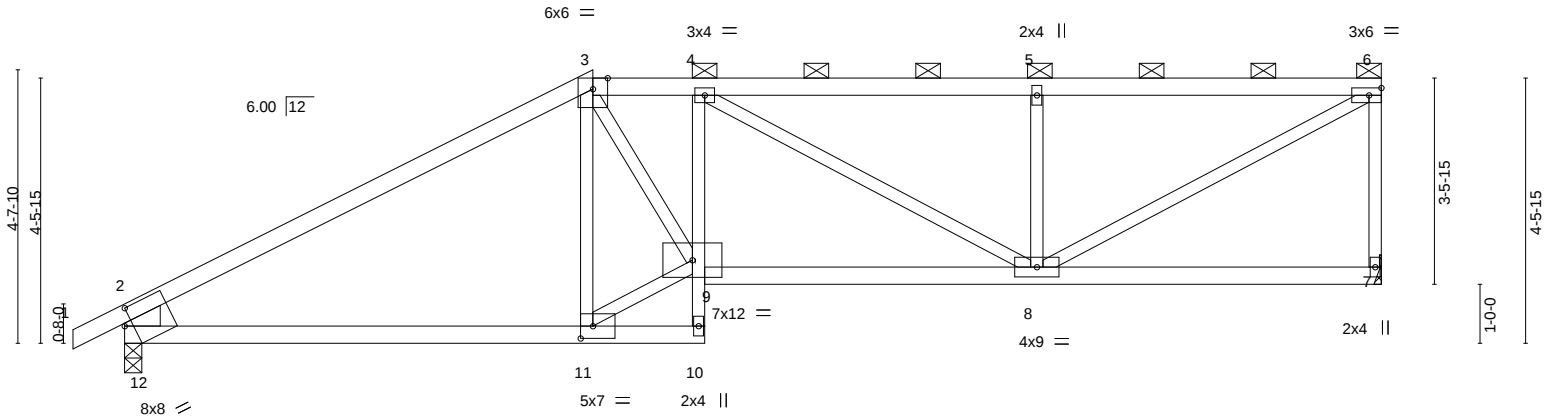
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:32 2020 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-EkQfOYU5SnxssN?Xcp1qfxM3q?LiVZpca68BdzzPslf

0-10-8	7-11-4	9-10-0	15-5-9	21-3-10
0-10-8	7-11-4	1-10-12	5-7-9	5-10-1

Scale = 1:39.1



	7-11-4	9-10-0	15-5-9	21-3-10
	7-11-4	1-10-12	5-7-9	5-10-1

Plate Offsets (X,Y)-- [2:0-4-1,0-0-0], [11:0-2-8,0-2-8], [12:0-3-4,0-1-10], [12:0-1-10,0-3-4]

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 0.91	Vert(LL)	-0.09	9	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.18	11-12	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.51	Horz(CT)	0.05	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05	9	>999	Weight: 78 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 4-10: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-12: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-4-9 max.): 3-6.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 7=Mechanical, 12=0-3-8
 Max Horz 12=133(LC 5)
 Max Uplift 7=48(LC 5), 12=9(LC 8)
 Max Grav 7=938(LC 1), 12=1025(LC 1)

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

TOP CHORD 2-3=-1371/17, 3-4=-1631/73, 4-5=-1308/48, 5-6=-1308/48, 6-7=-886/75, 2-12=-945/63
 BOT CHORD 11-12=-74/1104, 8-9=-115/1651
 WEBS 3-11=-572/116, 9-11=-71/1289, 3-9=-69/1013, 6-8=-77/1472, 4-8=-390/29, 5-8=-456/110

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); 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) 7, 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 17, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

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ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-ixz1ctVjD53jTXakAWY3B9uL8PjyE?Wmpmul9QzPsls

0-10-8 5-11-4 9-10-0 15-5-1 21-3-10

0-10-8 5-11-4 3-10-12 5-7-1 5-10-9

Scale = 1:39.2

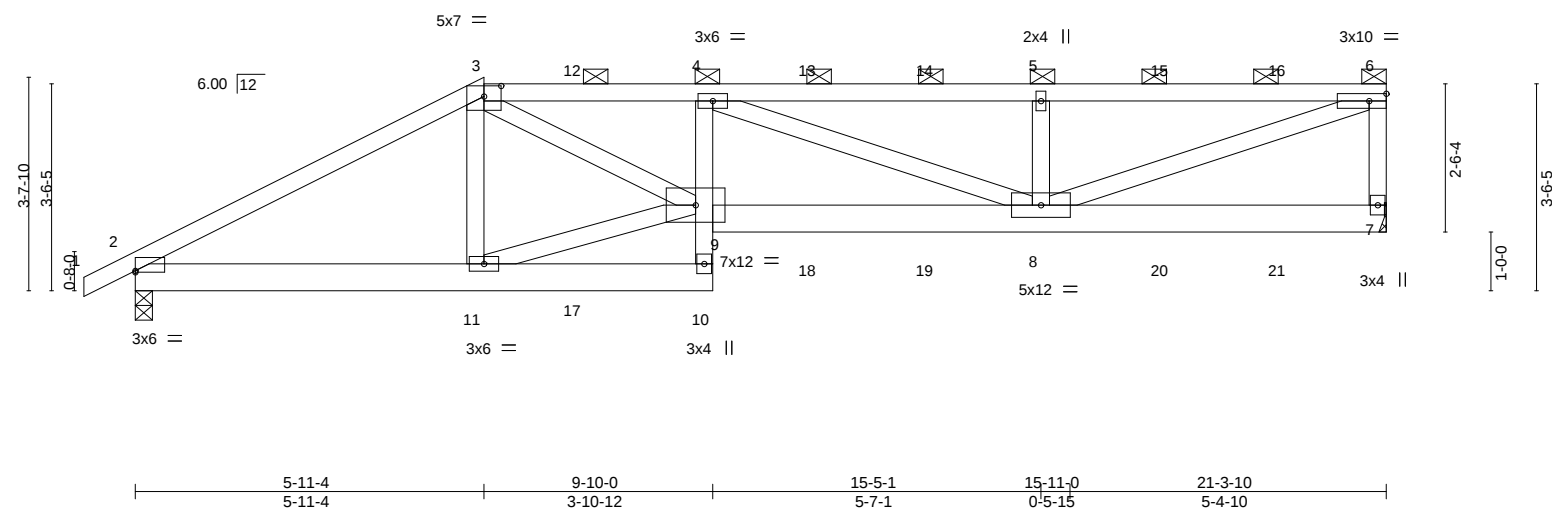


Plate Offsets (X,Y)-- [2:0-0-0,0-0-5], [3:0-3-8,0-2-3]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.11	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.19	8-9	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.48	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.09	8-9	>999	240	Weight: 217 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 (5-8-8 max.): 3-6. Rigid ceiling directly applied or 10-0-0 oc bracing.
BOT CHORD	2x6 SP 2400F 2.0E *Except* 4-10: 2x4 SPF No.2	BOT CHORD	
WEBS	2x4 SPF No 2		

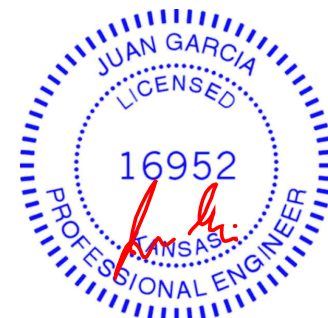
REACTIONS. (size) 7=Mechanical, 2=0-3-8
 Max Horz 2=93(LC 24)
 Max Uplift 7=-400(LC 5), 2=-262(LC 8)
 Max Grav 7=1807(LC 1), 2=1804(LC 1)

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

TOP CHORD	2-3=-3172/516, 3-4=-4616/882, 4-5=-3764/809, 5-6=-3764/809, 6-7=-1635/395
BOT CHORD	2-11=-493/2685, 10-11=-721/406, 4-9=-310/195, 8-9=-944/4748
WEBS	3-9=-475/2257, 5-8=-707/899, 4-8=-1050/115, 6-8=-837/3879, 9-11=-430/2355

NOTES-

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=400, 2=262.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) 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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Continued on page 2



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015220
400384	H7	Half Hip Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:34 2020 Page 2
ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-A7XPpDWM_OC5h9wkE3lkMRWup3BzSmv1QdliszPsl

NOTES-

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 129 lb down and 71 lb up at 5-11-4, 105 lb down and 71 lb up at 7-6-0, 105 lb down and 71 lb up at 9-6-0, 100 lb down and 94 lb up at 11-6-0, 100 lb down and 94 lb up at 13-6-0, 100 lb down and 94 lb up at 15-6-0, and 100 lb down and 94 lb up at 17-6-0, and 100 lb down and 94 lb up at 19-6-0 on top chord, and 412 lb down and 119 lb up at 5-11-4, 66 lb down at 7-6-0, 66 lb down at 9-8-4, 72 lb down and 26 lb up at 11-6-0, 72 lb down and 26 lb up at 13-6-0, 72 lb down and 26 lb up at 15-6-0, and 72 lb down and 26 lb up at 17-6-0, and 72 lb down and 26 lb up at 19-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 3=-105(B) 10=-51(B) 4=-105(B) 11=-412(B) 5=-92(B) 8=-72(B) 12=-105(B) 13=-92(B) 14=-92(B) 15=-92(B) 16=-92(B) 17=-51(B) 18=-72(B) 19=-72(B) 20=-72(B) 21=-72(B)

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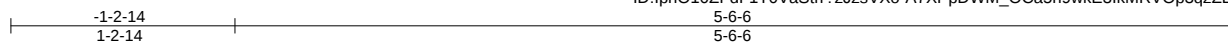


16023 Swingley Ridge Rd
Chesterfield, MO 63017

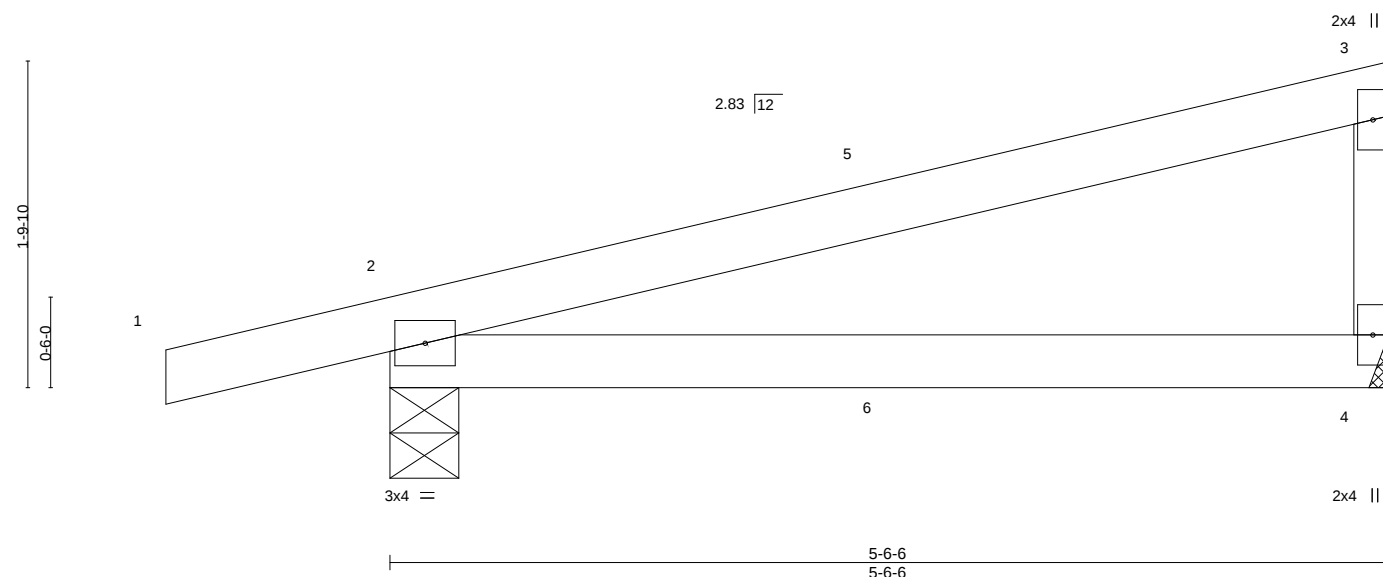
Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015221
400384	J1	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:34 2020 Page 1
ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-A7XPpDWM_OCa5h9wkE3IkMRVOp3qzZBv1QdliszPslD



Scale = 1:12.7



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 0.52	Vert(LL)	-0.05	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.09	2-4	>699	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-P	Wind(LL)	0.00	2	****	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 5-6-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=0-4-9
Max Horz 2=65(LC 5)
Max Uplift 4=-44(LC 8), 2=-109(LC 4)
Max Grav 4=222(LC 1), 2=349(LC 1)

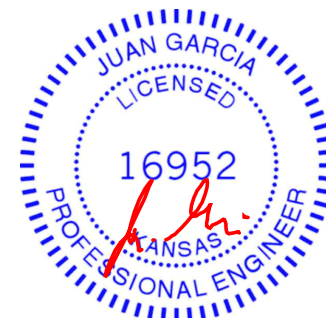
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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 except (jt=lb) 2=109.
- 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) 67 lb down and 34 lb up at 2-9-8, and 67 lb down and 34 lb up at 2-9-8 on top chord, and 2 lb down at 2-9-8, and 2 lb down at 2-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 2-4=-20



April 17, 2020

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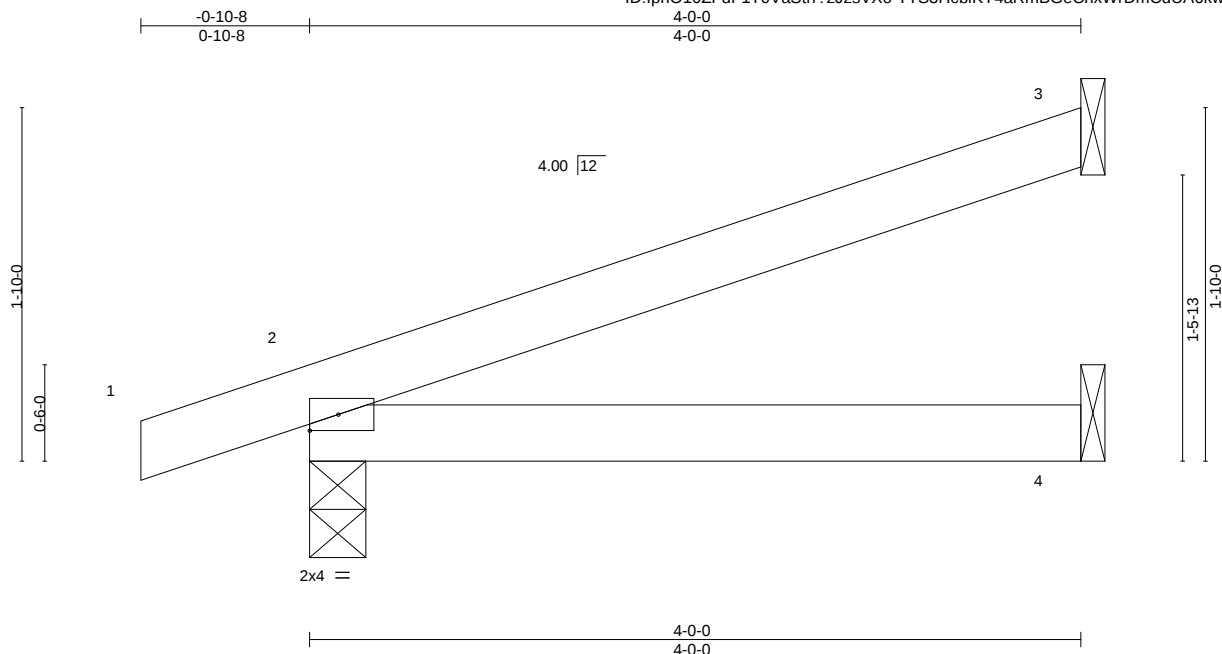
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400384	Truss J2	Truss Type Jack-Open	Qty 3	Ply 1	Lot 59 H4 Job Reference (optional)	I41015222
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Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:41 2020 Page 1

ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-TTS3HcblKY4aRmBGeChxWrDmCdUA6kwxe?qARyzPsiW



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)	-0.01	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.02	2-4	>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-P	Wind(LL)	0.00	2	****	240	Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=67(LC 4)
Max Uplift 3=-64(LC 8), 2=-69(LC 4)
Max Grav 3=123(LC 1), 2=252(LC 1), 4=76(LC 3)

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

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
- 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) 3, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 17, 2020

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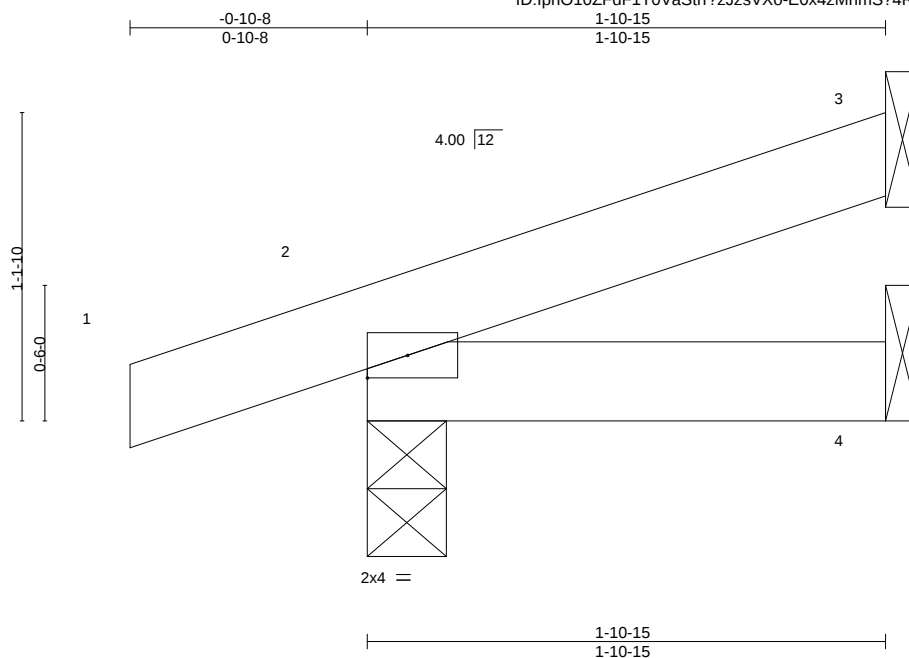
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015223
400384	J3	Jack-Open	4	1	Job Reference (optional)	

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8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:49 2020 Page 1

ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-E0x4zMhmS?4RO?oo6urprXZBxsFp_Mv7UFmbkUzPsIO



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 0.05	Vert(LL)	-0.00	2	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	2-4	>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-P	Wind(LL)	0.00	2	****	240	Weight: 6 lb	FT = 10%

LUMBER-

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

BRACING-

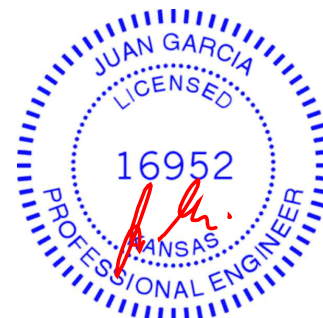
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=39(LC 4)
Max Uplift 3=-29(LC 8), 2=-56(LC 4)
Max Grav 3=50(LC 1), 2=163(LC 1), 4=37(LC 3)

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

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
- 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) 3, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 17, 2020

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

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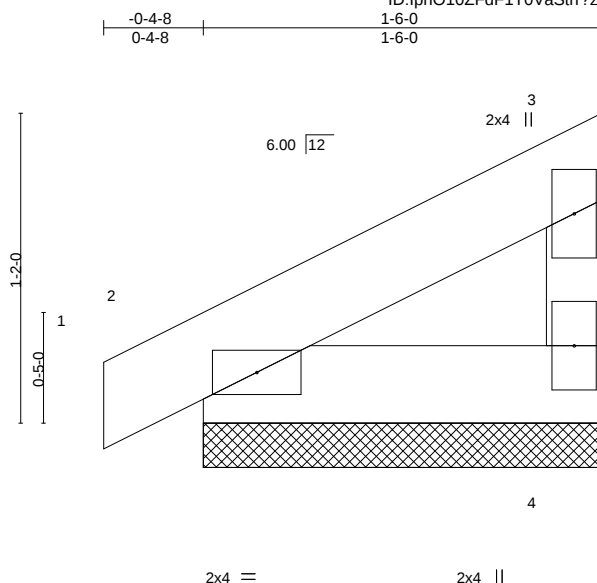
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015224
400384	J4	Jack-Closed Supported Gable	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:51 2020 Page 1

ID:lpnO10ZF1T0VaStrr?zJzsVXo-AO3qN1j0_dL9dlyBDItHwyeXqfVSGPPyZFioNzPsiM



Scale = 1:8.7

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 0.03	Vert(LL)	-0.00	1	n/r	120	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	1	n/r	120	197/144
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-P						
								Weight: 5 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 1-6-0 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=35(LC 5)
Max Uplift 4=-15(LC 8), 2=-17(LC 8)
Max Grav 4=59(LC 1), 2=93(LC 1)

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

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) 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.



April 17, 2020

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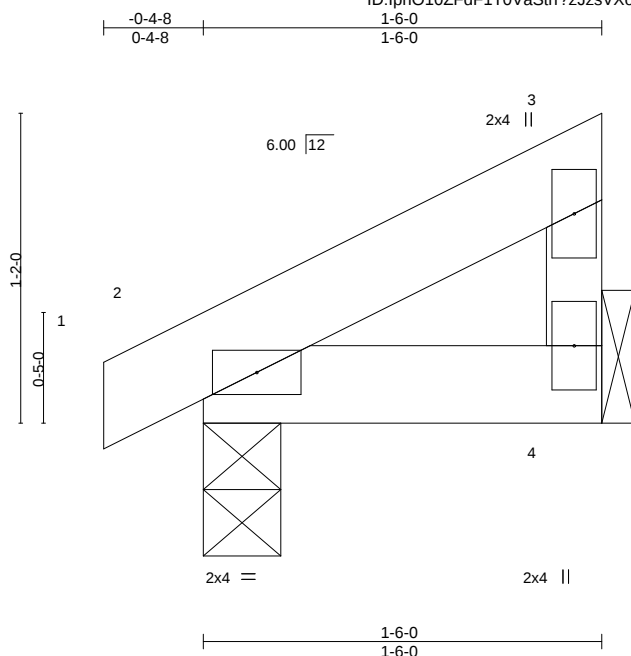
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015225
400384	J5	Jack-Closed	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:52 2020 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-ebdDbNkelwT0FSXNn0OWS9Bhc3GIbEzAD_FKpzPsIL



Scale = 1:8.7

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 0.02	Vert(LL)	-0.00	2	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	2	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 5 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 1-6-0 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=35(LC 5)
Max Uplift 4=-15(LC 8), 2=-17(LC 8)
Max Grav 4=57(LC 1), 2=94(LC 1)

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

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.



April 17, 2020

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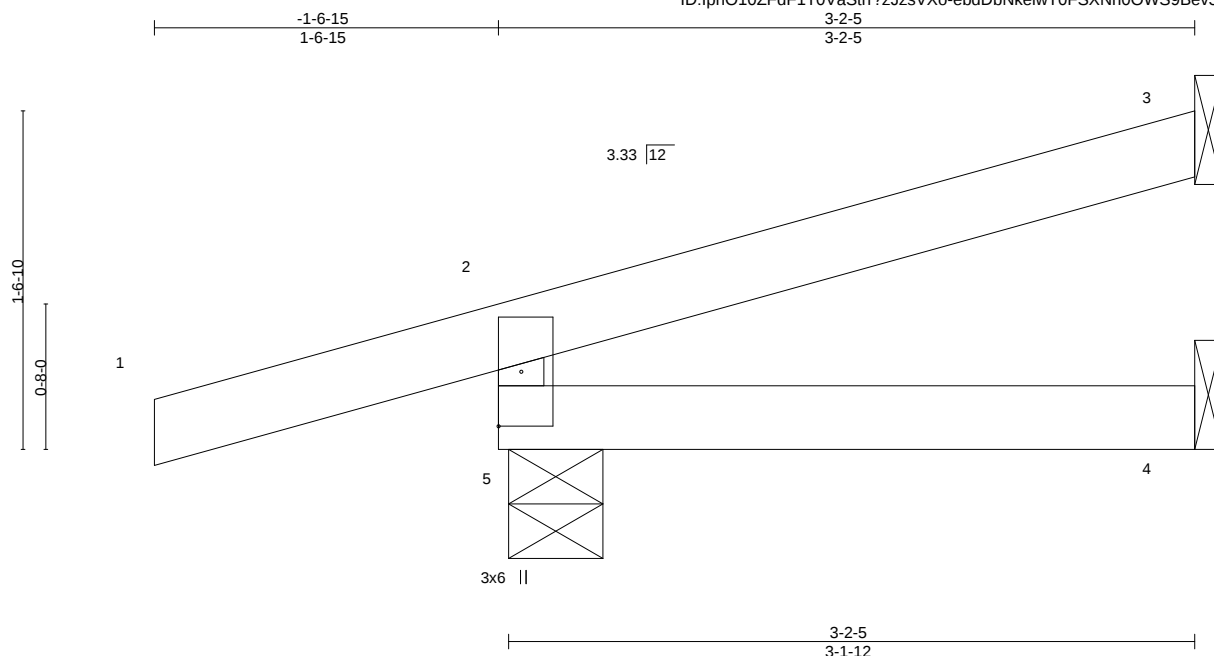
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015226
400384	J6	Jack-Open Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:52 2020 Page 1

ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-ebdDbNkelwT0FSXNn0OWS9Bev3GABieZAD_FKpzPsIL



Scale = 1:10.6

Plate Offsets (X,Y)--		[2:0-0-6,0-1-4], [5:0-0-0,0-1-4]									
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 0.20	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC 0.05	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	4-5	>999	240	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 3-2-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-5-3, 3=Mechanical, 4=Mechanical
Max Horz 5=57(LC 12)
Max Uplift 5=105(LC 6), 3=48(LC 12), 4=1(LC 19)
Max Grav 5=140(LC 1), 3=34(LC 1), 4=41(LC 3)

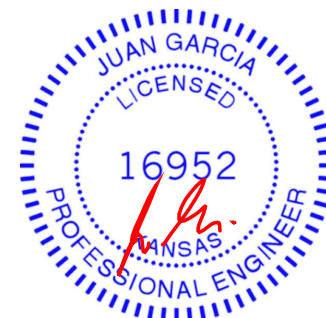
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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
- 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) 3, 4 except (jt=lb) 5=105.
- 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) 30 lb down and 11 lb up at -1-6-15, and 30 lb down and 11 lb up at -1-6-15 on top 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
Concentrated Loads (lb)
Vert: 1=-46(F=-23, B=23)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-2=-29(F=20, B=20), 2=-2(F=34, B=34)-to-3=-56(F=7, B=7), 5=0(F=10, B=10)-to-4=-16(F=2, B=2)



April 17,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015227
400384	J7	Diagonal Hip Girder	2	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:53 2020 Page 1
ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-6nBbojkGWEbtte6aLjv?NjjiTXOw9uiPtkotGzPslK

-1-6-15
1-6-15
6-9-9
6-9-9

Scale = 1:16.2

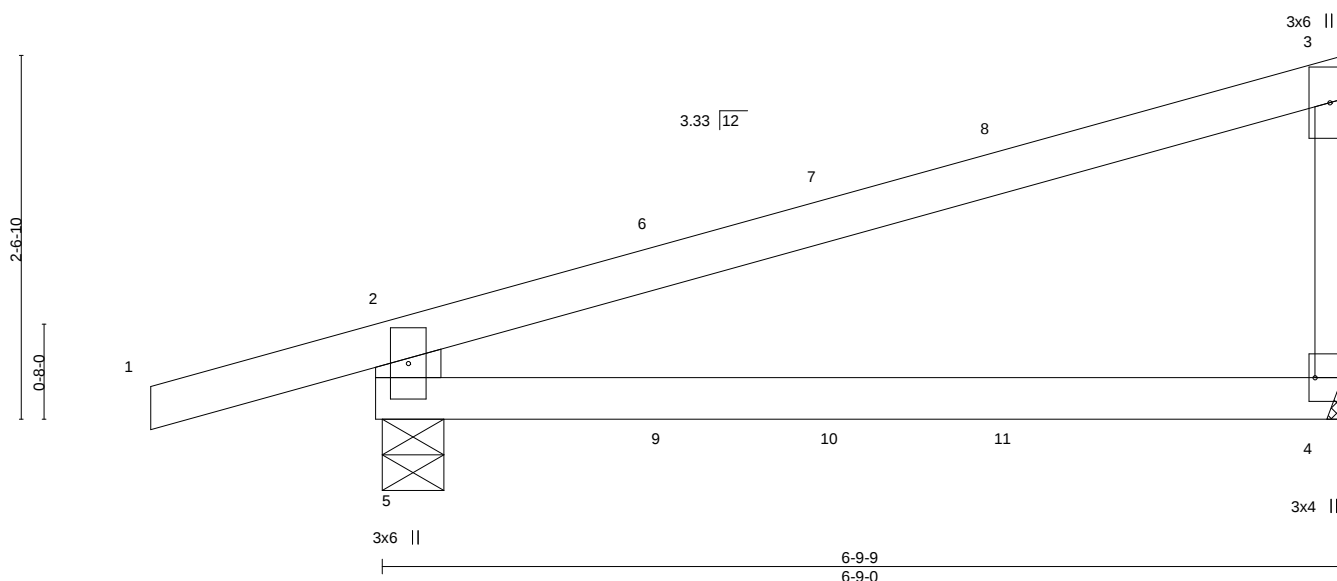


Plate Offsets (X,Y)--		[4:Edge,0-2-8]								
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL 1.15		TC 0.60		Vert(LL) -0.07 4-5	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.37		Vert(CT) -0.14 4-5	>554	240		
BCLL 0.0 *		Rep Stress Incr NO		WB 0.00		Horz(CT) 0.00 4	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R		Wind(LL) 0.03 4-5	>999	240	Weight: 20 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SPF No.2 *Except*
3-4: 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) 5=0-5-3, 4=Mechanical
Max Horz 5=105(LC 7)
Max Uplift 5=-136(LC 4), 4=-59(LC 8)
Max Grav 5=433(LC 1), 4=273(LC 1)

FORCES.

