



RE: 400213
Lot 53 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

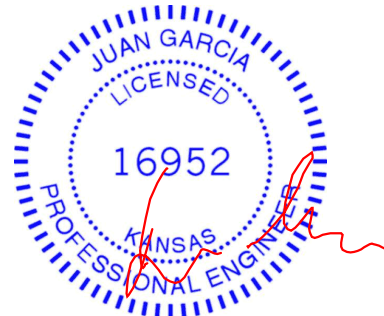
Floor Load: N/A psf

This package includes 78 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I40861142	a1	4/3/2020	27	I40861168	e1	4/3/2020
2	I40861143	a2	4/3/2020	28	I40861169	e2	4/3/2020
3	I40861144	a3	4/3/2020	29	I40861170	j1	4/3/2020
4	I40861145	a4	4/3/2020	30	I40861171	j2	4/3/2020
5	I40861146	a5	4/3/2020	31	I40861172	j3	4/3/2020
6	I40861147	a6	4/3/2020	32	I40861173	j4	4/3/2020
7	I40861148	b1	4/3/2020	33	I40861174	j5	4/3/2020
8	I40861149	b2	4/3/2020	34	I40861175	j6	4/3/2020
9	I40861150	b3	4/3/2020	35	I40861176	j7	4/3/2020
10	I40861151	b4	4/3/2020	36	I40861177	j8	4/3/2020
11	I40861152	b5	4/3/2020	37	I40861178	j9	4/3/2020
12	I40861153	b6	4/3/2020	38	I40861179	j10	4/3/2020
13	I40861154	b7	4/3/2020	39	I40861180	j11	4/3/2020
14	I40861155	c1	4/3/2020	40	I40861181	j12	4/3/2020
15	I40861156	c2	4/3/2020	41	I40861182	j13	4/3/2020
16	I40861157	d1	4/3/2020	42	I40861183	j14	4/3/2020
17	I40861158	d2	4/3/2020	43	I40861184	j15	4/3/2020
18	I40861159	d3	4/3/2020	44	I40861185	j16	4/3/2020
19	I40861160	d4	4/3/2020	45	I40861186	j17	4/3/2020
20	I40861161	d5	4/3/2020	46	I40861187	j18	4/3/2020
21	I40861162	d6	4/3/2020	47	I40861188	j19	4/3/2020
22	I40861163	d7	4/3/2020	48	I40861189	j20	4/3/2020
23	I40861164	d8	4/3/2020	49	I40861190	j21	4/3/2020
24	I40861165	d9	4/3/2020	50	I40861191	j22	4/3/2020
25	I40861166	d10	4/3/2020	51	I40861192	j23	4/3/2020
26	I40861167	d11	4/3/2020	52	I40861193	j24	4/3/2020

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.





RE: 400213 - Lot 53 H4

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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	I40861194	j25	4/3/2020
54	I40861195	j26	4/3/2020
55	I40861196	j27	4/3/2020
56	I40861197	j28	4/3/2020
57	I40861198	j29	4/3/2020
58	I40861199	j30	4/3/2020
59	I40861200	j31	4/3/2020
60	I40861201	lay1	4/3/2020
61	I40861202	lay2	4/3/2020
62	I40861203	lay3	4/3/2020
63	I40861204	lay4	4/3/2020
64	I40861205	p1	4/3/2020
65	I40861206	p2	4/3/2020
66	I40861207	r1	4/3/2020
67	I40861208	v1	4/3/2020
68	I40861209	v2	4/3/2020
69	I40861210	v3	4/3/2020
70	I40861211	v4	4/3/2020
71	I40861212	v5	4/3/2020
72	I40861213	v6	4/3/2020
73	I40861214	v7	4/3/2020
74	I40861215	v8	4/3/2020
75	I40861216	v9	4/3/2020
76	I40861217	v10	4/3/2020
77	I40861218	v11	4/3/2020
78	I40861219	v12	4/3/2020



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Design Program: MiTek 20/20 8.2

Wind Code: N/A

Wind Speed: 115 mph

Roof Load: 45.0 psf

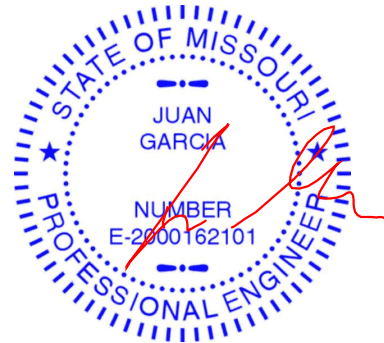
Floor Load: N/A psf

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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

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





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68	I40861209	v2	4/3/2020
69	I40861210	v3	4/3/2020
70	I40861211	v4	4/3/2020
71	I40861212	v5	4/3/2020
72	I40861213	v6	4/3/2020
73	I40861214	v7	4/3/2020
74	I40861215	v8	4/3/2020
75	I40861216	v9	4/3/2020
76	I40861217	v10	4/3/2020
77	I40861218	v11	4/3/2020
78	I40861219	v12	4/3/2020

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	
400213	A1	HIP GIRDER	1	3		I40861142
Wheeler Lumber, Waverly, KS 66871						Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:15 2020 Page 1

ID:2ncXplsOfbjIB6l7Q?gPMzrYWU-653C7AYP?cPD4CJaedt97DS?PrxZfR2X5ViFYzUTrs

3-3-8	8-10-8	15-0-8	21-2-8	26-3-7	31-9-5	37-1-8	41-5-8	46-0-0	46-10-8
3-3-8	5-7-0	6-2-0	6-2-0	5-0-15	5-5-15	5-4-3	4-4-0	4-6-8	0-10-8

Scale = 1:81.7

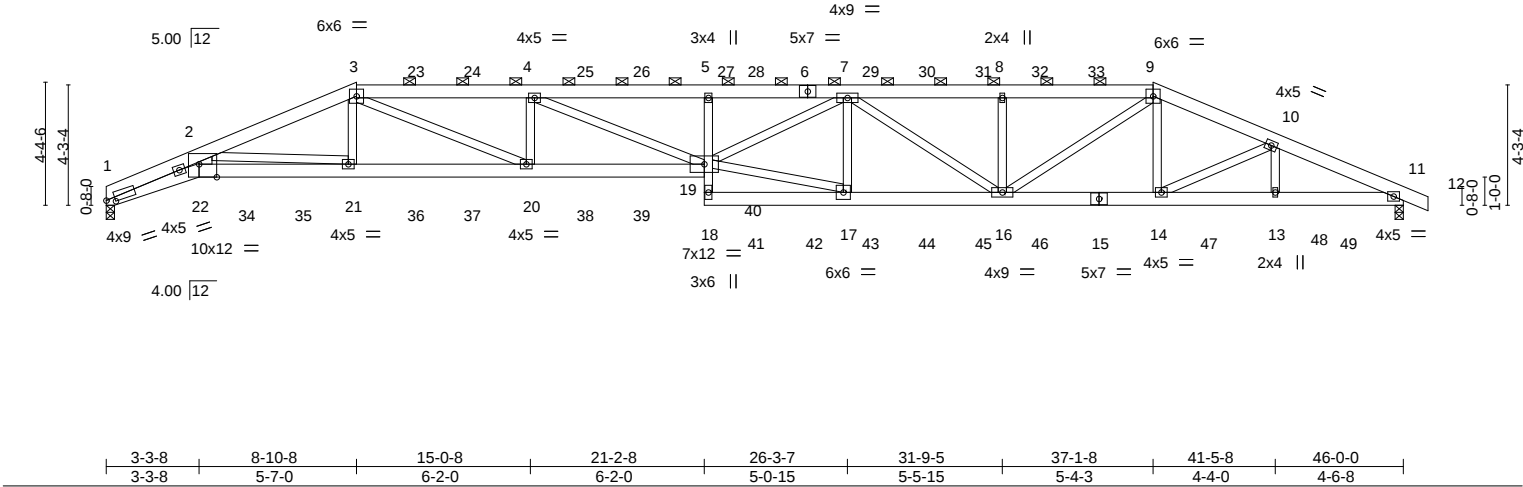


Plate Offsets (X,Y)--		[1:0-3-13,0-1-9], [22:0-7-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.58
TCDL 10.0	Lumber DOL	1.15	BC 0.51
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.63
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S
DEFL.	in (loc)	l/defl	L/d
Vert(LL)	-0.40 19-20	>999	360
Vert(CT)	-0.72 19-20	>760	240
Horz(CT)	0.24 11	n/a	n/a
Wind(LL)	0.53 19-20	>999	240
PLATES	GRIP		
MT20	197/144		
Weight: 808 lb	FT = 10%		

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x6 SP 2400F 2.0E *Except*	2-0-0 oc purlins (6-0-0 max.): 3-9.
5-18: 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2 *Except*	
2-22: 2x6 SPF No.2	

REACTIONS.	(size) 1=0-3-8, 11=0-3-8
Max Horz 1=-74(LC 34)	
Max Uplift 1=-1231(LC 4), 11=-1265(LC 5)	
Max Grav 1=2924(LC 1), 11=3077(LC 1)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-13403/5849, 2-3=-8301/3858, 3-4=-10538/5133, 4-5=-11736/5741, 5-7=-11588/5671, 7-8=-7558/3656, 8-9=-7560/3657, 9-10=-6044/2791, 10-11=-6368/2733
BOT CHORD	1-22=-5360/12309, 21-22=-4611/10559, 20-21=-3513/7668, 19-20=-5025/10537, 5-19=-459/354, 17-18=-556/1138, 16-17=-4125/8659, 14-16=-2488/5554, 13-14=-2418/5700, 11-13=-2418/5700
WEBS	2-22=-1568/3700, 2-21=-2859/1208, 3-21=-376/1069, 3-20=-1678/3292, 4-20=-1221/762, 4-19=-676/1394, 17-19=-3641/7675, 7-19=-1658/3371, 7-17=-1460/801, 7-16=-1400/709, 8-16=-555/406, 9-16=-1300/2541, 9-14=-86/417, 10-14=-156/260, 10-13=-50/261

- NOTES-**
- 3-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, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 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.
 - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 1=1231, 11=1265.



April 3, 2020

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4
400213	A1	HIP GIRDER	1	3	I40861142

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:15 2020 Page 2
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-653C7AYP?cPD4CJaedt97DS?PrxrZfR2X5ViFYzUTrs

- NOTES-**
- 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.
 - 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 110 lb down and 121 lb up at 8-10-8, 115 lb down and 121 lb up at 10-11-4, 115 lb down and 121 lb up at 12-11-4, 115 lb down and 121 lb up at 14-11-4, 115 lb down and 121 lb up at 16-11-4, 115 lb down and 121 lb up at 18-11-4, 115 lb down and 121 lb up at 20-11-12, 114 lb down and 118 lb up at 23-0-0, 114 lb down and 118 lb up at 25-0-12, 114 lb down and 118 lb up at 27-0-12, 114 lb down and 118 lb up at 29-0-12, 114 lb down and 118 lb up at 31-0-12, 114 lb down and 118 lb up at 33-0-12, and 114 lb down and 118 lb up at 35-0-12, and 108 lb down and 118 lb up at 37-1-8 on top chord, and 195 lb down and 137 lb up at 4-11-4, 139 lb down and 91 lb up at 6-11-4, 37 lb down and 24 lb up at 8-11-4, 37 lb down and 24 lb up at 10-11-4, 37 lb down and 24 lb up at 12-11-4, 37 lb down and 24 lb up at 14-11-4, 37 lb down and 24 lb up at 16-11-4, 37 lb down and 24 lb up at 18-11-4, 37 lb down and 24 lb up at 20-11-12, 37 lb down and 23 lb up at 23-0-0, 37 lb down and 23 lb up at 25-0-12, 37 lb down and 23 lb up at 27-0-12, 37 lb down and 23 lb up at 29-0-12, 37 lb down and 23 lb up at 31-0-12, 37 lb down and 23 lb up at 33-0-12, 37 lb down and 23 lb up at 35-0-12, 37 lb down and 23 lb up at 37-0-12, 139 lb down and 90 lb up at 39-0-12, and 139 lb down and 75 lb up at 41-0-12, and 142 lb down and 76 lb up at 43-0-12 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, 3-9=-70, 9-12=-70, 1-22=-20, 19-22=-20, 11-18=-20
- Concentrated Loads (lb)
 - Vert: 3=-48(F) 6=-48(F) 15=-23(F) 21=-22(F) 20=-22(F) 4=-48(F) 9=-48(F) 14=-23(F) 23=-48(F) 24=-48(F) 25=-48(F) 26=-48(F) 27=-48(F) 28=-48(F) 29=-48(F) 30=-48(F) 31=-48(F) 32=-48(F) 33=-48(F) 34=-195(F) 35=-139(F) 36=-22(F) 37=-22(F) 38=-22(F) 39=-22(F) 40=-22(F) 41=-23(F) 42=-23(F) 43=-23(F) 44=-23(F) 45=-23(F) 46=-23(F) 47=-139(F) 48=-139(F) 49=-142(F)

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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Chesterfield, MO 63017

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400213	A2	Hip	1	1		

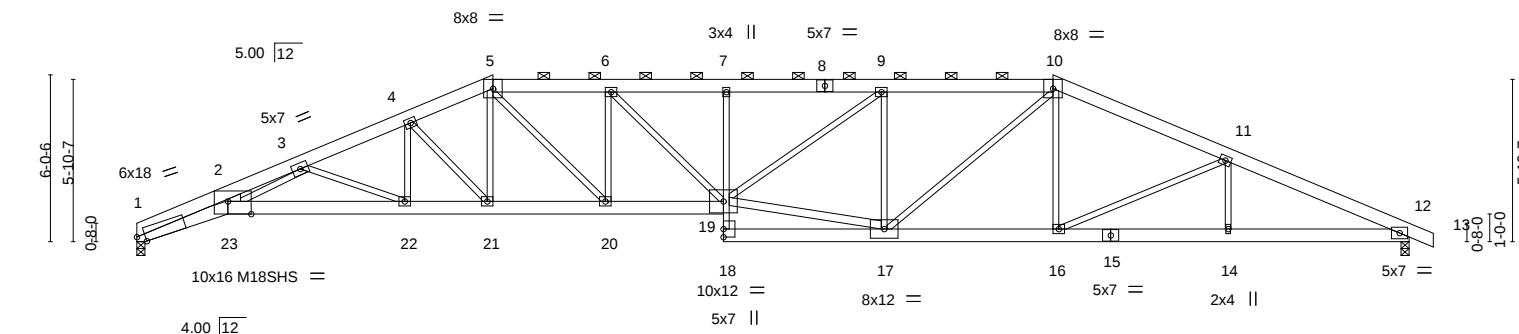
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:17 2020 Page 1

ID:2ncXplsXOffjIB617Q?gPMzrYWU-2UBByYsafXDfxKWTzI2wdCeXl8eXt1TVL_P_pKRzUTrq

3-3-8	6-0-10	9-9-7	12-10-8	17-0-8	21-2-8	27-0-4	33-1-8	39-5-8	46-0-0	46-10-8
3-3-8	2-9-2	3-8-14	3-1-1	4-2-0	4-2-0	5-9-12	6-1-4	6-4-0	6-6-8	0-10-8

Scale = 1:83.3



3-3-8	9-9-7	12-10-8	17-0-8	21-2-8	27-0-4	33-1-8	39-5-8	46-0-0
3-3-8	6-6-0	3-1-1	4-2-0	4-2-0	5-9-12	6-1-4	6-4-0	6-6-8

Plate Offsets (X,Y)-- [1:0-3-9,Edge], [2:0-2-12,0-1-2], [23:0-10-2,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 0.82	Vert(LL)	-0.54	19-20	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.96	19-20	>569	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.98	Horz(CT)	0.45	12	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.38	19-20	>999		
								Weight: 246 lb	FT = 10%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except*
1-5: 2x6 SP DSS
BOT CHORD 2x6 SPF No.2 *Except*
1-23: 2x6 SP DSS, 19-23: 2x6 SPF 1650F 1.4E, 7-18: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-23: 2x6 SPF No.2, 17-19: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-0-11 oc purlins, except
2-0-0 oc purlins (2-11-10 max.): 5-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
8-11-9 oc bracing: 1-23
2-2-0 oc bracing: 22-23.

REACTIONS. (size) 1=0-3-8, 12=0-3-8
Max Horz 1=-102(LC 13)
Max Uplift 1=-234(LC 4), 12=-266(LC 5)
Max Grav 1=2056(LC 1), 12=2129(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-8977/1019, 2-3=-7495/918, 3-4=-5281/692, 4-5=-4583/670, 5-6=-4982/765,
6-7=-5269/821, 7-9=-5262/821, 9-10=-4245/684, 10-11=-3851/563, 11-12=-4392/539
BOT CHORD 1-23=-914/8181, 22-23=-734/6193, 21-22=-538/4813, 20-21=-484/4234, 19-20=-614/4979,
7-19=-332/136, 17-18=-41/327, 16-17=-376/3482, 14-16=-427/3918, 12-14=-427/3918
WEBS 2-23=-163/1990, 3-23=-165/1111, 3-22=-1489/269, 4-22=-41/779, 4-21=-837/168,
5-21=-92/649, 6-19=-97/545, 17-19=-494/3974, 9-19=-183/1309, 9-17=-1304/307,
10-17=-203/1162, 10-16=-18/397, 11-16=-491/210, 5-20=-204/1204, 6-20=-746/205

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - All plates are 4x5 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=234, 12=266.
 - 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 3, 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 53 H4	I40861144
400213	A3	Hip	1	1		

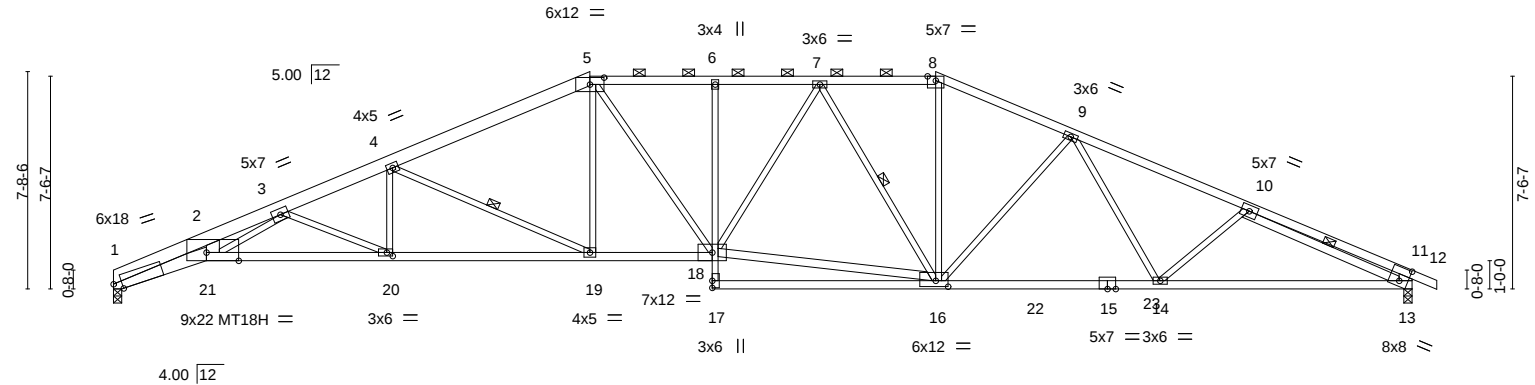
Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-WglKmCbHIXnoxg19JmRskr4S52tFmy_UD3kMstzUTrp

3-3-8	6-0-9	9-9-6	16-10-8	21-2-8	25-0-4	29-1-8	34-0-12	40-1-7	46-0-0	46-10-8
3-3-8	2-9-2	3-8-13	7-1-2	4-4-0	3-9-12	4-1-4	4-11-4	6-0-12	5-10-9	0-10-8

Scale = 1:81.6



	3-3-8	9-9-6	16-10-8	21-2-8	29-1-8	36-11-8	46-0-0
	3-3-8	6-5-15	7-1-2	4-4-0	7-11-0	7-10-0	9-0-8
Plate Offsets (X,Y)--	[1:0-3-9,Edge], [2:0-2-12,0-1-2], [5:0-6-0,0-2-15], [11:0-3-0,0-0-0], [13:0-3-9,0-5-11], [16:0-5-4,0-2-8], [20:0-2-8,0-1-8], [21:1-1-11,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 0.87		Vert(LL) -0.53 19-20 >999 360		MT20 197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.92		Vert(CT) -0.95 19-20 >577 240		MT18H 197/144
BCLL 0.0 *	Rep Stress Incr YES		WB 0.83		Horz(CT) 0.49 13 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL) 0.32 20-21 >999 240		Weight: 213 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-5: 2x6 SP DSS
BOT CHORD 2x4 SPF 2100F 1.8E *Except*
1-21: 2x6 SPF 1650F 1.4E, 6-17: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-21: 2x6 SPF No.2, 16-18,10-13: 2x4 SPF No.2, 11-13: 2x6 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-10-13 oc purlins, except end verticals, and 2-0-0 oc purlins (2-8-13 max.): 5-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 1-21,20-21.
WEBS 1 Row at midpt 4-19, 7-16, 10-13

REACTIONS.

(size) 1=0-3-8, 13=0-3-8
Max Horz 1=-121(LC 9)
Max Uplift 1=-212(LC 8), 13=-237(LC 9)
Max Grav 1=2118(LC 2), 13=2199(LC 2)

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

TOP CHORD 1-2=-9173/949, 2-3=-7684/887, 3-4=-5337/528, 4-5=-3982/471, 5-6=-3860/509, 6-7=-3851/507, 7-8=-3117/416, 8-9=-3420/433, 9-10=-4068/412, 10-11=-1075/156, 11-13=-658/158
BOT CHORD 1-21=-954/8366, 20-21=-674/6204, 19-20=-444/4892, 18-19=-258/3623, 6-18=-310/121, 14-16=-270/3492, 13-14=-331/3744
WEBS 2-21=-108/2067, 3-21=-236/1325, 3-20=-1426/250, 4-20=-8/810, 4-19=-1415/318, 5-19=-58/845, 5-18=-104/598, 16-18=-297/3355, 7-18=-66/643, 7-16=-1016/179, 8-16=-76/1077, 9-16=-583/227, 9-14=-27/423, 10-13=-3152/344

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=212, 13=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.



April 3,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	140861146
400213	A5	Roof Special	2	1		

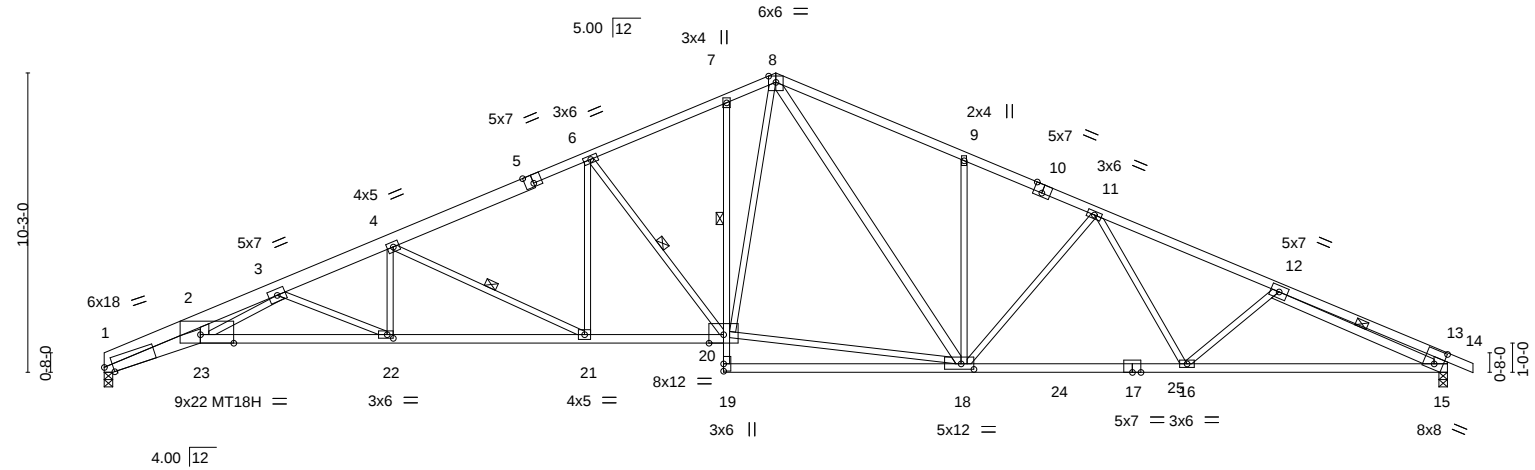
Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjB6l7Q?gPMzrYWU-xFRT0EdAbS9Mo7mk_u_ZMUixeFu_zJbxv1y0TCzUTrm

3-3-8	6-0-11	9-9-8	16-6-10	21-2-8	23-0-0	29-5-6	34-0-12	40-1-8	46-0-0	46-10-8
3-3-8	2-9-4	3-8-12	6-9-2	4-7-14	1-9-8	6-5-6	4-7-7	6-0-11	5-10-8	0-10-8

Scale = 1:78.9



3-3-8	9-9-8	16-6-10	21-2-8	29-5-6	36-11-8	46-0-0
3-3-8	6-6-0	6-9-2	4-7-14	8-2-14	7-6-3	9-0-8

Plate Offsets (X,Y)-- [1:0-3-9,Edge], [2:0-1-12,0-0-12], [5:0-3-8,Edge], [10:0-3-8,Edge], [13:0-3-0,0-0-0], [15:0-3-9,0-5-11], [18:0-5-4,0-2-4], [22:0-2-8,0-1-8], [23:1-1-11,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 0.91	Vert(LL)	-0.53 21-22	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.91	Vert(CT)	-0.93 21-22	>588	240	MT18H	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.84	Horz(CT)	0.48 15	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.35 22-23	>999	240	Weight: 219 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied, except end verticals.
8-10: 2x4 SPF 2100F 1.8E, 1-5: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 7-9-6 oc bracing. Except:
BOT CHORD 2x4 SPF 2100F 1.8E *Except*	1 Row at midpt 7-20
1-23: 2x6 SPF 1650F 1.4E, 7-19: 2x3 SPF No.2	WEBS 1 Row at midpt 4-21, 6-20, 12-15
WEBS 2x3 SPF No.2 *Except*	
2-23,8-18,12-15: 2x4 SPF No.2, 13-15: 2x6 SP DSS	

REACTIONS.	(size)
15=0-3-8, 1=0-3-8	
Max Horz 1=167(LC 12)	
Max Uplift 15=-289(LC 9), 1=-264(LC 8)	
Max Grav 15=2198(LC 2), 1=2118(LC 2)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-9026/1237, 2-3=-7791/1143, 3-4=-5318/673, 4-6=-3976/486, 6-7=-3226/416, 7-8=-3144/463, 8-9=-3449/545, 9-11=-3430/438, 11-12=-4064/498, 12-13=-1072/168, 13-15=-654/162
BOT CHORD	1-23=-1264/8216, 22-23=-928/6209, 21-22=-646/4867, 20-21=-362/3601, 16-18=-276/3488, 15-16=-437/3744
WEBS	2-23=-174/1912, 3-23=-281/1427, 3-22=-1461/306, 4-22=-33/819, 4-21=-1413/317, 6-21=-66/856, 6-20=-1124/265, 18-20=-163/2448, 8-20=-275/1490, 8-18=-306/983, 9-18=-396/207, 11-18=-583/197, 11-16=-26/435, 12-15=-3153/390

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=289, 1=264.
 - 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 3,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861147
400213	A6	Roof Special	4	1	Job Reference (optional)	

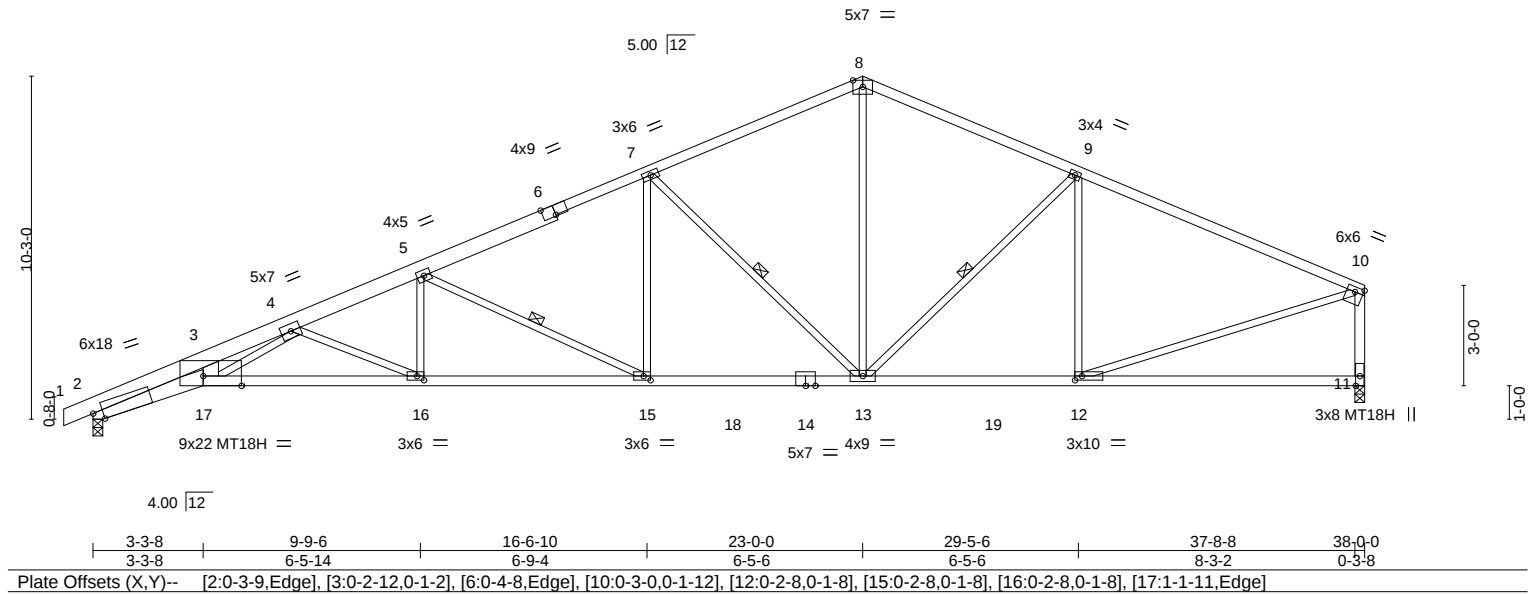
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:22 2020 Page 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-PR?rcaeoMmHDQHLwYbVovhF6QfGcij48hiZ?ezUTrl

0-10-8	3-3-8	6-0-9	9-9-6	16-6-10	23-0-0	29-5-6	38-0-0
0-10-8	3-3-8	2-9-1	3-8-13	6-9-4	6-5-6	6-5-6	8-6-11

Scale = 1:68.8



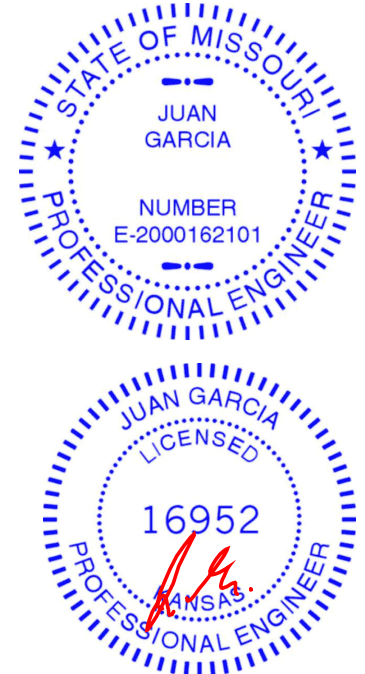
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.91	Vert(LL)	-0.45 16-17	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.79 16-17	>570	240	MT18H	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.91	Horz(CT)	0.33 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.32 16-17	>999	240	Weight: 160 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 1-11-10 oc purlins, except end verticals.
8-10: 2x4 SPF 2100F 1.8E, 1-6: 2x6 SPF 1650F 1.4E	BOT CHORD Rigid ceiling directly applied or 7-8-15 oc bracing.
BOT CHORD 2x4 SPF No.2 *Except*	WEBS 1 Row at midpt 5-15, 7-13, 9-13
2-17: 2x6 SPF 1650F 1.4E, 14-17: 2x4 SPF 2100F 1.8E	
WEBS 2x3 SPF No.2 *Except*	
3-17: 2x6 SPF No.2, 10-11: 2x4 SPF No.2	

