



11/04/2021

RE: H4132
Lot 132 H4

MiTek USA, Inc.

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

Site Information:

Customer: Project Name: H4132
Lot/Block:
Address:
City:

Model:
Subdivision:
State:

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

Design Code: IRC2018/TPI2014
Wind Code: ASCE 7 - 16[Low Rise]
Roof Load: 45.0 psf

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

This package includes 30 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I48534143	A1	10/27/2021	21	I48534163	E3	10/27/2021
2	I48534144	A2A	10/27/2021	22	I48534164	J1	10/27/2021
3	I48534145	B1A	10/27/2021	23	I48534165	J2	10/27/2021
4	I48534146	B2A	10/27/2021	24	I48534166	J3	10/27/2021
5	I48534147	B3	10/27/2021	25	I48534167	V1	10/27/2021
6	I48534148	B4	10/27/2021	26	I48534168	V3	10/27/2021
7	I48534149	B5	10/27/2021	27	I48534169	V4	10/27/2021
8	I48534150	B6	10/27/2021	28	I48534170	V5	10/27/2021
9	I48534151	B7	10/27/2021	29	I48534171	V6	10/27/2021
10	I48534152	B8	10/27/2021	30	I48534172	V7	10/27/2021
11	I48534153	B9	10/27/2021				
12	I48534154	B10	10/27/2021				
13	I48534155	B11	10/27/2021				
14	I48534156	C1	10/27/2021				
15	I48534157	C2	10/27/2021				
16	I48534158	C3	10/27/2021				
17	I48534159	D1	10/27/2021				
18	I48534160	D2	10/27/2021				
19	I48534161	E1	10/27/2021				
20	I48534162	E2	10/27/2021				

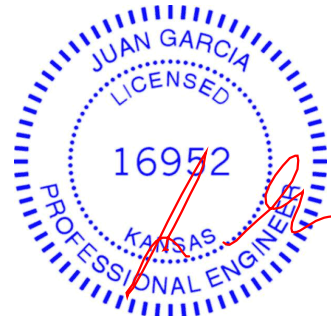
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

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.



October 27, 2021



11/04/2021

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314-434-1200

Site Information:

Customer: Project Name: H4132
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General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014
Wind Code: ASCE 7 - 16[Low Rise]
Roof Load: 45.0 psf

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

This package includes 30 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I48534143	A1	10/27/2021	21	I48534163	E3	10/27/2021
2	I48534144	A2A	10/27/2021	22	I48534164	J1	10/27/2021
3	I48534145	B1A	10/27/2021	23	I48534165	J2	10/27/2021
4	I48534146	B2A	10/27/2021	24	I48534166	J3	10/27/2021
5	I48534147	B3	10/27/2021	25	I48534167	V1	10/27/2021
6	I48534148	B4	10/27/2021	26	I48534168	V3	10/27/2021
7	I48534149	B5	10/27/2021	27	I48534169	V4	10/27/2021
8	I48534150	B6	10/27/2021	28	I48534170	V5	10/27/2021
9	I48534151	B7	10/27/2021	29	I48534171	V6	10/27/2021
10	I48534152	B8	10/27/2021	30	I48534172	V7	10/27/2021
11	I48534153	B9	10/27/2021				
12	I48534154	B10	10/27/2021				
13	I48534155	B11	10/27/2021				
14	I48534156	C1	10/27/2021				
15	I48534157	C2	10/27/2021				
16	I48534158	C3	10/27/2021				
17	I48534159	D1	10/27/2021				
18	I48534160	D2	10/27/2021				
19	I48534161	E1	10/27/2021				
20	I48534162	E2	10/27/2021				

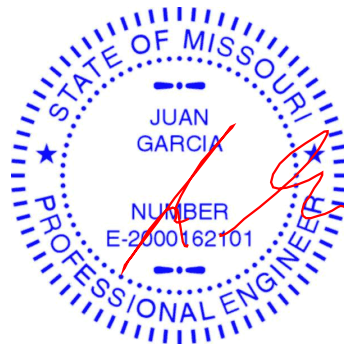
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Missouri is December 31, 2022.

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.



October 27, 2021

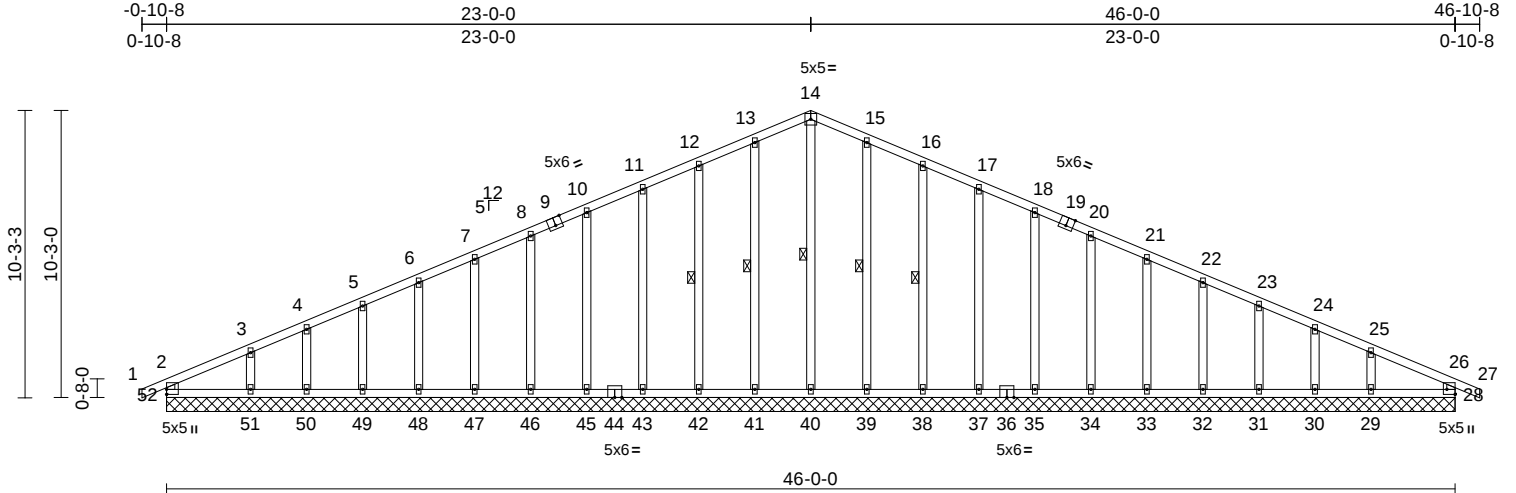
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION
H4132	A1	Common Supported Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148534143
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:00 Page: 1

ID:2ncXplsxOfbjlB6l7Q?gPMZrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKw/rCD0i7J423C44

11/04/2021



Scale = 1:82.3

Plate Offsets (X, Y): [9:0-3-0,Edge], [19:0-3-0,Edge], [28:Edge,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	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	0.14	Horz(CT)	0.01	28	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
Weight: 240 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" oc purlins, except end verticals.

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

WEBS 1 Row at midpt 14-40, 13-41, 12-42, 15-39, 16-38

REACTIONS (lb/size)	28=204/46-0-0, 29=237/46-0-0, 30=161/46-0-0, 31=185/46-0-0, 32=179/46-0-0, 33=180/46-0-0, 34=180/46-0-0, 35=180/46-0-0, 37=180/46-0-0, 38=179/46-0-0, 39=187/46-0-0, 40=153/46-0-0, 41=187/46-0-0, 42=179/46-0-0, 43=180/46-0-0, 45=180/46-0-0, 46=180/46-0-0, 47=180/46-0-0, 48=179/46-0-0, 49=185/46-0-0, 50=161/46-0-0, 51=237/46-0-0, 52=204/46-0-0
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Max Horiz 52=145 (LC 13)

Max Uplift 28=4 (LC 5), 29=81 (LC 9), 30=23 (LC 9), 31=42 (LC 9), 32=37 (LC 9), 33=38 (LC 9), 34=38 (LC 9), 35=38 (LC 9), 37=37 (LC 9), 38=42 (LC 9), 39=32 (LC 9), 41=34 (LC 8), 42=41 (LC 8), 43=37 (LC 8), 45=38 (LC 8), 46=38 (LC 8), 47=38 (LC 8), 48=37 (LC 8), 49=43 (LC 8), 50=18 (LC 8), 51=93 (LC 8), 52=28 (LC 9)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-52=-180/42, 1-2=0/27, 2-3=-158/80, 3-4=-114/85, 4-5=-96/103, 5-6=-79/122, 6-7=-61/141, 7-8=-47/160, 8-10=-47/179, 10-11=-47/197, 11-12=-47/216, 12-13=-46/235, 13-14=-49/251, 14-15=-49/245, 15-16=-46/215, 16-17=-47/180, 17-18=-47/148, 18-20=-47/129, 20-21=-47/110, 21-22=-47/91, 22-23=-47/72, 23-24=-59/53, 24-25=-78/36, 25-26=-111/33, 26-27=0/27, 26-28=-180/24

BOT CHORD 51-52=-13/118, 50-51=-13/118, 49-50=-13/118, 48-49=-13/118, 47-48=-13/118, 46-47=-13/118, 45-46=-13/118, 43-45=-13/118, 42-43=-13/118, 41-42=-13/118, 40-41=-13/118, 39-40=-13/118, 38-39=-13/118, 37-38=-13/118, 35-37=-13/118, 34-35=-13/118, 33-34=-13/118, 32-33=-13/118, 31-32=-13/118, 30-31=-13/118, 29-30=-13/118, 28-29=-13/118

WEBS

14-40=-157/0, 13-41=-149/58, 12-42=-139/65, 11-43=-140/61, 10-45=-140/62, 9-46=-140/62, 7-47=-140/62, 6-48=-139/61, 5-39=-143/66, 4-50=-127/46, 3-51=-180/107, 15-39=-149/58, 16-38=-189/66, 17-37=-140/61, 18-35=-140/62, 20-34=-140/62, 21-33=-140/62, 22-32=-139/61, 23-31=-143/65, 24-30=-127/49, 25-29=-180/99

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=16ft; Cat. II; Exp C; Enclosed; MWFRS (envelope exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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.