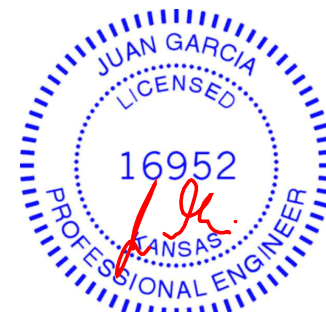
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-385/182

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
- 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) 4 except (jt=lb) 5=136.
- 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) 59 lb down and 14 lb up at 2-1-7, and 93 lb down and 59 lb up at 3-3-11, and 68 lb down and 47 lb up at 4-6-4 on top chord, and 2 lb down and 3 lb up at 2-1-7, and 8 lb down at 3-3-11, and 10 lb down at 4-6-4 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

- 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: 9=3(B) 11=-1(B)



April 17, 2020

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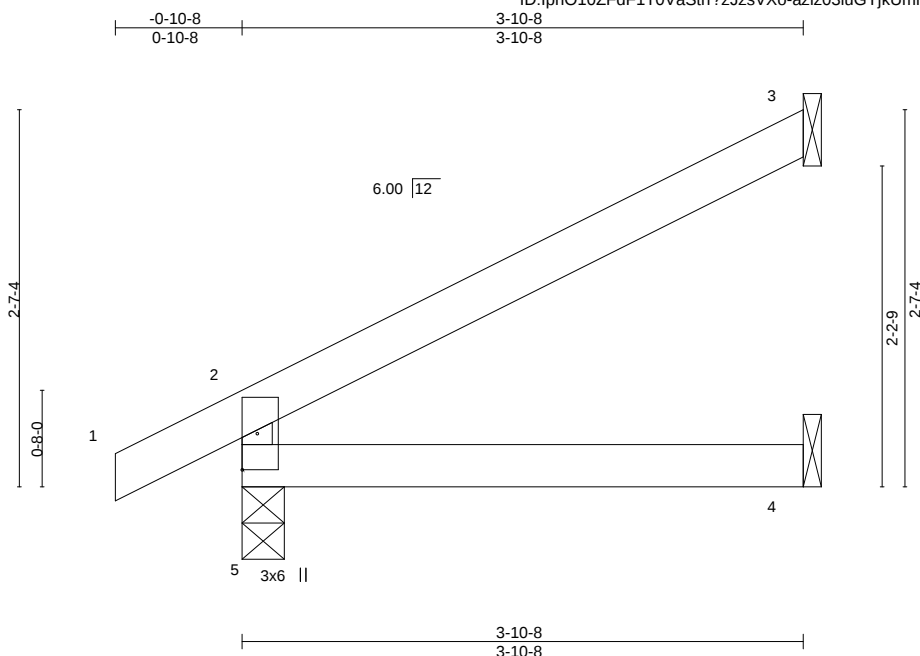
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015228
400384	J8	Jack-Open	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:54 2020 Page 1

ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-azlz03luGYjkUmhmvrQ_YaG_MbXfc8seXTMPizPsLJ



Scale: 3/4"=1'

Plate Offsets (X,Y)-- [2:0-0-10,0-1-4], [5:0-0-0,0-1-4]											
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	0.20	Vert(LL)	-0.01	4-5	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.12	Vert(CT)	-0.02	4-5	>999	240	
BCLL	0.0 *	Rep Stress Incr YES		WB	0.00	Horz(CT)	0.01	3	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 11 lb FT = 10%

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 3-10-8 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=87(LC 8)
Max Uplift 5=-29(LC 8), 3=-66(LC 8)
Max Grav 5=244(LC 1), 3=115(LC 1), 4=71(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015229
400384	J9	Jack-Open	2	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:55 2020 Page 1

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0-10-8 0-10-8 2-5-10 2-5-10

Scale = 1:12.4

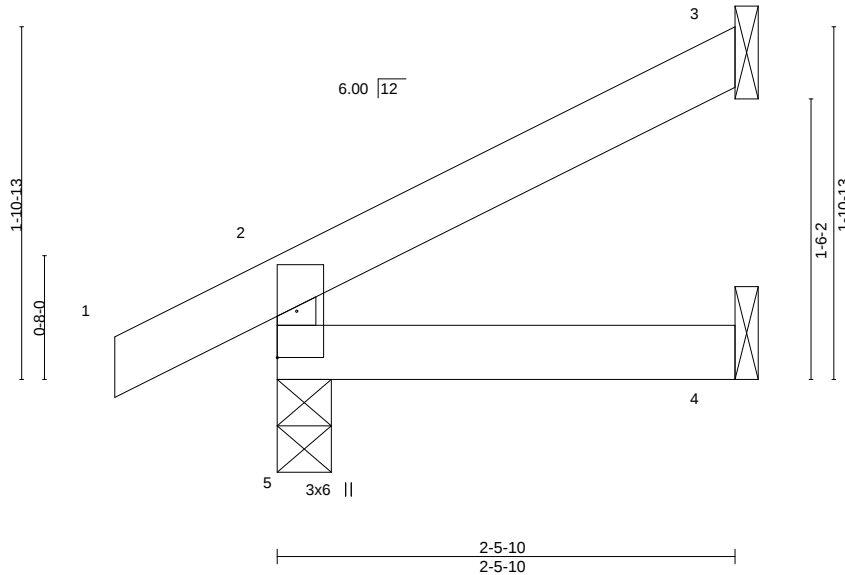


Plate Offsets (X,Y)--		[2:0-0-10,0-1-4], [5:0-0-0,0-1-4]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 10.0	Lumber DOL	1.15	BC 0.04
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 4-5 >999 360
			Vert(CT) -0.00 4-5 >999 240
			Horz(CT) -0.00 3 n/a n/a
			Wind(LL) 0.00 4-5 >999 240
			PLATES GRIP
			MT20 197/144
			Weight: 7 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 2-5-10 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=58(LC 8)
Max Uplift 5=-26(LC 8), 3=-41(LC 8)
Max Grav 5=187(LC 1), 3=66(LC 1), 4=43(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.



April 17, 2020

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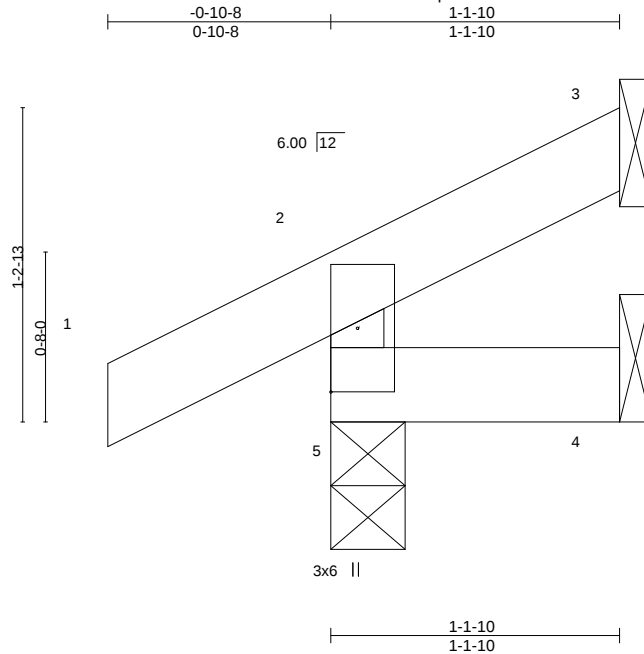


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015230
400384	J10	Jack-Open	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:35 2020 Page 1
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-eJ5n1ZX_liKRjrk6HxaXGa_nFDTsi0R3G4NsElzPslc



Scale = 1:9.0

Plate Offsets (X,Y)-- [2:0-0-10,0-1-4], [5:0-0-0,0-1-4]											
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	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-

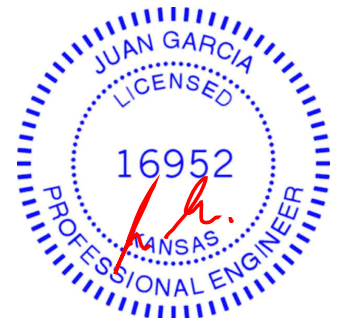
TOP CHORD Structural wood sheathing directly applied or 1-1-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=32(LC 8)
Max Uplift 5=-27(LC 8), 3=-14(LC 8)
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; 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.



April 17, 2020

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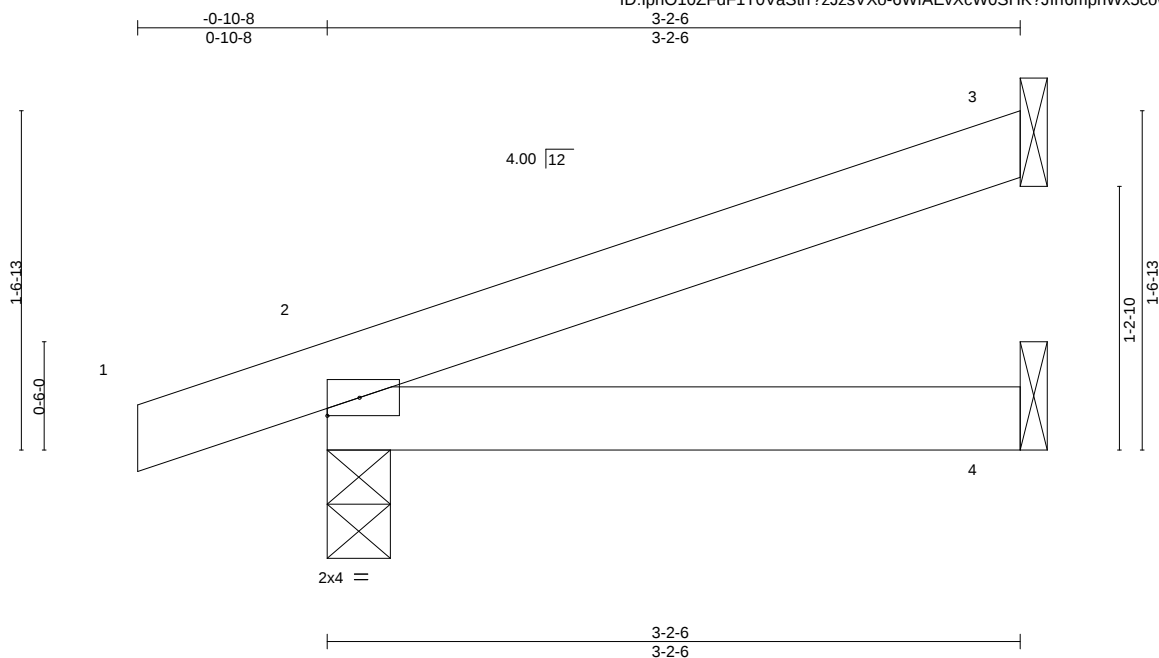
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 400384	Truss J11	Truss Type Jack-Open	Qty 2	Ply 1	Lot 59 H4	I41015231
Wheeler Lumber, Waverly, KS 66871						Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:36 2020 Page 1
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-6WfAEvXcW0SHK?Jlrf6mpnWx5cowRThCVj6PmlzPslb



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 0.12	Vert(LL)	-0.00	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	2-4	>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-P	Wind(LL)	0.00	2	****	240	Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-2-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

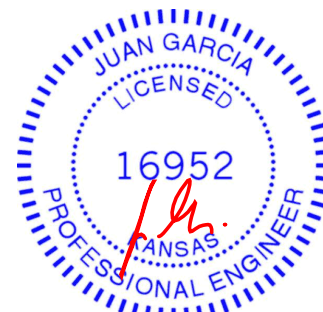
REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=56(LC 4)
Max Uplift 3=50(LC 8), 2=65(LC 4)
Max Grav 3=93(LC 1), 2=218(LC 1), 4=60(LC 3)

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

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
- 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) 3, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 17, 2020

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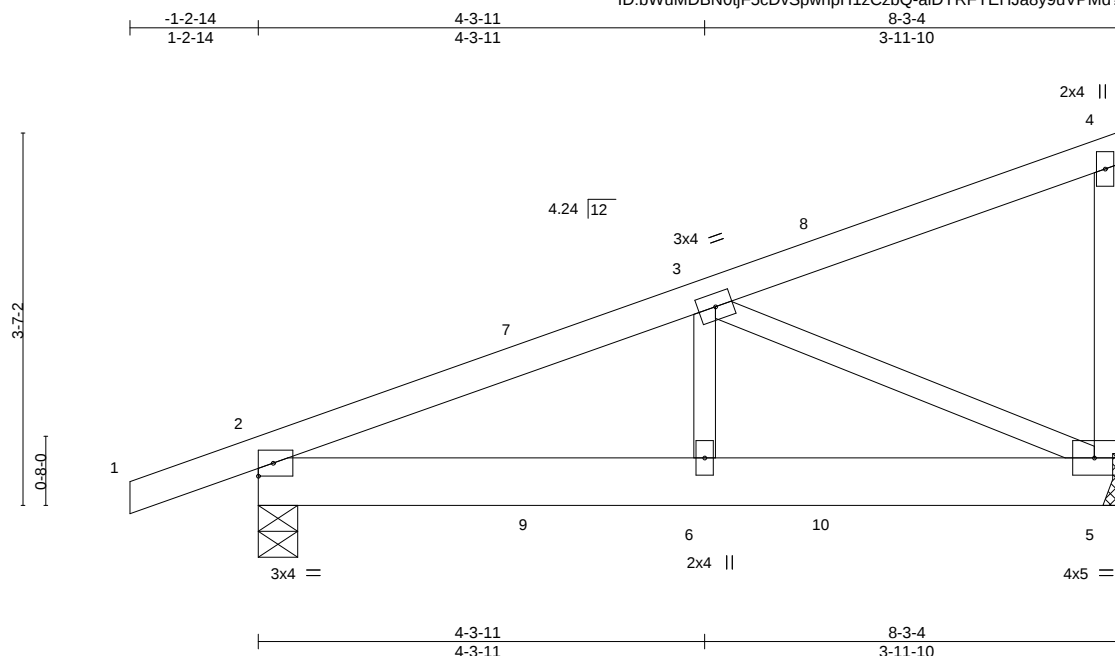
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015232
400384	J12	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:37 2020 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-aiDYRFYEHJa8y9uVPMd?M?33_07ZAt8LkNsyIBzPsla



Scale = 1:22.2

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 0.31	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	-0.02	6	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.24	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.01	6	>999	240	Weight: 33 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 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) 5=Mechanical, 2=0-4-9
Max Horz 2=146(LC 5)
Max Uplift 5=-104(LC 8), 2=-134(LC 4)
Max Grav 5=389(LC 1), 2=486(LC 1)