REACTIONS.	(size) 2=0-3-8, 11=0-3-8
	Max Horz 2=210(LC 8)
	Max Uplift 2=-265(LC 8), 11=-182(LC 9)
	Max Grav 2=1834(LC 2), 11=1790(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-7664/1206, 3-4=-6449/1097, 4-5=-4250/611, 5-7=-3019/431, 7-8=-2063/319, 8-9=-2071/341, 9-10=-2215/246, 10-11=-1653/226
BOT CHORD	2-17=-1277/6993, 16-17=-914/5070, 15-16=-625/3877, 13-15=-353/2710, 12-13=-163/1966
WEBS	3-17=-177/1664, 4-17=-291/1265, 4-16=-1298/314, 5-16=-39/759, 5-15=-1301/304, 7-15=-53/834, 7-13=-1223/308, 8-13=-132/1208, 9-13=-340/172, 9-12=-419/147, 10-12=-147/1964

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) All plates are MT20 plates unless otherwise indicated.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 6) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=265, 11=182.
 - 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 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	
400213	B1	ROOF SPECIAL	3	1		I40861148
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOffjIb617Q?gPMzryWU-teYDpwfQ73P42Rw66J01RvnJ93alRGEDNKR7X4zUtrk

0-10-8	3-3-8	6-0-12	9-9-8	16-6-11	21-2-0	23-0-0	28-4-0
0-10-8	3-3-8	2-9-4	3-8-13	6-9-2	4-7-5	1-10-0	5-4-0

5x7 =

Scale = 1:61.6

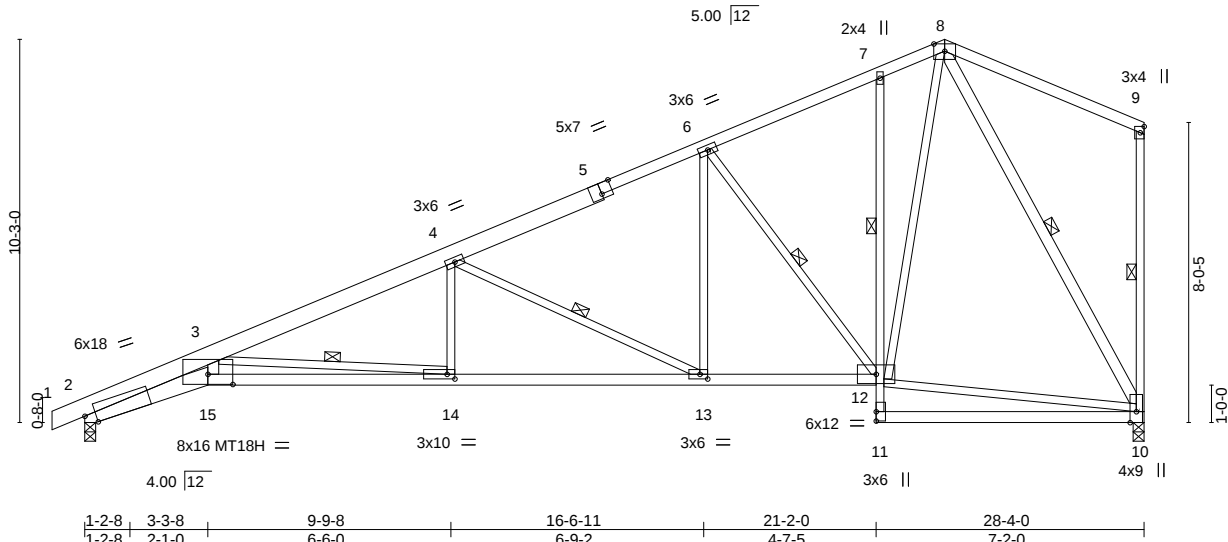


Plate Offsets (X,Y)-- [2:0-3-9,Edge], [5:0-3-8,Edge], [13:0-2-8,0-1-8], [14:0-2-8,0-1-8], [15:0-8-0,0-3-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.32 14-15 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.60 14-15 >566 240	MT18H	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.28 10 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.28 14-15 >999 240	Weight: 145 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-5: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-15: 2x6 SPF No.2, 12-15: 2x4 SPF 2100F 1.8E, 7-11: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-15,8-10: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
1 Row at midpt 7-12
WEBS 1 Row at midpt 3-14, 4-13, 6-12, 9-10, 8-10

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
Max Horz 2=336(LC 7)
Max Uplift 2=-217(LC 8), 10=-186(LC 8)
Max Grav 2=1337(LC 1), 10=1262(LC 1)

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

TOP CHORD 2-3=-5309/997, 3-4=-2763/464, 4-6=-1643/293, 6-7=-947/223, 7-8=-880/275
BOT CHORD 2-15=-1084/4829, 14-15=-975/4268, 13-14=-509/2549, 12-13=-211/1405
WEBS 3-15=-265/1548, 3-14=-1729/468, 4-14=0/423, 4-13=-1276/333, 6-13=-71/682,
6-12=-992/257, 8-12=-271/1196, 10-12=-167/512, 8-10=-1242/176

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=217, 10=186.
- 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 3,2020

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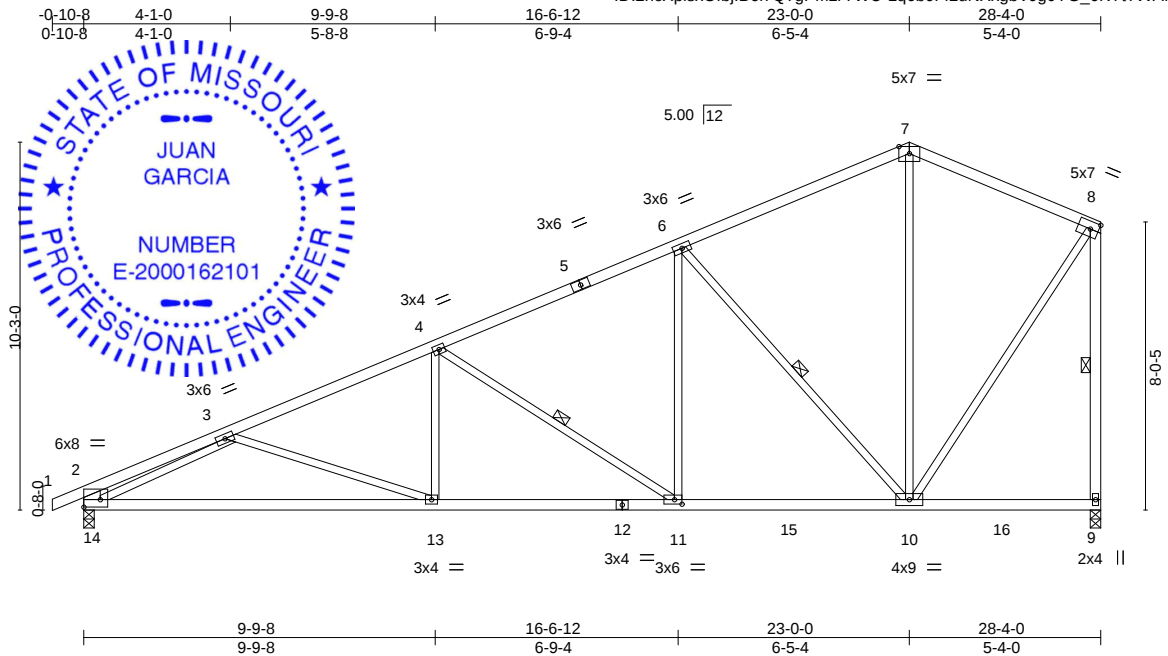


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861149
400213	B2	COMMON	1	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:24 2020 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-Lq6b0Ff2uNXxgbVJg0YG_6KYtTvvAf1Nb_Bg3XzUTrj



Scale: 3/16"=1'

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.53	Vert(LL)	-0.23 13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.47 13-14	>712	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.92	Horz(CT)	0.07 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09 11-13	>999	240	Weight: 124 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-14: 2x6 SPF No.2, 8-9: 2x4 SPF No.2

BRACING-

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

REACTIONS.

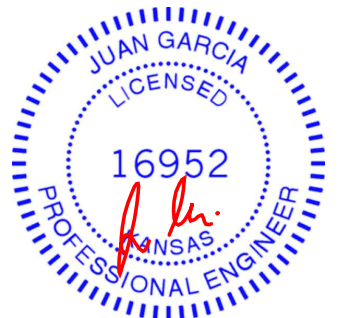
(size) 14=0-3-8, 9=0-3-8
Max Horz 14=342(LC 5)
Max Uplift 14=-218(LC 8), 9=-186(LC 8)
Max Grav 14=1376(LC 2), 9=1359(LC 2)

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

TOP CHORD 2-3=-719/30, 3-4=-2182/319, 4-6=-1477/261, 6-7=-721/184, 7-8=-695/207,
2-14=-448/85, 8-9=-1260/220
BOT CHORD 13-14=-514/2033, 11-13=-355/1962, 10-11=-190/1296
WEBS 4-13=0/352, 4-11=-797/197, 6-11=-37/682, 6-10=-1067/288, 3-14=-1691/389,
8-10=-138/1052

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, 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) 14=218, 9=186.
- 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 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

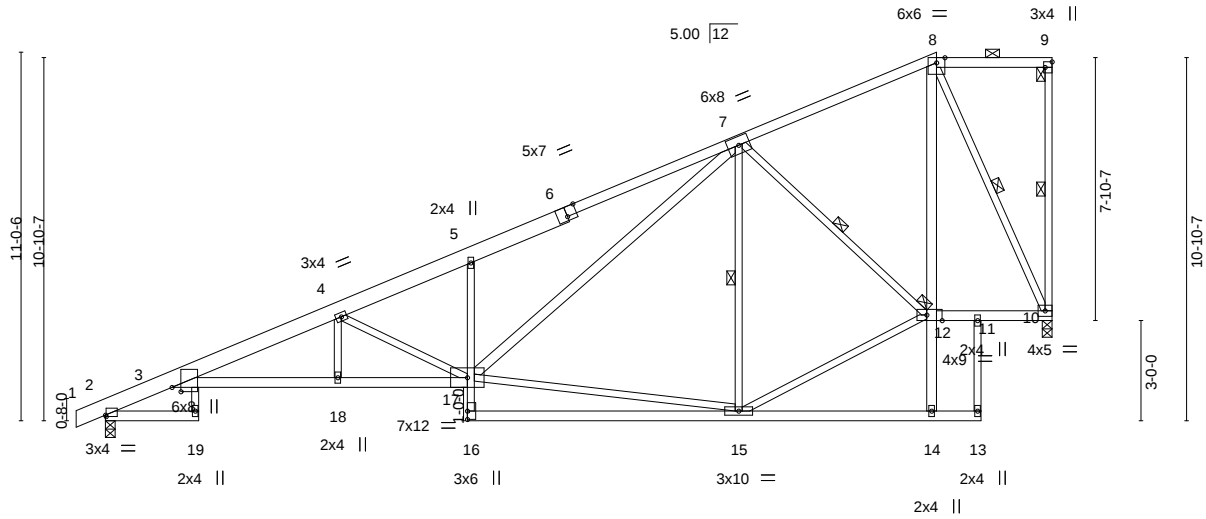
Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861150
400213	B3	Half Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:25 2020 Page 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-p0g_EbggfhfoHl4VDk3VWKseXtKrv5PWqewEczzUTri

0-10-8	2-9-8	6-11-8	10-10-0	18-11-7	24-10-8	26-2-8	28-4-0
0-10-8	2-9-8	4-2-0	3-10-9	8-1-7	5-11-1	1-4-0	2-1-8



2-9-8	6-11-8	10-10-0	18-11-7	24-10-8	26-2-8	28-4-0
2-9-8	4-2-0	3-10-9	8-1-7	5-11-1	1-4-0	2-1-8

Plate Offsets (X,Y)-- [2:0-0-4,0-0-8], [3:0-1-9,0-3-3], [6:0-3-8,Edge], [9:Edge,0-2-8], [12:0-5-8,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 0.86	Vert(LL)	-0.31	19	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.66	Vert(CT)	-0.56	19	>605	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.98	Horz(CT)	0.26	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.30	19	>999	240	Weight: 161 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-6: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
3-17: 2x4 SPF 2100F 1.8E, 5-16: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
7-17,8-14: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-1 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-9.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 9-10, 7-15, 7-12, 8-10
JOINTS 1 Brace at Jt(s): 9, 12

REACTIONS.

(size) 10=0-3-8, 2=0-3-8
Max Horz 2=413(LC 5)
Max Uplift 10=-225(LC 8), 2=-202(LC 8)
Max Grav 10=1264(LC 1), 2=1351(LC 1)

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

TOP CHORD 2-3=-724/0, 3-4=-3399/587, 4-5=-2509/466, 5-7=-2562/604, 7-8=-628/160
BOT CHORD 3-18=-769/3233, 17-18=-769/3233, 5-17=-410/247, 11-12=-126/498, 10-11=-126/498
WEBS 4-17=-1114/253, 15-17=-198/869, 7-17=-486/1687, 7-15=-450/219, 7-12=-672/220, 8-12=-211/1027, 8-10=-1236/251, 12-15=-214/1114

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) 10=225, 2=202.
- 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 3,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	140861151
400213	B4	Half Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:27 2020 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-IPokfHwBlvWX2DuL95zcl_y_ag0yN3KplyPKgrzUTrg

0-10-8	2-9-8	6-2-4	12-2-4	17-9-0	20-10-8	28-4-0
0-10-8	2-9-8	3-4-12	5-11-15	5-6-13	3-1-8	7-5-8

Scale = 1:63.4

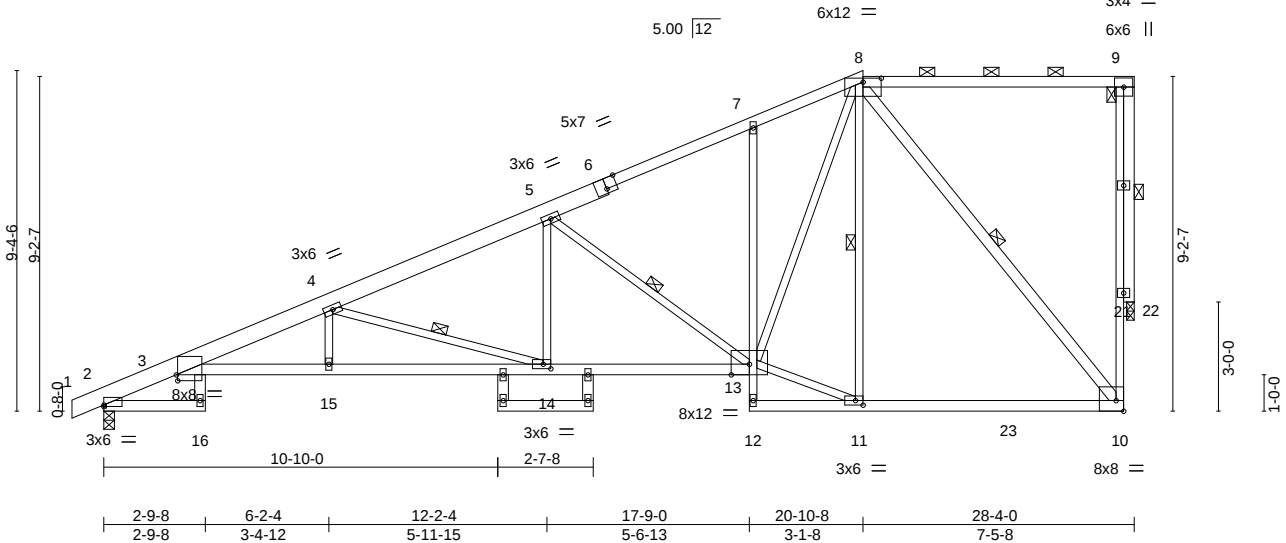


Plate Offsets (X,Y)-- [2:0-0-0,0-0-8], [3:0-0-7,0-1-15], [6:0-3-8,Edge], [8:0-6-0,0-1-5], [10:Edge,0-3-8], [11:0-2-8,0-1-8], [14:0-2-8,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.31	16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.54	16	>622	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.53	22	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.27	16	>999	240	Weight: 156 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-6: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
3-13: 2x4 SPF 2100F 1.8E, 7-12: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-16,8-10,17-19,18-20: 2x4 SPF No.2
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.): 8-9.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 5-13, 8-11, 8-10, 4-14, 9-22

REACTIONS.

(size) 2=0-3-8, 22=0-2-8
Max Horz 2=311(LC 8)
Max Uplift 2=179(LC 8), 22=181(LC 4)
Max Grav 2=1394(LC 2), 22=1323(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-697/0, 3-4=-3707/565, 4-5=-2406/334, 5-7=-1485/210, 7-8=-1403/274,
10-21=-138/1127, 9-21=-138/1127
BOT CHORD 3-15=-789/3561, 14-15=-789/3561, 13-14=-438/2153, 10-11=-129/846
WEBS 5-14=-32/662, 5-13=-1085/282, 11-13=-105/904, 8-13=-327/1249, 8-10=-1266/227,
4-14=-1473/368, 9-22=-1325/181

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- 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.
- Bearing at joint(s) 22 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 22.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=179, 22=181.
- 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 3,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861152
400213	B5	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:28 2020 Page 2
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-DbM6sdiZyc2N8Co4vscC8yU9G4LC6YCzWc9uClzUTrf

- NOTES-**
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=176, 22=197.
 - 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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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	140861153
400213	B6	Half Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:29 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-iowU4zjBivAEmMNGSa7RhA1L4UgYrxt6lGuRlkzUTre

0-10-8	2-9-8	7-4-11	12-10-8	17-9-0	22-11-4	28-4-0
0-10-8	2-9-8	4-7-3	5-5-13	4-10-8	5-2-4	5-4-12

Scale = 1:52.4

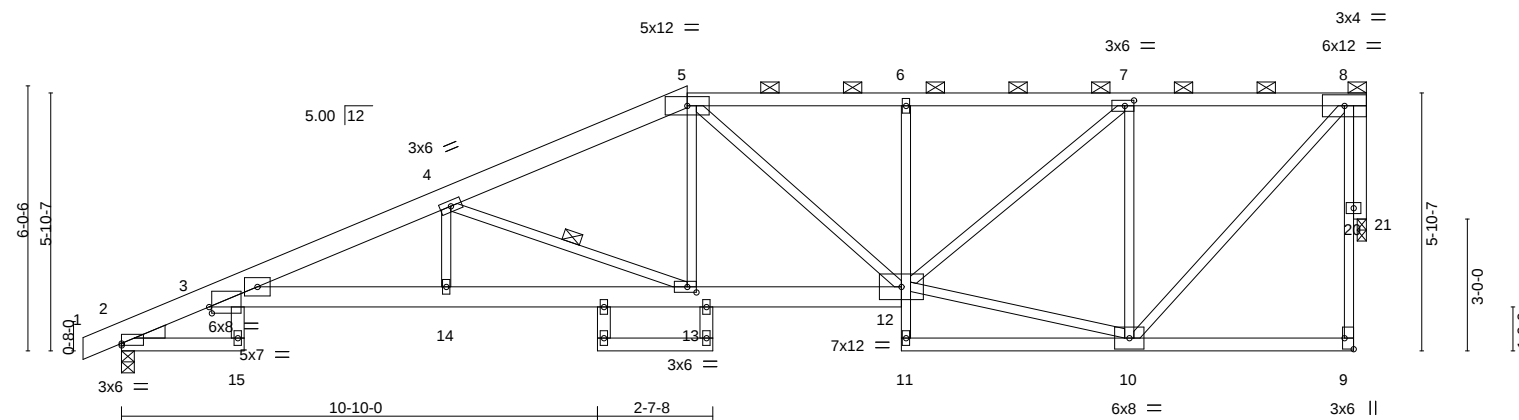


Plate Offsets (X,Y)--	[2:0-0-0,0-0-8], [3:0-0-12,0-1-11], [7:0-2-8,0-1-8], [9:Edge,0-2-8], [13:0-2-8,0-1-8]
-----------------------	---

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.82	Vert(LL)	-0.28	15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.74	Vert(CT)	-0.51	15	>657	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.89	Horz(CT)	0.42	21	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.23	15	>999	240	Weight: 148 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E *Except*
5-8: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-12: 2x6 SPF 1650F 1.4E, 6-11: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-15,16-18,17-19: 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-12 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-1 max.): 5-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-15.
WEBS 1 Row at midpt 4-13

REACTIONS.

(size) 2=0-3-8, 21=0-2-8
Max Horz 2=200(LC 5)
Max Uplift 2=-158(LC 8), 21=-210(LC 4)
Max Grav 2=1349(LC 1), 21=1237(LC 1)

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

TOP CHORD 2-3=-625/0, 3-4=-3413/394, 4-5=-2213/302, 5-6=-1861/311, 6-7=-1854/310, 7-8=-1011/183
BOT CHORD 3-14=-476/3206, 13-14=-476/3206, 12-13=-327/1972, 6-12=-370/152
WEBS 4-14=0/321, 4-13=-1348/321, 5-13=-51/628, 10-12=-191/941, 7-12=-190/1126, 7-10=-1148/292, 8-10=-231/1403, 8-21=-1245/212

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.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 21 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 21.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=158, 21=210.
- 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 3,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	
400213	B7	HALF HIP GIRDER	1	2		I40861154

Wheeler Lumber, Waverly, KS 66871

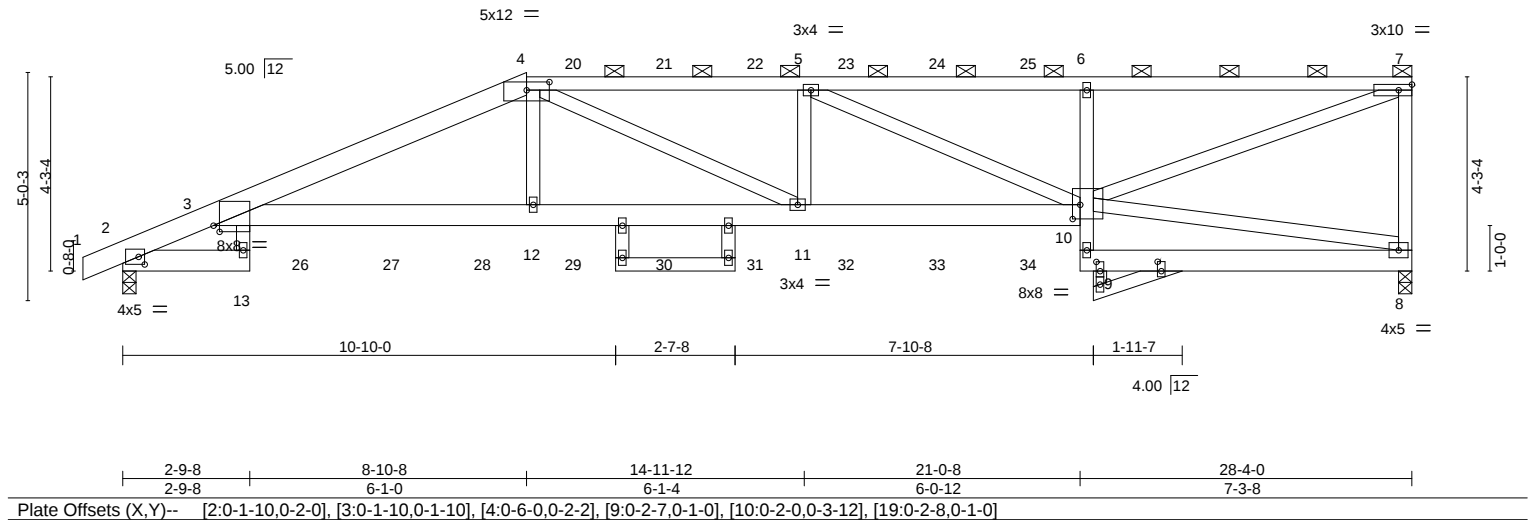
8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:31 2020 Page 1

ID:aaMms2PE?htzY4KmTyeY9qz3619-eA1FUfIREXQy?gXfa_Avmb6i3HQEJwmPCaNYpdzUTrc

Job Reference (optional)

0-10-8 2-9-8 8-10-8 14-11-12 21-0-8 28-4-0
0-10-8 2-9-8 6-1-0 6-1-4 6-0-12 7-3-8

Scale = 1:50.6



LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.26	3-12	>999	360	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.46	3-12	>732	240			
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.48	Horz(CT)	0.25	8	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.30	3-12	>999	240	Weight: 335 lb	FT = 10%	

LUMBER-

TOP CHORD 2x6 SP DSS *Except*
4-7: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-13,3-10,8-9: 2x6 SP 2400F 2.0E
WEBS 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 (5-4-14 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-13.

REACTIONS.

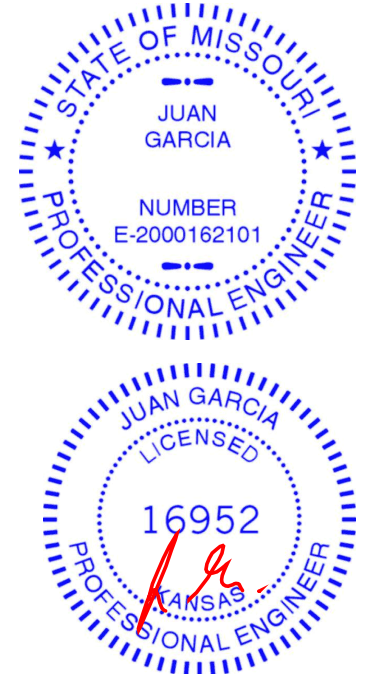
(size) 8=0-3-8, 2=0-3-8
Max Horz 2=174(LC 5)
Max Uplift 8=692(LC 5), 2=690(LC 8)
Max Grav 8=1799(LC 1), 2=1990(LC 1)

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

TOP CHORD 2-3=-877/308, 3-4=-4706/1872, 4-5=-4700/2083, 5-6=-3679/1598, 6-7=-3639/1565, 7-8=-1704/725
BOT CHORD 3-12=-1865/4373, 11-12=-1877/4415, 10-11=-2130/4700, 6-10=-564/320
WEBS 3-13=-86/290, 4-12=-250/838, 4-11=-300/426, 5-10=-1126/550, 7-10=-1679/3887

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 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.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- 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) 8=692, 2=690.
- 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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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 53 H4
400213	B7	HALF HIP GIRDER	1	2	I40861154
Wheeler Lumber, Waverly, KS 66871					Job Reference (optional)

NOTES-

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 110 lb down and 105 lb up at 9-11-4, 114 lb down and 118 lb up at 11-11-4, 115 lb down and 121 lb up at 13-11-4, 115 lb down and 121 lb up at 15-11-4, and 115 lb down and 121 lb up at 17-11-4, and 115 lb down and 121 lb up at 19-11-4 on top chord, and 171 lb down and 108 lb up at 3-11-4, 139 lb down and 80 lb up at 5-11-4, 142 lb down and 95 lb up at 7-11-4, 63 lb down and 25 lb up at 9-11-4, 37 lb down and 23 lb up at 11-11-4, 37 lb down and 24 lb up at 13-11-4, 37 lb down and 24 lb up at 15-11-4, 37 lb down and 24 lb up at 17-11-4, and 37 lb down and 24 lb up at 19-11-4, and 289 lb down and 146 lb up at 21-2-4 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: 1-4=-70, 4-7=-70, 2-13=-20, 3-10=-20, 8-9=-20

Concentrated Loads (lb)

Vert: 10=-289(B) 20=-44(B) 21=-48(B) 22=-48(B) 23=-48(B) 24=-48(B) 25=-48(B) 26=-171(B) 27=-139(B) 28=-139(B) 29=-45(B) 30=-23(B) 31=-22(B) 32=-22(B) 33=-22(B) 34=-22(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861155
400213	C1	ROOF SPECIAL	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:32 2020 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-6Nbdi?l3?Ypdp6r8ih8JoftkhnY2TRYRE75L3zUTrb

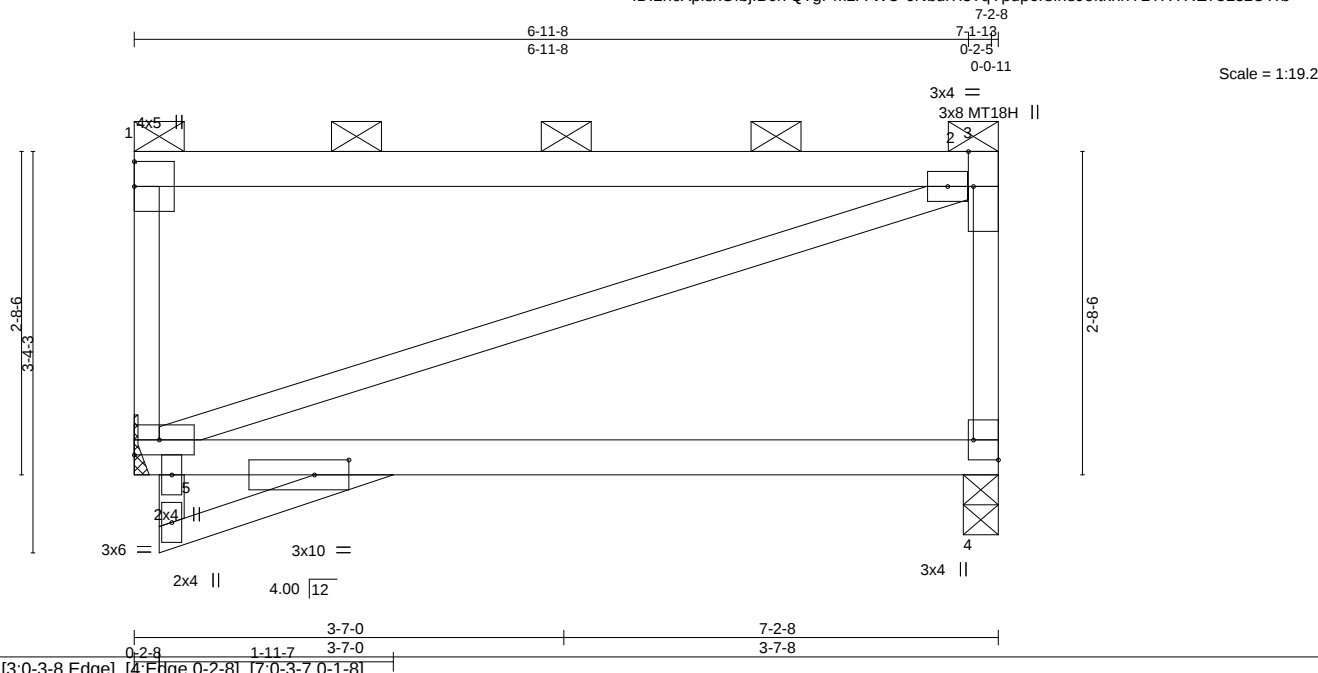


Plate Offsets (X,Y)--		[3:0-3-8,Edge], [4:Edge,0-2-8], [7:0-3-7,0-1-8]							
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL 1.15	TC 0.73	Vert(LL)	-0.10	4-5	>848	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.40	Vert(CT)	-0.19	4-5	>438	240	MT18H	197/144
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL)	-0.01	4-5	>999	240	Weight: 28 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=Mechanical, 4=0-3-8
Max Horz 5=92(LC 5)
Max Uplift 5=-75(LC 4), 4=-75(LC 5)
Max Grav 5=315(LC 1), 4=315(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) Provide adequate drainage to prevent water ponding.
- 3) All plates are MT20 plates unless otherwise indicated.
- 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) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 3, 2020