October 27, 2021

Continued on page 2

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

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

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

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148534143 LEE'S SUMMIT, MISSOURI
H4132	A1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:04 Page: 2
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKw/rCDoi7J4z3C44

- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2'-0" oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 52, 4 lb uplift at joint 28, 34 lb uplift at joint 41, 41 lb uplift at joint 42, 37 lb uplift at joint 43, 38 lb uplift at joint 45, 38 lb uplift at joint 46, 38 lb uplift at joint 47, 37 lb uplift at joint 48, 43 lb uplift at joint 49, 18 lb uplift at joint 50, 93 lb uplift at joint 51, 32 lb uplift at joint 39, 42 lb uplift at joint 38, 37 lb uplift at joint 37, 38 lb uplift at joint 35, 38 lb uplift at joint 34, 38 lb uplift at joint 33, 37 lb uplift at joint 32, 42 lb uplift at joint 31, 23 lb uplift at joint 30 and 81 lb uplift at joint 29.
- 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.

LOAD CASE(S) Standard

11/04/2021

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Chesterfield, MO 63017

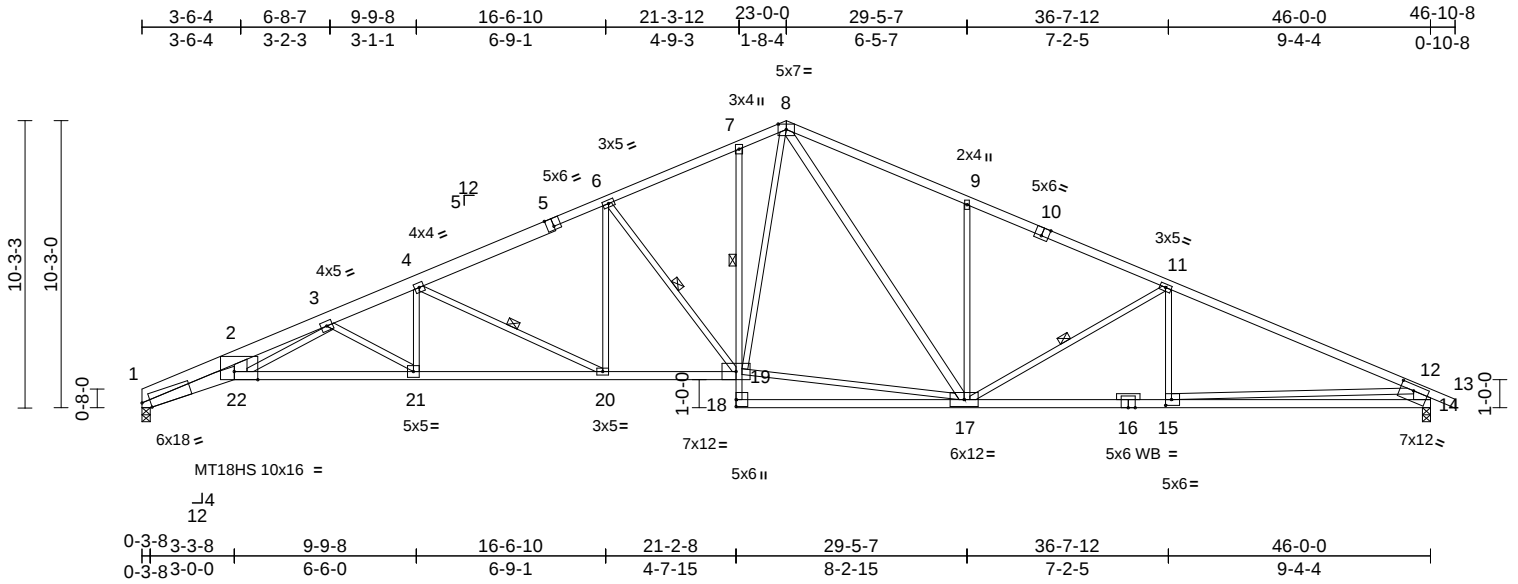
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148534144 LEE'S SUMMIT, MISSOURI
H4132	A2A	Roof Special	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66671,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:00 Page: 1

ID:2ncXplsxOfBjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKw/rCD0i7J423C44

11/04/2021



Scale = 1:82.3									
Plate Offsets (X, Y): [1:0-3-9,Edge], [5:0-3-0,Edge], [10:0-3-0,Edge], [14:0-5-12,0-2-8], [15:0-2-8,0-2-8], [22:0-10-2,Edge]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.49 19-20	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.90 20-21	>608	240
BCLL	0.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.46 14	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S					
Weight: 216 lb FT = 10%									

LUMBER	
TOP CHORD	2x4 SPF No.2 *Except* 1-5:2x6 SP DSS, 10-13:2x4 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2 *Except* 1-22:2x6 SPF 1650F 1.4E, 22-19:2x4 SPF 2100F 1.8E, 7-18:2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 22-2:2x6 SPF No.2, 17-8:2x4 SPF No.2, 14-12:2x8 SP DSS
OTHERS	2x3 SPF No.2
BRACING	
TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
1 Row at midpt	7-19
WEBS	1 Row at midpt 4-20, 6-19, 11-17
REACTIONS (lb/size)	
Max Horiz	1=2049/0-3-8, 14=2133/0-3-8
Max Uplift	1=-181 (LC 8), 14=-203 (LC 9)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-8805/874, 2-3=-7465/826, 3-4=-5145/469, 4-6=-3847/335, 6-7=-3122/291, 7-8=-3034/334, 8-9=-3337/409, 9-11=-3345/298, 11-12=-4011/338, 12-13=0/32, 12-14=-2038/256
BOT CHORD	1-22=-919/8009, 21-22=-627/5762, 20-21=-450/4688, 19-20=-230/3472, 18-19=0/150, 7-19=-187/92, 17-18=0/177, 15-17=-214/3579, 14-15=-274/1443
WEBS	2-22=-93/1815, 3-21=-1254/207, 4-21=-21/787, 4-20=-1358/245, 6-20=-34/737, 6-19=-1089/208, 8-19=-207/1418, 8-17=-260/954, 9-17=-491/213, 11-17=-721/184, 11-15=0/248, 12-15=0/2139, 3-22=-252/1515, 17-19=-86/2385

- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 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) 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.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 181 lb uplift at joint 1 and 203 lb uplift at joint 14.
 - 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.

LOAD CASE(S) Standard



October 27, 2021

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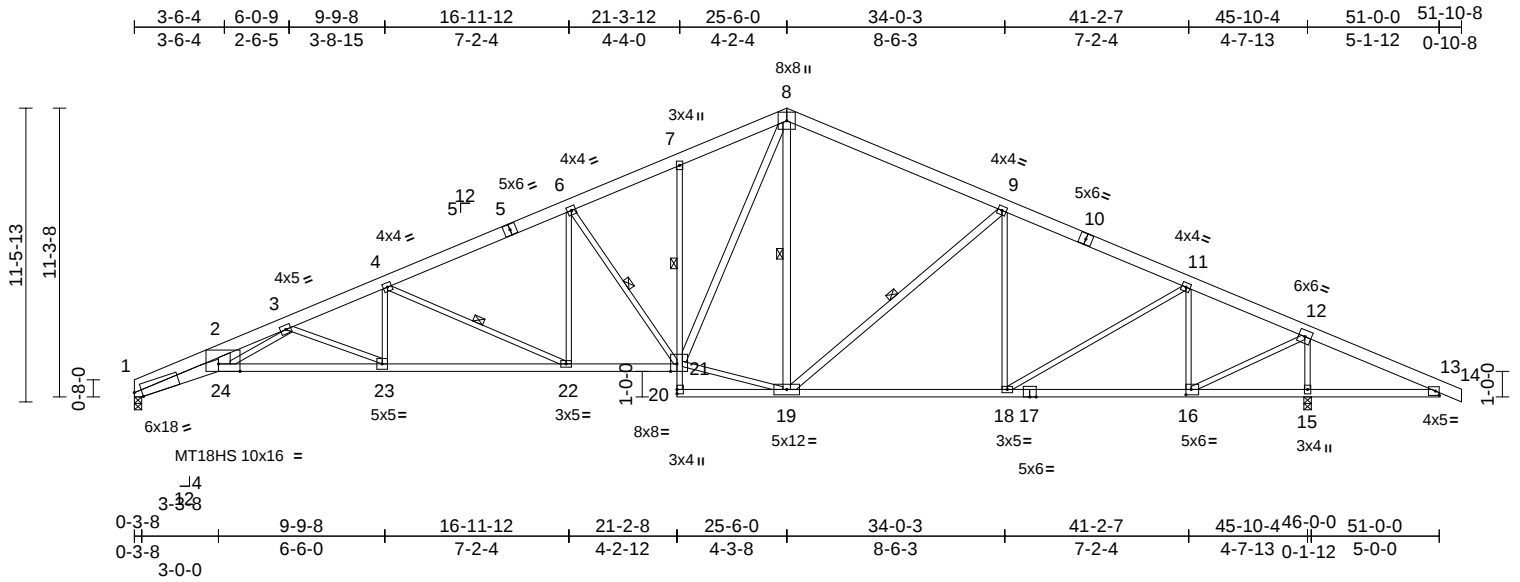
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION
H4132	B2A	Roof Special	4	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148534146
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:00 Page: 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKw/rCDoi7J423C44

11/04/2021



Scale = 1:90

Plate Offsets (X, Y): [1:0-3-9,Edge], [16:0-2-8,0-2-8], [21:0-3-0,Edge], [24:0-10-2,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.44	23-24	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.82	23-24	>669	240	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.42	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
Weight: 273 lb											FT = 10%	

LUMBER
TOP CHORD 2x6 SPF No.2 *Except* 1-5,10-14:2x6 SP DSS
BOT CHORD 2x4 SPF No.2 *Except* 1-24:2x6 SPF 1650F 1.4E, 24-21:2x4 SPF 2100F 1.8E, 7-20:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 24-2:2x6 SPF No.2, 21-8,19-8,19-9:2x4 SPF No.2