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

TOP CHORD 2-3=-603/103
BOT CHORD 2-6=-141/486, 5-6=-141/486
WEBS 3-5=-537/167

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
- 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) 5=104, 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 35 lb up at 2-8-7, 69 lb down and 35 lb up at 2-8-7, and 97 lb down and 73 lb up at 5-6-6, and 97 lb down and 73 lb up at 5-6-6 on top chord, and 2 lb down and 1 lb up at 2-8-7, 2 lb down and 1 lb up at 2-8-7, and 23 lb down at 5-6-6, and 23 lb down at 5-6-6 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: 1-4=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 8=-31(F=-15, B=-15) 9=1(F=1, B=1) 10=-28(F=-14, B=-14)



April 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

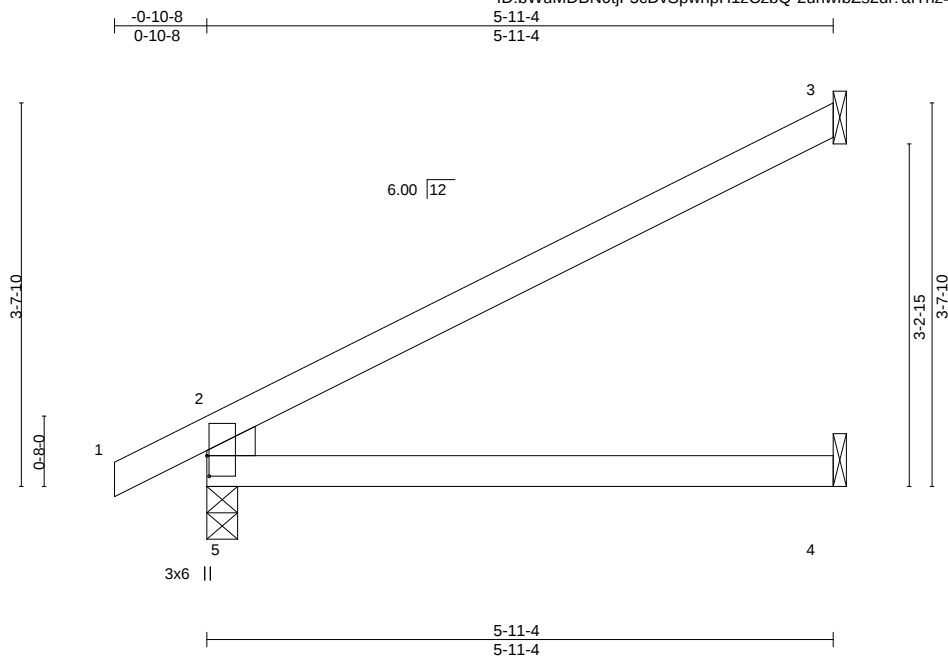
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015234
400384	J14	Jack-Open	16	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:38 2020 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-2unwfbZs2di?alThz48EuCbBoQR2vNBVy1bWrdzPslZ



Scale = 1:21.8

Plate Offsets (X,Y)-- [2:0-1-6,0-2-12], [5:0-2-5,0-0-4], [5:0-0-0,0-2-12]									
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	0.49	Vert(LL)	-0.04 4-5 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.10 4-5 >650 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03 3 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.04 4-5 >999 240	Weight: 16 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-4 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=89(LC 8)
Max Uplift 3=57(LC 8)
Max Grav 5=339(LC 1), 3=175(LC 1), 4=106(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-297/48

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); 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.
- 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.



April 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400384	Truss J15	Truss Type Jack-Open	Qty 5	Ply 1	Lot 59 H4	I41015235
Wheeler Lumber, Waverly, KS 66871						Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:39 2020 Page 1
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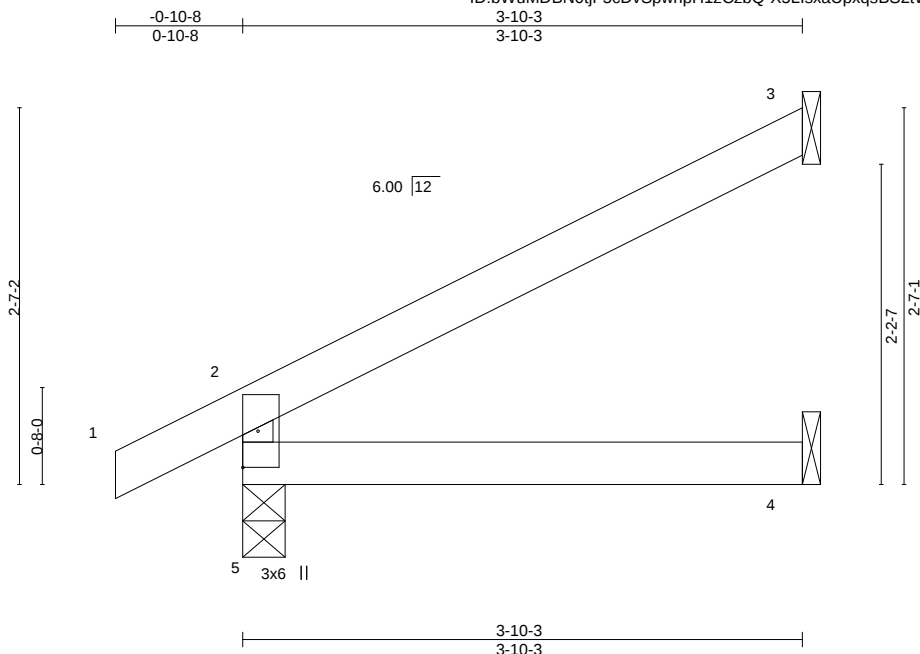


Plate Offsets (X,Y)--		[2:0-0-10,0-1-4], [5:0-0-0,0-1-4]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.20	Vert(LL) -0.01 4-5 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.12	Vert(CT) -0.02 4-5 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.01 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.01 4-5 >999 240	Weight: 11 lb	FT = 10%

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 3-10-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

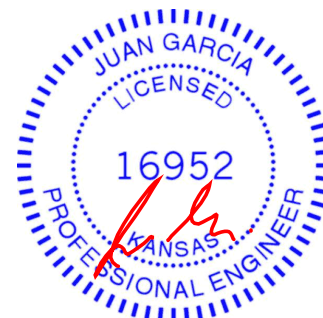
REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=86(LC 8)
Max Uplift 5=-29(LC 8), 3=-66(LC 8)
Max Grav 5=243(LC 1), 3=114(LC 1), 4=70(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.



April 17, 2020

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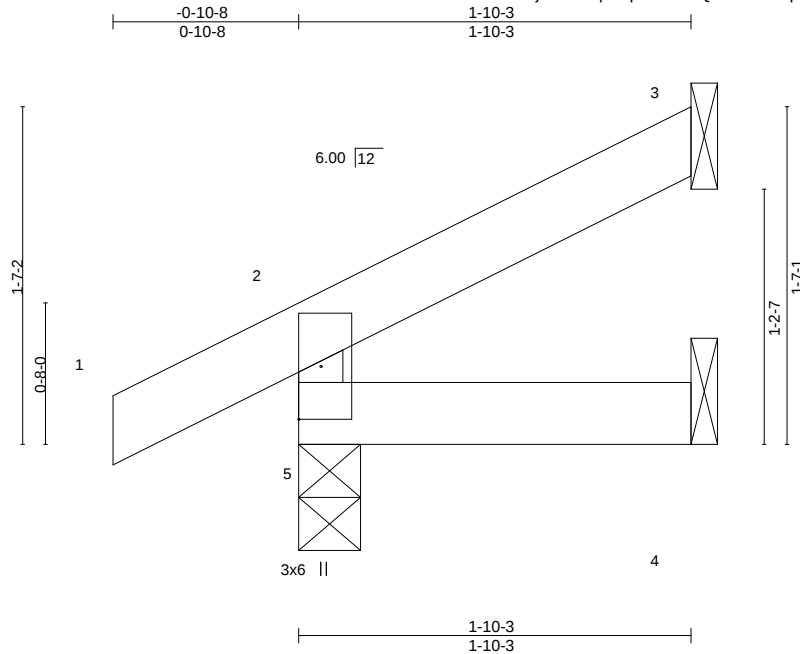
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400384	Truss J16	Truss Type Jack-Open	Qty 5	Ply 1	Lot 59 H4	I41015236
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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ID:bWuMdbN0tjF5cDvSpwhpH1zCzbQ-X5LIsxaUpxqsBS2tWnfTRQ8SFqqbeqQeBhL3N3zPslY



Scale = 1:10.9

Plate Offsets (X,Y)--		[2:0-0-10,0-1-4], [5:0-0-0,0-1-4]									
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	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-

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 1-10-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

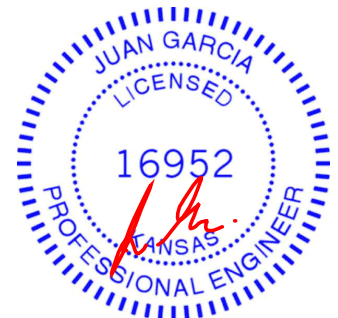
REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=47(LC 8)
Max Uplift 5=25(LC 8), 3=30(LC 8)
Max Grav 5=166(LC 1), 3=44(LC 1), 4=32(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.



April 17, 2020

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

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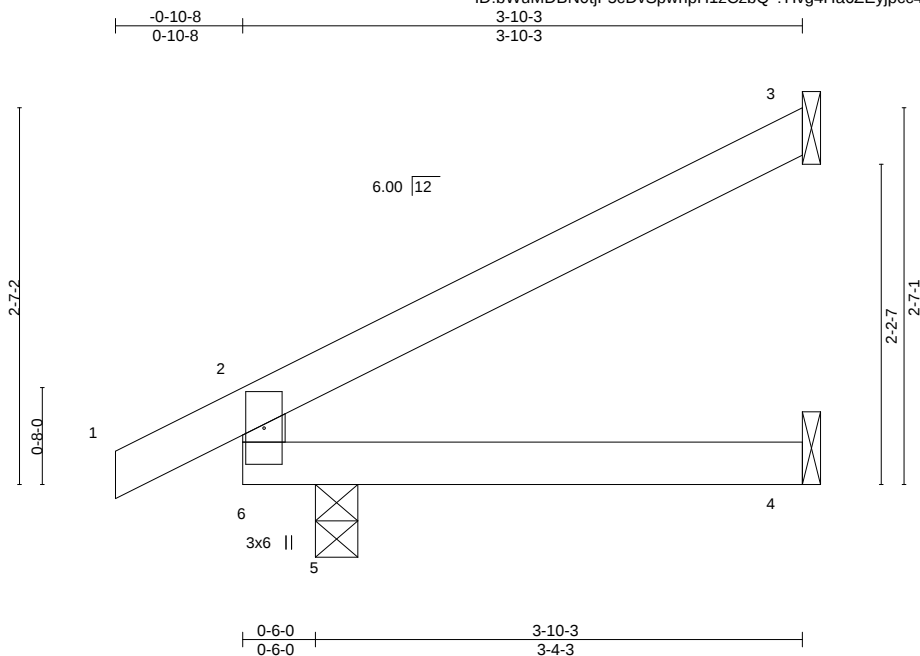
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015237
400384	J17	Jack-Open	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:40 2020 Page 1

ID:bWuMdbN0tjF5cDvSpwhpH1zCzbQ-?Hvg4Ha6Zejpcc44VAizdhc9E9ENHgoQL4cvWzPslX



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 0.18	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=86(LC 8)
Max Uplift 3=-62(LC 8), 5=-34(LC 8)
Max Grav 3=99(LC 1), 4=54(LC 3), 5=284(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) 3, 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.



April 17, 2020

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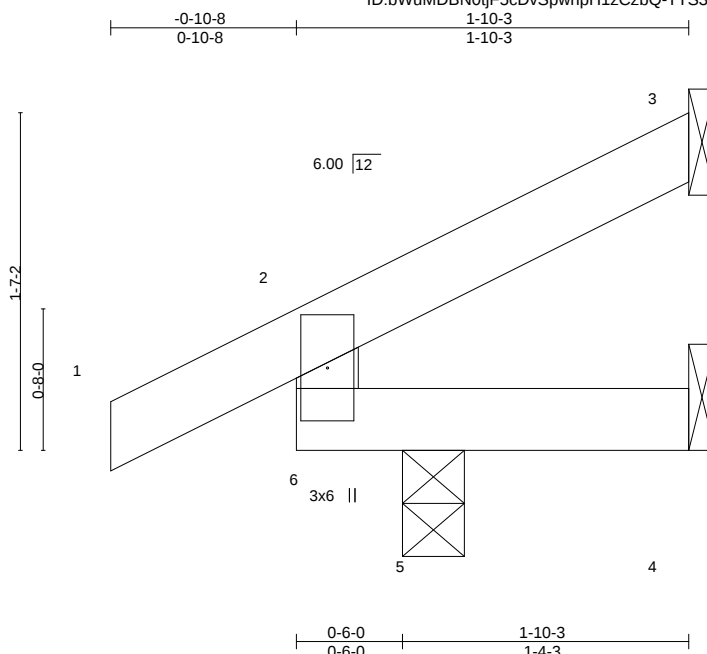
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015238
400384	J18	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:bWuMDBN0tjF5cDvSpwph1zCzbQ-TTS3HcbIKY4aRmBGeChxWrDoHdVY6kwxe?qARyzPslW



Scale = 1:10.9

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 0.09	Vert(LL)	0.00	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	5	>999	240	Weight: 6 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=46(LC 8)
Max Uplift 3=-27(LC 8), 4=-44(LC 1), 5=-37(LC 8)
Max Grav 3=27(LC 1), 4=12(LC 8), 5=240(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) 3, 4, 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.



April 17, 2020

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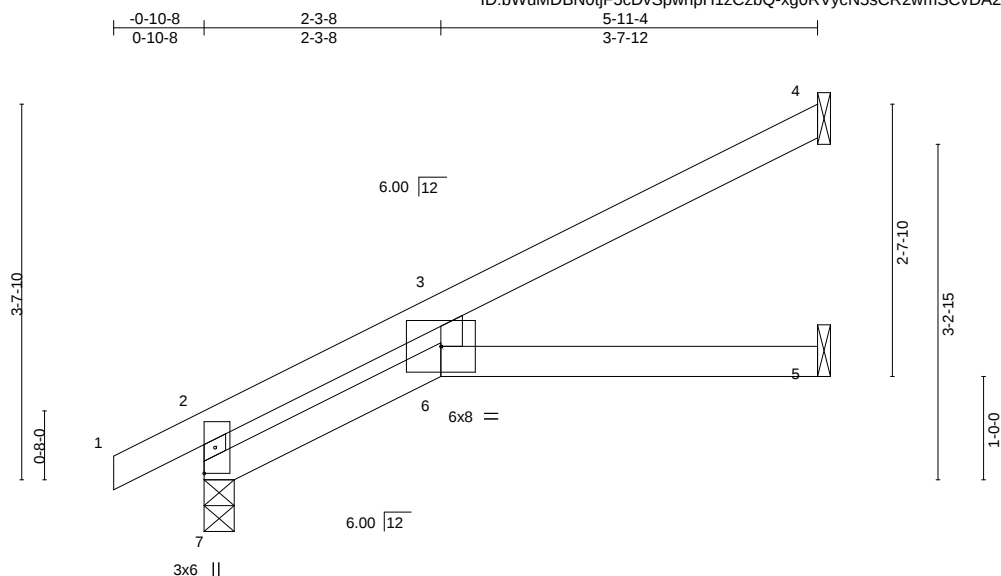
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015239
400384	J20	Jack-Open	5	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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ID:bWuMdBNOjF5cDvSpwhpH1zCzbQ-xg0RVycN5sCR2wmSCvDA22muO1mxrBn5tfZj_OzPsiV



Scale = 1:22.3

Plate Offsets (X,Y)--	[2:0-0-10,0-1-4], [3:0-1-4,0-0-10], [7:0-0-10,0-1-4]
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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 0.39	Vert(LL)	-0.08	5-6	>861	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.15	5-6	>470	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.07	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.10	5-6	>700	240	Weight: 16 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 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 7=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 7=128(LC 8)
Max Uplift 7=-33(LC 8), 4=-80(LC 8), 5=-6(LC 8)
Max Grav 7=334(LC 1), 4=162(LC 1), 5=101(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) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 4, 5.
- 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.