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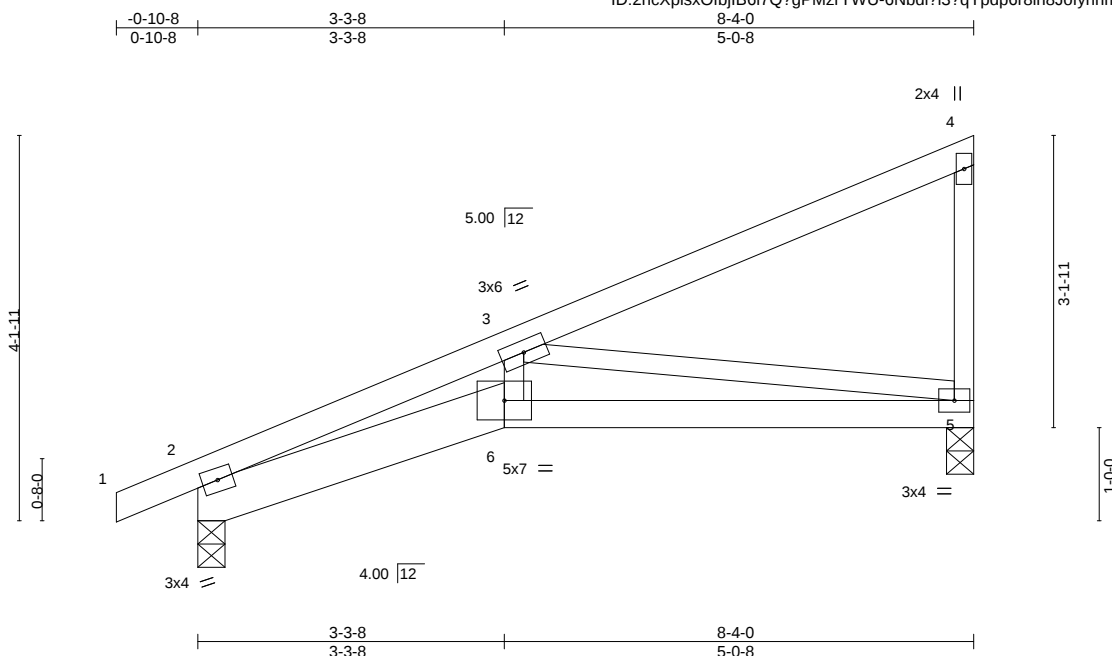


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861156
400213	C2	MONOPITCH	4	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:32 2020 Page 1
ID:2ncXplsXOfbjIB617Q?gPMzrYWU-6Nbdi?I3?qYdp6r8ih8Jofynhm02KOYRE75L3zUTrb



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 0.41	Vert(LL)	-0.05	6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.50	Vert(CT)	-0.10	5-6	>960	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.64	Horz(CT)	0.04	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.05	6	>999	240	Weight: 30 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-6: 2x6 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-0-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 2=0-3-8
Max Horz 2=149(LC 5)
Max Uplift 5=-86(LC 8), 2=-74(LC 8)
Max Grav 5=359(LC 1), 2=440(LC 1)

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

TOP CHORD 2-3=-1303/304
BOT CHORD 2-6=-349/1172, 5-6=-320/1046
WEBS 3-6=-60/448, 3-5=-1059/352

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.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 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 3, 2020

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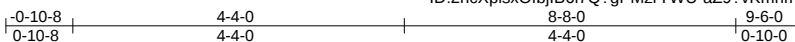
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861157
400213	D1	GABLE	1	1		
Job Reference (optional)						

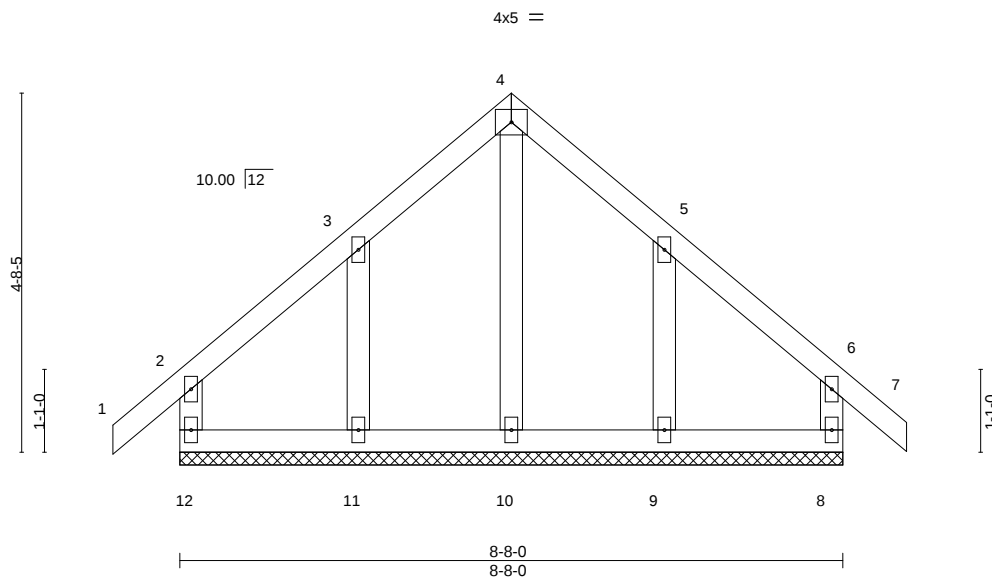
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:33 2020 Page 1

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Scale = 1:30.1



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 0.07	Vert(LL)	-0.00	7	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	7	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 38 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.

REACTIONS.

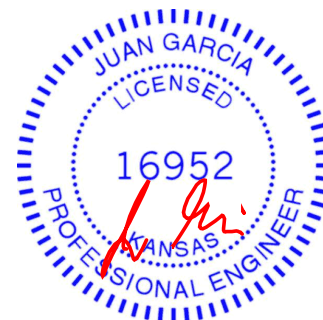
All bearings 8-8-0.
(lb) - Max Horz 12=146(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 12, 8 except 11=123(LC 8), 9=122(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 12, 8, 10, 11, 9

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; 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 8 except (jt=lb) 11=123, 9=122.
- 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 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861158
400213	D2	GABLE COMMON	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjIB6i7Q?gPMzrYWU-TKPWlipCqNA5jb_pwFhJ0sMp1iY5jbRHbWqs1GzUTrW

0-10-8 5-4-13 10-8-6 17-7-10 28-4-0 29-2-8
0-10-8 5-4-13 5-3-9 6-11-3 10-8-6 0-10-8

Scale = 1:60.3

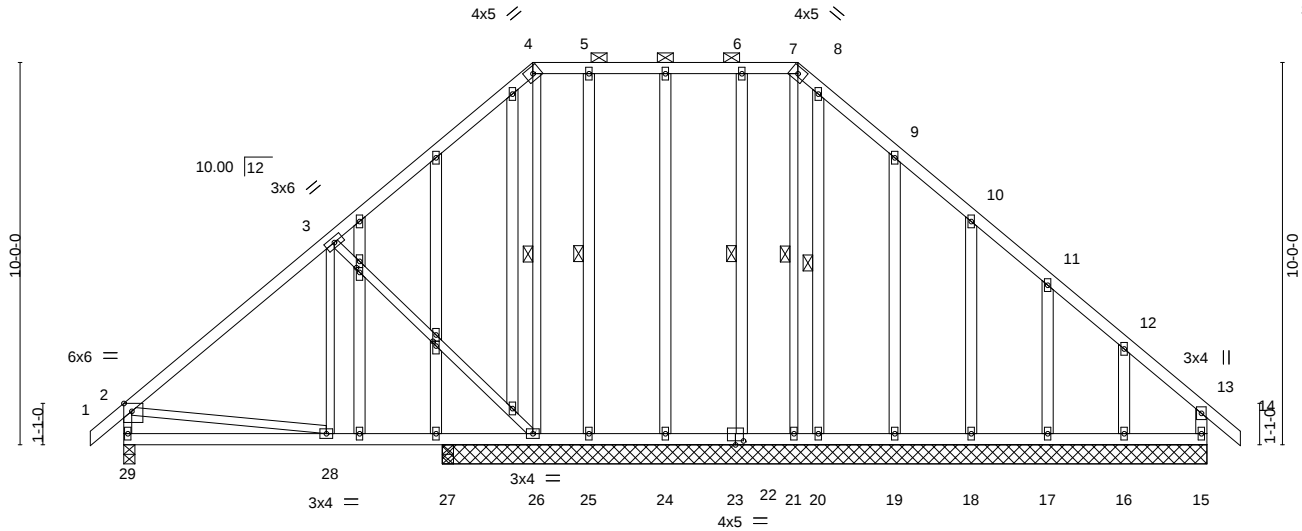


Plate Offsets (X,Y)-- [2:0-2-8,Edge], [22:0-1-12,0-0-0], [23:0-0-0,0-1-12], [23:0-2-8,0-1-4], [33:0-1-8,0-1-0], [36:0-1-8,0-1-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.02	28-29	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.05	28-29	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.01	15	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.01	28	>999	240	Weight: 195 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
13-15: 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 (10-0-0 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 28-29,27-28,26-27.
WEBS 1 Row at midpt 4-26, 7-21, 5-25, 6-22, 8-20

REACTIONS.

All bearings 20-0-0 except (jt=length) 29=0-3-8, 27=0-3-8.
(lb) - Max Horz 29=285(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 21, 15, 25, 22, 18, 17 except 29=-135(LC 9), 26=-159(LC 8), 19=-105(LC 9), 16=-170(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 21, 15, 24, 20, 19, 18, 17, 27 except 29=551(LC 16), 26=664(LC 15), 25=260(LC 22), 22=277(LC 21), 16=271(LC 16)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-501/214, 3-4=-193/294, 4-5=-79/259, 5-6=-79/258, 6-7=-79/258, 7-8=-92/289, 8-9=-96/281, 2-29=-467/162
BOT CHORD 28-29=-268/348, 27-28=-105/369, 26-27=-105/369
WEBS 3-26=-475/226, 4-26=-275/78

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 21, 15, 25, 22, 18, 17 except (jt=lb) 29=135, 26=159, 19=105, 16=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.



April 3,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861159
400213	D3	Piggyback Base	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-xWyuy2qqbglyLkZ?UzoYY3vym6l6S1DRpAaQZjzUTrV

0-10-8	3-11-5	10-8-6	17-7-10	22-11-3	28-4-0	29-2-8
0-10-8	3-11-5	6-9-1	6-11-3	5-3-9	5-4-13	0-10-8

Scale = 1:60.1

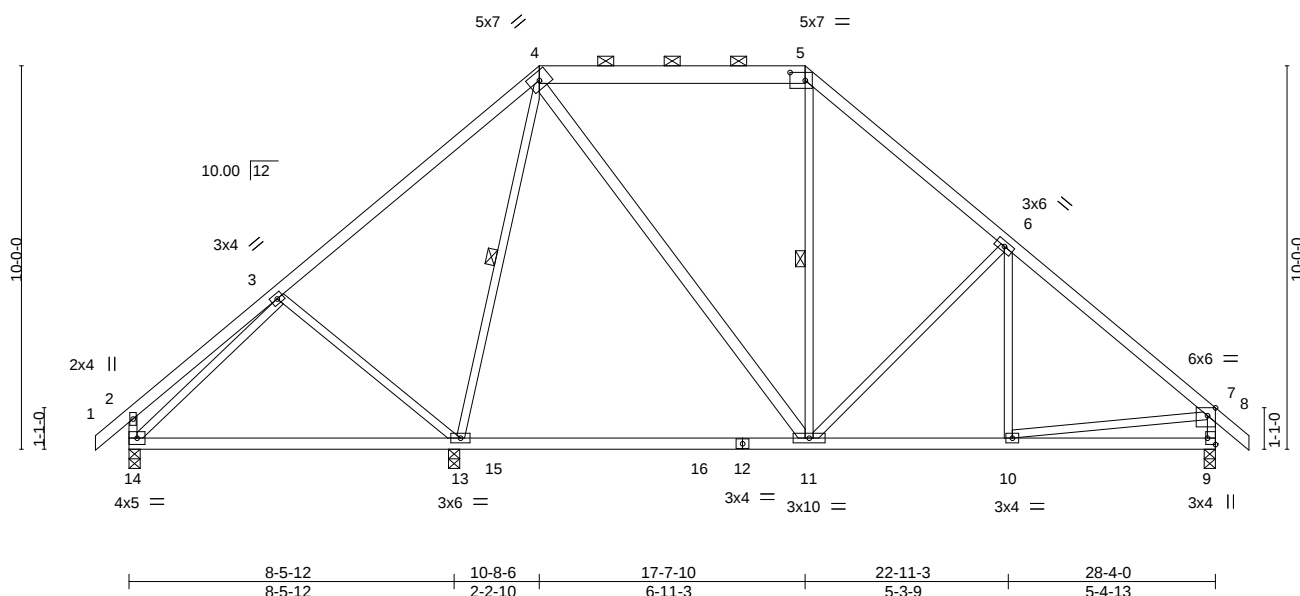


Plate Offsets (X,Y)-- [5:0-4-12,0-2-8], [7:0-2-8,Edge], [9:Edge,0-2-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.25 11-13	>940	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.36 11-13	>649	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.01 9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.02 10-11	>999	240	Weight: 132 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-5: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
4-11: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-6-4 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 4-13, 5-11

REACTIONS.

(size) 13=0-3-8, 14=0-3-8, 9=0-3-8
Max Horz 14=283(LC 7)
Max Uplift 13=-148(LC 8), 14=-46(LC 9), 9=-129(LC 9)
Max Grav 13=1351(LC 15), 14=497(LC 21), 9=1007(LC 16)

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

TOP CHORD 4-5=-521/216, 5-6=-774/197, 6-7=-1031/144, 7-9=-913/158
BOT CHORD 13-14=-188/381, 11-13=-100/303, 10-11=0/721
WEBS 3-13=-364/287, 4-13=-835/86, 4-11=-75/559, 6-11=-388/223, 3-14=-331/104, 7-10=0/572

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) 14 except (jt=lb) 13=148, 9=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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861160
400213	D4	Piggyback Base	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-PjWGAOrSM_Qpzu8B2gJn5HS7WW5LBuaa2qJz59zUTrU

0-10-8	3-11-5	10-8-6	17-7-10	22-11-3	28-2-8
0-10-8	3-11-5	6-9-1	6-11-3	5-3-9	5-3-5

Scale = 1:57.3

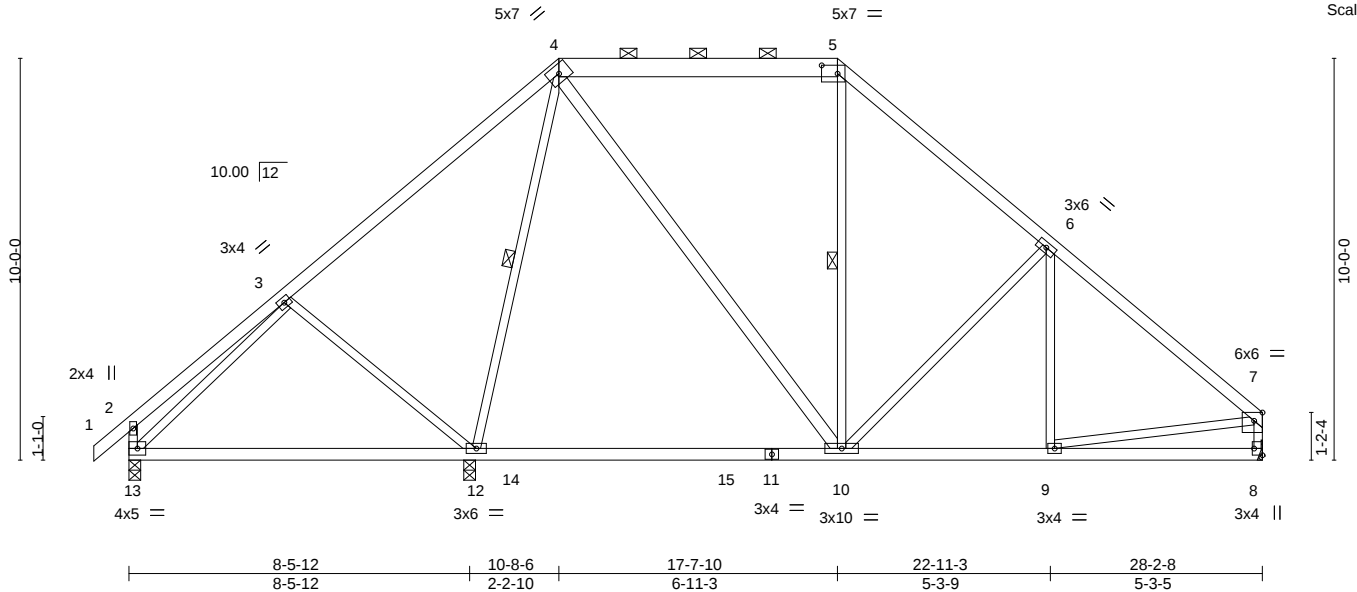


Plate Offsets (X,Y)-- [5:0-4-12,0-2-8], [7:0-2-8,Edge], [8:Edge,0-2-8]

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 0.50	Vert(LL)	-0.25	10-12	>935	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.36	10-12	>646		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.74	Horz(CT)	0.01	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	9-10	>999	Weight: 131 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-5: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
4-10: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-5-14 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 4-12, 5-10

REACTIONS.

(size) 12=0-3-8, 8=Mechanical, 13=0-3-8
Max Horz 13=277(LC 5)
Max Uplift 12=-154(LC 8), 8=-102(LC 9), 13=-37(LC 9)
Max Grav 12=1340(LC 15), 8=936(LC 16), 13=499(LC 21)

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

TOP CHORD 4-5=-517/210, 5-6=-771/191, 6-7=-1008/134, 7-8=-843/129
BOT CHORD 12-13=-196/375, 10-12=-99/284, 9-10=-25/711
WEBS 3-12=-363/287, 4-12=-827/91, 4-10=-79/552, 7-9=0/609, 6-10=-379/222, 3-13=-333/97

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.
- 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 except (jt=lb) 12=154, 8=102.
- 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 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861161
400213	D5	Piggyback Base	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-tv4eNks47lYga2jNcNq0dU_IewQcwskHU3WebzUTrT

3-10-12	10-7-14	17-7-2	22-10-11	28-2-0
3-10-12	6-9-2	6-11-3	5-3-9	5-3-5

Scale = 1:56.9

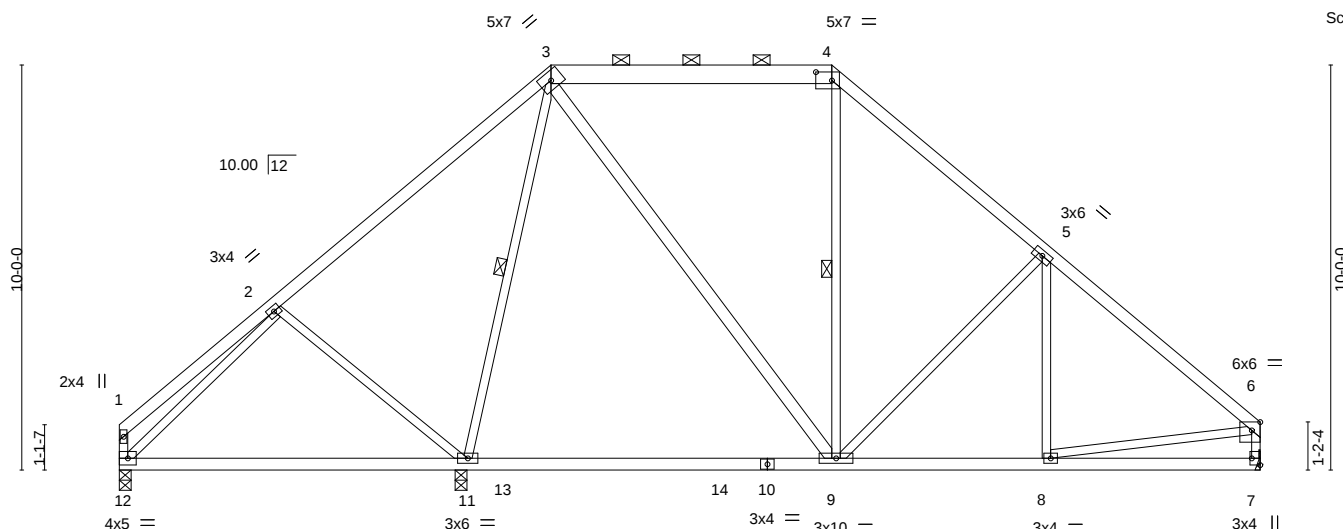


Plate Offsets (X,Y)--	[4:0-4-12,0-2-8], [6:0-2-8,Edge], [7:Edge,0-2-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.50	Vert(LL)	-0.25	9-11	>933	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.36	9-11	>644	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.74	Horz(CT)	0.01	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	8-9	>999	240	Weight: 129 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-4: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-9: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-5-12 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.
WEBS 1 Row at midpt 3-11, 4-9

REACTIONS.

(size) 11=0-3-8, 12=0-3-8, 7=Mechanical
Max Horz 12=263(LC 7)
Max Uplift 11=-155(LC 8), 12=-32(LC 9), 7=-101(LC 9)
Max Grav 11=1340(LC 15), 12=426(LC 21), 7=936(LC 16)

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

TOP CHORD 3-4=-518/210, 4-5=-772/190, 5-6=-1009/133, 6-7=-844/129
BOT CHORD 11-12=-196/380, 9-11=-99/285, 8-9=-24/711
WEBS 2-11=-367/288, 3-11=-825/93, 3-9=-79/552, 5-9=-379/222, 2-12=-326/103, 6-8=0/609

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.
- 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) 12 except (jt=lb) 11=155, 7=101.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 3, 2020

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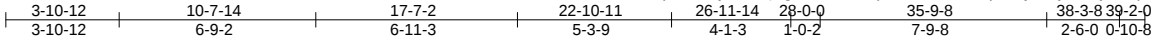
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	140861162
400213	D6	Piggyback Base Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-plCPoPLfvoOqMtmjosUjv4bV3lOqW0koYdiUzUTrR



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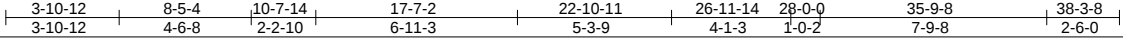
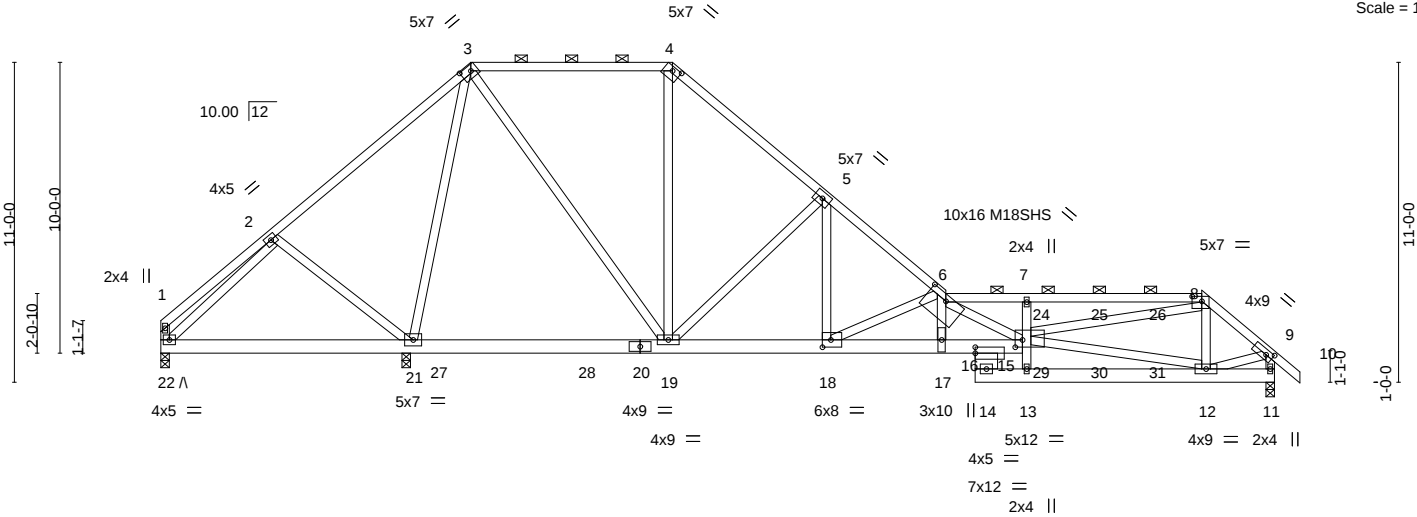


Plate Offsets (X,Y)--										[3:0-4-4,0-2-4], [4:0-3-8,0-1-10], [6:0-8-0,0-2-7], [8:0-4-0,0-2-0], [9:0-2-14,0-2-0], [15:0-3-0,0-3-0], [16:0-0-0,0-2-8], [18:0-3-8,0-3-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.		in (loc) l/defl L/d		PLATES		GRIP							
TCLL	25.0	Plate Grip DOL 1.15		TC 0.65		Vert(LL)		-0.30	16-17	>999	360	MT20 197/144							
TCDL	10.0	Lumber DOL 1.15		BC 0.95		Vert(CT)		-0.52	16-17	>682	240	M18SHS 197/144							
BCLL	0.0 *	Rep Stress Incr NO		WB 0.79		Horz(CT)		0.08	11	n/a	n/a								
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)		0.19	16-17	>999	240	Weight: 483 lb FT = 10%							

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 6-8: 2x4 SPF 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied or 5-11-7 oc purlins, except end verticals, and 2-0-0 oc purlins (5-1-1 max.): 3-4, 6-8.
BOT CHORD 2x6 SP 2400F 2.0E *Except* 14-16: 2x10 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 21-22.
WEBS 2x4 SPF No.2	

REACTIONS. (size) 11=0-3-8, 21=0-3-8, 22=0-3-8
Max Horz 22=-300(LC 4)
Max Uplift 11=-454(LC 9), 21=-870(LC 9), 22=REL
Max Grav 11=2767(LC 22), 21=2785(LC 2), 22=481(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-624/671, 3-4=-1230/50, 4-5=-1714/0, 5-6=-4202/218, 6-7=-7938/986,
7-8=-7871/996, 8-9=-3146/478, 9-11=-2915/447
BOT CHORD 21-22=-329/650, 19-21=-212/642, 18-19=-5/3186, 17-18=-959/10439, 16-17=-935/10279,
15-16=-488/6796, 14-16=-116/682, 13-14=-446/3483, 12-13=-439/3600
WEBS 2-21=-430/351, 3-21=-2323/859, 3-19=-472/1810, 4-19=0/628, 5-19=-2709/515,
5-18=-341/3134, 6-18=-7860/1033, 6-17=-286/1891, 6-15=-2796/55, 12-15=-1155/115,
8-15=-596/5608, 2-22=-521/268, 9-12=-337/2582, 13-15=-609/223, 7-15=-698/323

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x10 - 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.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, 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) 11=454, 21=870.
 - "A" indicates Released bearing: allow for upward movement at joint(s) 22.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and conform to standard ANSI/TPI 1.



April 3,2020

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4
400213	D6	Piggyback Base Girder	1	2	I40861162
					Job Reference (optional)

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjIB6i7Q?gPMzrYWU-plCPoPtLfvoOqMtmjosUjv4bVj3lOqW0koYdiUzUTrR

- NOTES-**
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 162 lb down and 99 lb up at 30-2-12, and 162 lb down and 99 lb up at 32-2-12, and 162 lb down and 99 lb up at 34-2-12 on top chord, and 1218 lb down and 265 lb up at 28-1-12, 69 lb down at 30-2-12, 69 lb down at 32-2-12, and 69 lb down at 34-2-12, and 230 lb down and 123 lb up at 35-9-8 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, 3-4=-70, 4-6=-70, 6-8=-70, 8-9=-70, 9-10=-70, 16-22=-20, 11-14=-20
 - Concentrated Loads (lb)
 - Vert: 16=-1218(F) 12=-230(F) 24=-112(F) 25=-112(F) 26=-112(F) 29=-53(F) 30=-53(F) 31=-53(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861163
400213	D7	Piggyback Base	1	1		

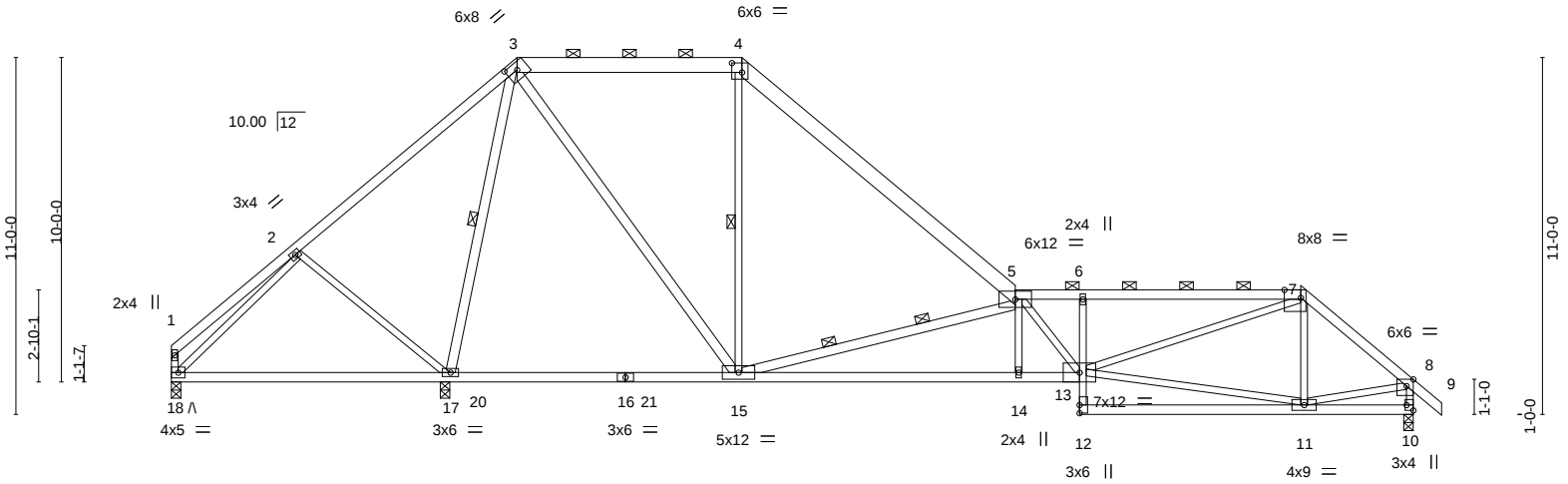
Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-IgK9D5vbAW363f19rDvyoK9xxXpAsjqJC61knMzUTrP

3-10-12	10-7-14	17-7-2	21-9-8	26-0-4	28-0-0	34-9-14	38-3-8	39-2-0
3-10-12	6-9-2	6-11-3	4-2-6	4-2-12	1-11-12	6-9-14	3-5-10	0-10-8

Scale = 1:70.9



8-5-4	10-7-14	17-7-2	26-0-4	28-0-0	34-9-14	38-3-8
8-5-4	2-2-10	6-11-3	8-5-2	1-11-12	6-9-14	3-5-10

Plate Offsets (X,Y)-- [3:0-4-0,0-2-10], [4:0-3-12,0-3-8], [7:0-6-1,Edge], [8:0-2-8,Edge], [10: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 0.65	Vert(LL)	-0.29 14-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.67	Vert(CT)	-0.52 14-15	>683	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.87	Horz(CT)	0.11 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.16 14	>999	240	Weight: 184 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 4-7-13 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-15 max.): 3-4, 5-7.
3-4,4-5: 2x6 SPF No.2, 5-7: 2x4 SPF 2100F 1.8E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
BOT CHORD 2x4 SPF 2100F 1.8E *Except*	6-0-0 oc bracing: 17-18,15-17.
6-12: 2x3 SPF No.2, 10-12: 2x4 SPF No.2	WEBS 1 Row at midpt 3-17, 4-15
WEBS 2x3 SPF No.2 *Except*	2 Rows at 1/3 pts 5-15
3-17,3-15,5-15: 2x4 SPF No.2	