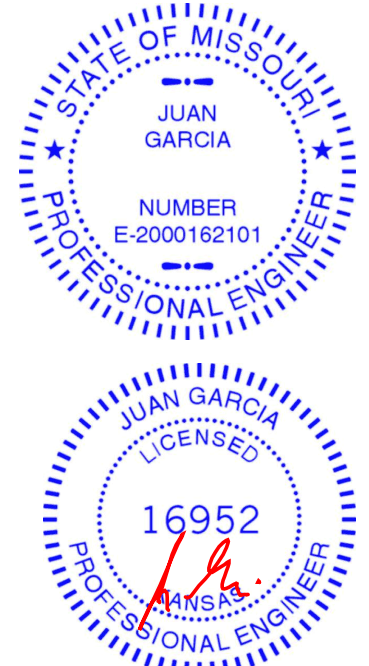
WEBS
2-24=-140/1905, 3-23=-1402/251, 4-23=-8/695, 4-22=-1363/254, 6-22=-31/706, 6-21=-1120/217, 19-21=-48/2061, 8-21=-292/1772, 8-19=-191/151, 9-19=-513/195, 9-18=-246/114, 11-18=-25/801, 11-16=-1026/140, 12-16=-154/2439, 12-15=-2492/299, 3-24=-227/1253

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-1-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
1 Row at midpt 7-21
WEBS 1 Row at midpt 4-22, 6-21, 8-19, 9-19
REACTIONS (lb/size) 1=2023/0-3-8, 15=2615/0-3-8, (req. 0-4-2)
Max Horiz 1=-176 (LC 9)
Max Uplift 1=-197 (LC 8), 15=-245 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-8741/984, 2-3=-7344/899, 3-4=-5072/521, 4-6=-3780/380, 6-7=-3088/344, 7-8=-3027/404, 8-9=-2379/289, 9-11=-2652/230, 11-12=-1910/158, 12-13=-165/633, 13-14=0/6
BOT CHORD 1-24=-1039/7956, 23-24=-753/5930, 22-23=-522/4641, 21-22=-292/3406, 20-21=0/41, 7-21=-226/107, 19-20=-9/77, 18-19=-51/2375, 16-18=-29/1690, 15-16=-484/171, 13-15=-484/171

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
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) WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 197 lb uplift at joint 1 and 245 lb uplift at joint 15.
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.

LOAD CASE(S) Standard



October 27, 2021

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

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

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

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

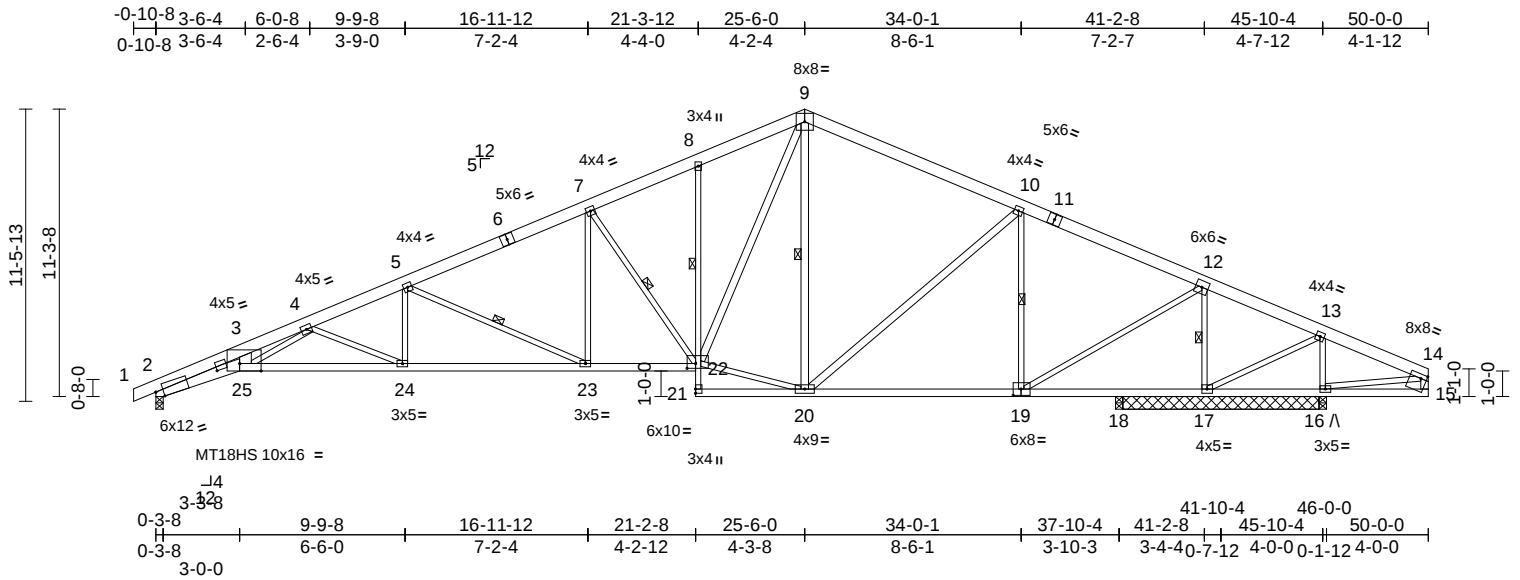
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION
H4132	B3	Roof Special	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:00 Page: 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKw/rCD0i7J423C44

11/04/2021



Scale = 1:90.5

Plate Offsets (X, Y): [2:0-3-9,Edge], [2:2-6-9,0-0-7], [14:0-2-12,0-2-0], [19:0-3-12,0-3-0], [22:0-4-0,0-2-4], [25:0-10-2,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.42	24-25	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.77	24-25	>587	240	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.35	18	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 256 lb	FT = 10%

LUMBER
TOP CHORD 2x6 SPF No.2 *Except* 1-6,11-14:2x6 SPF 1650F 1.4E
BOT CHORD 2x4 SPF No.2 *Except* 2-25:2x6 SPF 1650F 1.4E, 25-22:2x4 SPF 2100F 1.8E, 8-21:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 25-3:2x6 SPF No.2, 22-9,20-9,20-10,15-14:2x4 SPF No.2

WEBS
3-25=0/1572, 7-22=-1093/63, 20-22=0/1444, 9-22=-67/1584, 9-20=-461/59, 10-20=0/471, 14-16=-261/55, 5-24=0/651, 5-23=-1296/65, 7-23=0/674, 4-24=-1268/69, 4-25=-53/1231, 10-19=-1026/51, 12-19=0/2146, 12-17=-2299/20, 13-17=-552/43, 13-16=-5/233

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-0-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 18-19,17-18,16-17.
1 Row at midpt 8-22
WEBS 1 Row at midpt 7-22, 9-20, 5-23, 10-19, 12-17

REACTIONS (lb/size) 2=1826/0-3-8, 16=0/0-3-8, 17=2569/7-8-8, 18=150/0-3-8
Max Horiz 2=106 (LC 10)
Max Uplift 16=REL
Max Grav 2=1826 (LC 1), 16=63 (LC 8), 17=2569 (LC 1), 18=150 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/10, 2-3=-7562/39, 3-4=-6390/88, 4-5=-4235/6, 5-7=-3005/19, 7-8=-2330/45, 8-9=-2269/88, 9-10=-1700/65, 10-12=-1301/21, 12-13=-53/852, 13-14=-45/316, 14-15=-15/63
BOT CHORD 2-25=-118/6883, 24-25=-80/5030, 23-24=-16/3865, 22-23=0/2690, 21-22=0/32, 8-22=-223/63, 20-21=-2/50, 18-20=-718/1118, 17-18=-718/79, 16-17=-232/40, 15-16=-14/24

- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 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) 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.
 - 6) "A" indicates Released bearing: allow for upward movement at joint(s) 16.
 - 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.

LOAD CASE(S) Standard



October 27,2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

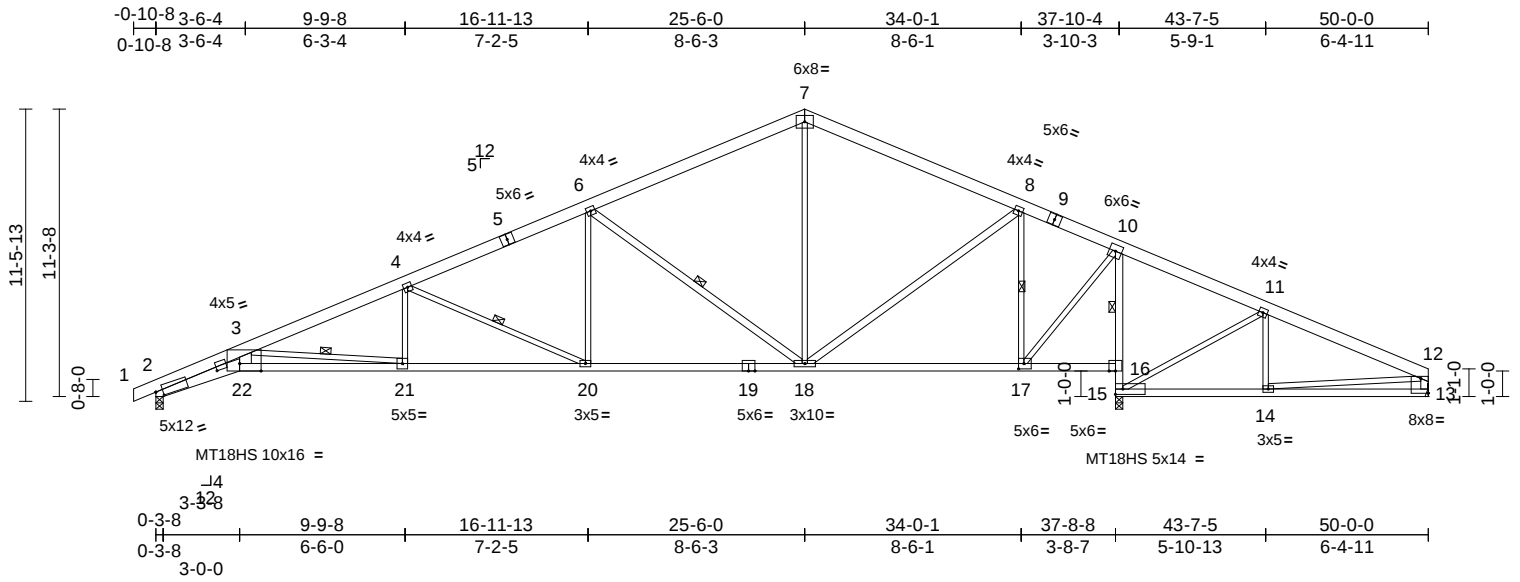
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4
H4132	B4	Roof Special	4	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:11 Page: 1

ID:2ncXplsOflB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKw/rCDol7J423C44