April 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400384	Truss J21	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	Lot 59 H4 Job Reference (optional)	I41015240
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Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:43 2020 Page 1
ID:bWuMdBNOtjF5cDvSpwhpH1zCzbQ-Psapild?s9Klg4LfdkPbGJ6FRA9aeQE6JHWrzPslU

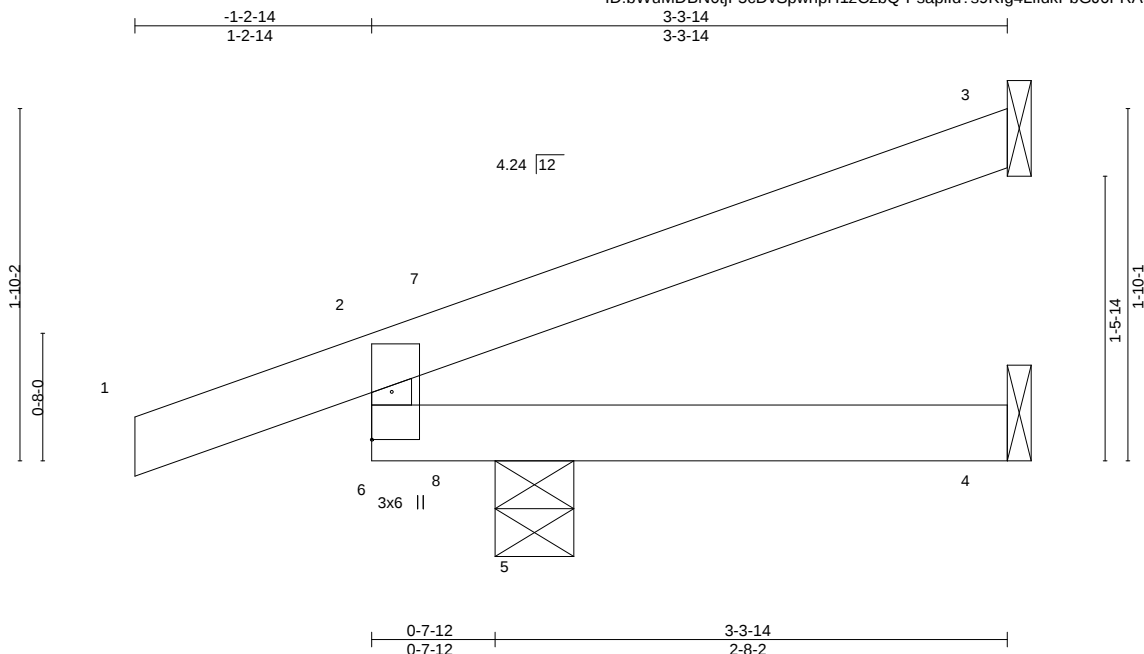


Plate Offsets (X,Y)-- [2:0-0-7,0-1-4], [6:0-0-0,0-1-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	0.00 4-5 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	0.01 4-5 >999 240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.01 3 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	-0.00 4-5 >999 240	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 3-3-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-4-15
Max Horz 5=75(LC 12)
Max Uplift 3=60(LC 12), 4=21(LC 1), 5=129(LC 6)
Max Grav 3=25(LC 1), 4=25(LC 4), 5=157(LC 1)

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

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
- 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) 3, 4 except (jt=lb) 5=129.
- 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) 30 lb down and 11 lb up at -1-2-14, and 30 lb down and 11 lb up at -1-2-14 on top 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
Concentrated Loads (lb)
Vert: 1=-46(F=-23, B=23)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-2=-23(F=23, B=23), 2=-23(F=23, B=23)-to-7=-30(F=20, B=20), 7=0(F=35, B=35)-to-3=-49(F=10, B=10), 6=-0(F=10, B=10)-to-8=-5(F=8, B=8), 8=0(F=10, B=10)-to-4=-14(F=3, B=3)



April 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015241
400384	J22	Diagonal Hip Girder	2	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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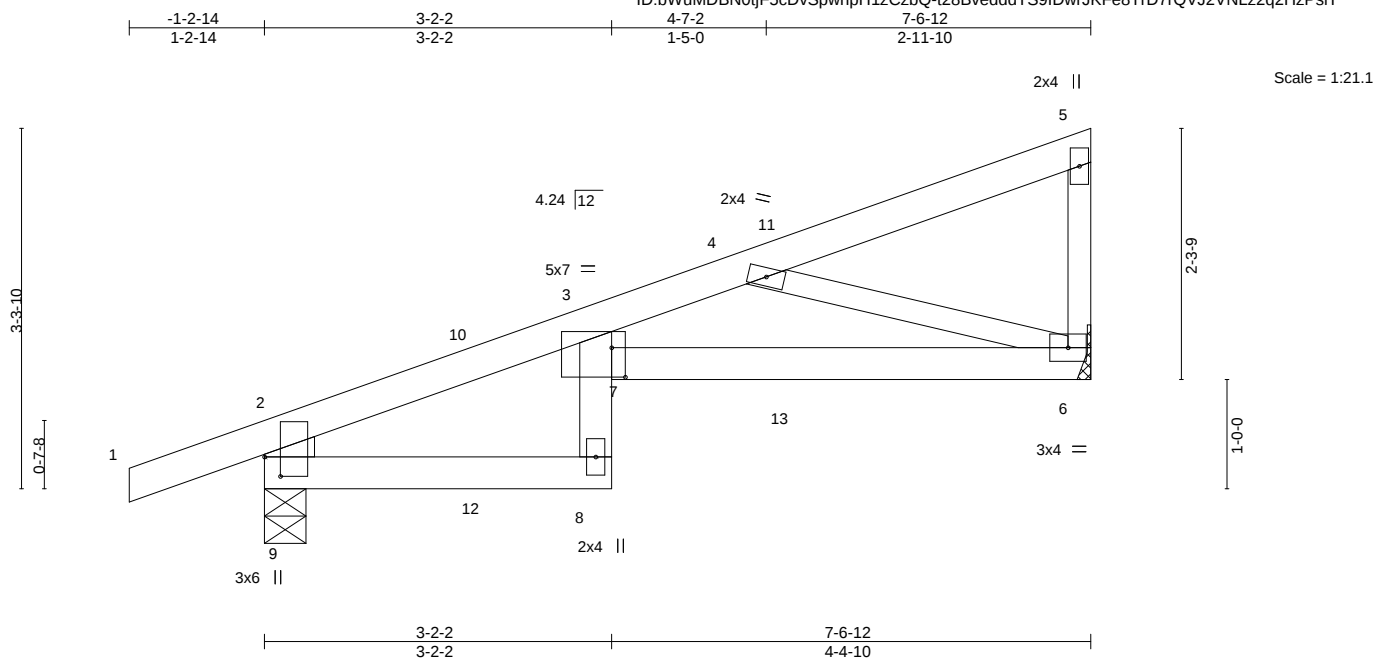


Plate Offsets (X,Y)--		[2:0-1-0,0-2-12], [3:0-1-12,0-0-10], [3:0-1-8,0-3-4], [7:0-0-0,0-1-12], [9:0-0-0,0-2-12], [9:0-2-2,0-1-12]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.50
TCDL 10.0	Lumber DOL	1.15	BC 0.55
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.20
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.06 6-7 >999 360
			Vert(CT) -0.10 6-7 >841 240
			Horz(CT) 0.04 6 n/a n/a
			Wind(LL) 0.06 6-7 >999 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 25 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-9: 2x6 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) 9=0-4-9, 6=Mechanical
 Max Horz 9=125(LC 5)
 Max Uplift 9=-138(LC 4), 6=-109(LC 8)
 Max Grav 9=451(LC 1), 6=346(LC 1)

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

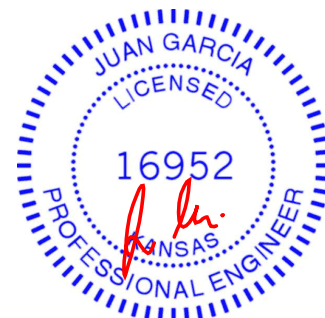
TOP CHORD 2-9=-429/158, 2-3=-426/83, 3-4=-695/223
 BOT CHORD 8-9=-109/302, 6-7=-249/721
 WEBS 4-6=-725/271

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) except (jt=lb) 9=138, 6=109.
- 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 21 lb up at 1-11-15, 66 lb down and 21 lb up at 1-11-15, and 83 lb down and 46 lb up at 4-9-14, and 83 lb down and 46 lb up at 4-9-14 on top chord, and 4 lb down and 4 lb up at 1-11-15, 4 lb down and 4 lb up at 1-11-15, and 24 lb down and 32 lb up at 4-9-14, and 24 lb down and 32 lb up at 4-9-14 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, 2-5=-70, 8-9=-20, 6-7=-20
- Concentrated Loads (lb)
 Vert: 11=-4(F=-2, B=-2) 12=8(F=4, B=4) 13=-47(F=-24, B=-24)



April 17, 2020

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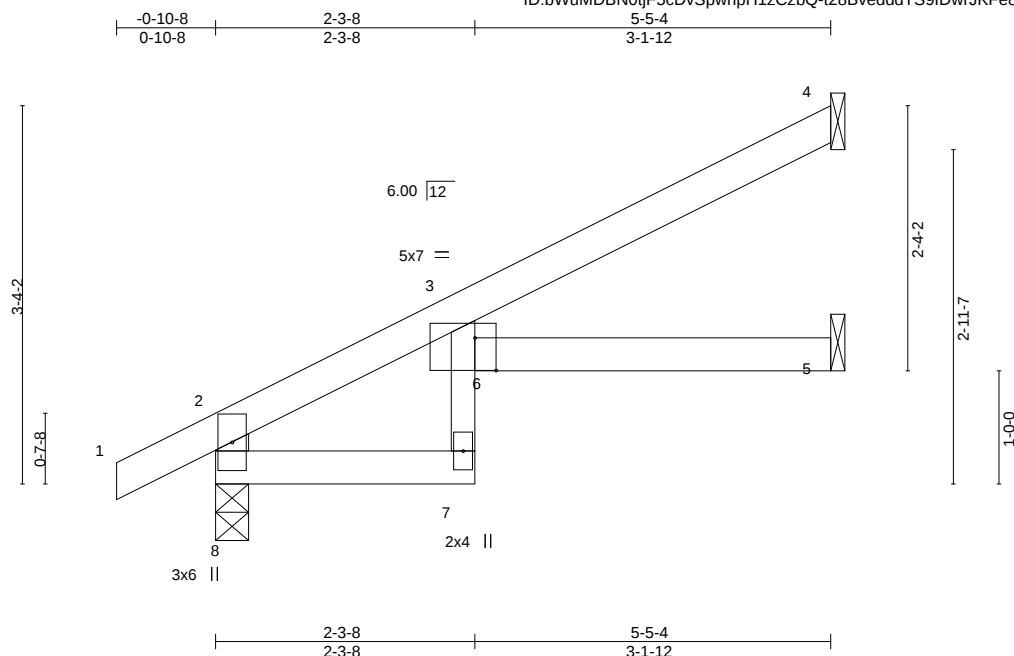


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015242
400384	J23	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:44 2020 Page 1
ID: bWuMdBNOtjF5cDvSpwhpH1zCzbQ-t28BvedddTS9IDwrJKFe8TrFZrStJ5gNLz2q2HzPsiT



Scale = 1:20.4

Plate Offsets (X,Y)-- [3:0-2-4,0-3-7], [6:0-0-0,0-1-12]									
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)	-0.06 6 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.10 5-6 >626 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.05 5 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.07 6 >958 240	Weight: 16 lb	FT = 10%

LUMBER-

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

BRACING-

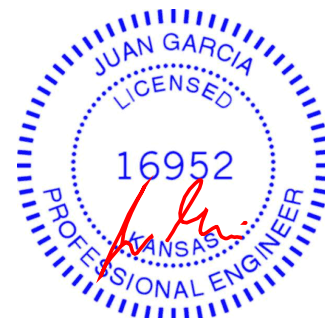
TOP CHORD Structural wood sheathing directly applied or 5-5-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 8=0-3-8, 5=Mechanical
Max Horz 8=119(LC 8)
Max Uplift 4=-75(LC 8), 8=-35(LC 8), 5=-2(LC 8)
Max Grav 4=154(LC 1), 8=314(LC 1), 5=87(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-303/63

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, 8, 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.