REACTIONS. (size) 10=0-3-8, 17=0-3-8 (req. 0-3-11), 18=0-3-8
Max Horz 18=-300(LC 4)
Max Uplift 10=-184(LC 9), 17=-298(LC 9), 18=REL
Max Grav 10=1365(LC 24), 17=2336(LC 2), 18=128(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-134/676, 3-4=-808/177, 4-5=-1166/89, 5-6=-3335/376, 6-7=-3330/386,
7-8=-1511/188, 8-10=-1343/188
BOT CHORD 17-18=-334/316, 15-17=-241/371, 14-15=-236/3624, 13-14=-233/3635, 6-13=-370/220
WEBS 2-17=-436/288, 3-17=-1810/317, 3-15=-228/1277, 5-15=-2941/494, 5-14=0/327,
5-13=-527/0, 11-13=-88/928, 7-13=-203/2353, 7-11=-284/102, 2-18=-101/323,
8-11=-34/1126

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) 17 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) 10=184, 17=298.
- "A" indicates Released bearing: allow for upward movement at joint(s) 18.
- 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 3,2020

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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	140861164
400213	D8	Piggyback Base	1	1		

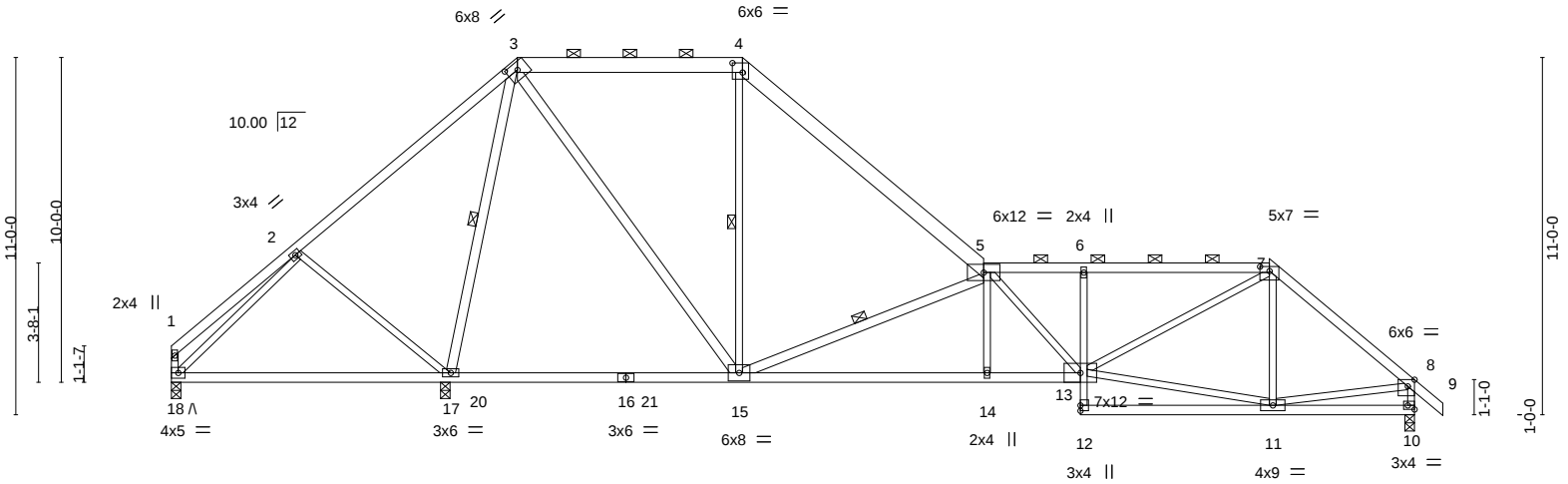
Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-EttXQRWdXqByhpcLOxQBKYh5pxBJbBDTQmmHJpzUTrO

3-10-12	10-7-14	17-7-2	25-0-4	28-0-0	33-9-14	38-3-8	39-2-0
3-10-12	6-9-2	6-11-3	7-5-2	2-11-12	5-9-14	4-5-10	0-10-8

Scale = 1:70.8



8-5-4	10-7-14	17-7-2	25-0-4	28-0-0	33-9-14	38-3-8
8-5-4	2-2-10	6-11-3	7-5-2	2-11-12	5-9-14	4-5-10

Plate Offsets (X,Y)-- [3:0-4-0,0-2-10], [4:0-3-12,0-3-8], [7:0-3-8,0-1-10], [8:0-2-8,Edge], [10:Edge,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 0.71	Vert(LL)	-0.18	15-17	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.55	Vert(CT)	-0.31	14-15	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.80	Horz(CT)	0.08	10	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.10	14	>999	Weight: 185 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 4-7-4 oc purlins, except end verticals, and 2-0-0 oc purlins (2-10-1 max.): 3-4, 5-7.
3-4,4-5: 2x6 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
BOT CHORD 2x4 SPF 2100F 1.8E *Except*	6-0-0 oc bracing: 17-18,15-17.
6-12: 2x3 SPF No.2, 10-12: 2x4 SPF No.2	WEBS 1 Row at midpt 3-17, 4-15, 5-15
WEBS 2x3 SPF No.2 *Except*	
3-17,3-15,5-15: 2x4 SPF No.2	

REACTIONS. (size) 10=0-3-8, 17=0-3-8 (req. 0-3-11), 18=0-3-8
Max Horz 18=-300(LC 4)
Max Uplift 10=-200(LC 9), 17=-227(LC 9), 18=REL
Max Grav 10=1365(LC 24), 17=2336(LC 2), 18=78(LC 5)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-66/676, 3-4=-801/208, 4-5=-1138/131, 5-6=-2518/352, 6-7=-2516/358, 7-8=-1532/220, 8-10=-1310/217
BOT CHORD 17-18=-333/265, 15-17=-244/326, 14-15=-177/2757, 13-14=-175/2764, 6-13=-352/176
WEBS 2-17=-435/288, 3-17=-1807/253, 3-15=-203/1265, 5-15=-2147/421, 5-14=0/253, 5-13=-364/1, 11-13=-79/1001, 7-13=-149/1621, 7-11=-253/88, 2-18=-44/319, 8-11=-46/1031

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) 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) WARNING: Required bearing size at joint(s) 17 greater than input bearing size.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=200, 17=227.
- 8) "A" indicates Released bearing: allow for upward movement at joint(s) 18.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 3,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861165
400213	D9	Piggyback Base	2	1		

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-i3Rwenwri8JplzAXyexQtIEDJKSgKbacfPWrrFzUTrN

2-4-6	9-3-10	15-8-12	19-8-8	24-6-6	30-0-0	30-10-8
2-4-6	6-11-3	6-5-2	3-11-12	4-9-14	5-5-10	0-10-8

Scale = 1:66.0

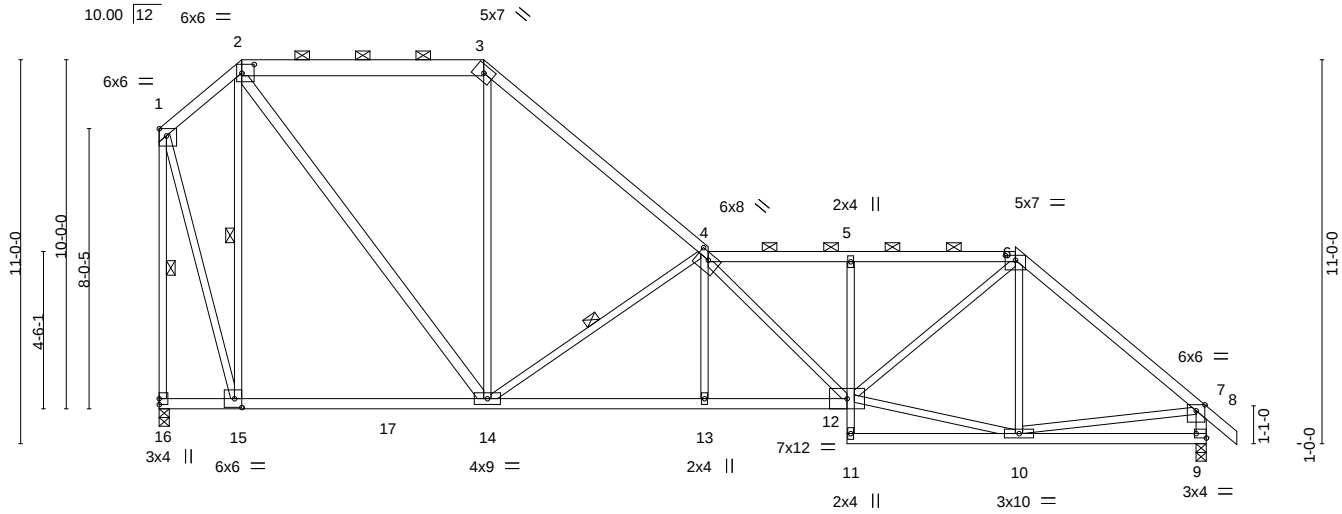


Plate Offsets (X,Y)--	[1:Edge,0-2-8], [2:0-4-4,0-3-0], [4:0-4-0,0-2-4], [6:0-3-8,0-1-10], [9:Edge,0-1-8], [15:0-2-8,0-3-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.91	Vert(LL)	-0.16 12-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.28 13-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.98	Horz(CT)	0.08 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.10 13	>999	240	Weight: 156 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 2-3: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-8-0 max.): 2-3, 4-6.
BOT CHORD 2x4 SPF No.2 *Except* 5-11: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-14,7-9: 2x4 SPF No.2	WEBS 1 Row at midpt 2-15, 4-14, 1-16

REACTIONS.	(size) 16=0-3-8, 9=0-3-8
Max Horz 16=-373(LC 9)	
Max Uplift 16=-163(LC 9), 9=-198(LC 9)	
Max Grav 16=1430(LC 2), 9=1445(LC 2)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-444/74, 2-3=-967/208, 3-4=-1379/150, 4-5=-2208/301, 5-6=-2201/303, 6-7=-1632/224, 1-16=-1455/156, 7-9=-1359/225
BOT CHORD	15-16=-196/373, 14-15=-102/477, 13-14=-85/2458, 12-13=-87/2454, 5-12=-355/169, 9-10=-127/254
WEBS	2-15=-935/178, 2-14=-227/1087, 3-14=0/430, 4-14=-1793/354, 4-12=-379/0, 10-12=-45/1130, 6-12=-97/1375, 6-10=-269/85, 1-15=-107/1188, 7-10=-74/969

- 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 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) 16=163, 9=198.
 - 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 3,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861166
400213	D10	Piggyback Base	2	1		

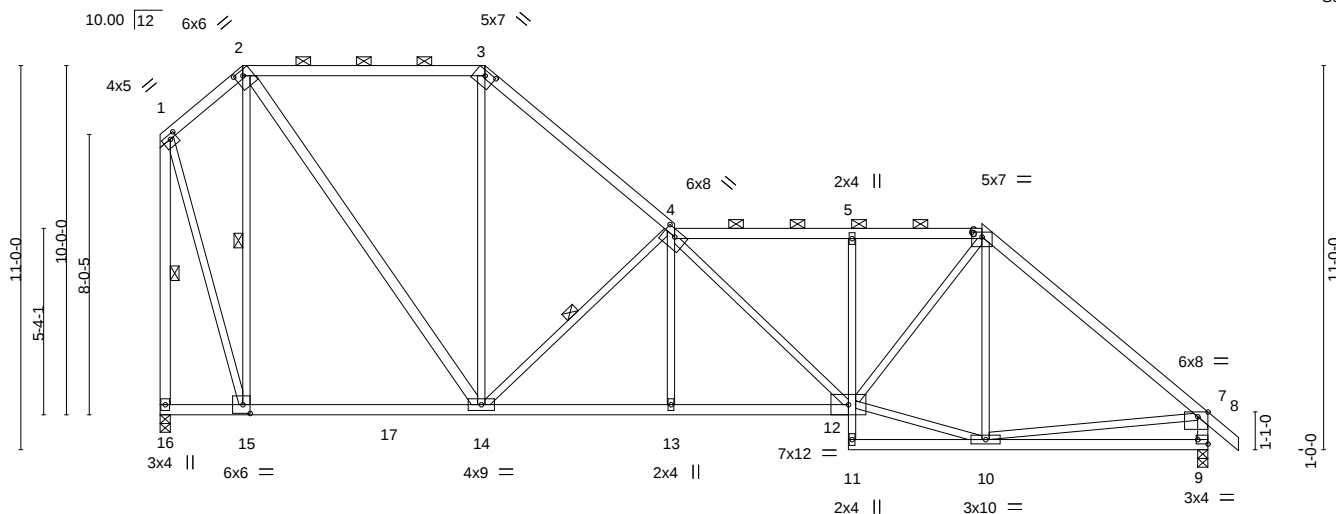
Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-2ljN7gnJXSoWs7GEF7jcODkCnVNEWC9rvYcCQxzUTrZ

2-4-6	9-3-10	14-8-12	19-8-8	23-6-6	30-0-0	30-10-8
2-4-6	6-11-3	5-5-3	4-11-12	3-9-14	6-5-10	0-10-8

Scale = 1:66.0



2-4-6	9-3-10	14-8-12	19-8-8	23-6-6	30-0-0
2-4-6	6-11-3	5-5-3	4-11-12	3-9-14	6-5-10

Plate Offsets (X,Y)--	[1:0-2-4,0-1-8], [2:0-2-12,0-1-12], [3:0-3-8,0-1-10], [4:0-4-0,0-2-4], [6:0-3-8,0-1-10], [7:0-3-8,Edge], [9:Edge,0-1-8], [15:0-2-8,0-3-0]
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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 0.82	Vert(LL)	-0.14 12-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.24 12-13	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.82	Horz(CT)	0.07 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08 13	>999	240	Weight: 157 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 5-11: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-14,1-16,7-9: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-8-15 oc purlins, except end verticals, and 2-0-0 oc purlins (3-7-9 max.): 2-3, 4-6.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 2-15, 4-14, 1-16

REACTIONS.

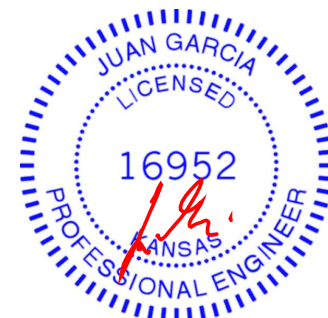
(size) 16=0-3-8, 9=0-3-8
 Max Horz 16=-397(LC 4)
 Max Uplift 16=-144(LC 9), 9=-218(LC 9)
 Max Grav 16=1425(LC 2), 9=1443(LC 2)

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

TOP CHORD 1-2=-513/168, 2-3=-937/242, 3-4=-1314/216, 4-5=-1849/323, 5-6=-1841/322, 6-7=-1631/253, 1-16=-1438/168, 7-9=-1347/252
 BOT CHORD 15-16=-234/331, 14-15=-145/465, 13-14=-116/2055, 12-13=-117/2051, 5-12=-357/173, 9-10=-190/373
 WEBS 2-15=-937/238, 2-14=-189/1058, 3-14=-2/475, 4-14=-1525/345, 4-12=-297/0, 10-12=-30/1173, 6-12=-157/1152, 6-10=-282/95, 1-15=-150/1180, 7-10=-121/846

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.
- The Fabrication Tolerance at joint 7 = 6%
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, 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) 16=144, 9=218.
- 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 3, 2020

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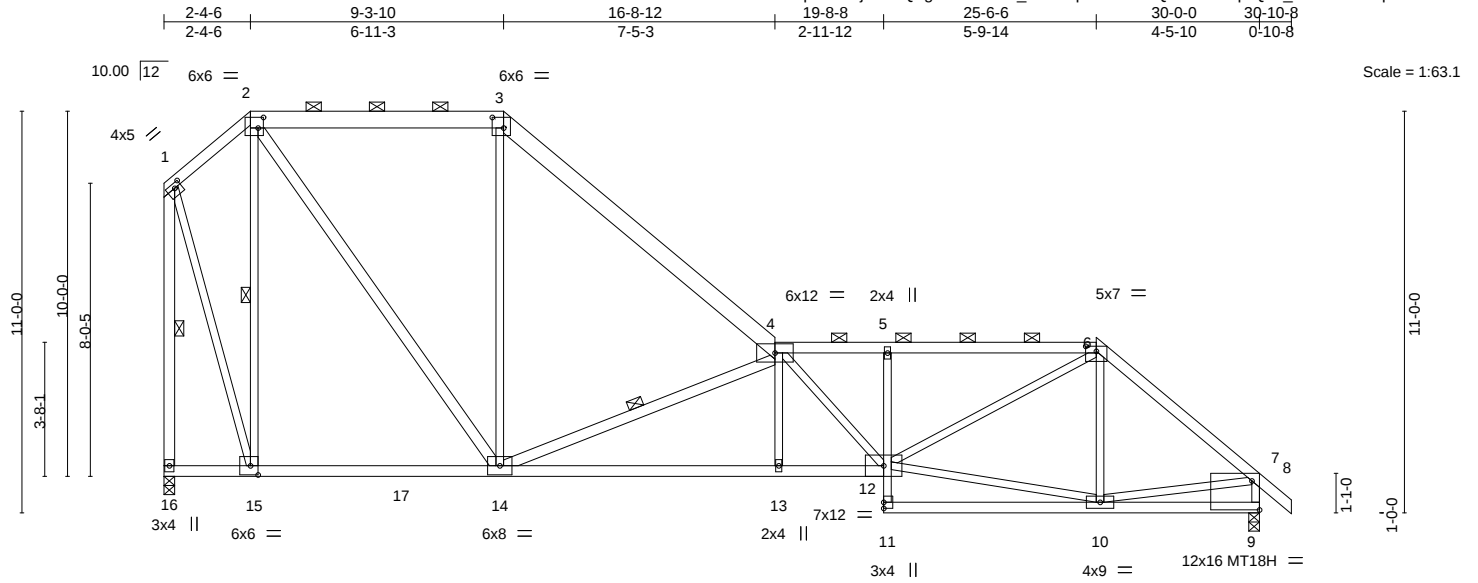
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861167
400213	D11	Piggyback Base	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-_8r8YMpa332E6RQcNYI4TeqYQl6i_6G8Ms5JUqzUTrX



		2-4-6		9-3-10		16-8-12		19-8-8		25-6-6		30-0-0						
		2-4-6		6-11-3		7-5-3		2-11-12		5-9-14		4-5-10						
Plate Offsets (X,Y)--		[1:0-2-4,0-1-8], [2:0-1-12,0-3-8], [3:0-3-12,0-3-8], [6:0-3-8,0-1-10], [9:Edge,0-9-8], [9:0-1-4,0-0-0], [15:0-2-8,0-3-0]																
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl L/d		PLATES		GRIP		
TCLL	25.0	Plate Grip DOL		1.15		TC	0.75	Vert(LL)		-0.20	13-14	>999		360	MT20	197/144		
TCDL	10.0	Lumber DOL		1.15		BC	0.52	Vert(CT)		-0.37	13-14	>960		240	MT18H	197/144		
BCLL	0.0 *	Rep Stress Incr		YES		WB	0.78	Horz(CT)		0.09	9	n/a		n/a				
BCDL	10.0	Code IRC2018/TPI2014				Matrix-S		Wind(LL)		0.12	13	>999		240	Weight: 165 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
2-3,3-4: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
12-16: 2x4 SPF 2100F 1.8E, 5-11: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-14,4-14,1-16: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-5-11 oc purlins, except end verticals, and 2-0-0 oc purlins (2-7-15 max.): 2-3, 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-15, 4-14, 1-16

REACTIONS.

(size) 16=0-3-8, 9=0-3-8
Max Horz 16=-396(LC 4)
Max Uplift 16=-143(LC 9), 9=-218(LC 9)
Max Grav 16=1427(LC 2), 9=1442(LC 2)

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

TOP CHORD 1-2=-514/168, 2-3=-962/247, 3-4=-1344/181, 4-5=-2747/404, 5-6=-2744/410,
6-7=-1630/242, 1-16=-1427/172, 7-9=-1381/234
BOT CHORD 15-16=-232/330, 14-15=-136/459, 13-14=-244/3063, 12-13=-242/3070, 5-12=-354/177
WEBS 2-15=-923/222, 2-14=-201/1109, 3-14=0/414, 4-14=-2307/451, 4-13=0/263, 4-12=-514/0,
10-12=-95/1069, 6-12=-190/1797, 6-10=-274/94, 1-15=-139/1149, 7-10=-65/1105

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, 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) 16=143, 9=218.
- 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 3,2020

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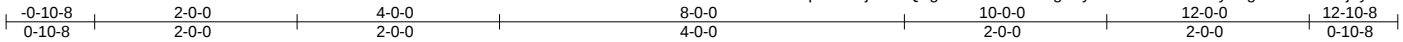


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	140861168
400213	E1	Hip Girder	1	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:48 2020 Page 1
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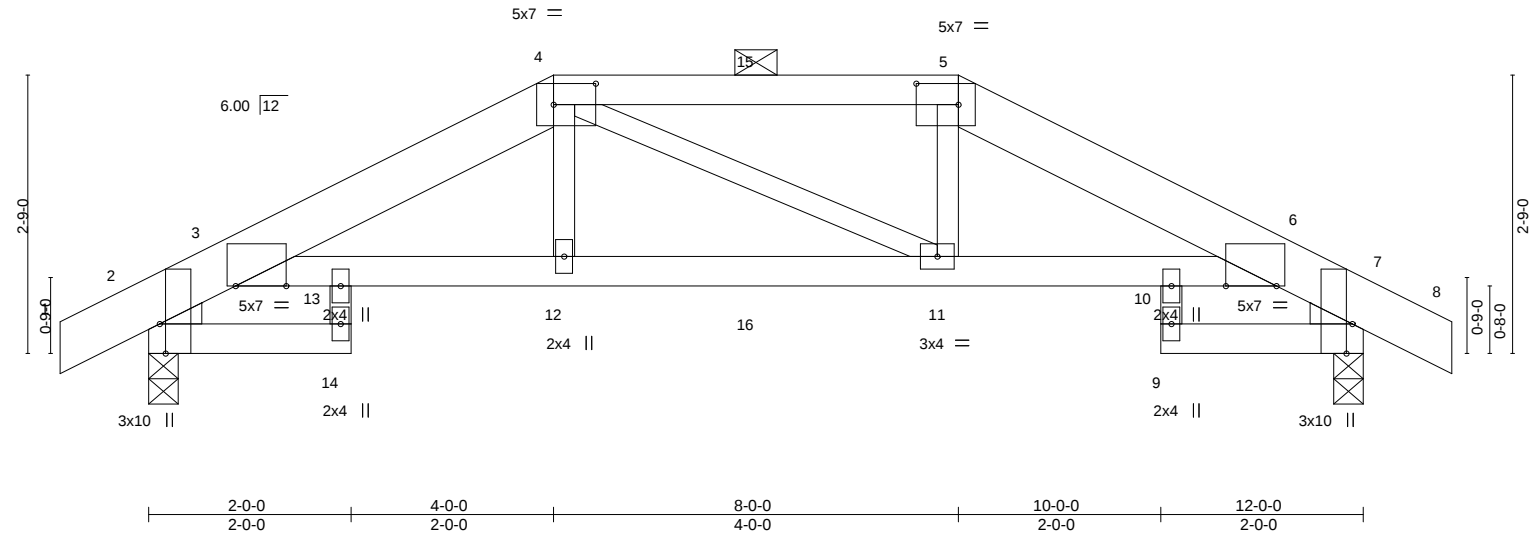


Plate Offsets (X,Y)--	[2:0-0-5,0-0-10], [2:0-0-10,0-4-10], [2:0-3-8,Edge], [3:0-6-0,Edge], [4:0-5-0,0-2-8], [5:0-5-0,0-2-8], [6:0-6-0,Edge], [7:0-0-5,0-0-10], [7:0-0-10,0-4-10], [7:0-3-8,Edge]
-----------------------	--

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 0.47	Vert(LL)	-0.05 11-12	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.59	Vert(CT)	-0.09 11-12	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.13	Horz(CT)	0.10 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.04 12	>999	240	Weight: 48 lb	FT = 10%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except*
4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
WEDGE
Left: 2x3 SPF No.2, Right: 2x3 SPF No.2

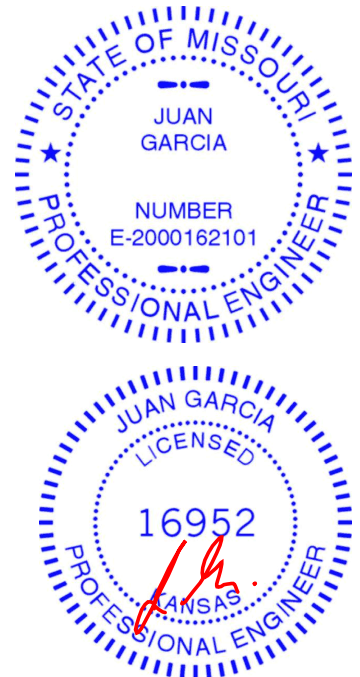
BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-10-10 oc purlins, except
2-0-0 oc purlins (4-4-2 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
10-0-0 oc bracing: 10-11

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=44(LC 33)
Max Uplift 2=-189(LC 8), 7=-189(LC 9)
Max Grav 2=920(LC 1), 7=920(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-593/140, 3-4=-1731/343, 4-5=-1560/325, 5-6=-1733/329, 6-7=-594/135
BOT CHORD 3-13=-294/1535, 12-13=-294/1535, 11-12=-295/1558, 10-11=-269/1537, 6-10=-269/1537
WEBS 4-12=-13/372, 5-11=-20/387

- 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=189, 7=189.
 - 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) 80 lb down and 70 lb up at 4-0-0, and 88 lb down and 70 lb up at 6-0-0, and 80 lb down and 70 lb up at 8-0-0 on top chord, and 235 lb down and 74 lb up at 4-0-0, and 43 lb down at 6-0-0, and 235 lb down and 74 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



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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 53 H4	I40861168
400213	E1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:48 2020 Page 2
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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-5=-70, 5-8=-70, 2-14=-20, 10-13=-20, 7-9=-20
Concentrated Loads (lb)
Vert: 4=-46(B) 5=-46(B) 12=-235(B) 11=-235(B) 15=-46(B) 16=-36(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861169
400213	E2	Roof Special	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-6e72Gpzk?3hO9Rv6dmU7VOsrNYYSX992LNkVSazUTrK

0-10-8	2-0-0	6-0-0	10-0-0	12-0-0	12-10-8
0-10-8	2-0-0	4-0-0	4-0-0	2-0-0	0-10-8

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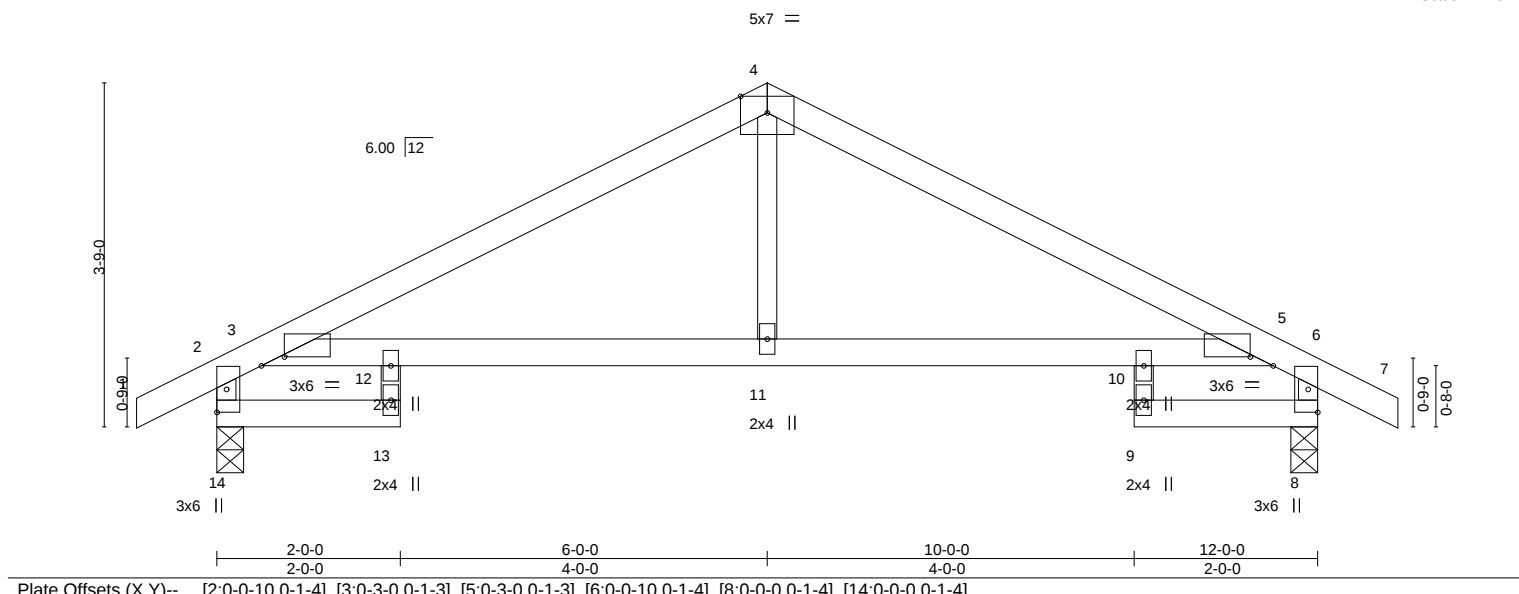


Plate Offsets (X,Y)--		[2:0-0-10,0-1-4], [3:0-3-0,0-1-3], [5:0-3-0,0-1-3], [6:0-0-10,0-1-4], [8:0-0-0,0-1-4], [14:0-0-0,0-1-4]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.48	Vert(LL) -0.06 10-11 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.53	Vert(CT) -0.12 10-11 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.10	Horz(CT) 0.12 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.06 11-12 >999 240	Weight: 38 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 5-5-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 10-11

REACTIONS.