11/04/2021



Scale = 1:90.5

Plate Offsets (X, Y): [2:0-3-5,0-2-9], [2:2-6-9,0-0-7], [13:Edge,0-7-0], [17:0-2-8,0-2-8], [22:0-10-2,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.43	21-22	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.80	21-22	>562	240	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.26	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 238 lb	FT = 10%

LUMBER

TOP CHORD	2x6 SPF No.2 *Except* 1-5,9-12:2x6 SPF 1650F 1.4E
BOT CHORD	2x4 SPF 2100F 1.8E *Except* 2-22:2x6 SPF 1650F 1.4E, 10-15,19-16:2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 22-3:2x6 SPF No.2, 6-18,18-8,13-12:2x4 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 2-7-11 oc bracing. Except:

1 Row at midpt	10-16
WEBS	1 Row at midpt 6-18, 3-21, 4-20, 8-17
REACTIONS	(lb/size) 2=1682/0-3-8, 13=266/ Mechanical, 15=2597/0-3-8
	Max Horiz 2=106 (LC 10)
	Max Uplift 2=-6 (LC 8), 13=-41 (LC 9)
	Max Grav 2=1682 (LC 1), 13=390 (LC 20), 15=2597 (LC 1)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/10, 2-3=-7091/92, 3-4=-3838/24, 4-6=-2620/40, 6-7=-1463/56, 7-8=-1461/70, 8-10=-600/88, 10-11=0/669, 11-12=-399/230, 12-13=-336/73
BOT CHORD	2-22=-167/6480, 21-22=-160/5517, 20-21=-39/3542, 18-20=0/2325, 17-18=0/517, 16-17=-611/30, 15-16=-2220/0, 10-16=-2150/0, 14-15=-188/299, 13-14=-12/167
WEBS	3-22=0/2107, 10-17=0/1790, 11-15=-712/41, 11-14=0/306, 7-18=0/528, 6-18=-1360/95, 4-21=0/444, 3-21=-1988/122, 4-20=-1343/67, 6-20=0/711, 8-18=0/907, 8-17=-1309/27, 12-14=-230/132

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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.
- 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 6 lb uplift at joint 2 and 41 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 27, 2021

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

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

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



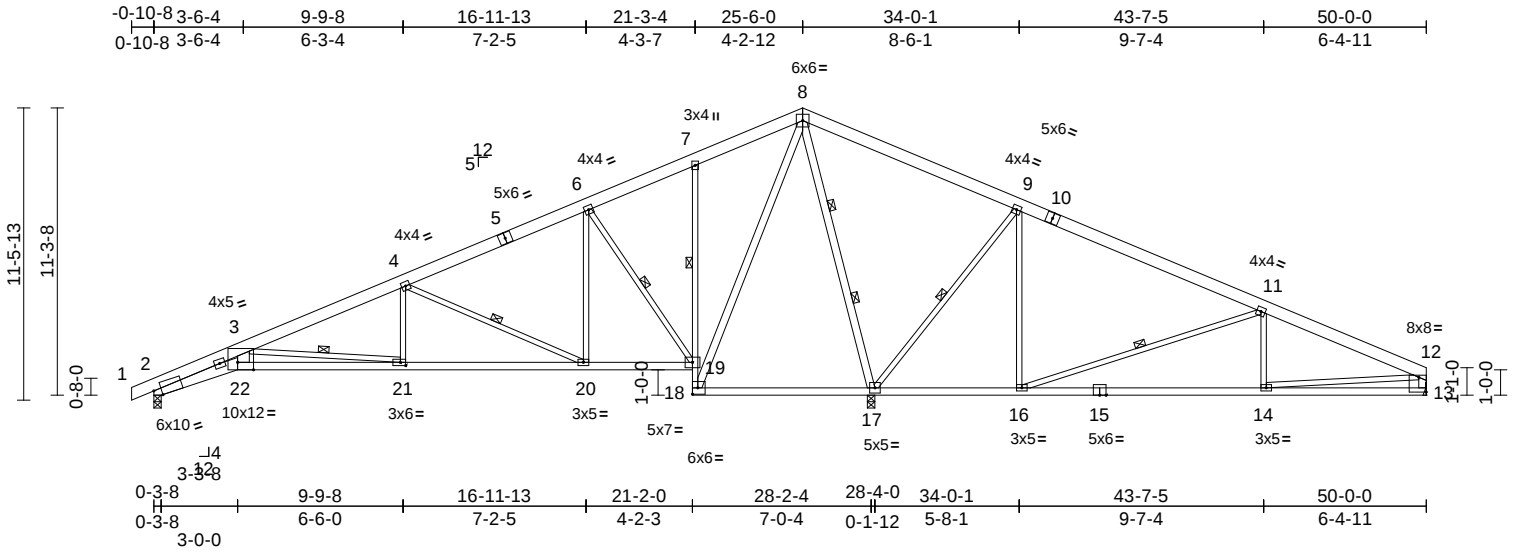
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION
H4132	B5	Roof Special	2	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148534149 LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:11 Page: 1
ID:2ncXplsXOfB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKw/rCDoi7J423C44

11/04/2021



Scale = 1:90.5

Plate Offsets (X, Y): [2:0-3-9,Edge], [12:Edge,0-7-0], [21:0-2-8,0-1-8], [22:0-7-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.22	21-22	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.42	21-22	>809	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.09	17	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 245 lb	FT = 10%

LUMBER

TOP CHORD	2x6 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 2-22:2x6 SPF No.2, 7-18:2x3 SPF No.2, 18-15:2x4 SPF 2400F 2.0E
WEBS	2x3 SPF No.2 *Except* 22-3:2x6 SPF No.2, 18-8,17-8,13-12:2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-5-4 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 3-7-9 oc bracing. Except:
1 Row at midpt	7-19
WEBS	1 Row at midpt 6-19, 3-21, 4-20, 9-17, 11-16
WEBS	2 Rows at 1/3 pts 8-17

REACTIONS	(lb/size) 2=900/0-3-8, 13=407/ Mechanical, 17=3239/0-3-8
	Max Horiz 2=106 (LC 10)
	Max Uplift 2=-14 (LC 8), 13=-98 (LC 19)
	Max Grav 2=921 (LC 19), 13=690 (LC 20), 17=3239 (LC 1)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/10, 2-3=-3424/121, 3-4=-1472/50, 4-6=-406/126, 6-7=0/370, 7-8=0/381, 8-9=0/1468, 9-11=-172/963, 11-12=-1051/397, 12-13=-640/139
BOT CHORD	2-22=-195/3104, 21-22=-182/2619, 20-21=-64/1343, 19-20=0/275, 18-19=-1112/102, 7-19=-287/67, 17-18=-723/63, 16-17=-852/97, 14-16=-337/908, 13-14=-21/178
WEBS	3-22=0/1067, 6-19=-919/58, 8-18=-66/1238, 8-17=-2248/26, 4-21=0/404, 3-21=-1285/119, 4-20=-1178/78, 6-20=0/580, 9-17=-1142/89, 9-16=0/545, 11-14=0/330, 11-16=-1008/41, 12-14=-342/735

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 2 and 98 lb uplift at joint 13.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 27, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

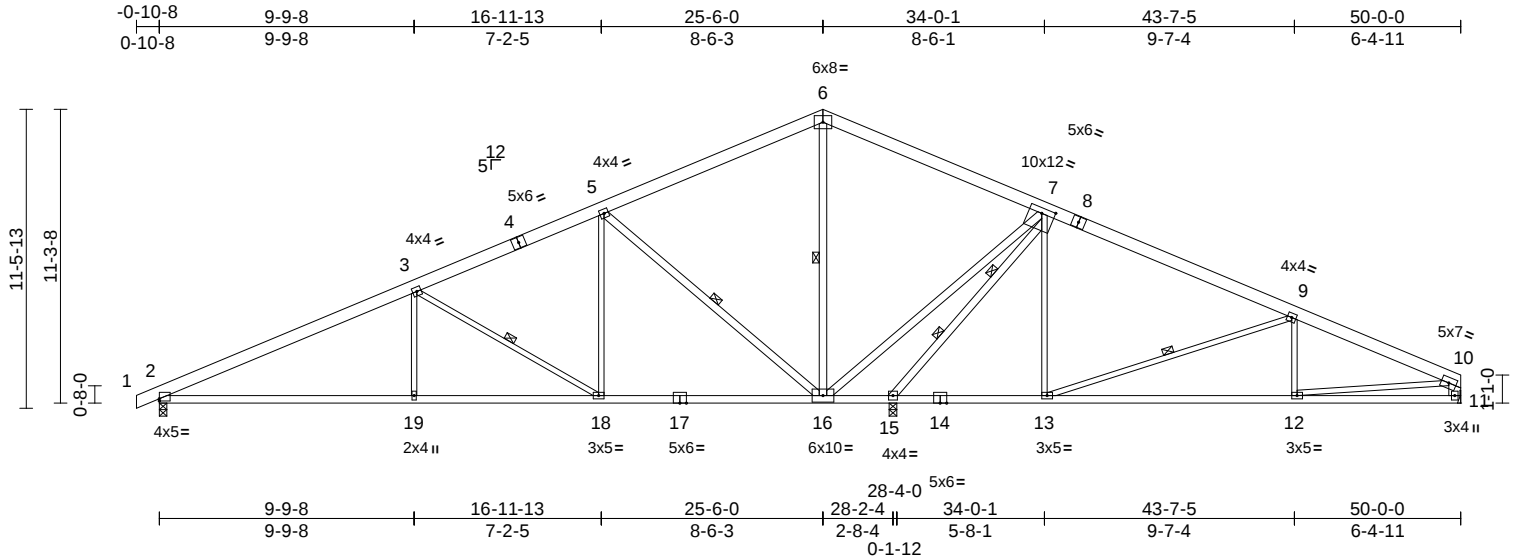
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION
H4132	B6	Common	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148534150
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:11 Page: 1

ID:2ncXplsOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKw/rCD0i7J423C44

11/04/2021



Scale = 1:88.5									
Plate Offsets (X, Y): [2:Edge,0-1-0], [7:0-6-0,0-2-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.24	2-19	>999
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.53	2-19	>627
BCLL	0.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.07	11	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S					
							Weight: 241 lb FT = 10%		

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 17-14:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 16-5,16-6,16-7,15-7:2x4 SPF No.2, 11-10:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-2-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 5-11-5 oc bracing: 15-16.
WEBS 1 Row at midpt 5-16, 6-16, 9-13, 3-18
WEBS 2 Rows at 1/3 pts 7-15