April 17, 2020

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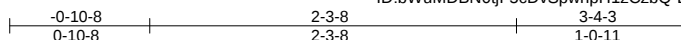
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015243
400384	J24	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:bWuMdbN0tjF5cDvSpwhpH1zCzbQ-LEiZ7_eFOna0vNV1t2mtghOUOfs42YvXZdoNbjzPslS



Scale = 1:14.4

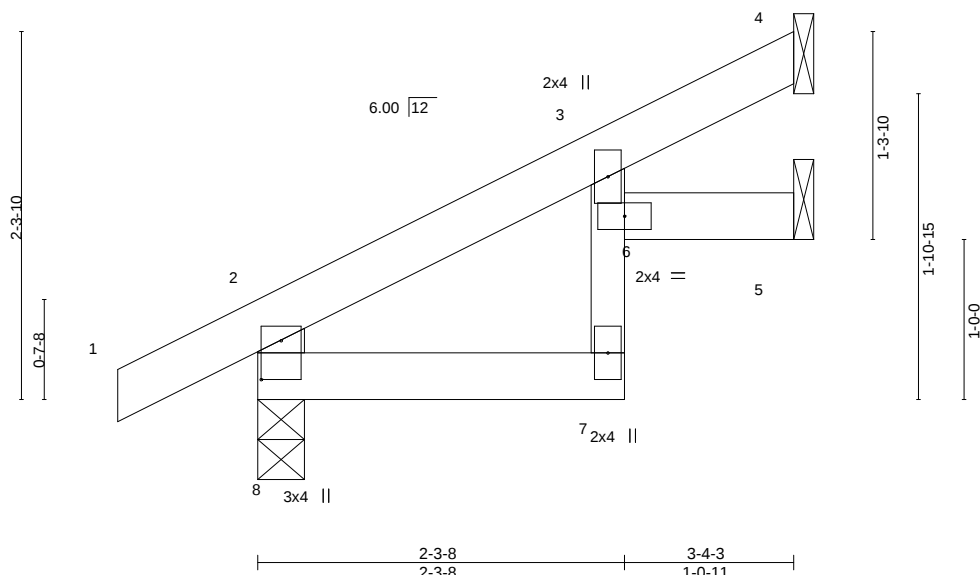


Plate Offsets (X,Y)--		[8:0-2-15,0-1-8]										
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.01	7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	7	>999	240	Weight: 10 lb	FT = 10%

LUMBER-

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

BRACING-

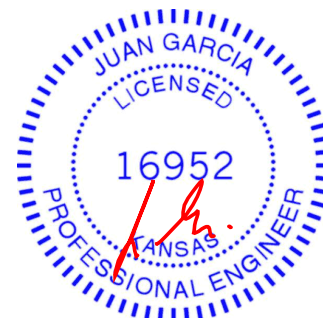
TOP CHORD Structural wood sheathing directly applied or 3-4-3 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 8=0-3-8, 5=Mechanical
 Max Horz 8=76(LC 8)
 Max Uplift 4=33(LC 8), 8=29(LC 8), 5=14(LC 8)
 Max Grav 4=78(LC 1), 8=224(LC 1), 5=52(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, 8, 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.



April 17, 2020

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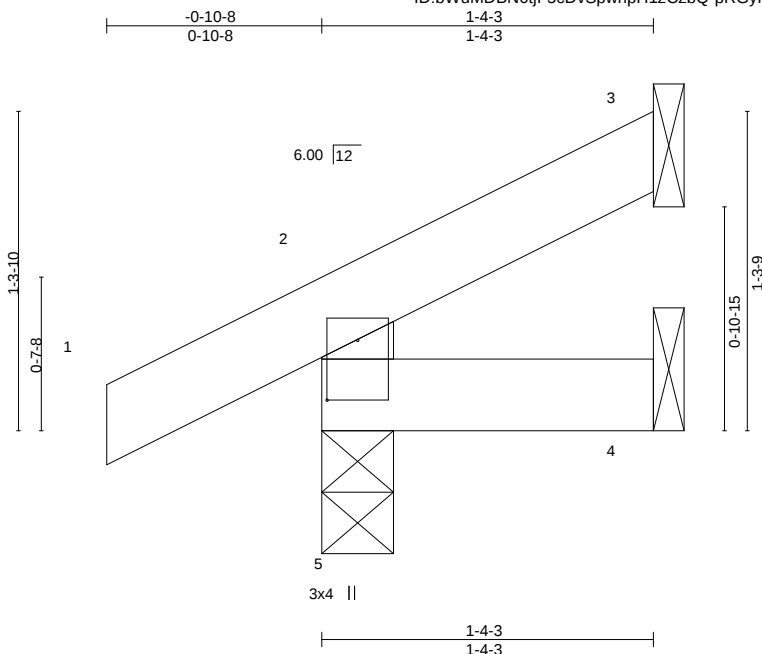


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 400384	Truss J25	Truss Type Jack-Open	Qty 4	Ply 1	Lot 59 H4	I41015244
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Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:46 2020 Page 1
ID:bWuMDbN0tjF5cDvSpwhpH1zCzbQ-pRGyKkt94itXX4DRIH6DuxfOeDln?9goHXx79zPsiR



Scale = 1:9.4

Plate Offsets (X,Y)-- [5:0-2-15,0-1-8]												
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	0.07	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: 5 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-4-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 5=0-3-8, 4=Mechanical
Max Horz 5=37(LC 8)
Max Uplift 3=18(LC 8), 5=28(LC 8)
Max Grav 3=20(LC 1), 5=156(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) 3, 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.



April 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015245
400384	J26	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:47 2020 Page 1
ID:lpnO10ZFdF1T0VaStr?zJzsVXo-ldqKYggVwOqk9hfQ_ToLi6Tjk2UhwWSPq1xHUfzPslQ

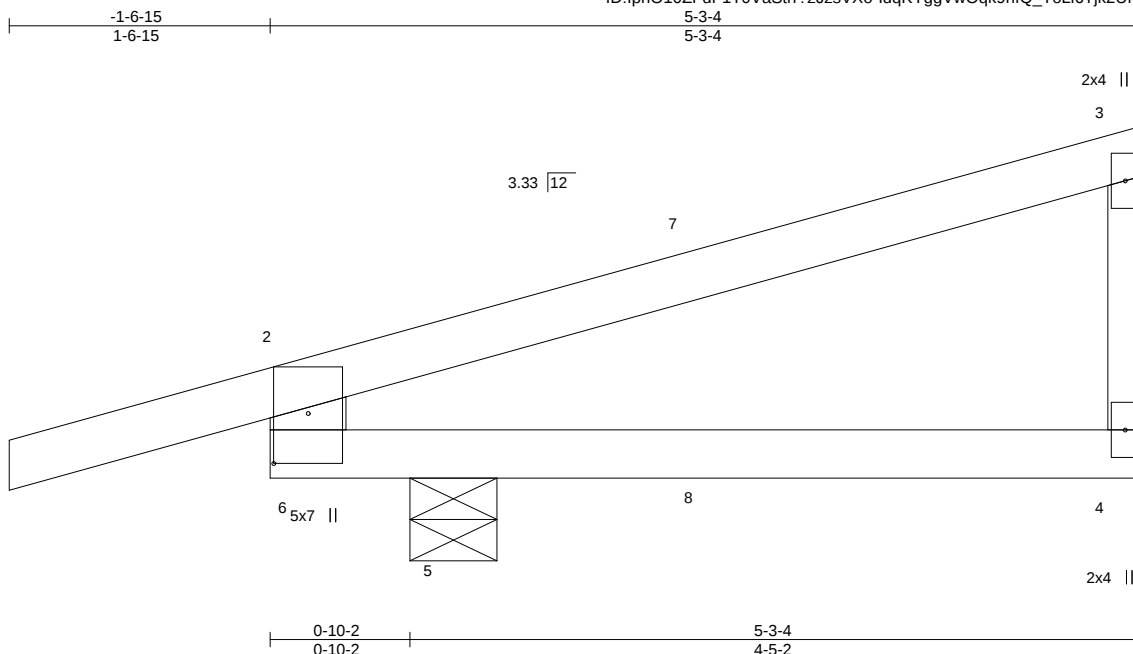


Plate Offsets (X,Y)-- [6:0-3-10,0-2-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	0.03	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	0.04	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	-0.02	4-5	>999	240	Weight: 16 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SPF No.2 *Except*
3-4: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-3-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 5=0-6-5
Max Horz 5=87(LC 27)
Max Uplift 4=-34(LC 8), 5=-191(LC 4)
Max Grav 4=106(LC 34), 5=431(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-348/167

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=191.
- 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) 86 lb down and 48 lb up at 2-8-3, and 59 lb down and 24 lb up at 2-11-5 on top chord, and 3 lb down at 2-8-3, and 3 lb down and 99 lb up at 2-11-5 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, 4-6=-20
Concentrated Loads (lb)
Vert: 8=34(B)



April 17, 2020

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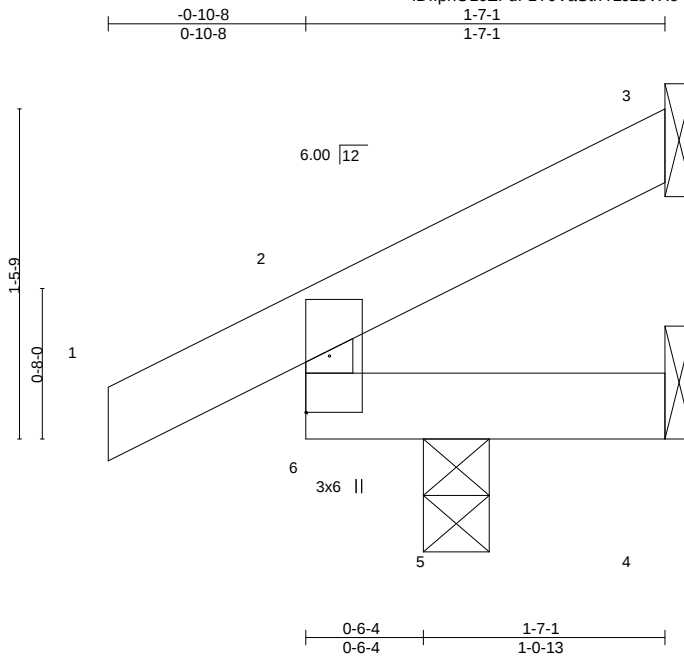


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015246
400384	J27	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:47 2020 Page 1
ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-ldqKYggVwOqk9hfQ_ToLi6Tq12XeWSPq1xHUfczPsiQ



Scale = 1:10.2

Plate Offsets (X,Y)-- [2:0-0-10,0-1-4], [6:0-0-0,0-1-4]											
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 0.08	Vert(LL)	0.00	5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	0.00	5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	5	>999	240	Weight: 5 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 1-7-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=41(LC 8)
Max Uplift 3=-23(LC 8), 4=-75(LC 1), 5=-41(LC 8)
Max Grav 3=21(LC 1), 4=17(LC 8), 5=255(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) 3, 4, 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.



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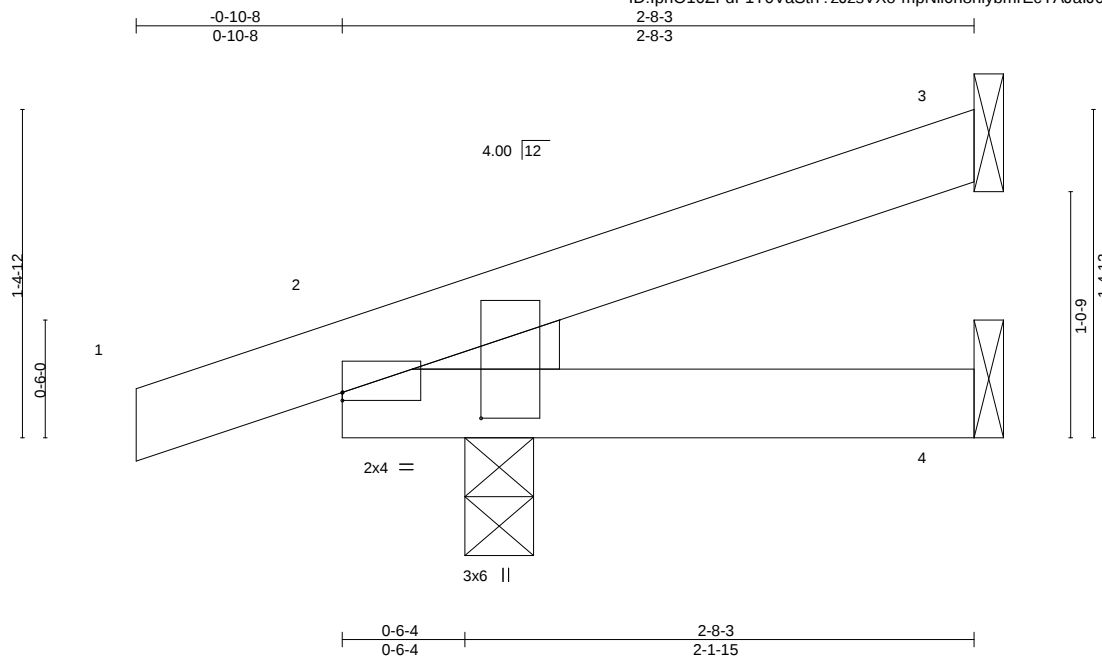


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400384	Truss J28	Truss Type Jack-Open	Qty 1	Ply 1	Lot 59 H4 Job Reference (optional)	I41015247
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Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:48 2020 Page 1
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-mpNil0h8hiybmrEcYAJaJ0?LSvAFvfzFb02B2zPslP



Scale = 1:9.8

Plate Offsets (X,Y)-- [2:0-0-0,0-0-6], [2:0-1-5,0-7-1]										
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	0.11	Vert(LL)	-0.00 2-4 >999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.00 2-4 >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-P		Wind(LL)	0.00 2 ****	240	Weight: 8 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-8-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 2=0-3-8
Max Horz 2=49(LC 4)
Max Uplift 3=40(LC 8), 2=64(LC 4)
Max Grav 3=72(LC 1), 4=49(LC 3), 2=198(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) 3, 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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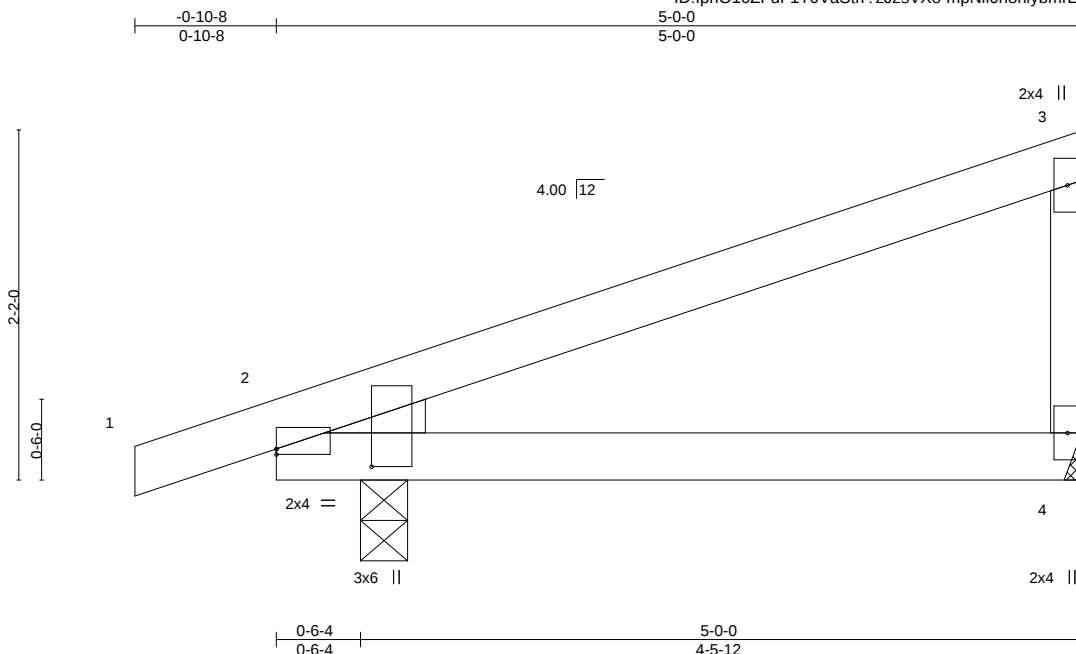
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015248
400384	J29	Jack-Closed	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:lpnO10ZF1T0VaStrr?zJzsVXo-mpNil0h8hiybmrEcYAJaJ0wtSrtFvzFb02B2zPslP