(size) 14=0-3-8, 8=0-3-8
Max Horz 14=-63(LC 6)
Max Uplift 14=-88(LC 8), 8=-88(LC 9)
Max Grav 14=599(LC 1), 8=599(LC 1)

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

TOP CHORD 3-4=-796/83, 4-5=-796/98, 2-14=-604/114, 6-8=-604/108
BOT CHORD 3-12=-21/658, 11-12=-21/658, 10-11=-21/658, 5-10=-21/658
WEBS 4-11=0/304

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) 14, 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 3, 2020

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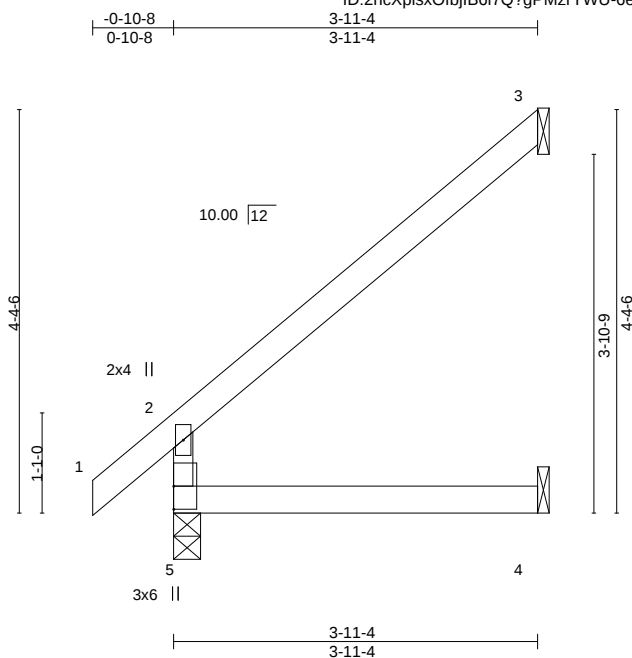
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861170
400213	J1	Jack-Open	9	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-6e72Gpzk?3hO9Rv6dmU7VOsvsYeRXAf2LNkVSazUTrk



Scale = 1:24.9

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 0.25	Vert(LL)	0.02	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.04	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 12 lb	FT = 10%

LUMBER-

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

BRACING-

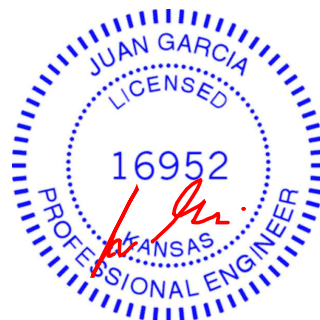
TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=145(LC 8)
Max Uplift 3=-109(LC 8), 4=-3(LC 8)
Max Grav 5=247(LC 1), 3=133(LC 15), 4=73(LC 3)

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

NOTES-

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



April 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	
400213	J2	Jack-Open	11	1		I40861171
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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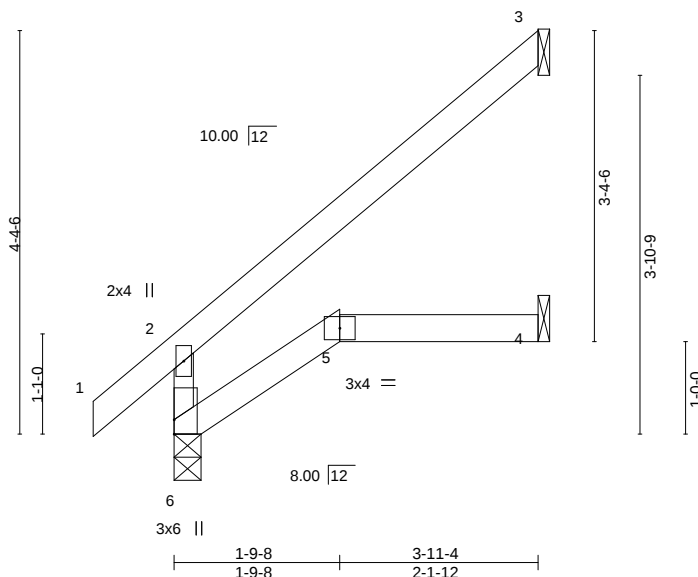


Plate Offsets (X,Y)-- [6:0-1-14,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.26	Vert(LL)	0.02	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.02	5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.05	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 13 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 3-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

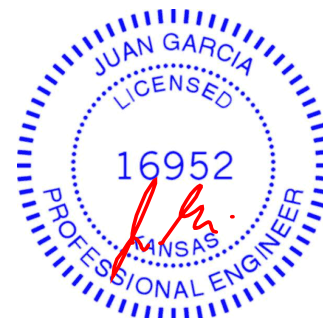
REACTIONS.

(size) 6=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 6=144(LC 8)
Max Uplift 3=112(LC 8), 4=4(LC 8)
Max Grav 6=247(LC 1), 3=135(LC 15), 4=73(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.
- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 3=112.
- 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 3, 2020

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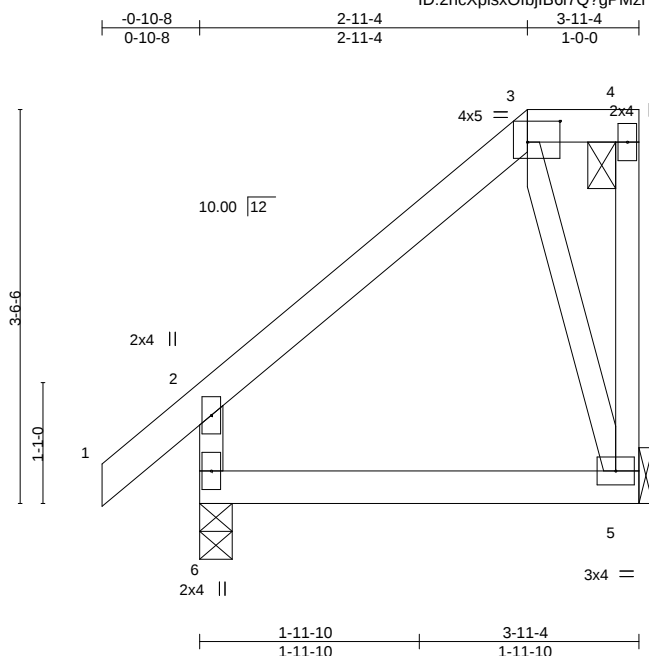


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861172
400213	J3	Jack-Closed	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:06 2020 Page 1
ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-6vfUrdAO?Hq_i2iN7rl6hz3rBOS?0sEZGXMuY5zUTr3



Scale = 1:20.7

Plate Offsets (X,Y)--		[3:0-3-8,0-2-4]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.01 5-6	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.02 5-6	>999	240
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.00 5	n/a	n/a
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.01 5-6	>999	240
						PLATES		GRIP	
						MT20		197/144	
						Weight: 17 lb		FT = 10%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-4 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) 6=0-3-8, 5=Mechanical
Max Horz 6=142(LC 5)
Max Uplift 6=28(LC 8), 5=70(LC 5)
Max Grav 6=245(LC 1), 5=159(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) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 3, 2020

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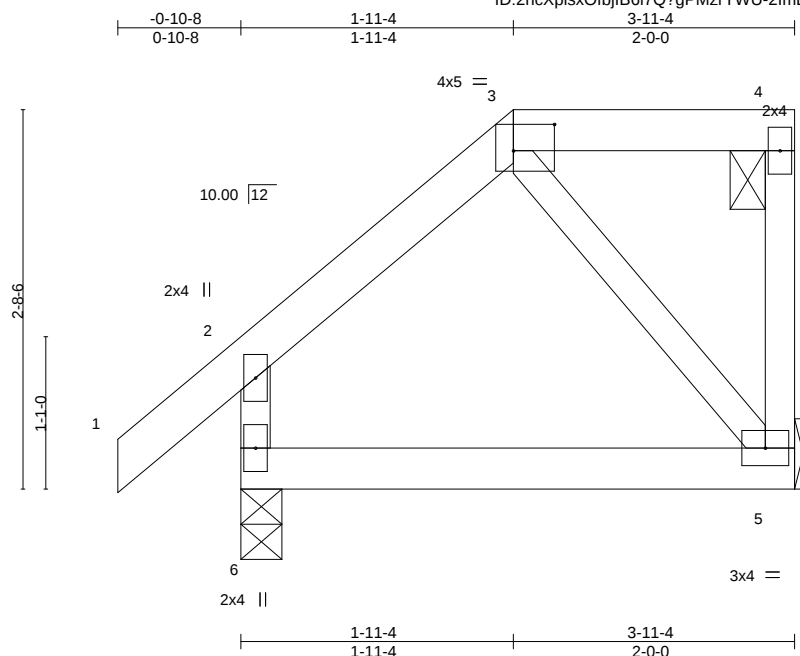
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861173
400213	J4	Jack-Closed	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-2ImEFIBeXu4ixLsmFGKamO8AcC8XUm2jrr?dzzUTr1



Scale = 1:16.4

Plate Offsets (X,Y)--		[3:0-3-8,0-2-4]							
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 0.09	Vert(LL)	-0.01 5-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	-0.02 5-6	>999	240		
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-S	Wind(LL)	0.00 5-6	>999	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 3-11-4 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.

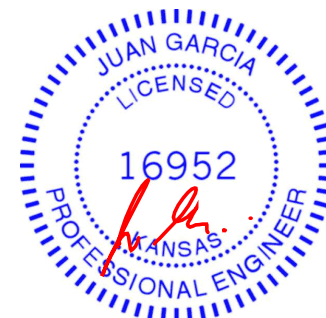
REACTIONS.

(size) 6=0-3-8, 5=Mechanical
Max Horz 6=109(LC 5)
Max Uplift 6=-34(LC 8), 5=-55(LC 5)
Max Grav 6=245(LC 1), 5=159(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) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 3, 2020

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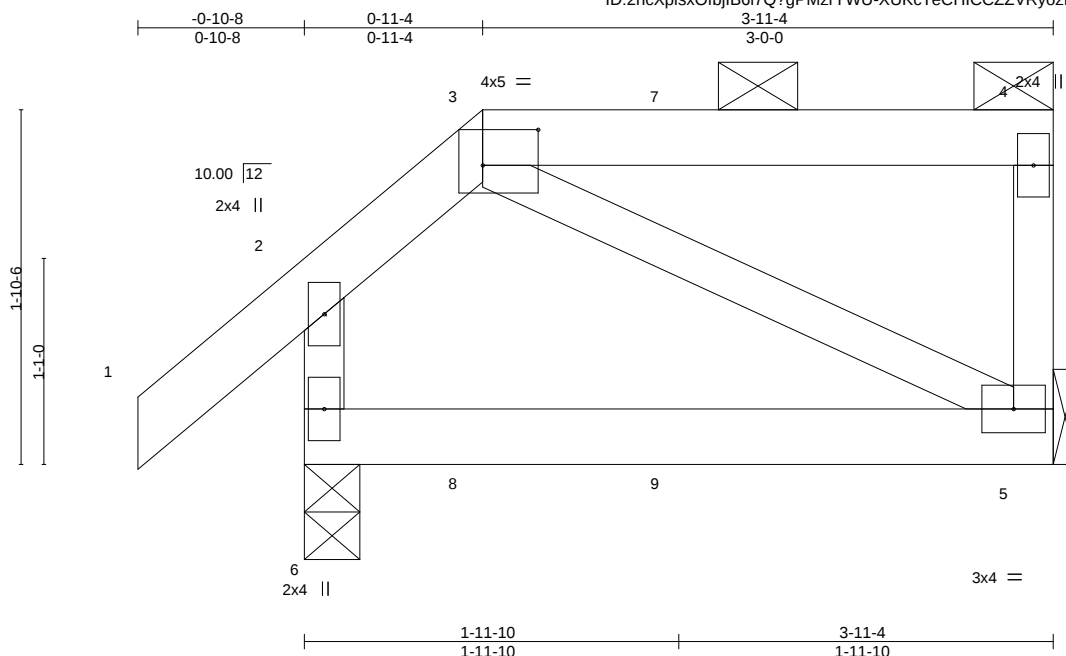
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861174
400213	J5	Jack-Closed Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:09 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-XUKcTeCHICCCZZVRyozrpJbhKXcTMDDM?yUaZ9QzUTr0



Scale: 1"=1'

Plate Offsets (X,Y)--		[3:0-3-8,0-2-4]									
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 0.14	Vert(LL)	-0.01	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.02	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB 0.02	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	-0.00	5-6	>999	240	Weight: 15 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-4 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) 6=0-3-8, 5=Mechanical
Max Horz 6=76(LC 7)
Max Uplift 6=67(LC 8), 5=56(LC 5)
Max Grav 6=231(LC 1), 5=162(LC 1)

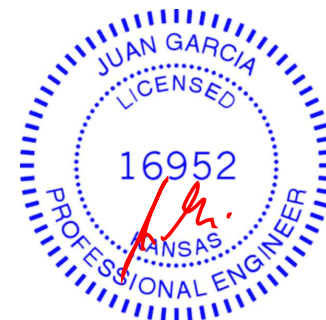
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 36 lb down and 91 lb up at 0-11-4, and 68 lb down and 47 lb up at 2-0-0 on top chord, and 7 lb down and 11 lb up at 0-11-4, and 16 lb down at 2-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 5-6=-20
Concentrated Loads (lb)
Vert: 3=25(F) 7=-11(F) 8=5(F) 9=-9(F)



April 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	
400213	J6	Jack-Closed	1	1		I40861175
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:09 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-XUKcTeCHICCCZZVryozrpJbhL9cVaDD9?yUaZ9QzUTr0



Scale = 1:20.7

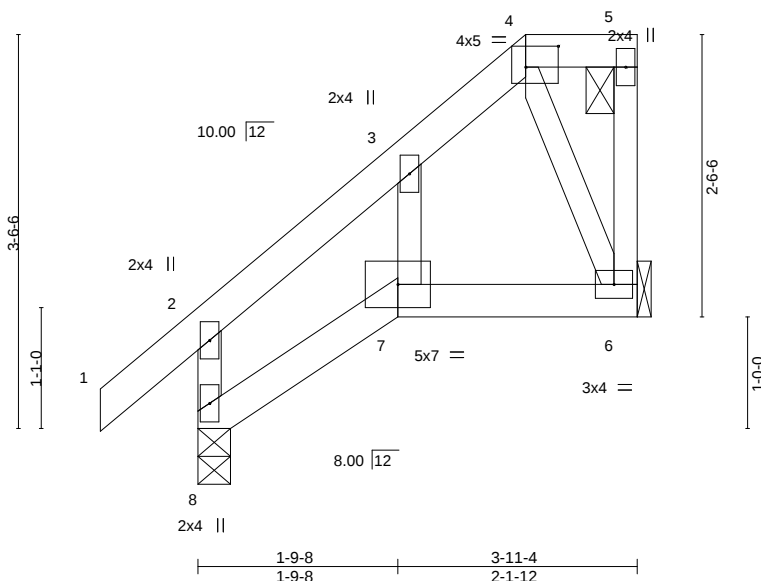


Plate Offsets (X,Y)--		[4:0-3-8,0-2-4]									
LOADING	(psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	-0.01	7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.01	7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.01	7	>999	240	Weight: 17 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=0-3-8, 6=Mechanical
Max Horz 8=128(LC 5)
Max Uplift 8=-23(LC 8), 6=-71(LC 5)
Max Grav 8=245(LC 1), 6=159(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) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 3, 2020

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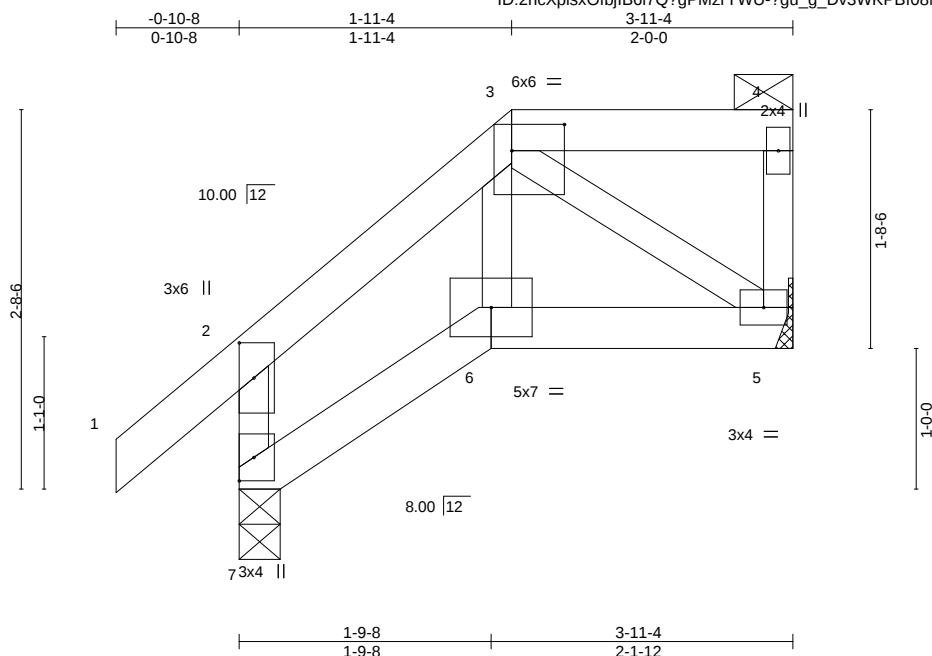
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	
400213	J7	Jack-Closed Girder	1	1		I40861176
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:10 2020 Page 1

ID:2ncXplsXOfbjtB6l7Q?gPMzrYWU-?gu_g_Dv3WKPBf08MhM2rpEUUnOpGyg88A8K6hszUTr?



Scale = 1:16.4

Plate Offsets (X,Y)-- [2:0-3-0,0-1-4], [3:0-4-8,0-2-4]												
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	0.24	Vert(LL)	0.02	6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							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 3-11-4 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) 7=0-3-8, 5=Mechanical
Max Horz 7=94(LC 5)
Max Uplift 7=-94(LC 8), 5=-117(LC 5)
Max Grav 7=306(LC 1), 5=215(LC 1)

FORCES.

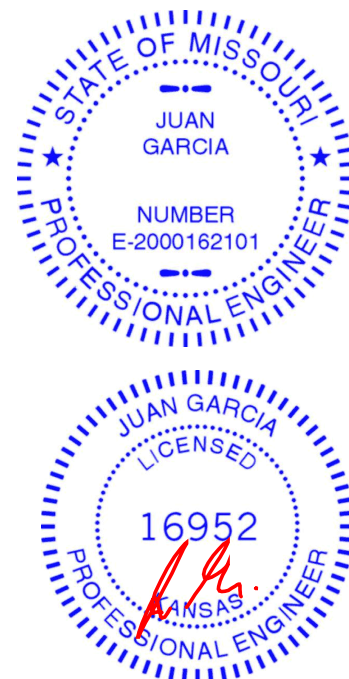
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-312/143, 2-3=-256/137

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 5=117.
- 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.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 141 lb down and 190 lb up at 1-11-4 on top chord, and 67 lb down and 0 lb up at 1-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 6-7=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 6=-34(B) 3=-84(B)



April 3, 2020

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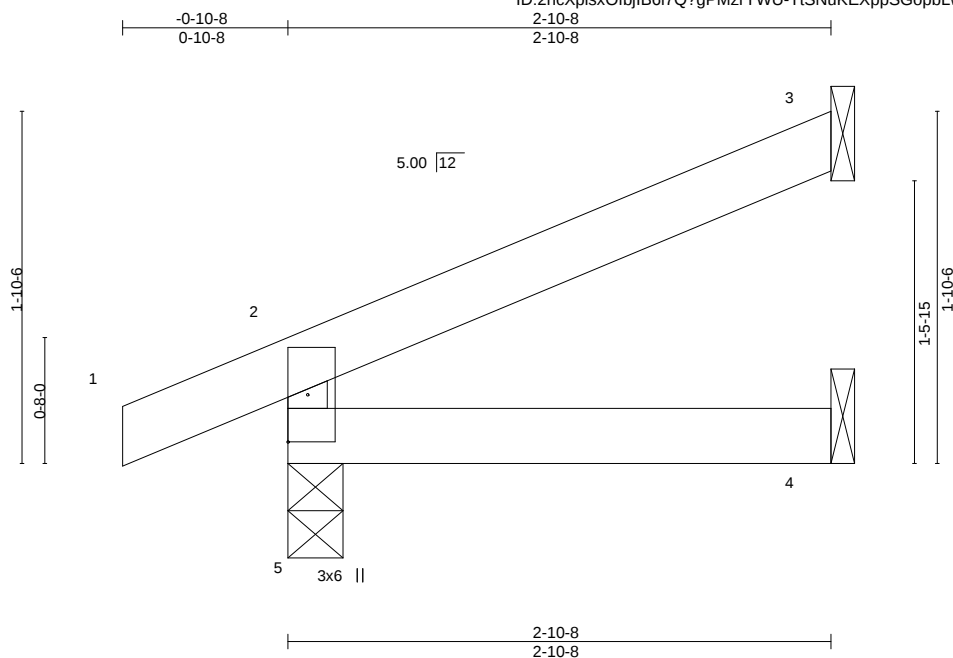
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861177
400213	J8	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-TtSNuKEXppSGopbLwOuHO0mhrPB_h75IPo3fElzUTr_



Scale = 1:12.2

Plate Offsets (X,Y)-- [2:0-0-8,0-1-4], [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	0.09	Vert(LL)	-0.00 4-5 >999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.01 4-5 >999	240	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00 3 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.00 4-5 >999	240	Weight: 8 lb FT = 10%

LUMBER-

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

BRACING-

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

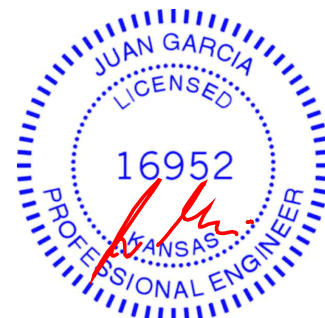
REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=55(LC 8)
Max Uplift 5=32(LC 8), 3=44(LC 8)
Max Grav 5=203(LC 1), 3=81(LC 1), 4=51(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 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

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Chesterfield, MO 63017

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Chesterfield, MO 63017

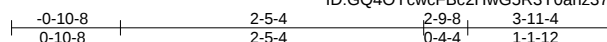
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861181
400213	J12	Jack-Closed	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:GQ4OYcwcFbc2HwG5R3Y0anz37vs-20FphU__Xgx6Pk3VIBXbaoxGZLLm?4qLphDcWSzUTri



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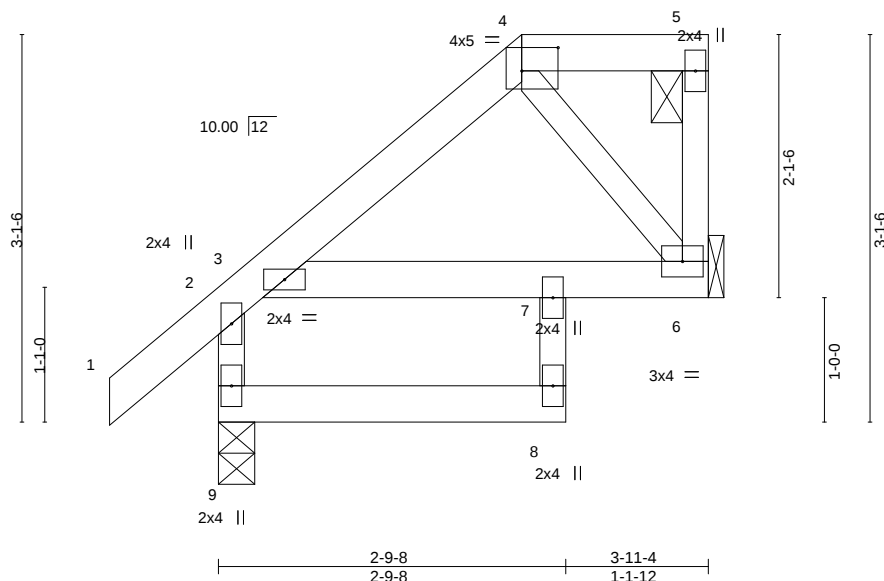


Plate Offsets (X,Y)-- [4:0-3-8,0-2-4]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.11		Vert(LL) -0.01 8 >999 360				MT20 197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.10		Vert(CT) -0.01 8-9 >999 240					
BCLL	0.0 *	Rep Stress Incr YES		WB 0.02		Horz(CT) -0.02 6 n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL) 0.01 3-7 >999 240				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 3-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 9=0-3-8, 6=Mechanical
Max Horz 9=109(LC 5)
Max Uplift 9=-29(LC 8), 6=-60(LC 5)
Max Grav 9=245(LC 1), 6=159(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
- 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) 9, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 3, 2020

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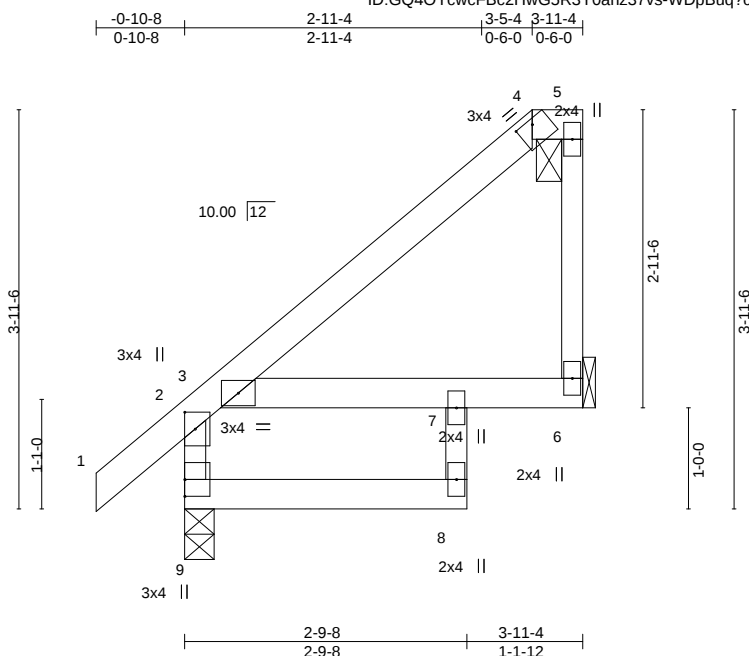
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861182
400213	J13	Jack-Closed	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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ID:GQ4OYcwcFBc2HwG5R3Y0anz37vs-WDpBuq?cl_3z1uehJv2q60UQqlhXkX8V1Lz93vzUTrH



Scale = 1:22.8

Plate Offsets (X,Y)--		[2:0-2-0,0-1-4], [4:0-2-0,0-0-10]									
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 0.14	Vert(LL)	0.01	3-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.02	3-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	-0.03	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 17 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 9=0-3-8, 6=Mechanical
Max Horz 9=142(LC 5)
Max Uplift 9=18(LC 8), 6=75(LC 5)
Max Grav 9=245(LC 1), 6=178(LC 15)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 9, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 3, 2020

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Chesterfield, MO 63017

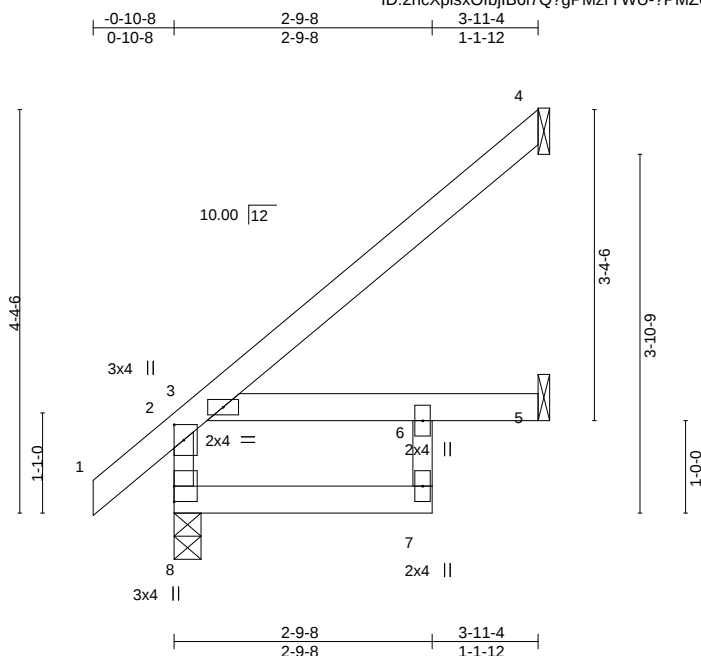


Plate Offsets (X,Y)-- [2-0-2-0-0-1-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.01	3-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.03	3-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.04	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.02	3-6	>999	240	Weight: 16 lb	FT = 10%

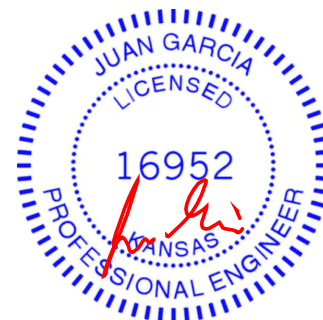
LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2		
WEBS	2x3 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=0-3-8, 4=Mechanical, 5=Mechanical
 Max Horz 8=145(LC 8)
 Max Uplift 4=-97(LC 8), 5=-5(LC 8)
 Max Grav 8=276(LC 1), 4=127(LC 15), 5=103(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-254/0

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 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 3, 2020

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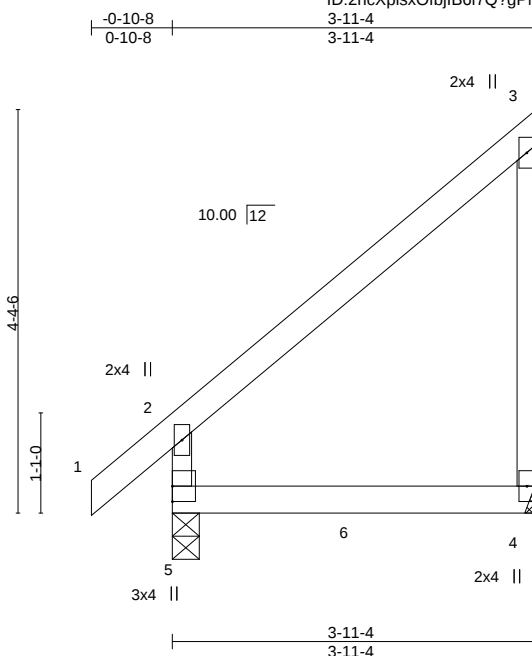
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861184
400213	J15	Jack-Closed Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-TbwxJW1sqbJhGCo4QK4lCRZluZDICRuoVfSG7nzUTrF



Scale = 1:24.9

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 0.24	Vert(LL)	-0.04	4-5	>999	360	MT20
BCLL 10.0	Lumber DOL	1.15	BC 0.65	Vert(CT)	-0.07	4-5	>636	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.04	4-5	>999	240	
								Weight: 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 3-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 4=Mechanical
Max Horz 5=170(LC 5)
Max Uplift 5=-58(LC 8), 4=-126(LC 5)
Max Grav 5=390(LC 1), 4=318(LC 31)

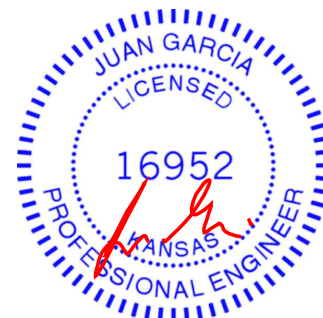
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) 5 except (jt=lb) 4=126.
- 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) 295 lb down and 95 lb up at 2-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 6=-295(B)



April 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861185
400213	J16	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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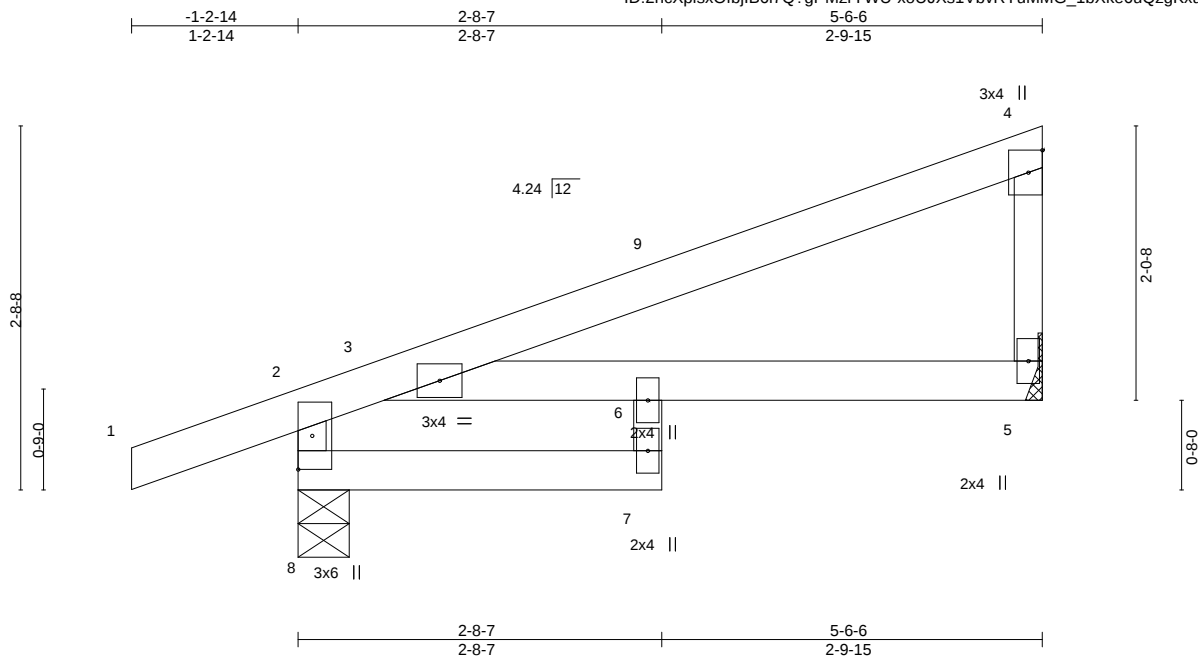


Plate Offsets (X,Y)-- [2:0-0-7,0-1-4], [8:0-0-0,0-1-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.03	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.06	7	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.03	6	>999	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 5-6-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=0-4-9, 5=Mechanical
Max Horz 8=103(LC 5)
Max Uplift 8=98(LC 4), 5=52(LC 8)
Max Grav 8=345(LC 1), 5=227(LC 1)

FORCES.