REACTIONS (lb/size) 2=1202/0-3-8, 11=814/ Mechanical, 15=2522/0-3-8
Max Horiz 2=106 (LC 8)
Max Uplift 2=-14 (LC 8), 11=-19 (LC 9)
Max Grav 2=1222 (LC 19), 11=868 (LC 20), 15=2522 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-1989/29, 3-5=-1144/67, 5-6=-164/131, 6-7=-127/144, 7-9=-595/92, 9-10=-1397/54, 10-11=-819/44
BOT CHORD 2-19=-56/1730, 18-19=-56/1730, 16-18=0/960, 15-16=-1608/44, 13-15=0/440, 12-13=-15/1225, 11-12=-11/228
WEBS 5-18=0/628, 5-16=-1221/89, 6-16=-536/11, 7-13=0/526, 9-13=-856/63, 9-12=0/276, 7-16=0/2118, 3-19=0/365, 3-18=-904/65, 10-12=-4/1005, 7-15=-3068/0

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 2 and 19 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 27, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

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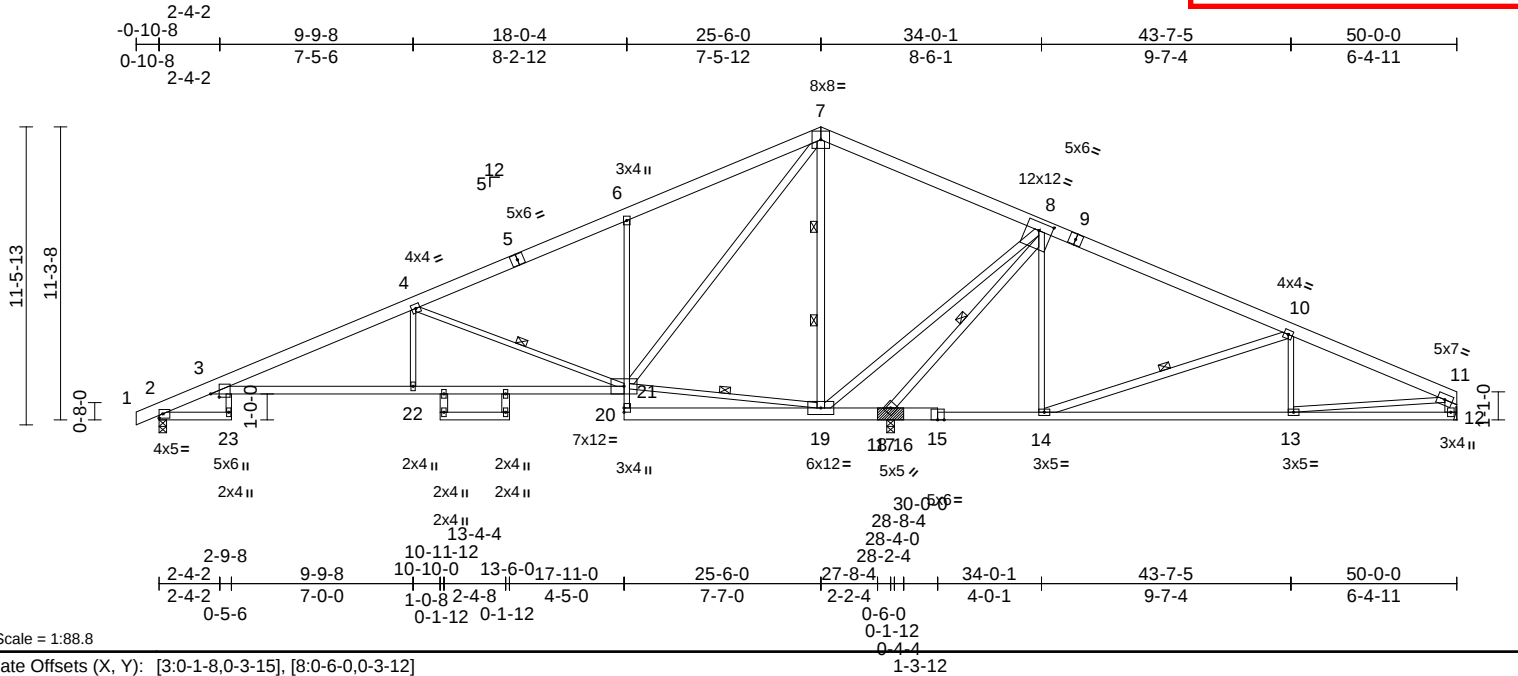
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION
H4132	B8	Roof Special	3	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148534152
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:11 Page: 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKw/CDoi7J423C41

11/04/2021



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.35	23	>944	360	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.66	3-22	>504	240	
BCLL	0.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.29	17	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
										Weight: 273 lb	FT = 10%

LUMBER

TOP CHORD 2x6 SPF No.2 *Except* 1-5,9-11:2x6 SPF 1650F 1.4E

BOT CHORD 2x4 SPF No.2 *Except* 6-20:2x3 SPF No.2, 20-15,18-16:2x6 SP DSS

WEBS 2x3 SPF No.2 *Except* 24-25,26-27,21-7,19-7,10-14,19-8:2x4 SPF No.2, 12-11:2x6 SPF No.2, 17-8:2x4 SPF 2100F 1.8E

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-9-13 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 4-5-3 oc bracing.

WEBS 1 Row at midpt 4-21, 19-21, 10-14, 8-17

WEBS 2 Rows at 1/3 pts 7-19

REACTIONS (lb/size) 2=776/0-3-8, 12=258/ Mechanical, 17=3520/(0-3-8 + bearing block), (req. 0-5-8)

Max Horiz 2=106 (LC 8)

Max Uplift 12=253 (LC 19)

Max Grav 2=796 (LC 19), 12=622 (LC 20), 17=3520 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-344/71, 3-4=-1131/0, 4-6=-30/368, 6-7=0/367, 7-8=0/1252, 8-10=-97/1321, 10-11=-917/690, 11-12=-578/289

BOT CHORD 2-23=-44/0, 3-22=-6/1039, 21-22=-5/1039, 20-21=0/159, 6-21=-539/147, 19-20=-71/0, 17-19=-3430/140, 14-17=-1183/154, 13-14=-606/785, 12-13=-36/174

WEBS 3-23=0/74, 4-21=-1334/73, 19-21=-1035/131, 7-21=-96/1371, 7-19=-2120/92, 4-22=0/381, 8-14=0/534, 10-14=-1061/40, 10-13=0/361, 8-19=-29/3106, 11-13=-575/616, 8-17=-4011/0

- NOTES**
- 2x6 SP DSS bearing block 12" long at jt. 17 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. Bearing is assumed to be SPF No.2.
 - 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 253 lb uplift at joint 12.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 27, 2021

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

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

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

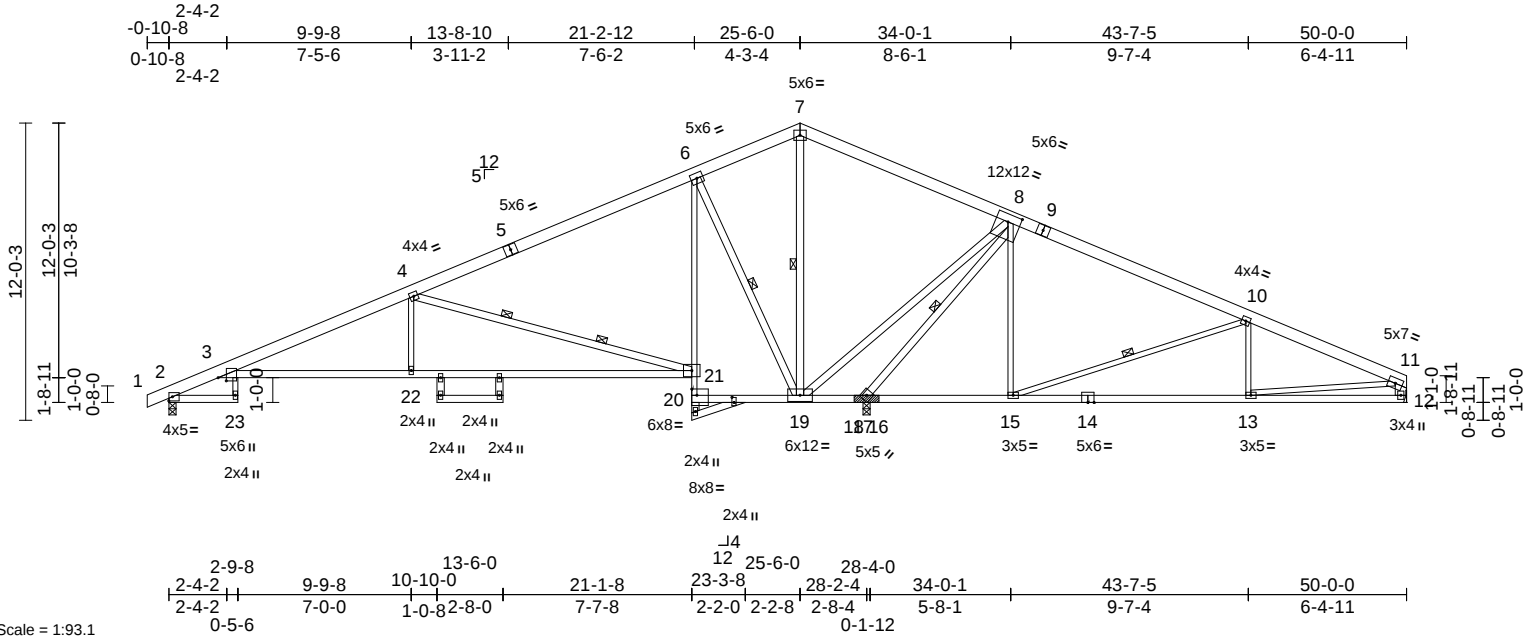
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION
H4132	B9	Roof Special	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148534153
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:11 Page: 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKw/rCDoi7J42JC44

11/04/2021



Scale = 1:93.1
Plate Offsets (X, Y): [3:0-1-8,0-3-15], [8:0-6-0,0-3-12], [20:0-2-8,0-3-0], [29:0-2-8,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.39	21-22	>865	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.83	21-22	>404	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.25	17	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 257 lb	FT = 10%