Scale = 1:14.3

Plate Offsets (X,Y)-- [2:0-0-0,0-0-6], [2:0-1-5,0-7-1]									
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	0.39	Vert(LL)	-0.03 2-4 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.06 2-4 >933 240		
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-P		Wind(LL)	0.00 2 **** 240	Weight: 15 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-

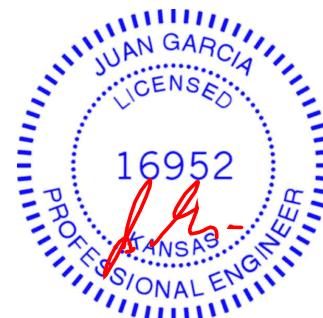
TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8
Max Horz 2=84(LC 5)
Max Uplift 4=-45(LC 8), 2=-81(LC 4)
Max Grav 4=206(LC 1), 2=293(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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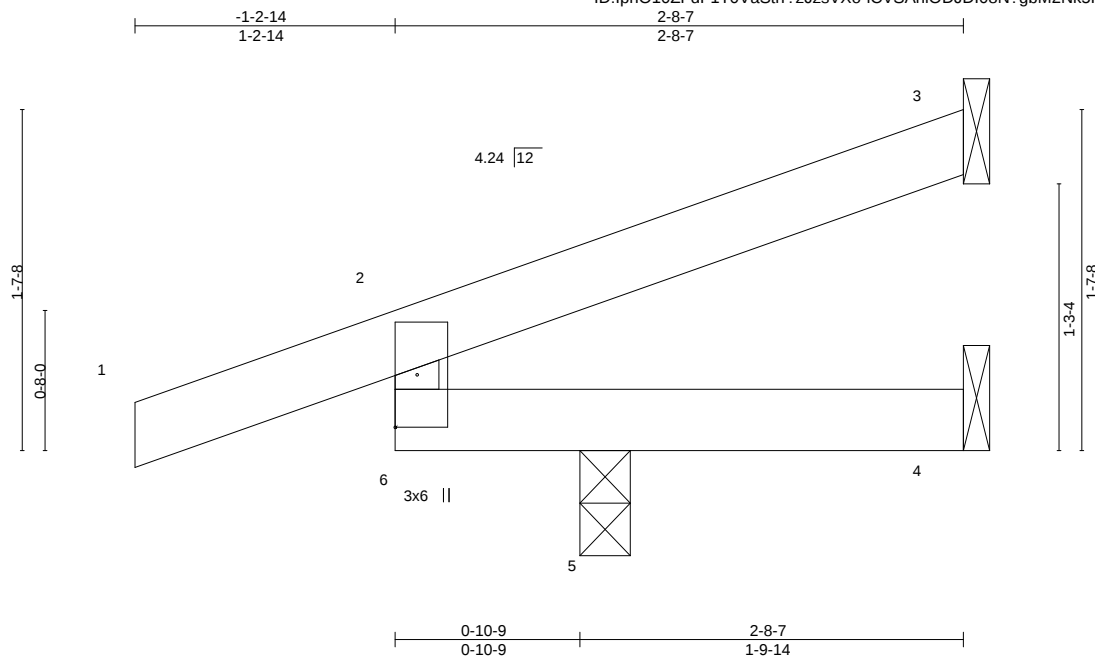


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015249
400384	J30	Diagonal Hip Girder	2	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-iCVSAhiODJDI08N?gbM2Nk5KBGZ6jp9GjvV8GxzPslN



Scale = 1:11.0

Plate Offsets (X,Y)-- [2:0-0-7,0-1-4], [6:0-0-0,0-1-4]									
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	0.15	Vert(LL)	-0.00 4-5 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	0.00 4-5 >999 240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01 3 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R				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 2-8-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-2-14
Max Horz 5=74(LC 12)
Max Uplift 3=-49(LC 12), 4=-37(LC 9), 5=-145(LC 6)
Max Grav 3=39(LC 9), 4=58(LC 6), 5=164(LC 1)

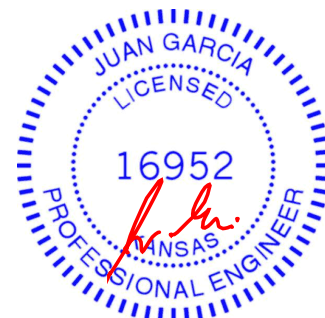
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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
- 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) 5.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=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) 19 lb down and 7 lb up at -1-2-14, and 19 lb down and 7 lb up at -1-2-14 on top 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: 2-3=-20(F=50)
Concentrated Loads (lb)
Vert: 1=-29(F=-14, B=-14)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-2=-23(F=23, B=23), 6=-0(F=10, B=10)-to-4=-44(F=-12, B=-12)



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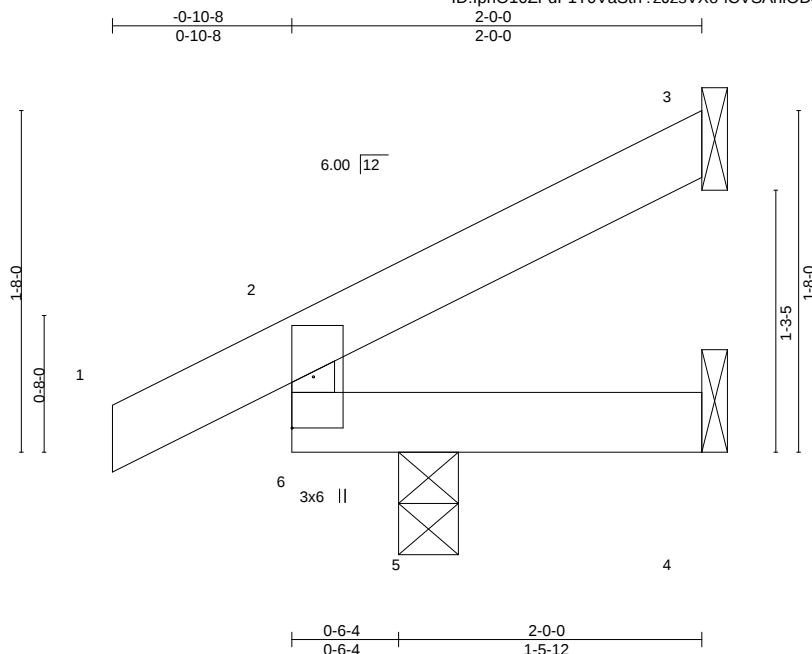


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400384	Truss J31	Truss Type Jack-Open	Qty 3	Ply 1	Lot 59 H4 Job Reference (optional)	I41015250
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Wheeler Lumber, Waverly, KS 66871

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ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-iCVSAhiODJD108N?gbM2Nk5L5GZMjp9GjvV8GxzPsiN



Scale = 1:11.2

Plate Offsets (X,Y)-- [2:0-0-10,0-1-4], [6:0-0-0,0-1-4]									
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	0.09	Vert(LL)	0.00 4-5 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	0.00 4-5 >999 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01 3 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	-0.00 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) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=50(LC 8)
Max Uplift 3=-32(LC 8), 4=-45(LC 1), 5=-36(LC 8)
Max Grav 3=39(LC 1), 4=14(LC 8), 5=244(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) 3, 4, 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.



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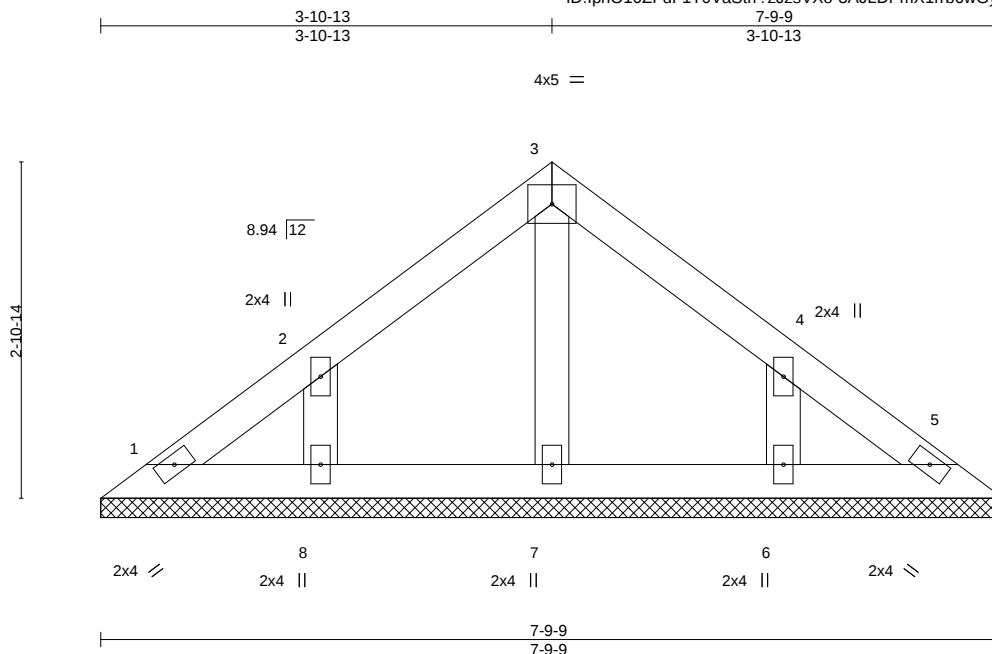


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015251
400384	LAY1	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:55 2020 Page 1
ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-3AJLDpmX1rrb6wGyS8xD4opCTHIJO35?sBDvx8zPslI



Scale = 1:19.9

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 0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a	999		
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: 23 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 7-9-9.
(lb) - Max Horz 1=67(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 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) 1, 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.



April 17, 2020

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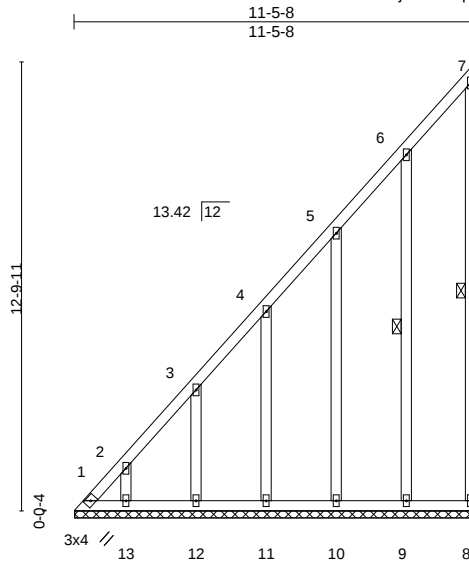
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4
400384	LAY2	GABLE	2	1	I41015252
Job Reference (optional)					

Wheeler Lumber, Waverly, KS 66871

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ID: bWuMdBNOtjF5cDvSpwhpH1zCzbQ-XMsjRln9o9zSk3r80sTSd?LMsgeY7UI85ryTTazPslH



Scale = 1:65.7

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 0.07	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 0.19	Horz(CT)	-0.00	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 78 lb FT = 10%

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.
WEBS 1 Row at midpt 7-8, 6-9

REACTIONS.

All bearings 11-5-4.
(lb) - Max Horz 1=501(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 8 except 1=-189(LC 6), 13=-120(LC 8), 12=-139(LC 8), 11=-135(LC 8), 10=-137(LC 8), 9=-138(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 8, 13, 12, 11, 10, 9 except 1=536(LC 8)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-726/289, 2-3=-616/248, 3-4=-475/193, 4-5=-339/141

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 exposed; Lumber DOL=1.60 plate grip
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 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) 8 except (jt=lb) 1=189, 13=120, 12=139, 11=135, 10=137, 9=138.
- 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.



April 17, 2020

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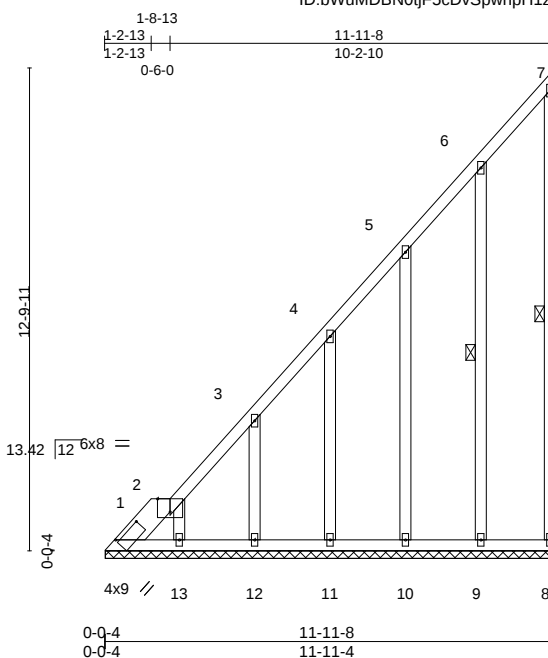
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Scale = 1:61.1



LUMBER-

TOP CHORD	2x8 SP DSS *Except* 2-7: 2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

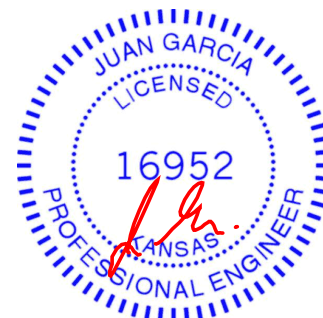
BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 7-8, 6-9

REACTIONS. All bearings 11-11-4.
(lb) - Max Horz 1=501(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 8, 13 except 1=-151(LC 6), 12=-109(LC 8), 11=-134(LC 8),
10=-137(LC 8), 9=-138(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 8, 13, 12, 11, 10, 9 except 1=465(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-662/255, 2-3=-593/239, 3-4=-475/193, 4-5=-339/142

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 exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 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) 8, 13 except (jt=lb) 1=151, 12=109, 11=134, 10=137, 9=138.
- 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.



April 17, 2020



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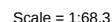


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LUMBER-	
TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2 *Except*
	1-7: 2x3 SPF No.2
OTHERS	2x4 SPF No.2

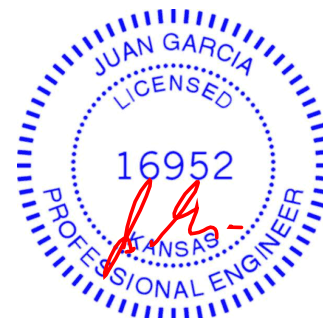
BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 3-9-2 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 1-6, 3-4, 2-5, 1-7

REACTIONS. (size) 6=3-9-2, 4=3-9-2, 5=3-9-2
 Max Horz 6=158(LC 8)
 Max Uplift 6=-323(LC 6), 4=-73(LC 8), 5=-908(LC 8)
 Max Grav 6=923(LC 8), 4=85(LC 15), 5=451(LC 6)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-6=-906/332
WEBS 5-7=-407/930. 1-7=-309/804

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 ; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 6=323, 5=908.
- 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.