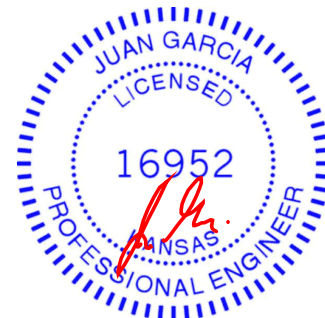
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-327/121

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate 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) 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 38 lb up at 2-9-8, and 69 lb down and 38 lb up at 2-9-8 on top chord, and 3 lb down and 0 lb up at 2-7-3, and 3 lb down and 0 lb up at 2-7-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S)

- Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 7=1(F=0, B=0)



April 3, 2020

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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861186
400213	J17	Jack-Open	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-xoUJXs1VbvRYuMMG_1bXke6wDzhpxuzxkJBpfEzUTrE



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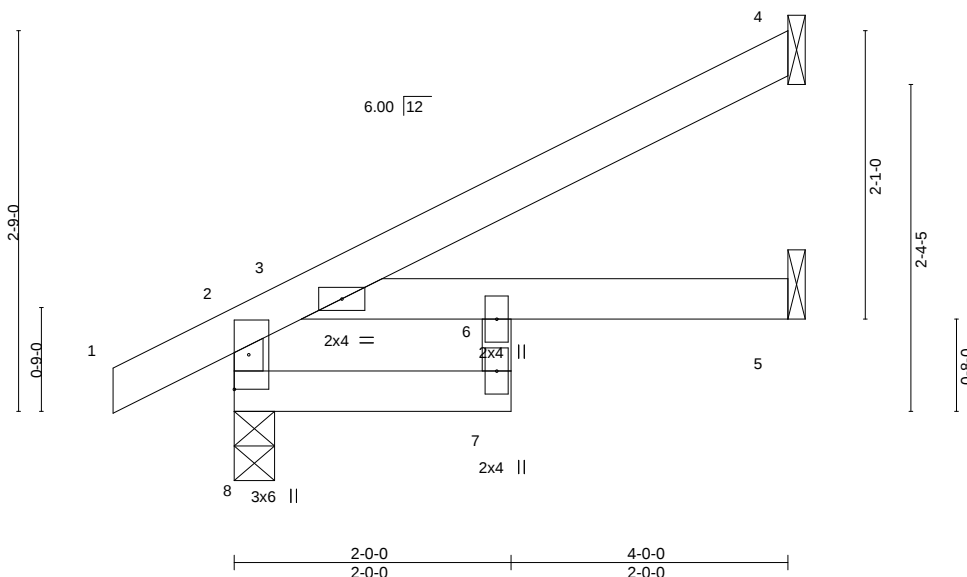


Plate Offsets (X,Y)-- [2:0-0-10,0-1-4], [8:0-0-0,0-1-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.03	6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.02	6	>999	240	Weight: 13 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

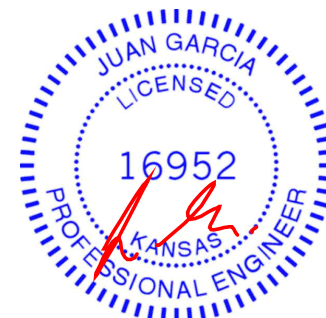
(size) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=88(LC 8)
Max Uplift 8=-15(LC 8), 4=-61(LC 8)
Max Grav 8=270(LC 1), 4=116(LC 1), 5=83(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-258/41

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) 8, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 3, 2020

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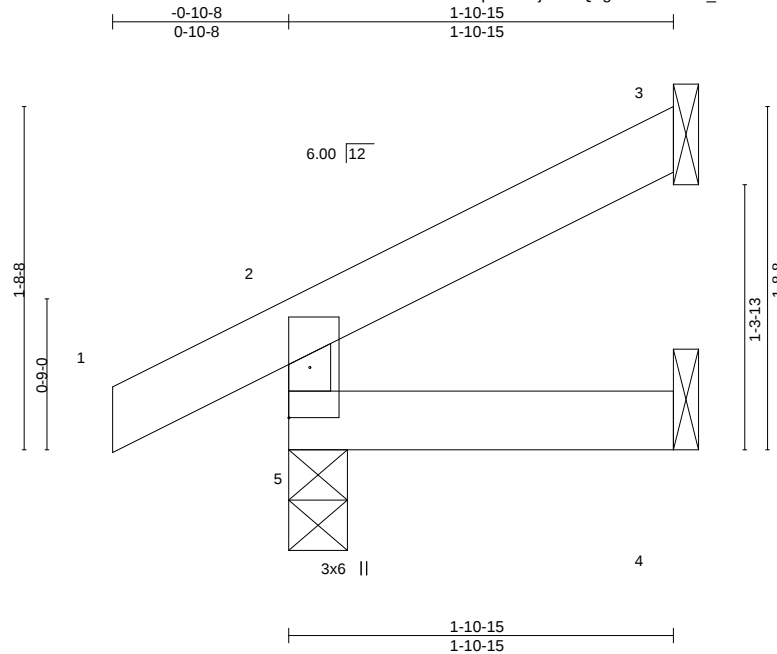
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	
400213	J18	Jack-Open	4	1		I40861187

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-P_2ikC27MCZPVVxSYk6mHsf72M33gLO4yzxNCgzUTrD



Scale = 1:11.4

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.		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 4-5 >999 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00 3 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.00 5 >999 240	Weight: 6 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-10-15 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=23(LC 8), 3=33(LC 8)
Max Grav 5=168(LC 1), 3=46(LC 1), 4=34(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) 5, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 3, 2020

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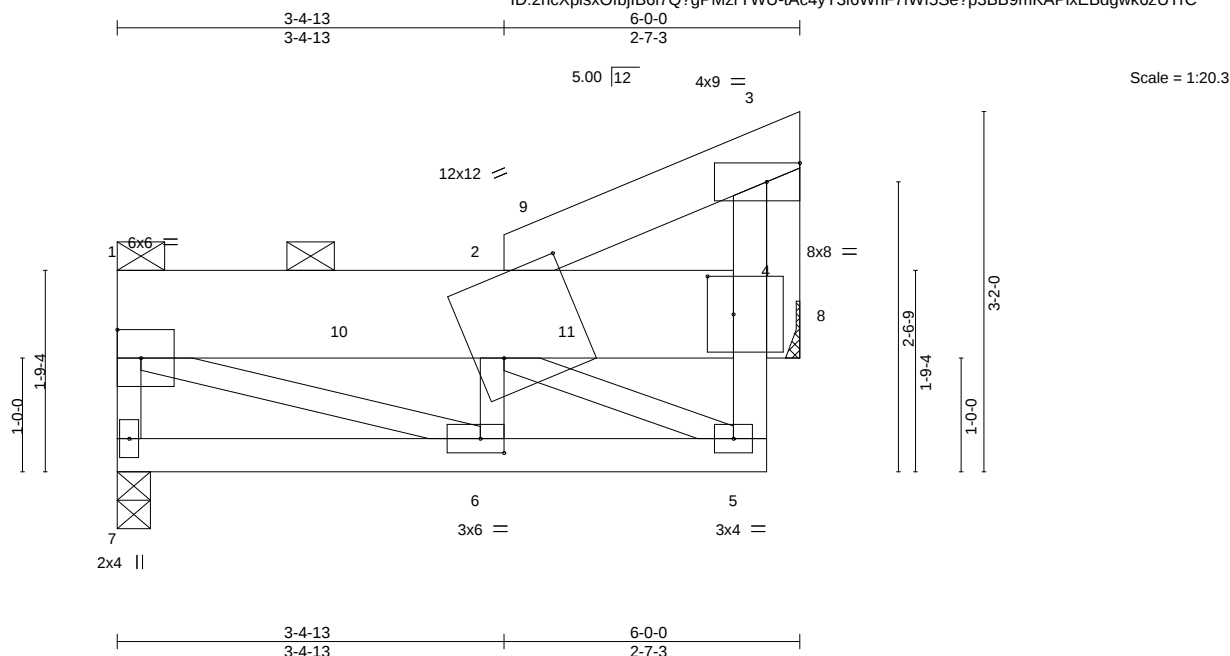
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861188
400213	J19	Jack-Closed Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-tAc4yY3l6WhF7Wf5Se?p3BB9mKAPixEBdgwk6zUTrC



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 0.55	Vert(LL)	-0.02	6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	-0.03	6	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.43	Horz(CT)	-0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.01	6	>999	240	Weight: 43 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
1-4: 2x10 SP DSS
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-5: 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: 1-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 7=0-3-8, 8=Mechanical
Max Horz 7=86(LC 5)
Max Uplift 7=-215(LC 8), 8=-245(LC 8)
Max Grav 7=1234(LC 15), 8=1257(LC 15)

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

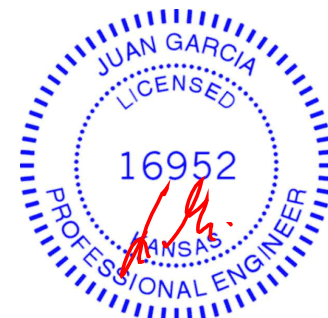
TOP CHORD 1-7=-1193/228, 2-3=-614/71, 4-5=-107/638, 3-4=-155/969, 1-2=-1206/179
BOT CHORD 5-6=-211/1197
WEBS 1-6=-203/1280, 2-6=-431/122, 2-5=-1238/232, 3-8=-1274/248

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) except (jt=lb) 7=215, 8=245.
- 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) 1080 lb down and 184 lb up at 2-0-12, and 1080 lb down and 184 lb up at 4-0-12 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



April 3, 2020

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861188
400213	J19	Jack-Closed Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:57 2020 Page 2
ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-tAc4yY3l6WhF7fWf5Se?p3BB9mKAPixEBdgwk6zUTrC

LOAD CASE(S) Standard
Uniform Loads (plf)
 Vert: 2-3=-70, 5-7=-20, 1-2=-70
Concentrated Loads (lb)
 Vert: 9=-984(B) 10=-984(B)

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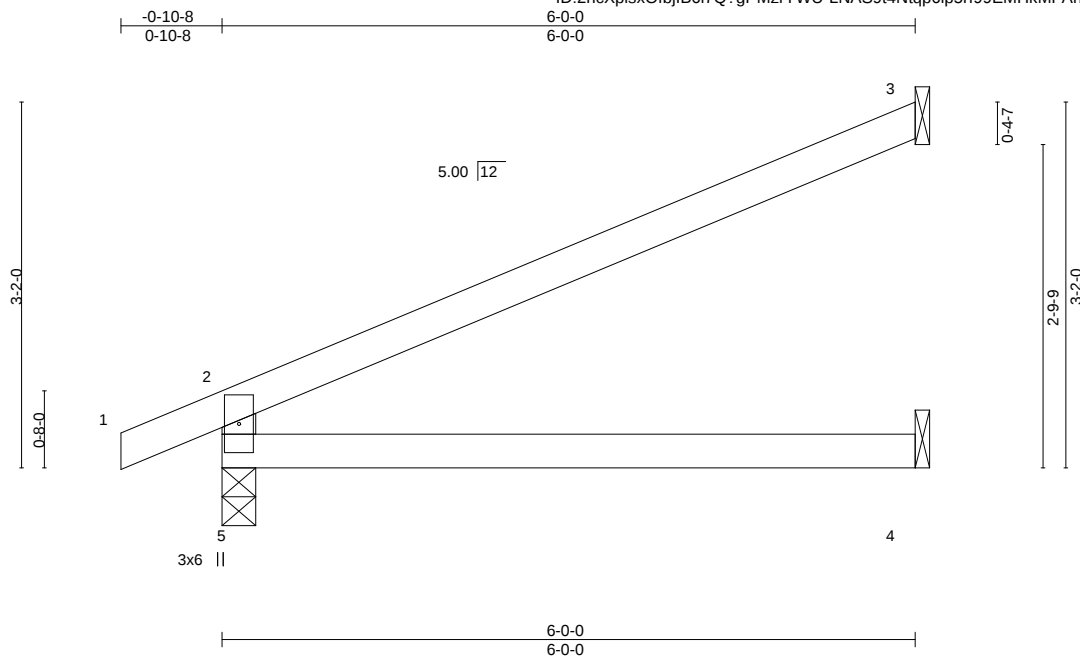
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861189
400213	J20	Jack-Open	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:58 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-LNAS9t4Ntqp6lp5rf99EMHkMFAhw8FtNQHQGTGYzUTrB



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 0.53	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.12	4-5	>596	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)	0.05	4-5	>999	240	Weight: 16 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

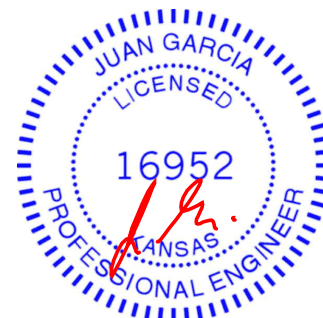
(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=107(LC 8)
Max Uplift 5=-46(LC 8), 3=-90(LC 8)
Max Grav 5=338(LC 1), 3=182(LC 1), 4=109(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-295/100

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 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861190
400213	J21	Jack-Closed Girder	1	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:54:59 2020 Page 1

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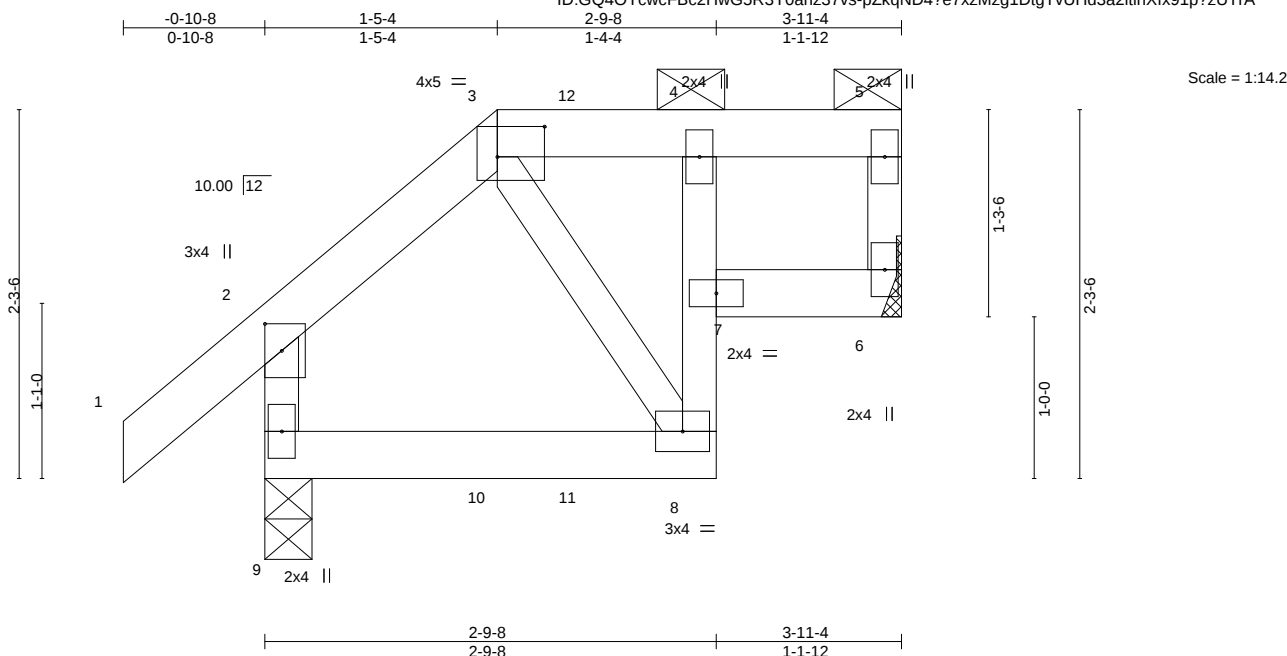


Plate Offsets (X,Y)-- [2-0-2-0,0-1-4], [3-0-3-8,0-2-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.01 8 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.01 8 >999 240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	-0.01 6 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.01 8 >999 240	Weight: 15 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-5.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 9=0-3-8, 6=Mechanical
 Max Horz 9=76(LC 5)
 Max Uplift 9=-100(LC 8), 6=-88(LC 5)
 Max Grav 9=274(LC 1), 6=191(LC 1)

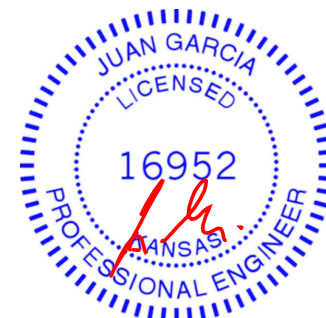
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 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.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 45 lb down and 100 lb up at 1-5-4, and 79 lb down and 69 lb up at 2-0-0 on top chord, and 7 lb down and 15 lb up at 1-5-4, and 30 lb down at 2-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 Vert: 1-2=-70, 2-3=-70, 8-9=-20, 6-7=-20, 3-5=-70
 Concentrated Loads (lb)
 Vert: 10=7(F) 11=-22(F) 12=-45(F)



April 3, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861192
400213	J23	Jack-Open	1	1	Job Reference (optional)	

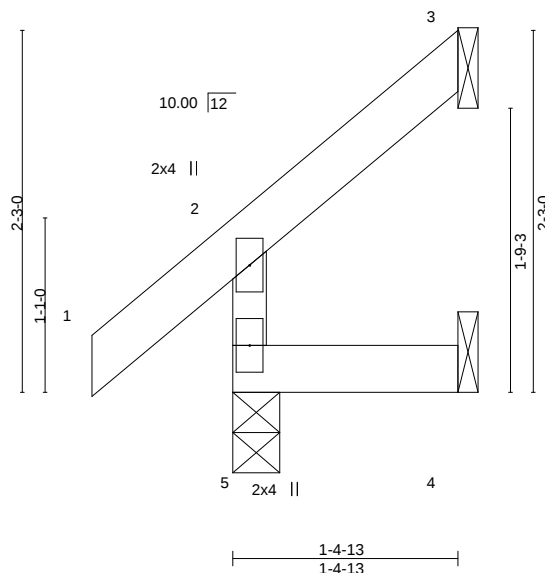
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:01 2020 Page 1

ID:2ncXplsxFbjB6l7Q?gPMzrYWU-myrbnv6FAIChcHqQKlix_vM_cNm4Lcdp6Fe8ttzUTr8

-0-10-8 1-4-13
0-10-8 1-4-13

Scale = 1:14.3



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 0.08	Vert(LL)	0.00 5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00 5	>999	180		
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					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 1-4-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=60(LC 8)
Max Uplift 3=-41(LC 8), 4=-13(LC 8)
Max Grav 5=152(LC 1), 3=34(LC 15), 4=24(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, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 3, 2020

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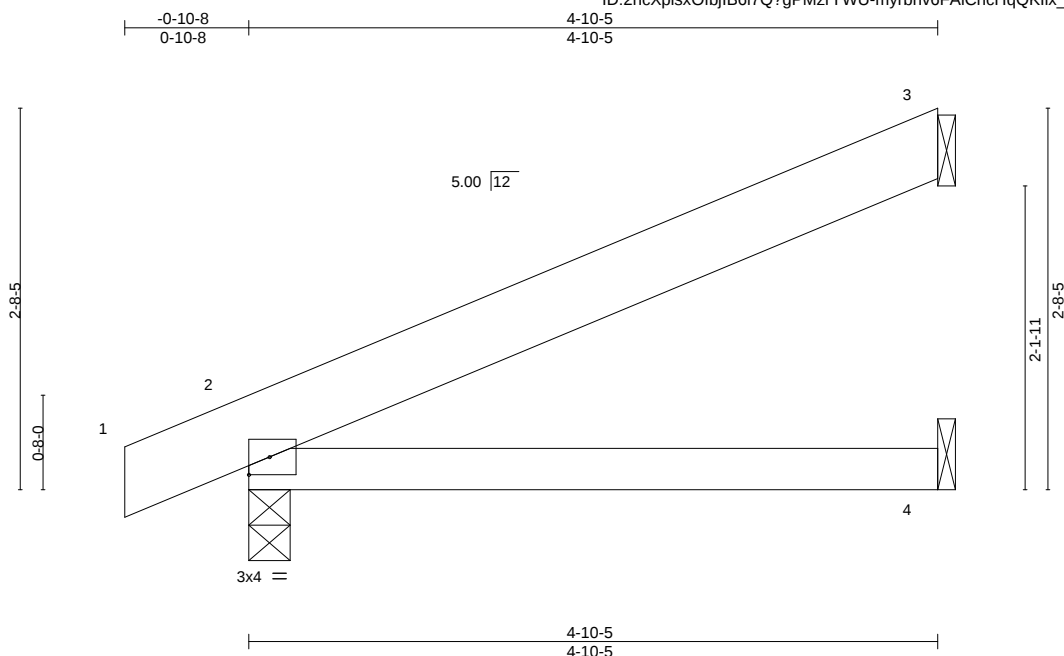
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861193
400213	J24	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-myrbnv6FAIChcHqQKlix_vMzHNj7Lcdp6Fe8ttzUTr8



Scale = 1:16.3

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 0.16	Vert(LL)	-0.03	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	-0.06	2-4	>994	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: 17 lb	FT = 10%

LUMBER-

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

BRACING-

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

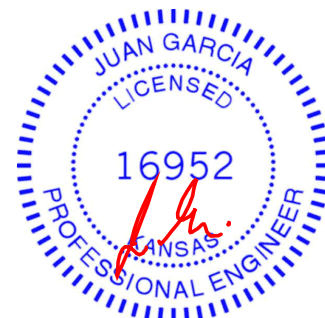
REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=96(LC 8)
Max Uplift 3=-87(LC 8), 2=-42(LC 8)
Max Grav 3=155(LC 1), 2=289(LC 1), 4=93(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 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861194
400213	J25	DIAGONAL HIP GIRDER	1	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:02 2020 Page 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-E8Pz?F7ux2KYDQPcu?DAW7v86n2G4?hZLvOhPKzUTr7

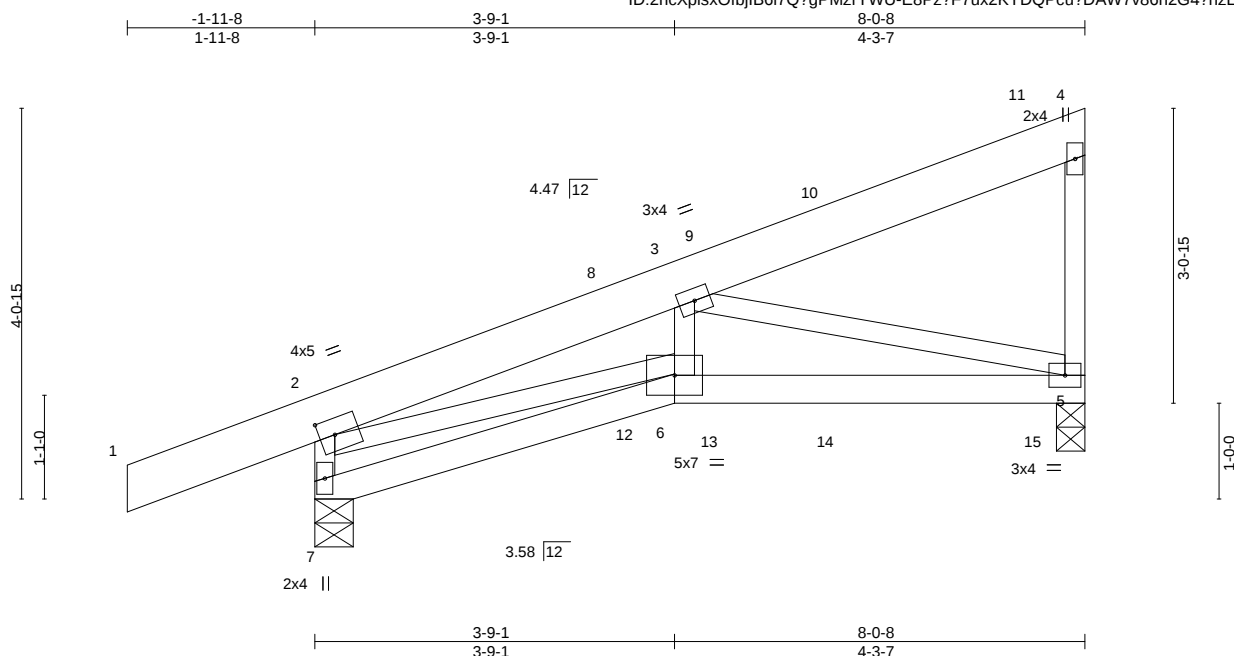


Plate Offsets (X,Y)-- [2:0-1-15,0-2-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	-0.02	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.05	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.02	6	>999	240	Weight: 38 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 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 6-0-0 oc bracing.

REACTIONS.

(size) 7=0-4-13, 5=0-3-9
Max Horz 7=161(LC 5)
Max Uplift 7=-183(LC 4), 5=-235(LC 5)
Max Grav 7=523(LC 1), 5=404(LC 1)

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

TOP CHORD 2-7=-487/228, 2-3=-720/280
BOT CHORD 5-6=-357/594
WEBS 2-6=-219/661, 3-5=-606/347

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.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=183, 5=235.
- 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) 73 lb down and 42 lb up at 3-2-6, 138 lb down and 94 lb up at 4-2-11, and 86 lb down and 73 lb up at 5-5-3, and 96 lb down and 104 lb up at 7-7-3 on top chord, and 14 lb down and 22 lb up at 3-2-6, 13 lb down at 4-2-11, and 20 lb down and 22 lb up at 5-5-3, and 34 lb down and 20 lb up at 7-7-3 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, 2-4=-70, 6-7=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 9=-5(F) 11=-48(B) 12=1(B) 13=-5(F) 14=-1(B) 15=-20(B)



April 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861195
400213	J26	Jack-Open	1	1	Job Reference (optional)	

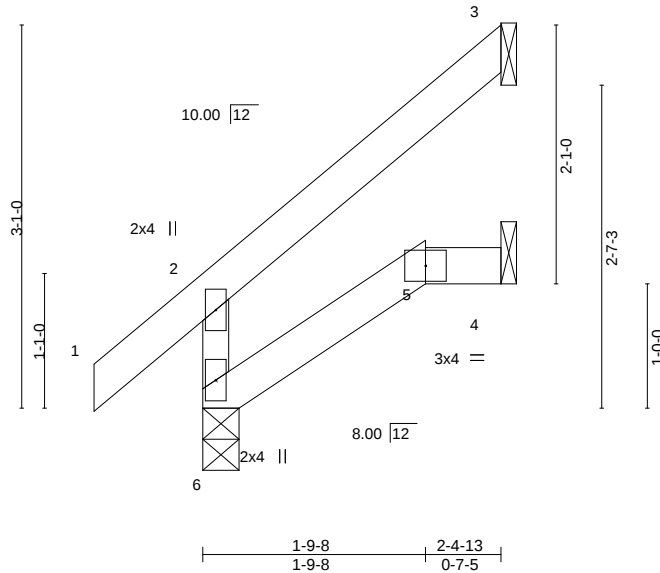
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:03 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-iKzLCb8WIMSPra_oSjkP3KRJFBR_pW76ZZ7EymzUTr6

-0-10-8 2-4-13
0-10-8 2-4-13

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 0.13	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	5-6	>999	180		
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						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 2-4-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 6=91(LC 8)
Max Uplift 3=-72(LC 8), 4=-9(LC 8)
Max Grav 6=184(LC 1), 3=77(LC 15), 4=43(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.
- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 3, 2020

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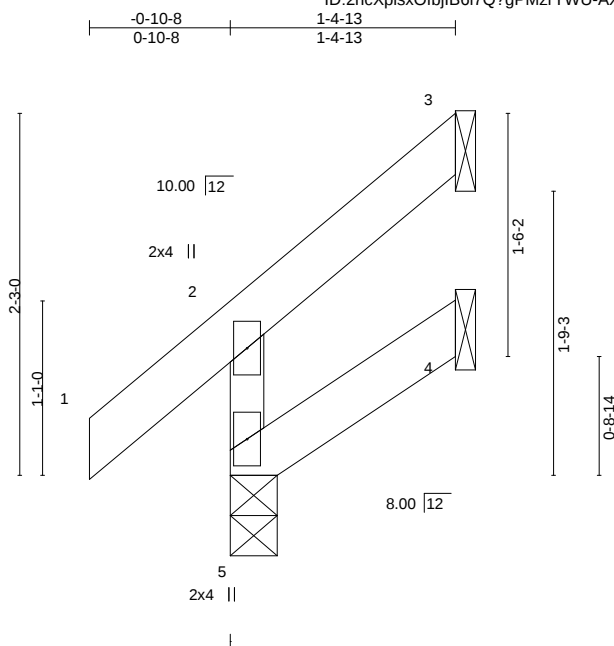
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4
400213	J27	Jack-Open	1	1	I40861196
Job Reference (optional)					

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:04 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-AXXjQx88TgaGTkZ?0QGecY_VjboiYzMGGoDtoUCzUTr5



Scale = 1:14.3

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 0.09	Vert(LL)	0.00	5	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	5	>999	180	197/144
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						
									Weight: 6 lb FT = 10%

LUMBER-

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

BRACING-

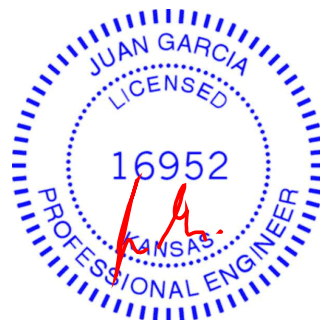
TOP CHORD Structural wood sheathing directly applied or 1-4-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=59(LC 8)
Max Uplift 3=-44(LC 8), 4=-15(LC 8)
Max Grav 5=152(LC 1), 3=35(LC 15), 4=26(LC 6)

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) 5 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) 3, 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 3, 2020

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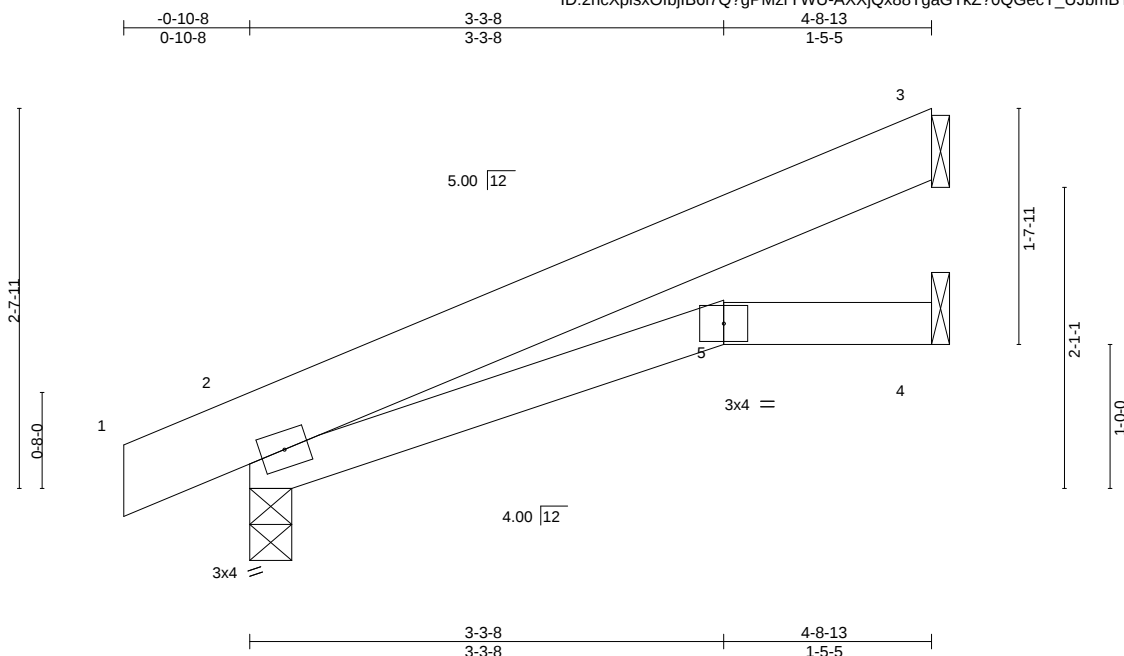
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861197
400213	J28	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjlB6i7Q?gPMzrYWU-AXXjQx88TgaGTkZ?0QGecY_UJbmBYzMGGoDtoUCzUTr5