LUMBER
TOP CHORD 2x6 SPF No.2 *Except* 1-5,9-11:2x6 SPF 1650F 1.4E
BOT CHORD 2x4 SPF No.2 *Except* 3-21:2x4 SPF 2100F 1.8E, 6-20:2x3 SPF No.2, 20-14,18-16:2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 21-4,20-28,19-7,19-6,19-8:2x4 SPF No.2, 12-11:2x6 SPF No.2, 17-8:2x4 SPF 2100F 1.8E

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 4-6-8 oc bracing.
WEBS 1 Row at midpt 7-19, 6-19, 10-15, 8-17
WEBS 2 Rows at 1/3 pts 4-21

REACTIONS (lb/size) 2=898/0-3-8, 12=404/ Mechanical, 17=3251/0-3-8
Max Horiz 2=106 (LC 8)
Max Uplift 2=-14 (LC 8), 12=-123 (LC 19)
Max Grav 2=904 (LC 19), 12=691 (LC 20), 17=3251 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-400/82, 3-4=-1553/73, 4-6=0/440, 6-7=0/847, 7-8=0/900, 8-10=-187/1012, 10-11=-1046/440, 11-12=-643/163
BOT CHORD 2-23=-46/0, 3-22=-97/1434, 21-22=-97/1434, 20-21=0/82, 6-21=0/648, 19-20=-270/1, 17-19=-3002/21, 15-17=-896/71, 13-15=-378/903, 12-13=-29/193
WEBS 3-23=0/77, 4-21=-1756/105, 4-22=0/468, 7-19=-905/0, 6-19=-1207/104, 8-15=0/554, 10-15=-990/32, 10-13=0/338, 8-19=0/2950, 11-13=-378/716, 8-17=-3898/0

NOTES

- 2x4 SPF 2400F 2.0E bearing block 12" long at jt. 17 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF 2400F 2.0E.
- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 2 and 123 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 27, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

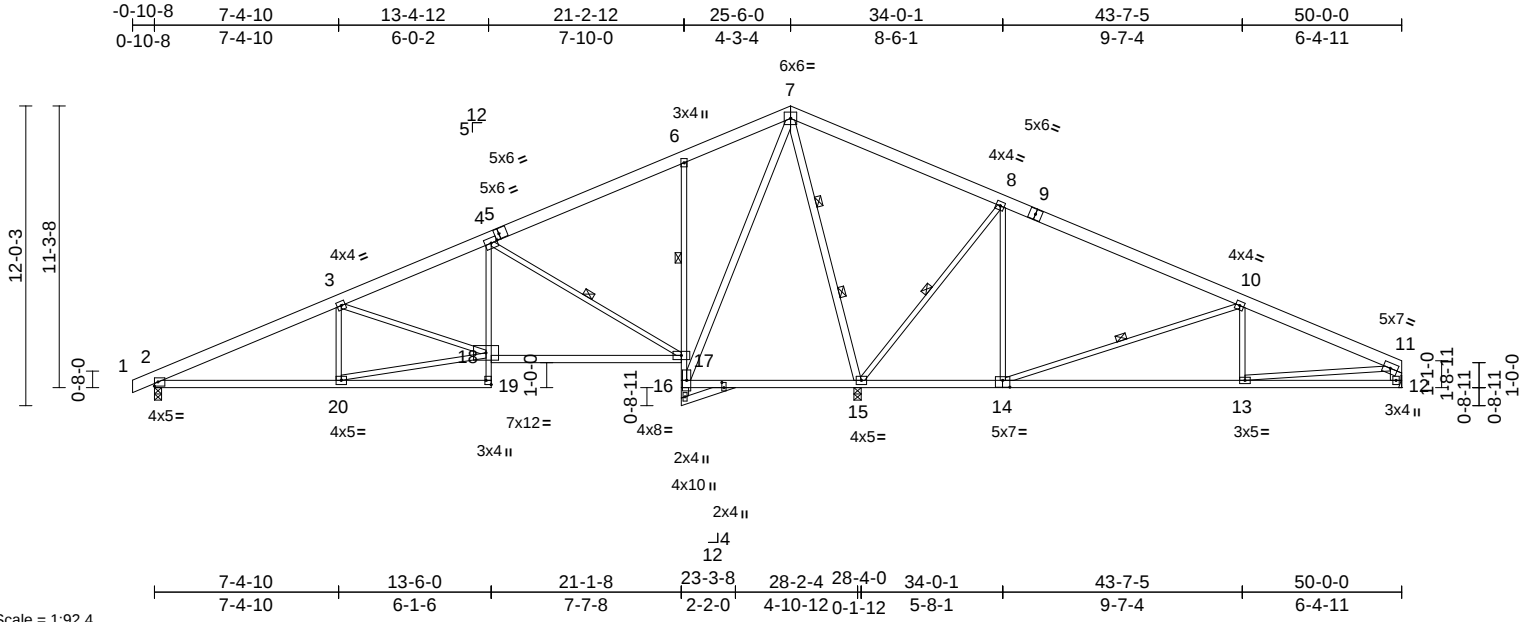
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION
H4132	B10	Roof Special	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148534154
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

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ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKw/rCDoi7J423C44

11/04/2021



Scale = 1:92.4

Plate Offsets (X, Y): [5:0-2-2,0-2-8], [14:0-3-8,0-3-4], [19:Edge,0-2-8], [22:0-2-8,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.18	13-14	>999	360	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.37	13-14	>704	240	
BCLL	0.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.06	15	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 245 lb FT = 10%											

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 19-4-6-16:2x3 SPF No.2, 16-14:2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 16-7-15-7,16-21:2x4 SPF No.2, 12-11:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 4-3-13 oc bracing. Except:

1 Row at midpt 6-17
WEBS 1 Row at midpt 4-17, 8-15, 10-14
WEBS 2 Rows at 1/3 pts 7-15

REACTIONS (lb/size) 2=973/0-3-8, 12=496/ Mechanical, 15=3068/0-3-8
Max Horiz 2=178 (LC 12)
Max Uplift 2=-144 (LC 8), 12=-204 (LC 9), 15=-178 (LC 8)
Max Grav 2=994 (LC 21), 12=718 (LC 22), 15=3068 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-1597/219, 3-4=-1135/239, 4-6=-73/288, 6-7=-39/323, 7-8=0/1243, 8-10=-248/742, 10-11=-1102/374, 11-12=-670/227
BOT CHORD 2-20=-299/1384, 19-20=-28/22, 18-19=0/95, 4-18=-12/558, 17-18=-215/986, 16-17=-1158/295, 6-17=-468/209, 15-16=-551/104, 13-15=-648/955, 12-13=-58/197
WEBS 3-20=-110/143, 18-20=-276/1389, 3-18=-451/90, 4-17=-1193/258, 7-16=-274/1307, 7-15=-2097/232, 11-13=-246/764, 8-15=-1137/255, 8-14=0/540, 10-13=0/320, 10-14=-965/162

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 144 lb uplift at joint 2, 178 lb uplift at joint 15 and 204 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 27, 2021

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

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16023 Swingley Ridge Rd
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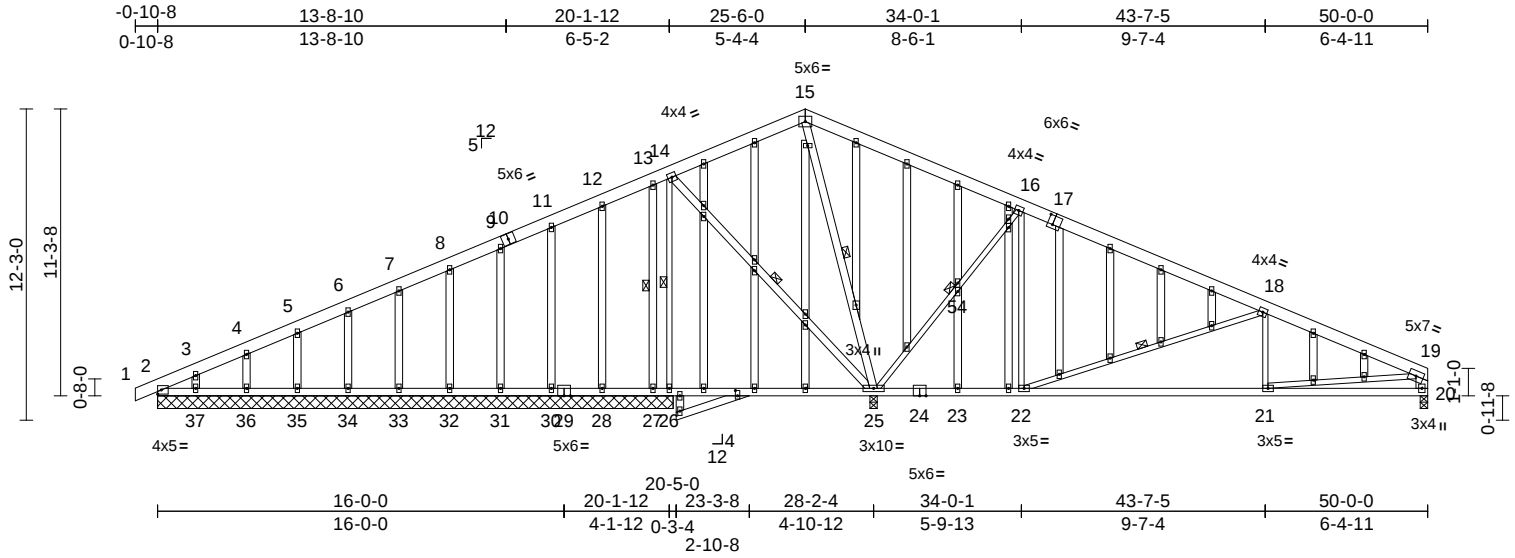
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION
H4132	B11	Roof Special Structural Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148534155
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:11 Page: 1

ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKw/rCDoi7J423C44

11/04/2021



Scale = 1:90.7

Plate Offsets (X, Y): [17:0-2-8,0-4-4], [40:0-2-8,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.19	21-22	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.39	21-22	>661	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.01	20	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 357 lb	FT = 10%