April 17, 2020



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015255
400384	LAY5	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:59 2020 Page 1
ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-xxYs3mp154L1bXZjh_09FezumufHKt2bnpB74vzPslE

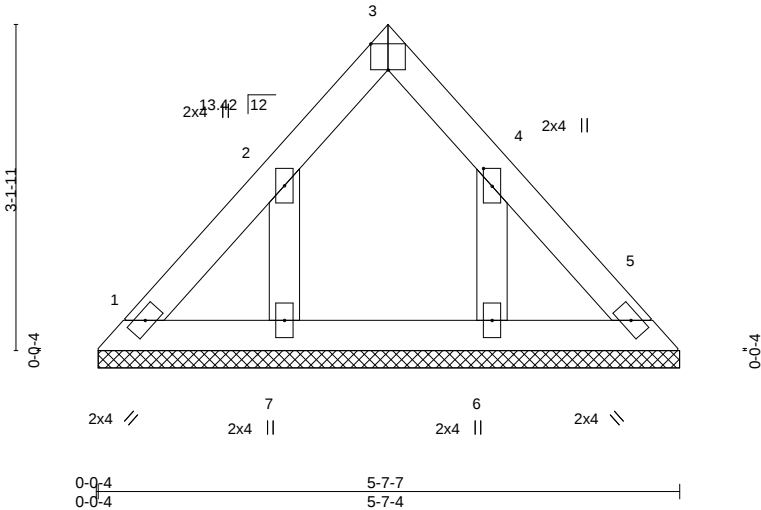
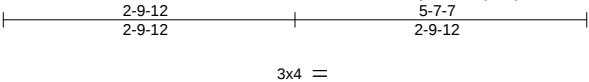


Plate Offsets (X,Y)--		[3:Edge,0-3-0], [4:0-2-1,0-1-0]								
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a - n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a - n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00 5 n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 18 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-7-7 oc purlins.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SPF No.2	

REACTIONS.	All bearings 5-7-3.
(lb) - Max Horz	1=-75(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.
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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) 7, 6.
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.



April 17,2020

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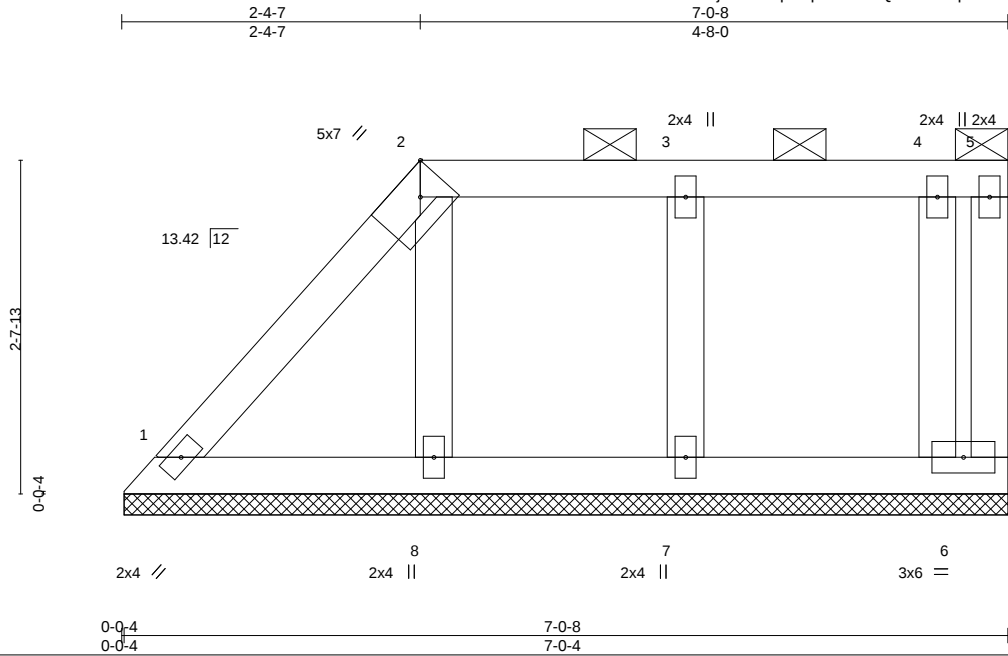


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015256
400384	LAY6	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:39:59 2020 Page 1
ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-xxYs3mp154L1bXZjh_09Fezt4uf9KtzbnpB74vzPslE



Scale = 1:18.3

Plate Offsets (X,Y)-- [2:0-2-10,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)	n/a	-	n/a
TCDL 10.0		Lumber DOL	1.15	BC 0.03		Vert(CT)	n/a	-	999
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.03		Horz(CT)	-0.00	6	n/a
BCDL 10.0		Code IRC2018/TPI2014		Matrix-P					
						PLATES	GRIP		
						MT20	197/144		
						Weight: 26 lb		FT = 10%	

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, and 2-0-0 oc purlins (6-0-0 max.): 2-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 7-0-4.
(lb) - Max Horz 1=94(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 1, 6, 8, 7
Max Grav All reactions 250 lb or less at joint(s) 1, 6, 8, 7

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) Provide adequate drainage to prevent water ponding.
- 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, 6, 8, 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.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 17, 2020

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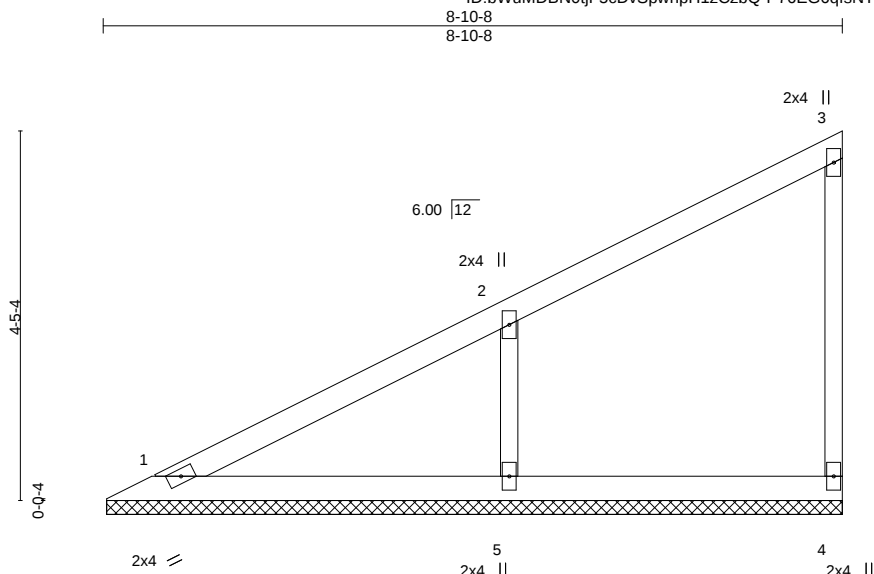
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015257
400384	V1	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:40:00 2020 Page 1

ID: bWuMDBN0tjF5cDvSpwhpH1zCzbQ-P76EG6qfsNTuDh8wFhXOnrW?I1zh3JWk0SwgcMzPsID



Scale = 1:27.7

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 0.27	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 0.07	Horz(CT)	-0.00	4	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
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

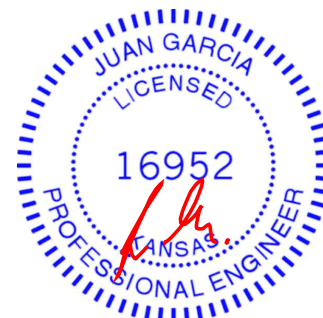
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=8-10-0, 4=8-10-0, 5=8-10-0
Max Horz 1=170(LC 5)
Max Uplift 4=-27(LC 5), 5=-137(LC 8)
Max Grav 1=148(LC 16), 4=127(LC 1), 5=458(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-356/199

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
- 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) 4 except (jt=lb) 5=137.
- 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.



April 17, 2020

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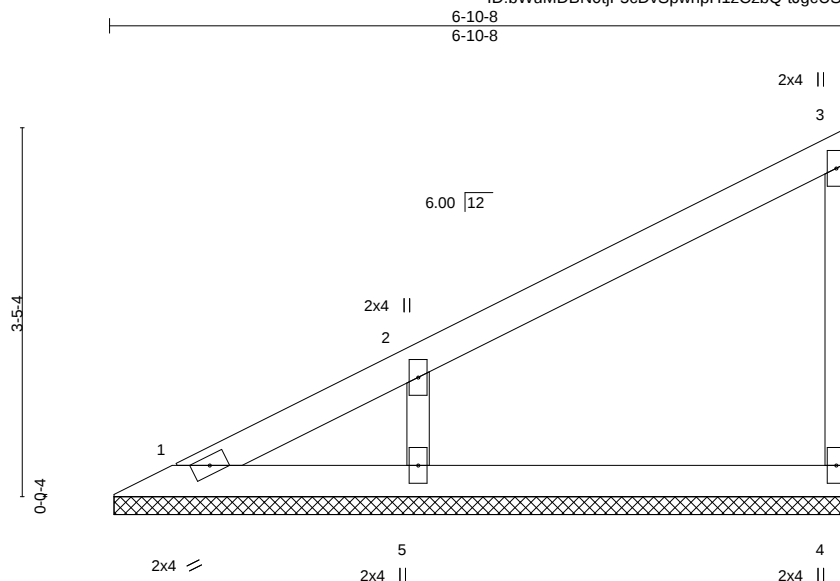
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400384	Truss V2	Truss Type Valley	Qty 1	Ply 1	Lot 59 H4 Job Reference (optional)	I41015258
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Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:40:01 2020 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-tJgcUSrHdhbkqrj6pP2dK32CohKXon4uF6gE9ozPslC



Scale = 1:21.5

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 0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 19 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 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) 1=6-10-0, 4=6-10-0, 5=6-10-0
Max Horz 1=128(LC 5)
Max Uplift 4=-27(LC 8), 5=-110(LC 8)
Max Grav 1=63(LC 16), 4=142(LC 1), 5=366(LC 1)

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

WEBS 2-5=-285/159

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=110.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 17, 2020

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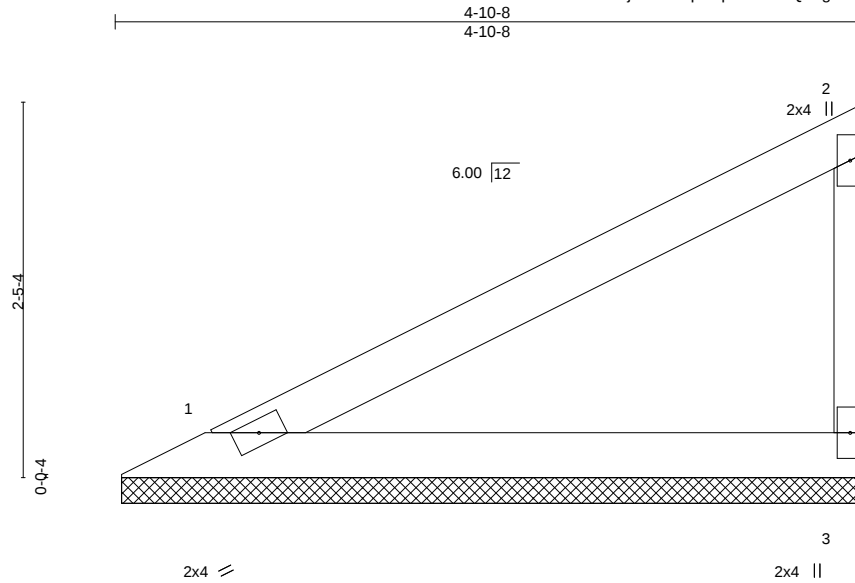
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015259
400384	V3	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:40:01 2020 Page 1

ID: bWuMDBN0tjF5cDvSpwhpH1zCzbQ-tJgcUSrHdhbkqrj6pP2dK329hhJOontuF6gE9ozPslC



Scale = 1:15.0

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 0.32	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a	999		
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-P						Weight: 12 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 4-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-10-0, 3=4-10-0
Max Horz 1=86(LC 5)
Max Uplift 1=-24(LC 8), 3=-46(LC 8)
Max Grav 1=186(LC 1), 3=186(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.



April 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 59 H4	I41015260
400384	V4	Valley	1	1	Job Reference (optional)	

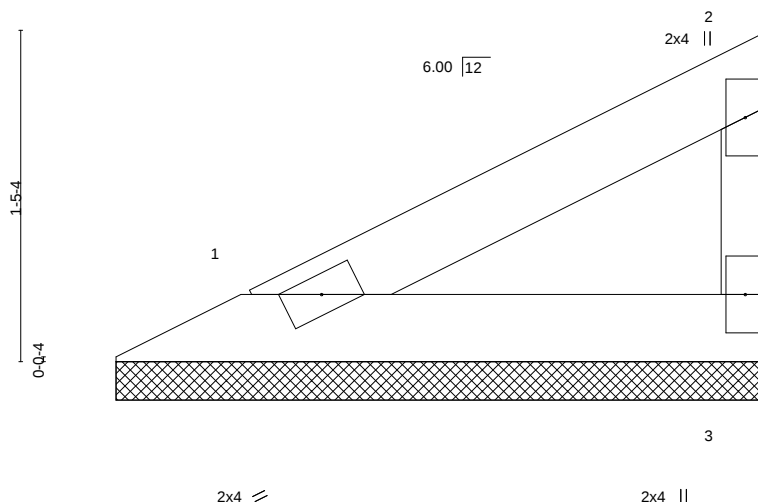
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 17 08:40:02 2020 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-LWE?horwO?jbS_IIN6ZssGbOF5hhXE71TmPnhEzPslB

2-10-8
2-10-8

Scale = 1:10.0



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 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	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: 7 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 2-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=2-10-0, 3=2-10-0
Max Horz 1=45(LC 5)
Max Uplift 1=-12(LC 8), 3=-24(LC 8)
Max Grav 1=96(LC 1), 3=96(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.



April 17, 2020

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

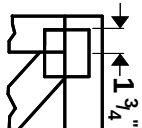
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



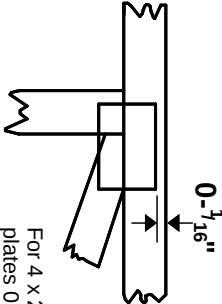
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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- $\frac{1}{16}$ " from outside edge of truss.

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

*** Plate location details available in MITek 20120 software or upon request.**

PLATE SIZE

4 X 4

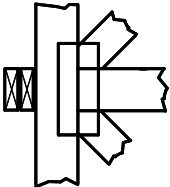
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



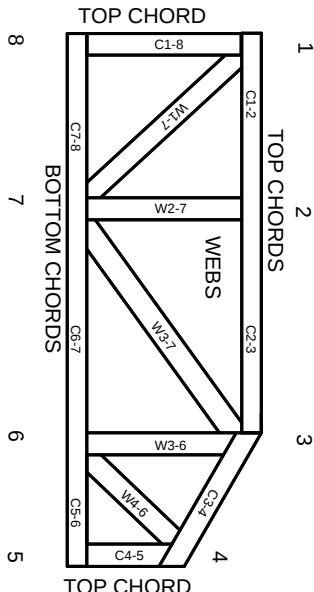
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: 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 1 section 6.3 These truss designs rely on lumber values established by others.

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

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 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
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 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.