Scale: 3/4"=1'

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	-0.01	2-5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.03	2-5	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	4	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.01	2-5	>999	240	
								Weight: 17 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-8-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

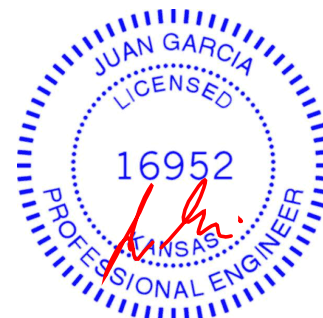
REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=94(LC 8)
Max Uplift 3=-76(LC 8), 2=-41(LC 8)
Max Grav 3=152(LC 1), 2=283(LC 1), 4=75(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.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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 3, 2020

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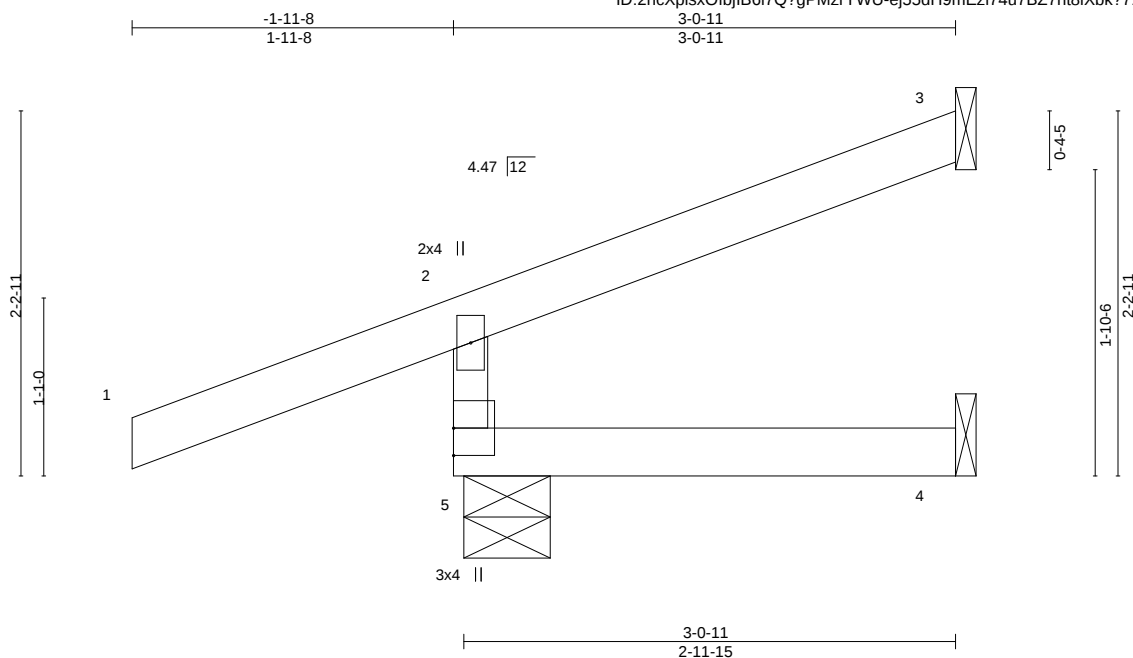


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861198
400213	J29	Jack-Open Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:05 2020 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-ej55dH9mEzi74u7BZ7nt8IXbk?71HQcP1tcL0fzUTr4



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)	-0.00	4-5	>999	360	MT20	197/144
BCLL 10.0	Lumber DOL	1.15	BC 0.10	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	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 3-0-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-6-5, 3=Mechanical, 4=Mechanical
Max Horz 5=81(LC 7)
Max Uplift 5=96(LC 4), 3=65(LC 12), 4=7(LC 19)
Max Grav 5=214(LC 1), 3=13(LC 9), 4=38(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, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 44 lb down and 16 lb up at -1-11-8, and 44 lb down and 16 lb up at -1-11-8 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-67(F=-33, B=-33)
Trapezoidal Loads (plf)
Vert: 1=-0(F=35, B=35)-to-2=-51(F=9, B=9), 2=-2(F=34, B=34)-to-3=-54(F=8, B=8), 5=-0(F=10, B=10)-to-4=-15(F=2, B=2)



April 3, 2020

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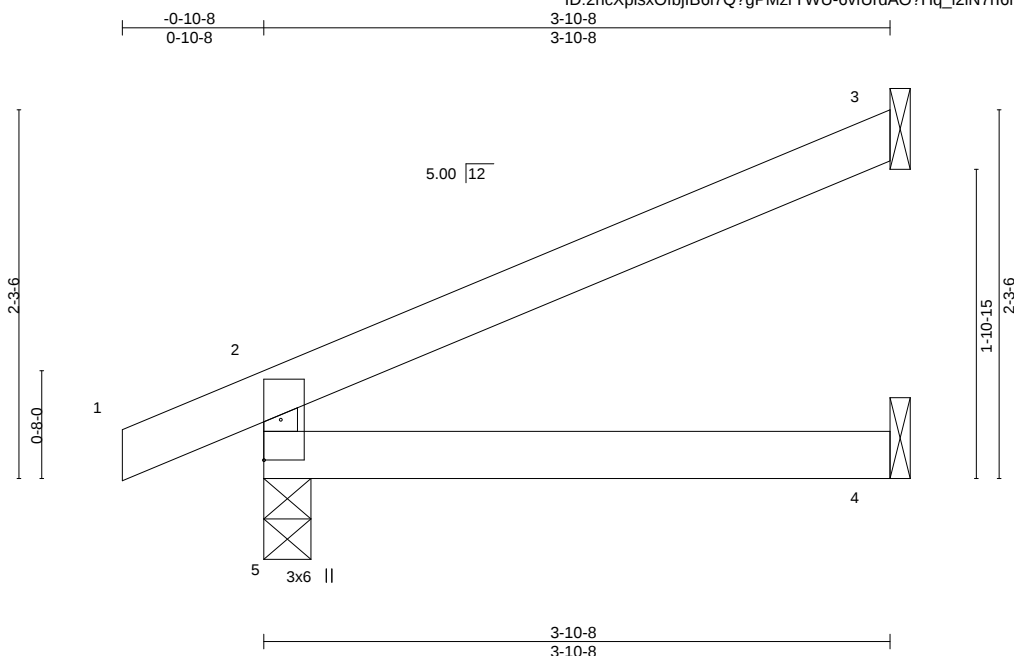
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861199
400213	J30	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:06 2020 Page 1

ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-6vfUrdAO?Hq_i2iN7rl6hz3pSOSs0ssZGXMuY5zUTr3



Scale = 1:14.3

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

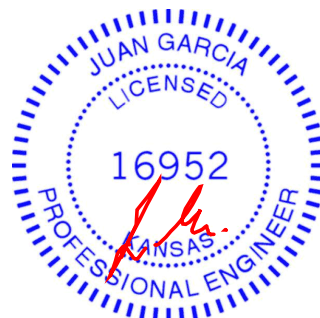
REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=72(LC 8)
Max Uplift 5=-36(LC 8), 3=-60(LC 8)
Max Grav 5=244(LC 1), 3=115(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 3, 2020

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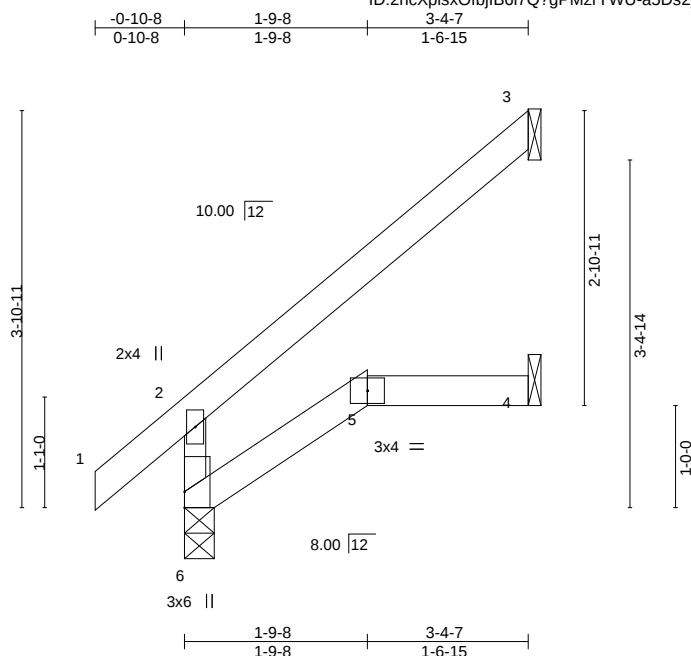
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	
400213	J31	Jack-Open	1	1		I40861200
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:07 2020 Page 1

ID:2ncXplsxOfbjB6I7Q?gPMzrYWU-a5Ds2yB0mbyrKCHahYpLDacz4ooHIJ6iUB5S5XzUTr2



Scale = 1:22.6

Plate Offsets (X,Y)--		[6:0-1-14,Edge]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.21		Vert(LL)	0.01 5 >999	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.11		Vert(CT)	-0.01 5 >999		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.00		Horz(CT)	-0.03 3 n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R				Weight: 12 lb	FT = 10%

LUMBER-

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

BRACING-

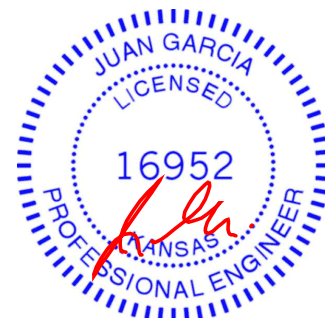
TOP CHORD Structural wood sheathing directly applied or 3-4-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 6=124(LC 8)
Max Uplift 3=98(LC 8), 4=6(LC 8)
Max Grav 6=223(LC 1), 3=114(LC 15), 4=62(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.
- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 3, 2020

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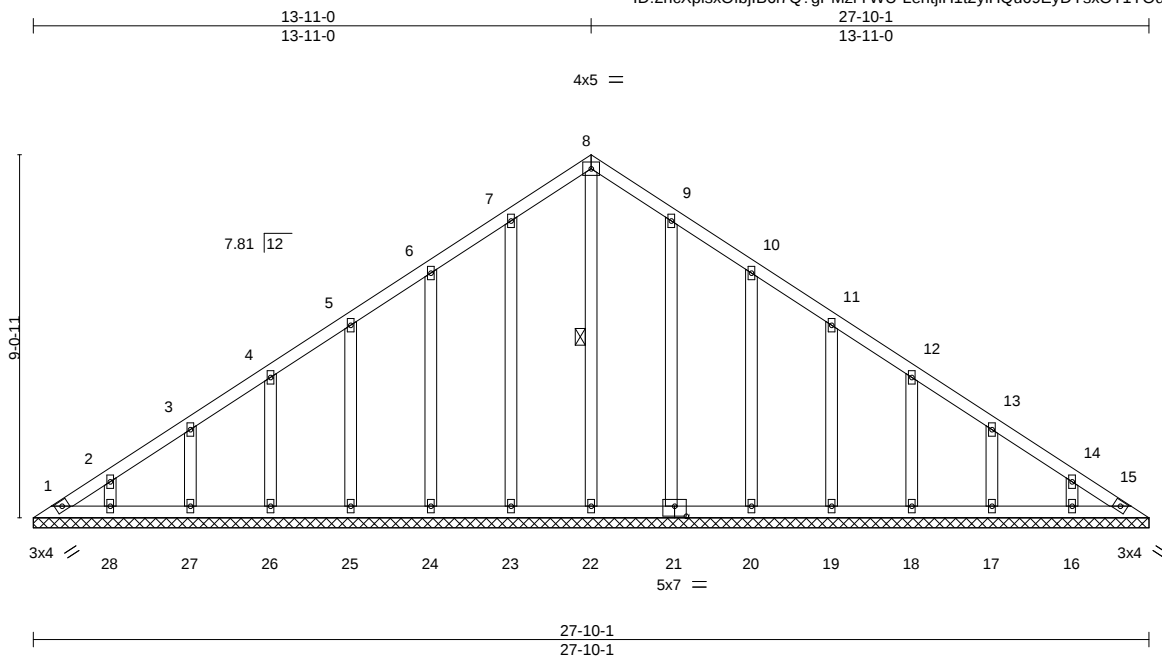


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861201
400213	LAY1	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:15 2020 Page 1
ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-LehtjiH1t2yiHQu69EyDysxOT1YOdvtKQ1tM3zUTqw



Scale = 1:57.5

Plate Offsets (X,Y)-- [21:0-3-8,0-3-0]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.01	15	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 132 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.
WEBS 1 Row at midpt 8-22

REACTIONS.

All bearings 27-10-1.
(lb) - Max Horz 1=-228(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1, 15, 23, 24, 25, 26, 27, 28, 21, 20, 19, 18, 17, 16
Max Grav All reactions 250 lb or less at joint(s) 1, 15, 22, 23, 24, 25, 26, 27, 28, 21, 20, 19, 18, 17, 16

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; 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
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 15, 23, 24, 25, 26, 27, 28, 21, 20, 19, 18, 17, 16.
- 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 3, 2020

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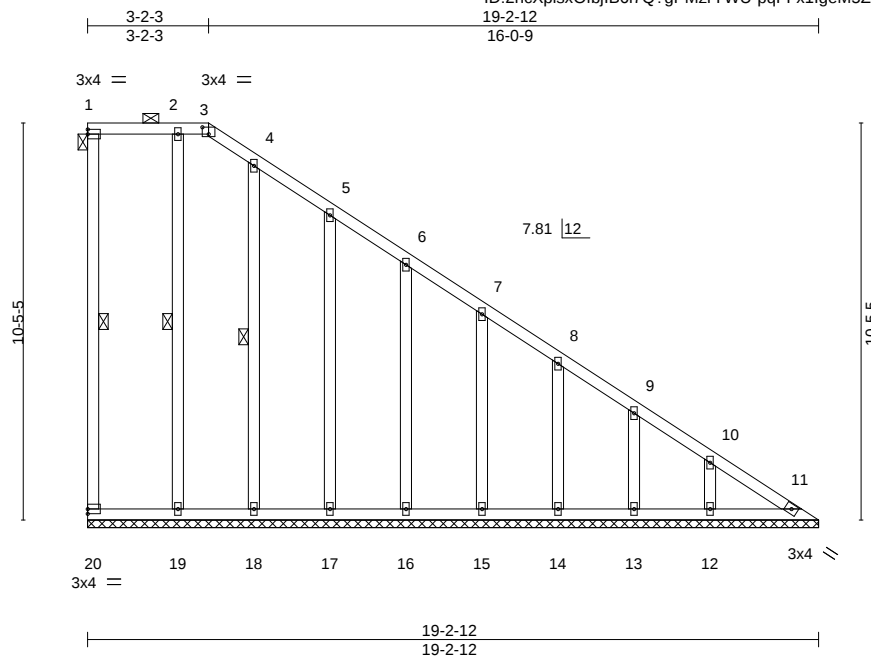
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861202
400213	LAY2	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:16 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-pqFFx1lgeM5ZvaTljxTS54USMQrJMMI1Z4nQuWzUTqv



Scale = 1:60.6

Plate Offsets (X,Y)--	[3:0-2:0,0-2-3]								
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 0.49	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.01	11	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 111 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.): 1-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-20, 2-19, 4-18

REACTIONS.

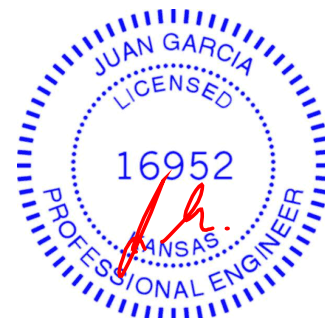
All bearings 19-2-12.
(lb) - Max Horz 20=-404(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 20, 11, 19, 18, 17, 16, 15, 14, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 20, 11, 19, 18, 17, 16, 15, 14, 13, 12

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 7-8=-256/164, 8-9=-291/187, 9-10=-326/207, 10-11=-369/240
BOT CHORD 19-20=-199/319, 18-19=-199/319, 17-18=-199/319, 16-17=-199/319, 15-16=-199/319, 14-15=-199/319, 13-14=-199/319, 12-13=-199/319, 11-12=-199/319

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) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 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) 20, 11, 19, 18, 17, 16, 15, 14, 13, 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 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	
400213	LAY3	GABLE	1	1		I40861203
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:18 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-mDN0MjWAZLH8udhqMWwAVZunEa6qFiK0OGXyOzUTqt

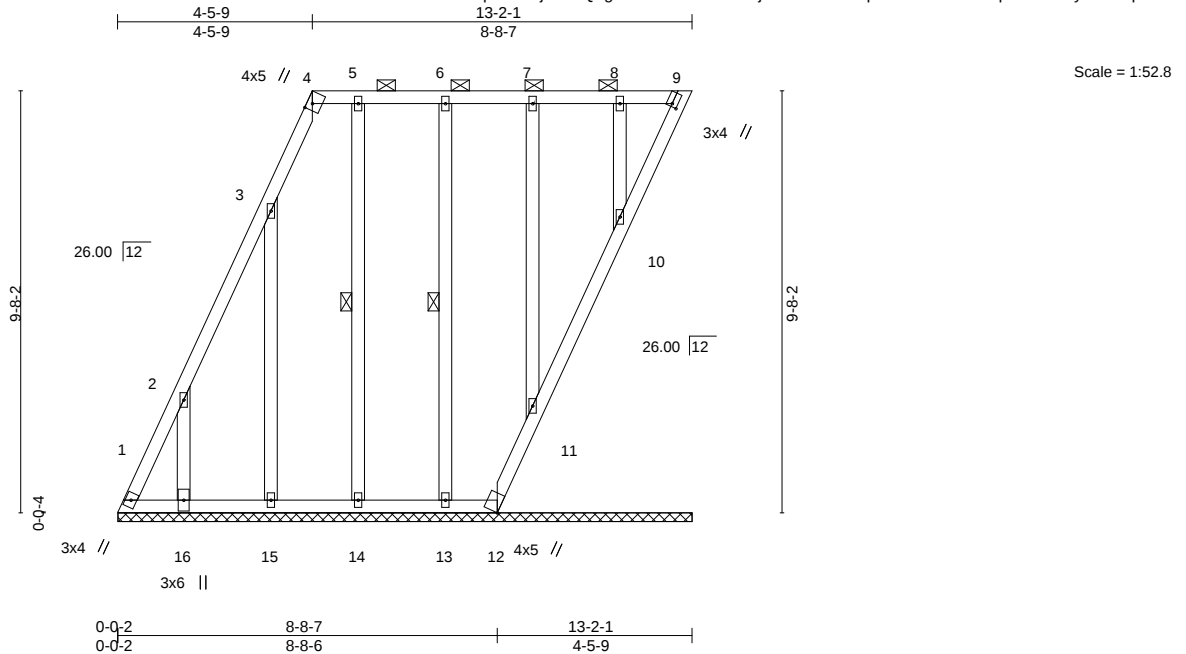


Plate Offsets (X,Y)-- [4:0-1-13,Edge], [9:0-0-13,0-1-8]

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 0.11	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.20	Horz(CT)	-0.01	9	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 87 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-14, 6-13

REACTIONS.

All bearings 13-1-15.
(lb) - Max Horz 1=383(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 12, 14, 13, 11, 10 except 1=296(LC 6), 9=123(LC 8), 16=409(LC 8), 15=318(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 9, 12, 14, 13, 11, 10 except 1=623(LC 8), 16=320(LC 15), 15=279(LC 15)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-687/364, 2-3=-294/161
WEBS 2-16=-277/418, 3-15=-240/344

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 14, 13, 11, 10 except (jt=lb) 1=296, 9=123, 16=409, 15=318.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 11, 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 3, 2020

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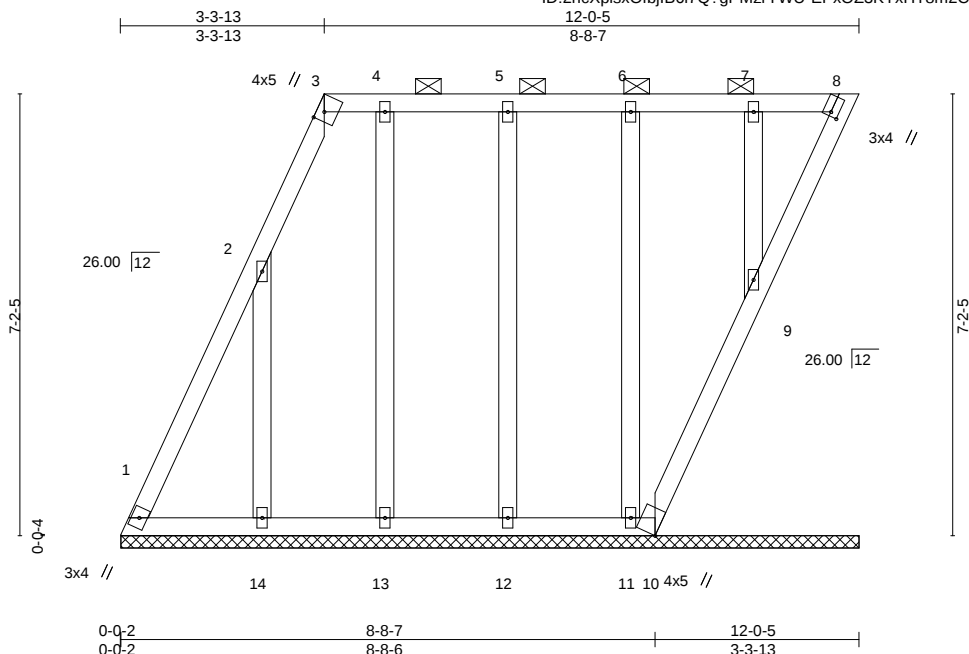
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861204
400213	LAY4	GABLE	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-EPxOZ3KYxHT8m2CtO419ji63bevyZkATF2?4VrzUTqs



Scale = 1:37.5

Plate Offsets (X,Y)-- [3:0-1-13,Edge], [8:0-0-13,0-1-8]										
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	0.11	Vert(LL)	n/a - n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a - n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	-0.00 8	n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 68 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

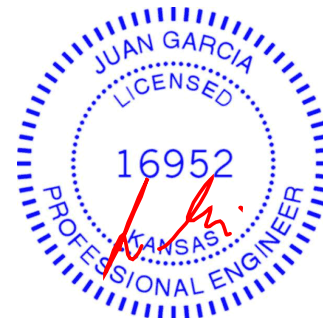
All bearings 12-0-3.
(lb) - Max Horz 1=282(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 8, 10, 13, 12, 11, 9 except 1=129(LC 6), 14=-414(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 8, 10, 13, 12, 11, 9 except 1=337(LC 8), 14=347(LC 15)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-376/208
WEBS 2-14=-281/411

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 10, 13, 12, 11, 9 except (jt=lb) 1=129, 14=414.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8, 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

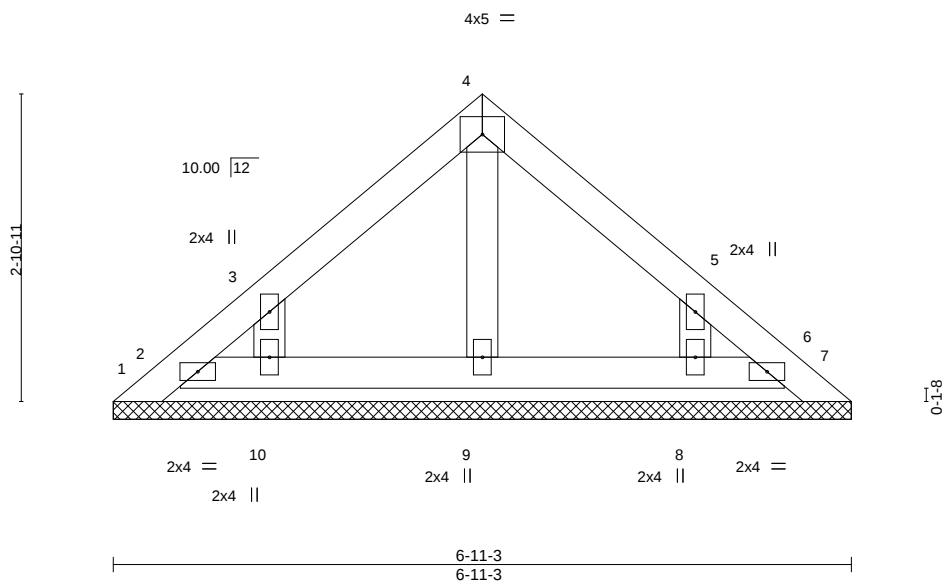
Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861205
400213	P1	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:20 2020 Page 1
ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-icVmnPLAiab?NBn3ynYOFweFE2FeIC?cUile1HzUTqr

3-5-10
3-5-10
6-11-3
3-5-10

Scale = 1:21.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 20 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.

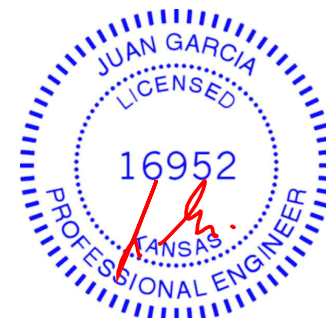
REACTIONS.

All bearings 6-11-3.
(lb) - Max Horz 1=-70(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 6, 8 except 10=-101(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 2, 6, 9, 10, 8

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 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, 7, 6, 8 except (jt=lb) 10=101.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



April 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	
400213	P2	Piggyback	11	1		I40861206
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:21 2020 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-Ao38_ILoTujs?LMGVU3do7BObRaC1f9miMUBZjzUTqq

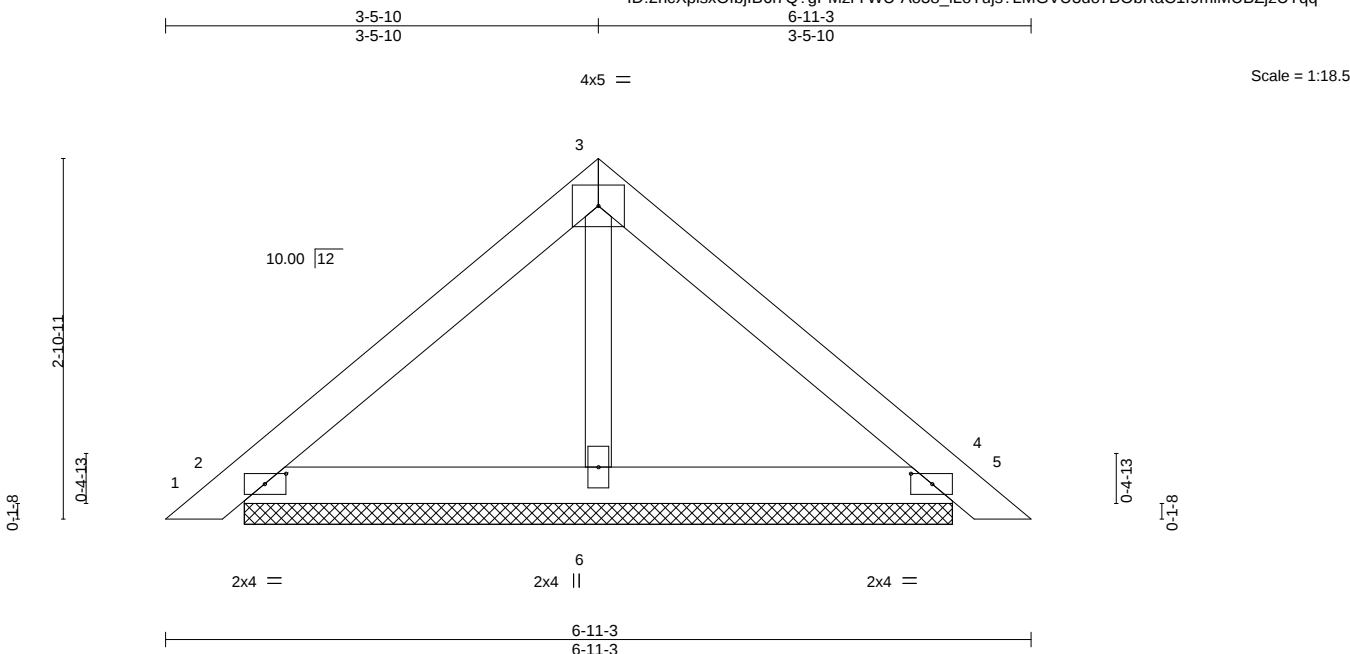


Plate Offsets (X,Y)-- [2:0-2-1,0-1-0], [4:0-2-1,0-1-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	0.00	5	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.01	5	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 18 lb	FT = 10%

LUMBER-

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

BRACING-

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

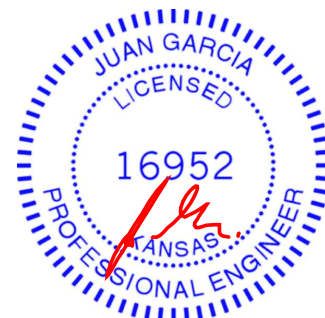
REACTIONS.