LUMBER		
TOP CHORD	2x6 SPF No.2	
BOT CHORD	2x4 SPF No.2	
WEBS	2x3 SPF No.2 *Except* 25-14,25-15:2x4 SPF No.2, 20-19:2x6 SPF No.2	
OTHERS	2x4 SPF No.2	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 23-25,22-23,21-22,20-21.	
WEBS	1 Row at midpt	14-26, 14-25, 15-25, 18-22, 13-27
JOINTS	1 Brace at Jt(s): 54	
REACTIONS	(lb/size)	2=61/20-3-8, 20=727/0-3-8, 25=2060/0-3-8, 26=302/20-3-8, 27=213/20-3-8, 28=161/20-3-8, 30=185/20-3-8, 31=181/20-3-8, 32=179/20-3-8, 33=180/20-3-8, 34=180/20-3-8, 35=179/20-3-8, 36=187/20-3-8, 37=169/20-3-8
	Max Horiz	2=178 (LC 8)
	Max Uplift	2=-54 (LC 22), 20=-101 (LC 9), 25=-264 (LC 9), 27=-423 (LC 3), 28=-11 (LC 8), 30=-44 (LC 8), 31=-38 (LC 8), 32=-38 (LC 8), 33=-38 (LC 8), 34=-38 (LC 8), 35=-37 (LC 8), 36=-40 (LC 8), 37=-61 (LC 8)
	Max Grav	2=122 (LC 21), 20=736 (LC 22), 25=2060 (LC 1), 26=506 (LC 3), 27=-84 (LC 9), 28=161 (LC 1), 30=185 (LC 1), 31=182 (LC 21), 32=179 (LC 1), 33=180 (LC 1), 34=180 (LC 1), 35=179 (LC 21), 36=187 (LC 1), 37=169 (LC 1)

FORCES		
(lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-2=0/6, 2-3=-200/202, 3-4=-153/190, 4-5=-119/189, 5-6=-86/189, 6-7=-53/189, 7-8=-20/189, 8-9=-8/189, 9-11=-8/189, 11-12=-11/189, 12-13=0/207, 13-14=0/226, 14-15=0/450, 15-16=0/692, 16-18=-289/113, 18-19=-1138/170, 19-20=-688/125	
BOT CHORD	2-37=-168/147, 36-37=-168/147, 35-36=-168/147, 34-35=-168/147, 33-34=-168/147, 32-33=-168/147, 31-32=-168/147, 30-31=-168/147, 28-30=-168/147, 27-28=-168/147, 26-27=-168/147, 25-26=-168/147, 23-25=0/157, 22-23=0/157, 21-22=-115/987, 20-21=-38/201	
WEBS	14-26=-143/142, 14-25=-337/116, 15-25=-834/43, 19-21=-78/793, 25-54=-1109/268, 16-54=-1127/269, 16-22=0/533, 18-21=0/287, 18-22=-885/197, 13-27=-29/91, 12-28=-108/43, 11-30=-149/66, 9-31=-141/62, 8-32=-140/62, 7-33=-140/62, 6-34=-140/62, 5-35=-139/61, 4-36=-146/65, 3-37=-133/83, 23-54=-23/1	

- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 2, 101 lb uplift at joint 20, 264 lb uplift at joint 25, 423 lb uplift at joint 27, 11 lb uplift at joint 28, 44 lb uplift at joint 30, 38 lb uplift at joint 31, 38 lb uplift at joint 32, 38 lb uplift at joint 33, 38 lb uplift at joint 34, 37 lb uplift at joint 35, 40 lb uplift at joint 36 and 61 lb uplift at joint 37.
 - 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.
- LOAD CASE(S)** Standard E-2000162101



October 27, 2021

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

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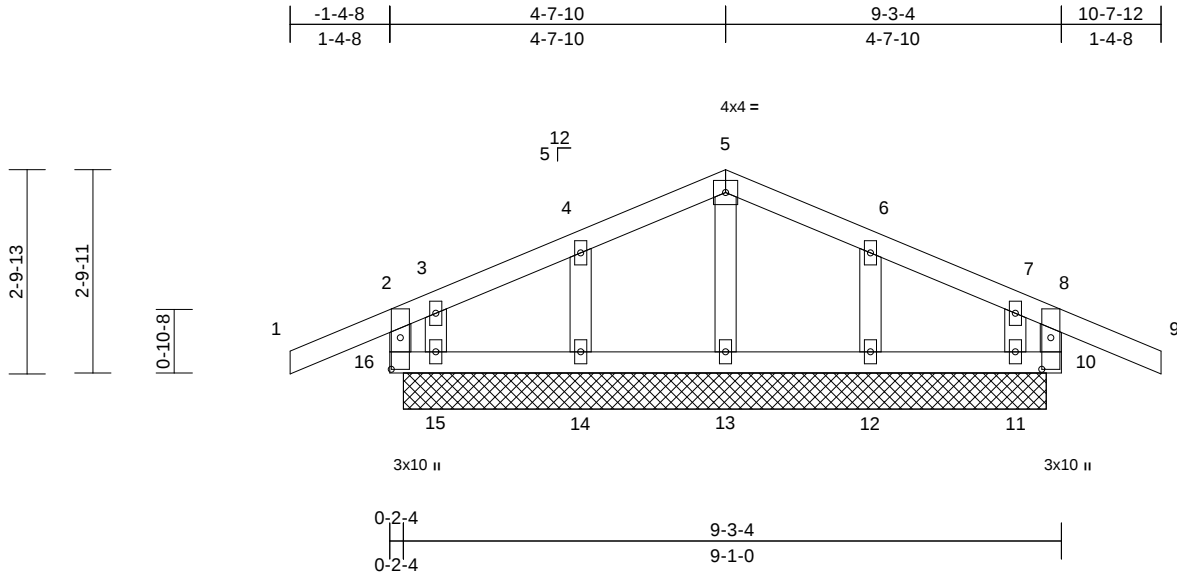
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148534156 LEE'S SUMMIT, MISSOURI
H4132	C1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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11/04/2021



Scale = 1:31.8

Plate Offsets (X, Y): [10:0-5-4,0-1-8], [16:0-5-4,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	10	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
Weight: 34 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 6-0-0 oc bracing.

REACTIONS (lb/size)	10=200/8-10-8, 11=20/8-10-8, 12=196/8-10-8, 13=189/8-10-8, 14=196/8-10-8, 15=20/8-10-8, 16=200/8-10-8
	Max Horiz 16=-20 (LC 13)
Max Uplift	10=-86 (LC 5), 11=-12 (LC 9), 12=-43 (LC 9), 14=-43 (LC 8), 15=-16 (LC 8), 16=-87 (LC 4)
	Max Grav 10=220 (LC 22), 11=67 (LC 3), 12=199 (LC 22), 13=189 (LC 1), 14=199 (LC 21), 15=67 (LC 3), 16=220 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-16=-212/85, 1-2=0/41, 2-3=-22/23, 3-4=-8/64, 4-5=-9/66, 5-6=-9/63, 6-7=-4/64, 7-8=-22/18, 8-9=0/41, 8-10=-212/84
BOT CHORD	15-16=-31/27, 14-15=-31/27, 13-14=-31/27, 12-13=-31/27, 11-12=-31/27, 10-11=-31/27
WEBS	5-13=-150/0, 4-14=-158/69, 3-15=-20/24, 6-12=-158/69, 7-11=-19/22

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 16, 86 lb uplift at joint 10, 43 lb uplift at joint 14, 16 lb uplift at joint 15, 43 lb uplift at joint 12 and 12 lb uplift at joint 11.
- Non Standard bearing condition. Review required.
- 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.

LOAD CASE(S) Standard



October 27, 2021

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

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

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



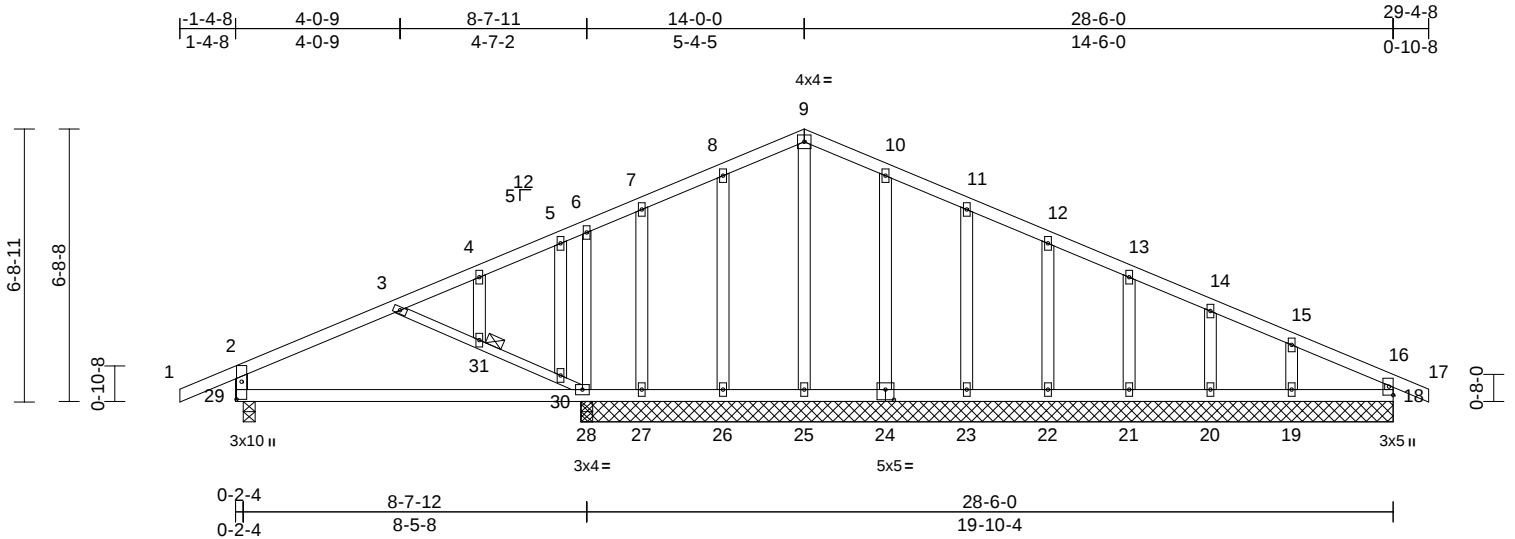
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 132 H4
H4132	C2	GABLE	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:11 Page: 1
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKw/rCDoi7J423C44

11/04/2021



Scale = 1:56.7

Plate Offsets (X, Y): [24:0-2-8,0-3-0], [29:0-5-4,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.12	28-29	>864	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.23	28-29	>439	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	18	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 125 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 29-2:2x4 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 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 28-29.