(size) 2=5-8-1, 4=5-8-1, 6=5-8-1
Max Horz 2=70(LC 7)
Max Uplift 2=-43(LC 8), 4=-51(LC 9)
Max Grav 2=184(LC 1), 4=184(LC 1), 6=198(LC 1)

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) 2, 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



April 3, 2020

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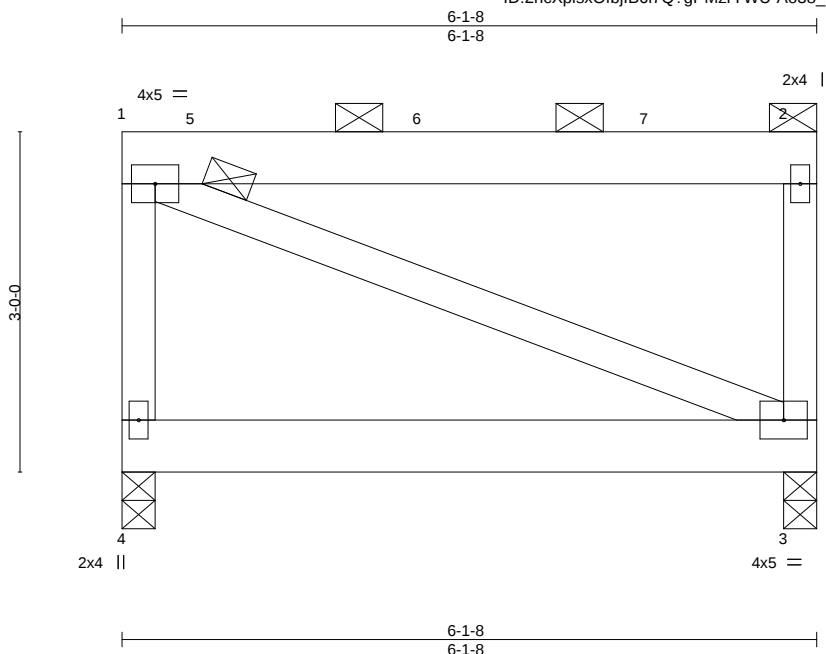
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861207
400213	R1	Flat	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:21 2020 Page 1

ID:2ncXplsXOfbjB6I7Q?gPMzrYWU-Ao38_ILoTujs?LMGVU3do7BF7Ra21fTmiMUBZjzUTqq



Scale = 1:20.3

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 0.75	Vert(LL)	-0.01	3-4	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.02	3-4	>999	240	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	-0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	4	****	240	
								Weight: 74 lb	FT = 10%

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

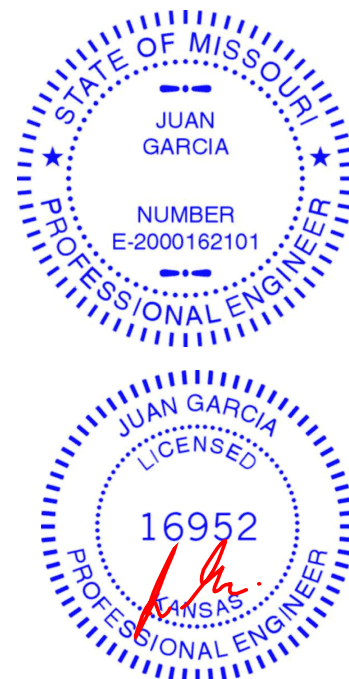
BRACING-
TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=0-3-8, 3=0-3-8
Max Horz 4=-97(LC 4)
Max Uplift 4=-361(LC 4), 3=-284(LC 5)
Max Grav 4=2214(LC 1), 3=1895(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-4=-2155/396, 2-3=-1837/298

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 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.
 - 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) 4=361, 3=284.
 - 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) 1181 lb down and 200 lb up at 0-9-0, and 1266 lb down and 188 lb up at 2-9-0, and 1265 lb down and 172 lb up at 4-9-0 on top 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: 1-2=-70, 3-4=-20



April 3, 2020

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4
400213	R1	Flat	1	2	I40861207
					Job Reference (optional)

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:21 2020 Page 2
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-Ao38_LoTujs?LMGVU3do7BF7Ra21fTmiMUBZjzUTqq

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 5=-1181 6=-1167 7=-1167

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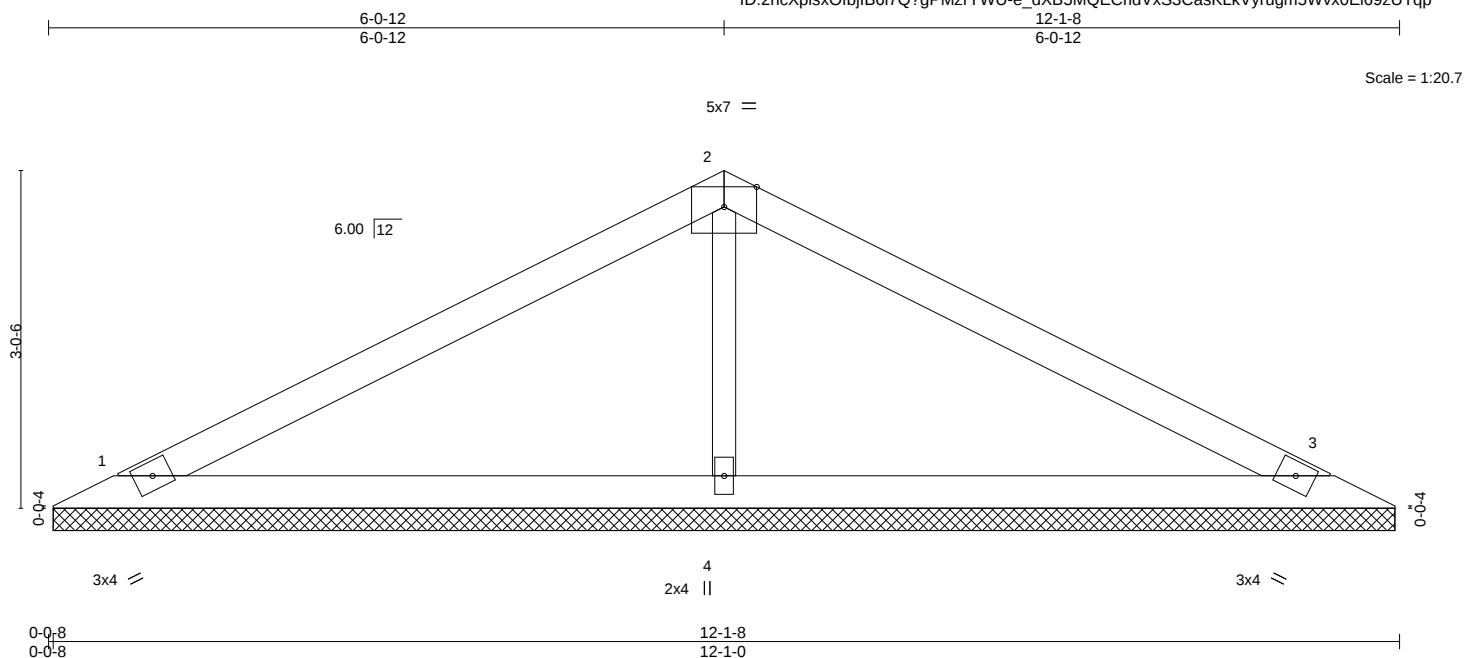
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861208
400213	V1	Valley	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:22 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-e_dXB5MQECridVxS3CaskLkVyrugm5Wvx0EI69zUTqp



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 30 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

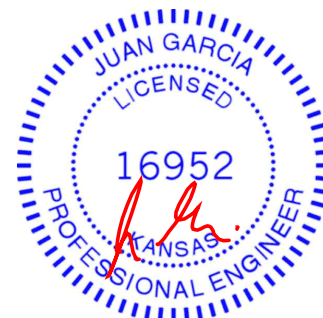
(size) 1=12-0-8, 3=12-0-8, 4=12-0-8
Max Horz 1=-48(LC 13)
Max Uplift 1=-47(LC 8), 3=-56(LC 9), 4=-29(LC 8)
Max Grav 1=230(LC 21), 3=230(LC 22), 4=519(LC 1)

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

WEBS 2-4=-354/93

NOTES-

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



April 3, 2020

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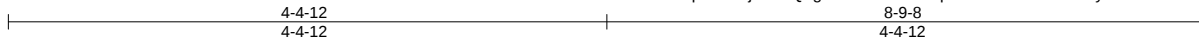


16023 Swingley Ridge Rd
Chesterfield, MO 63017

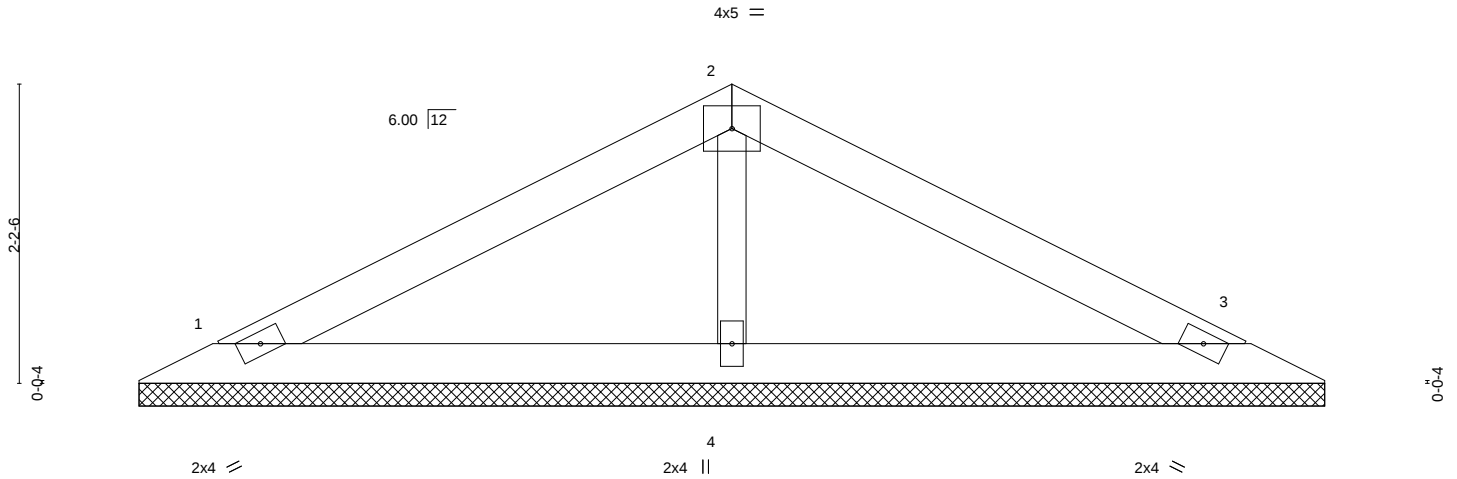
Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861209
400213	V2	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:25 2020 Page 1
ID:2ncXplsXOfbjlB6I7Q?gPMzrYWU-3Zlfq6PJW7DHUzf1kK8ZyzM1f3xLzStMd_SPIUzUTqm



Scale = 1:16.9



0-0-8 0-0-8		8-9-8 8-9-0					
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc) l/defl L/d
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a - n/a 999
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a - n/a 999
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00 3 n/a n/a
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P			
						PLATES	GRIP
						MT20	197/144
						Weight: 21 lb	FT = 10%

LUMBER-

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

BRACING-

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

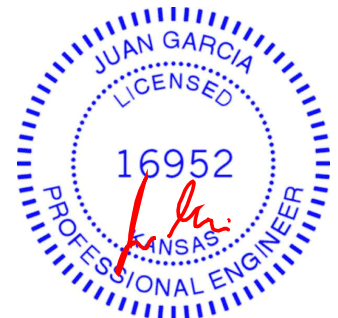
REACTIONS.

(size) 1=8-8-8, 3=8-8-8, 4=8-8-8
Max Horz 1=33(LC 12)
Max Uplift 1=40(LC 8), 3=46(LC 9), 4=4(LC 8)
Max Grav 1=177(LC 1), 3=177(LC 1), 4=324(LC 1)

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, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 3, 2020

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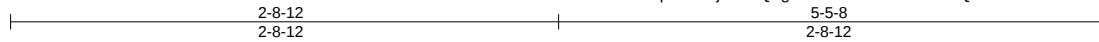


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861210
400213	V3	Valley	1	1	Job Reference (optional)	

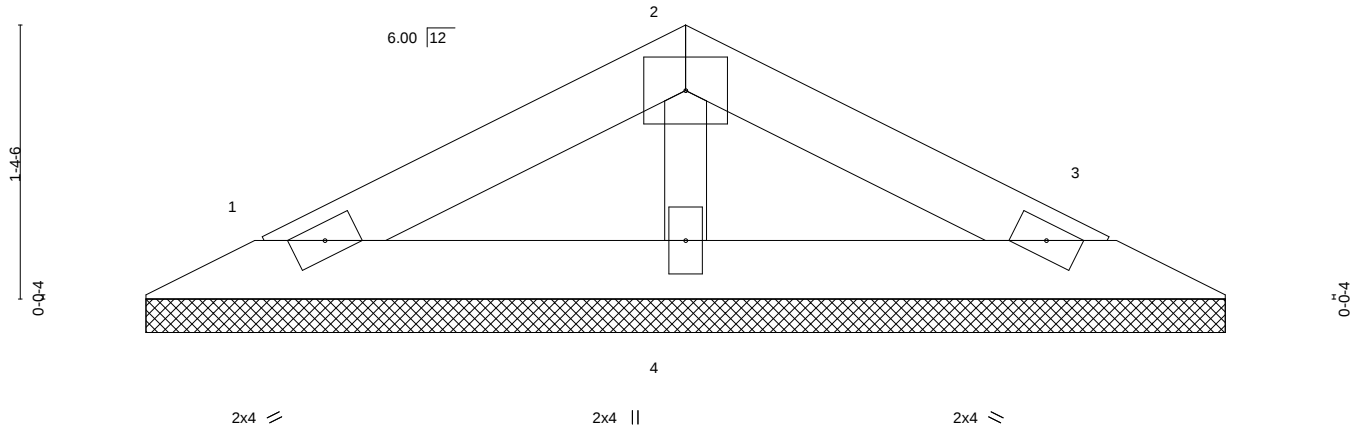
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:26 2020 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-Xls11SPxHQL866EDI2foVBuFMSltivTVseCyFzUTql



4x5 =

Scale = 1:11.5



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 0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	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
OTHERS 2x3 SPF No.2

BRACING-

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

REACTIONS.

(size) 1=5-4-8, 3=5-4-8, 4=5-4-8
Max Horz 1=-19(LC 13)
Max Uplift 1=-23(LC 8), 3=-26(LC 9), 4=-2(LC 8)
Max Grav 1=99(LC 1), 3=99(LC 1), 4=180(LC 1)

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, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 3, 2020

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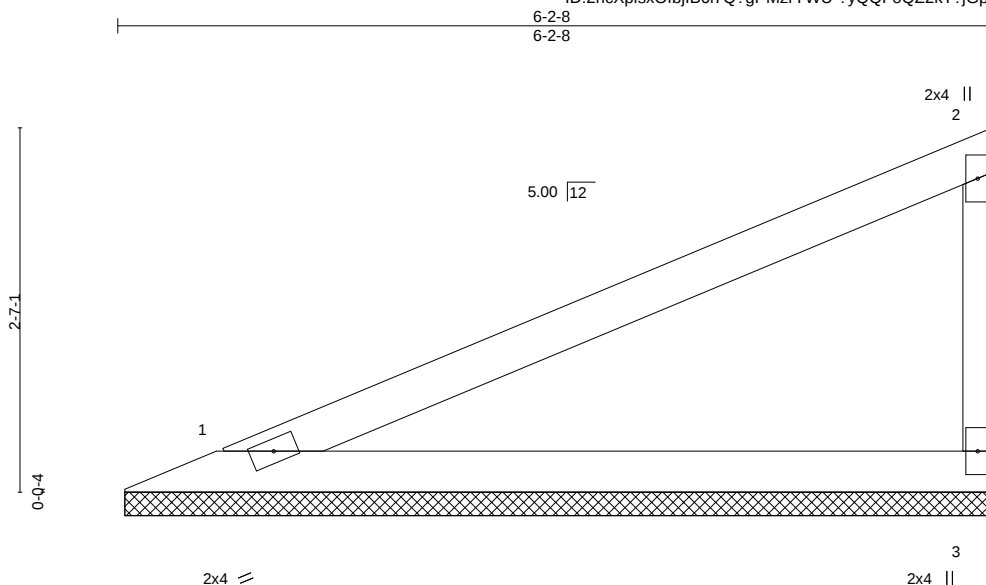
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	
400213	V4	Valley	1	1		I40861211
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:27 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-?yQQFoQZ2kT?jGpQsIA11ORJYsazRM3e5xWnNzUTqk



Scale = 1:16.4

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 0.56	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.30	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: 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 6-2-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=6-1-14, 3=6-1-14
Max Horz 1=98(LC 5)
Max Uplift 1=-35(LC 8), 3=-55(LC 8)
Max Grav 1=241(LC 1), 3=241(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 3, 2020

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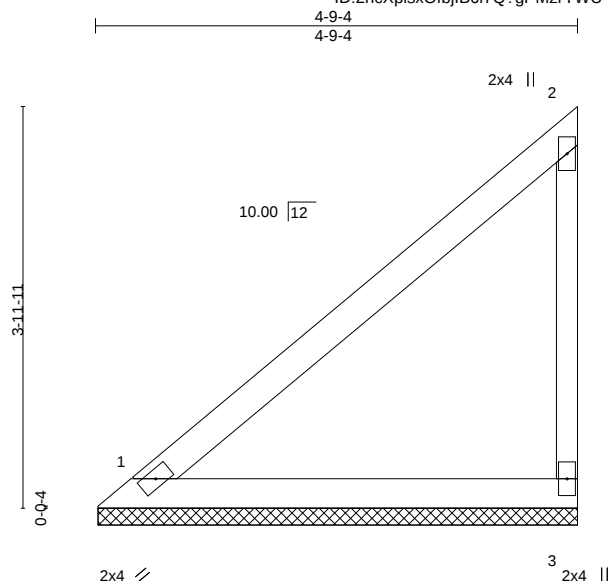
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861212
400213	V5	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:27 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-?yQQFoQZ2kT?jGpQsIA11ORMmscpRM3e5lxWnNzUTqk



Scale = 1:22.8

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 0.35	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.18	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: 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 4-9-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-8-15, 3=4-8-15
Max Horz 1=142(LC 5)
Max Uplift 1=-5(LC 8), 3=-67(LC 8)
Max Grav 1=192(LC 1), 3=216(LC 15)

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 3, 2020

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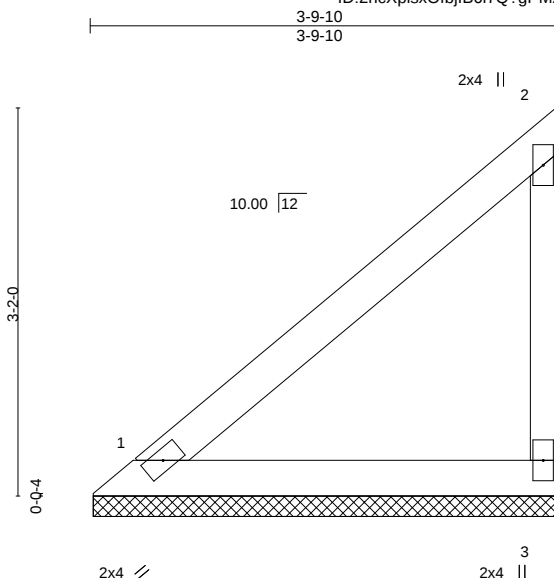
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	
400213	V6	Valley	1	1		I40861213
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:28 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzryWU-T8_oS8RBp2bsLQOcQThGaczZsGzHApJoJyh3JpUTqj



Scale = 1:18.8

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 0.20	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					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 3-9-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

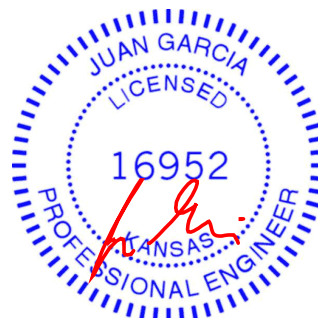
REACTIONS.

(size) 1=3-9-5, 3=3-9-5
Max Horz 1=109(LC 5)
Max Uplift 1=-4(LC 8), 3=-52(LC 8)
Max Grav 1=148(LC 1), 3=167(LC 15)

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.



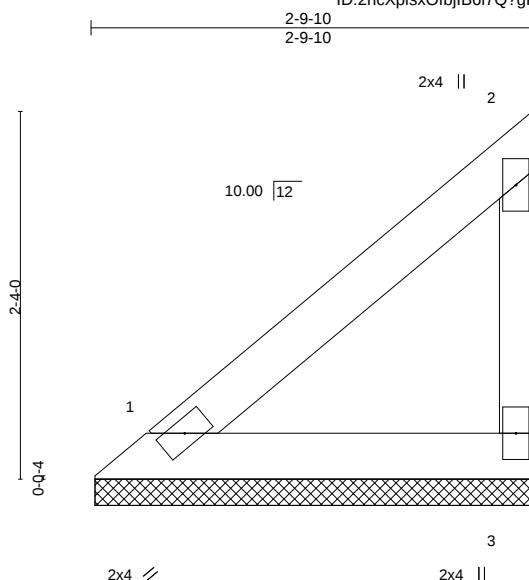
April 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017



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)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.05	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: 8 lb	FT = 10%

**LUMBER-
TOP CHO
BOT CHO
WEBS**

REACTION

FORCES.

NOTES-

- 1) Wind: A
MWFRS
grip DO
- 2) Gable r
- 3) This tru
- 4) * This tr
will fit b
- 5) Provide
- 6) This tru
reference

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

REACTIONS. (size) 1=2-9-5, 3=2-9-5
 Max Horz 1=76(LC 5)
 Max Uplift 1=-3(LC 8), 3=-36(LC 8)
 Max Grav 1=103(LC 1), 3=116(LC 15)

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.

BRACING-

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



April 3, 2020

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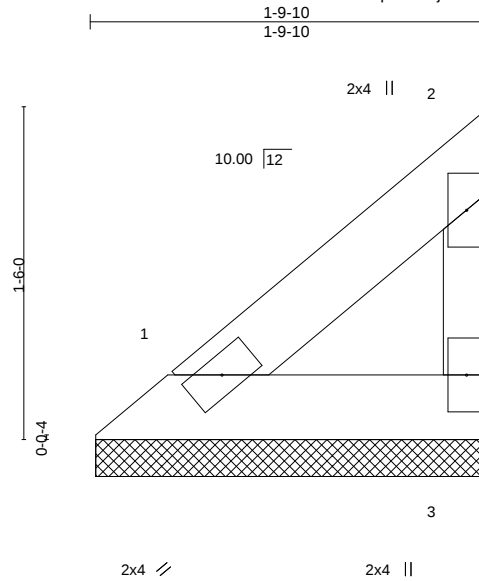
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861215
400213	V8	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:29 2020 Page 1

ID:2ncXplsXOfBjIB6I7Q?gPMzrYWU-xKYAfUSpaLjjazozACV6pWnKgKxvGYxYcQcrFzUTqi



Scale = 1:10.4

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 0.03	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.01	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: 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 1-9-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

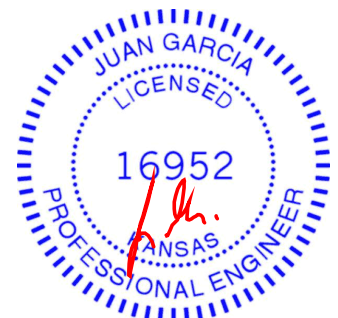
REACTIONS.

(size) 1=1-9-5, 3=1-9-5
Max Horz 1=43(LC 5)
Max Uplift 1=-1(LC 8), 3=-20(LC 8)
Max Grav 1=58(LC 1), 3=66(LC 15)

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 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861216
400213	V9	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:30 2020 Page 1
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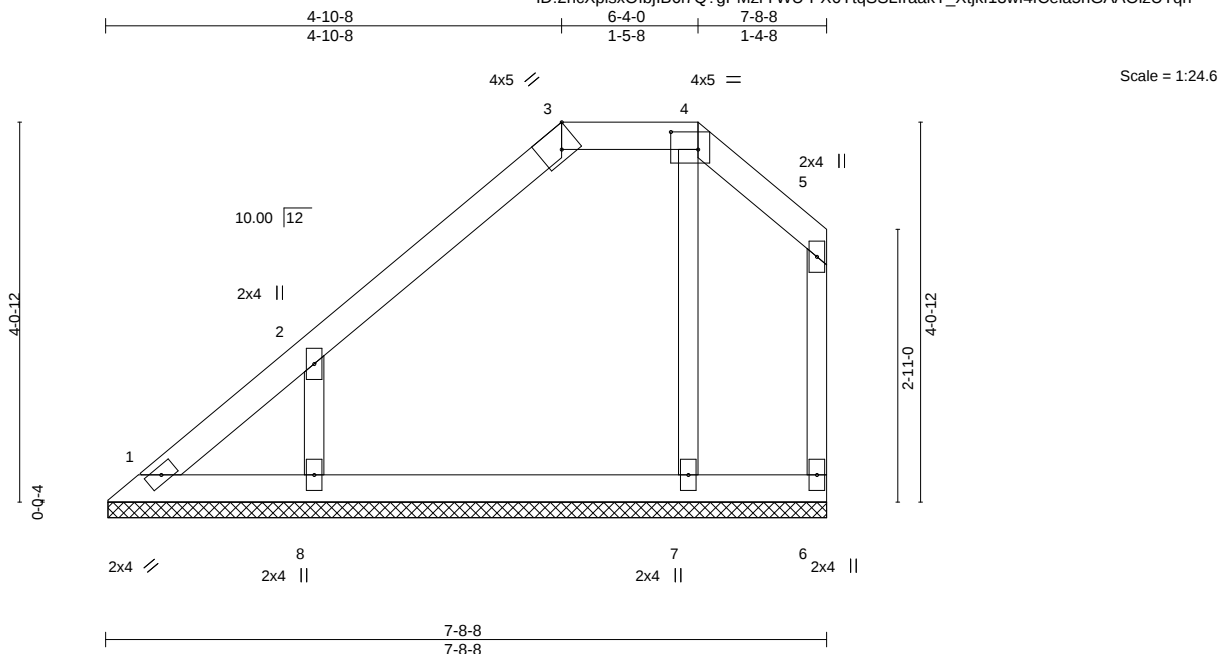


Plate Offsets (X,Y)-- [3:0-2-4,Edge], [4:0-3-8,0-2-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a - n/a	999	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a - n/a	999	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	-0.00 6 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S					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, 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.

All bearings 7-8-3.
(lb) - Max Horz 1=134(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 1, 6, 7 except 8=134(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 7=270(LC 1), 8=354(LC 15)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-285/176

NOTES-

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



April 3, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861217
400213	V10	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:23 2020 Page 1
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-6AAvPRN3?VzZFVedv55tYGiFFG_VZM3AgzlecZUTqo

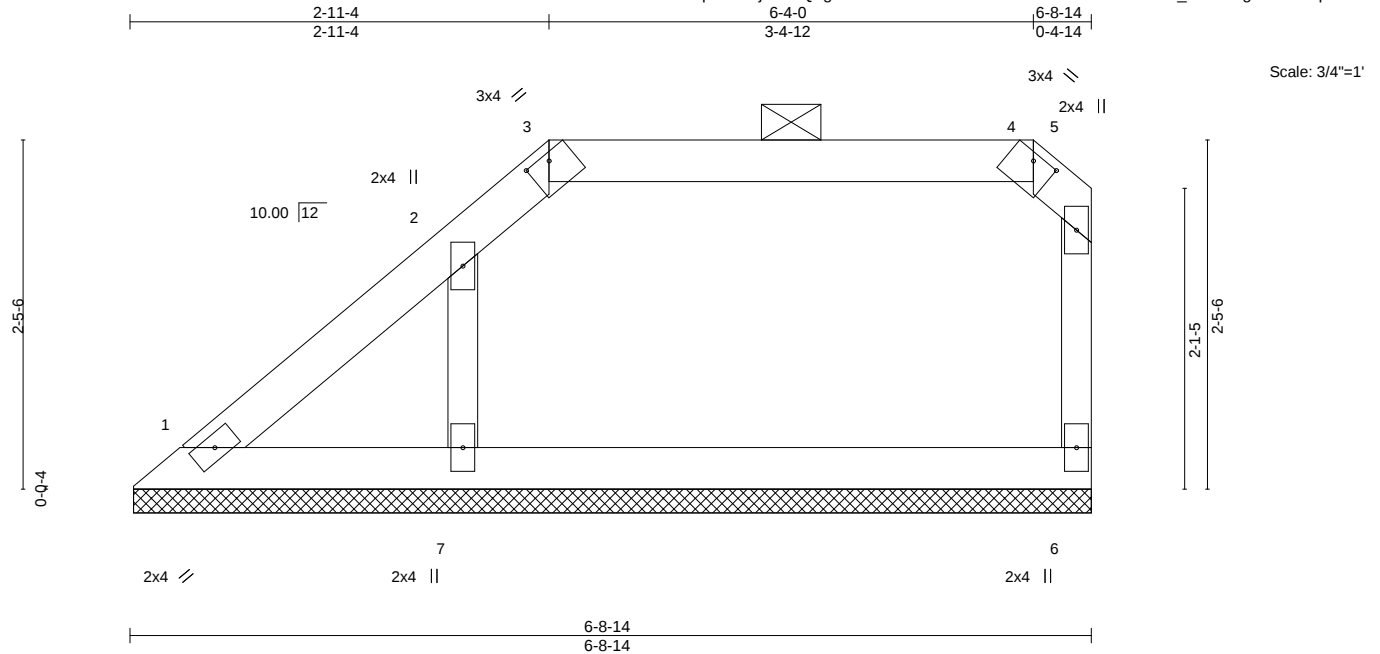


Plate Offsets (X,Y)-- [3:0-2-0,0-0-10], [4:0-2-0,0-0-10]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							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, 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) 1=6-8-9, 6=6-8-9, 7=6-8-9
Max Horz 1=82(LC 5)
Max Uplift 1=-8(LC 4), 6=-31(LC 4), 7=-63(LC 5)
Max Grav 1=76(LC 16), 6=182(LC 22), 7=321(LC 21)

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

NOTES-

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



April 3, 2020

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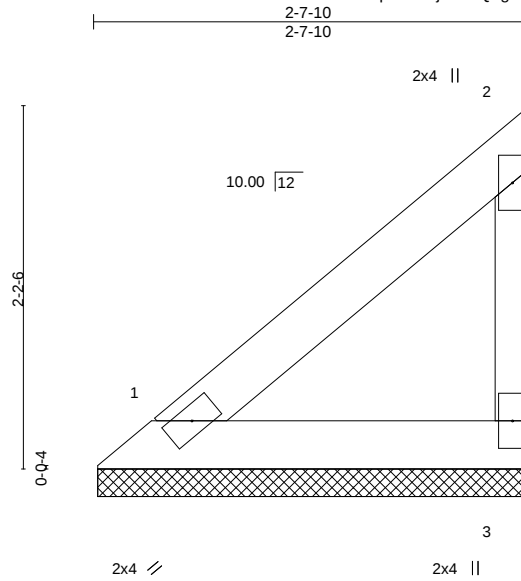
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4
400213	V11	Valley	1	1	I40861218

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-aNkHcmOhmp5Qsp4rBddKPmpvnfdLE0JCOKjrA2zUTqn



Scale = 1:13.9

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 0.08	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: 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 2-7-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=2-7-6, 3=2-7-6
Max Horz 1=71(LC 5)
Max Uplift 1=-2(LC 8), 3=-33(LC 8)
Max Grav 1=96(LC 1), 3=108(LC 15)

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 3, 2020

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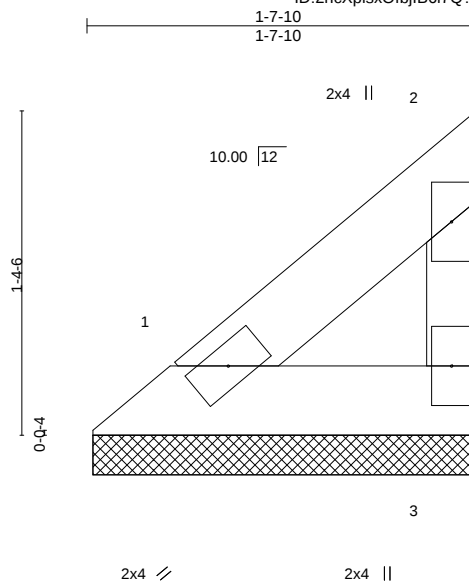
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 53 H4	I40861219
400213	V12	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Apr 3 08:55:24 2020 Page 1

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Scale = 1:9.7

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)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.01	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: 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 1-7-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=1-7-6, 3=1-7-6
Max Horz 1=38(LC 5)
Max Uplift 1=-1(LC 8), 3=-18(LC 8)
Max Grav 1=51(LC 1), 3=57(LC 15)

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 3, 2020

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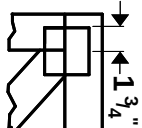
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



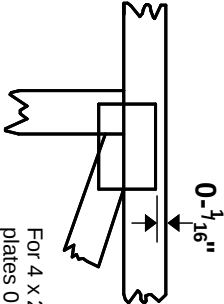
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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 2012 software or upon request.**

PLATE SIZE

4 X 4

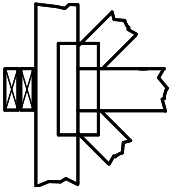
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



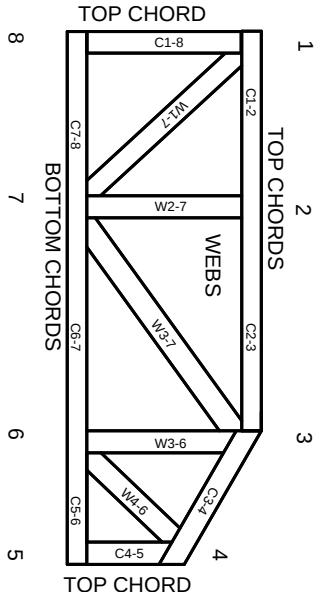
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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. 10/03/2015



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.