JOINTS 1 Brace at Jt(s): 31

REACTIONS (lb/size) 18=106/20-0-0, 19=238/20-0-0, 20=162/20-0-0, 21=184/20-0-0, 22=180/20-0-0, 23=177/20-0-0, 24=193/20-0-0, 25=244/20-0-0, 26=225/20-0-0, 27=58/20-0-0, 28=647/20-0-0, 29=420/0-3-8

Max Horiz 29=-86 (LC 13)
Max Uplift 18=-5 (LC 21), 19=-76 (LC 9), 20=-26 (LC 9), 21=-41 (LC 9), 22=-37 (LC 9), 23=-39 (LC 9), 24=-38 (LC 9), 26=-30 (LC 8), 27=-183 (LC 3), 28=-56 (LC 8), 29=-44 (LC 8)

Max Grav 18=171 (LC 22), 19=238 (LC 1), 20=172 (LC 22), 21=184 (LC 1), 22=180 (LC 22), 23=178 (LC 22), 24=193 (LC 1), 25=244 (LC 1), 26=228 (LC 21), 27=-49 (LC 19), 28=647 (LC 21), 29=420 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/41, 2-3=-283/64, 3-4=-77/117, 4-5=-59/163, 5-6=-44/168, 6-7=-41/123, 7-8=-39/160, 8-9=-40/160, 9-10=-40/156, 10-11=-39/143, 11-12=-39/142, 12-13=-39/142, 13-14=-39/143, 14-15=-67/139, 15-16=-112/152, 16-17=0/26, 2-29=-340/89, 16-18=-152/15
BOT CHORD 28-29=-71/214, 27-28=-108/120, 26-27=-108/120, 25-26=-108/120, 23-25=-108/120, 22-23=-108/120, 21-22=-108/120, 20-21=-108/120, 19-20=-108/120, 18-19=-108/120
WEBS 3-31=-339/157, 30-31=-350/162, 28-30=-365/170, 6-28=-251/106, 9-25=-210/0, 8-26=-165/69, 7-27=-35/19, 5-30=-31/16, 4-31=-29/12, 10-24=-151/63, 11-23=-138/63, 12-22=-140/61, 13-21=-142/64, 14-20=-135/54, 15-19=-174/90

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 29, 56 lb uplift at joint 28, 5 lb uplift at joint 18, 30 lb uplift at joint 26, 183 lb uplift at joint 27, 38 lb uplift at joint 24, 39 lb uplift at joint 23, 37 lb uplift at joint 22, 41 lb uplift at joint 21, 26 lb uplift at joint 20 and 76 lb uplift at joint 19.
- 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.

LOAD CASE(S) Standard



October 27, 2021

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

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

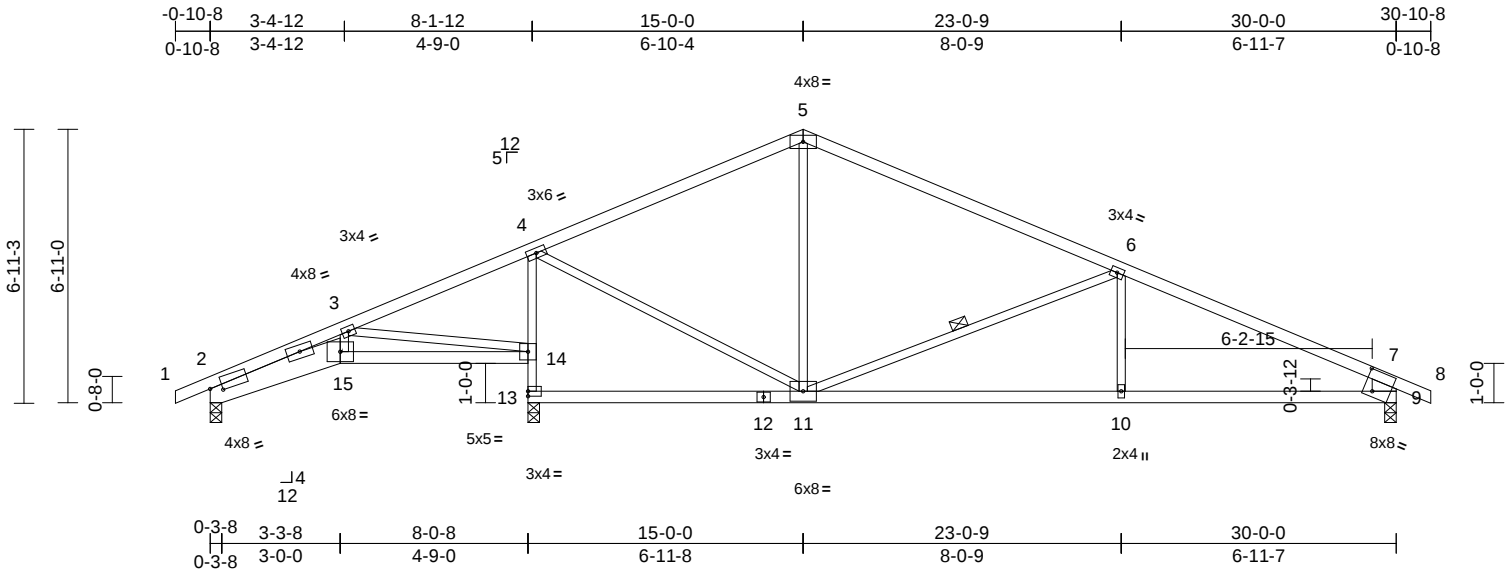


Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148534159 LEE'S SUMMIT, MISSOURI
H4132	D1	Roof Special	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:14 Page: 1
ID:2ncXplsOofjIB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKw/rCDoi7J423C44

11/04/2021



Scale = 1:58.3

Plate Offsets (X, Y): [2:0-3-11,0-1-7], [9:0-2-13,0-6-6]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.13	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.28	10-11	>919	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	-0.03	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 110 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 2-15:2x8 SP DSS,
4-13:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 9-7:2x8 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied,
except end verticals.
BOT CHORD Rigid ceiling directly applied or 3-5-2 oc
bracing.

WEBS 1 Row at midpt 6-11

REACTIONS (lb/size) 2=325/0-3-8, 9=1013/0-3-8,
13=1475/0-3-8
Max Horiz 2=99 (LC 12)
Max Uplift 2=-44 (LC 4), 9=-145 (LC 9),
13=-141 (LC 8)
Max Grav 2=341 (LC 21), 9=1013 (LC 1),
13=1475 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-2=0/9, 2-3=-685/66, 3-4=-50/311,
4-5=-794/182, 5-6=-808/157, 6-7=-1581/228,
7-8=0/32, 7-9=-916/177

BOT CHORD 2-15=-124/593, 14-15=-116/523,
13-14=-1429/175, 4-14=-1258/179,
11-13=-161/24, 10-11=-140/1365,
9-10=-140/1365

WEBS 3-15=0/287, 3-14=-683/150, 4-11=0/916,
5-11=0/229, 6-11=-803/204, 6-10=0/274

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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 44 lb uplift at joint 2, 141 lb uplift at joint 13 and 145 lb uplift at joint 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.

LOAD CASE(S) Standard



October 27, 2021

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

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



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Chesterfield, MO 63017

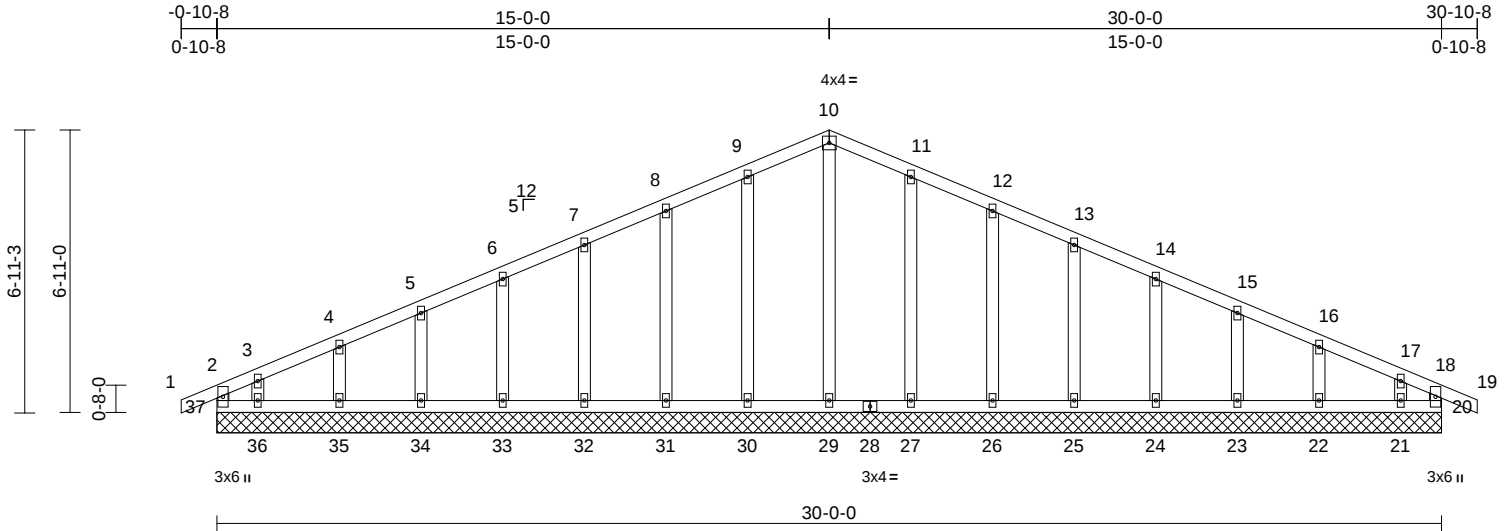
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148534160 LEE'S SUMMIT, MISSOURI
H4132	D2	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:11 Page: 1

ID:2ncXplsObljB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKw/rCD0i7J423C44

11/04/2021



Scale = 1:56.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	20	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
Weight: 130 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 6-0-0 oc bracing.

REACTIONS (lb/size) 20=131/30-0-0, 21=99/30-0-0, 22=190/30-0-0, 23=178/30-0-0, 24=181/30-0-0, 25=180/30-0-0, 26=178/30-0-0, 27=188/30-0-0, 29=168/30-0-0, 30=188/30-0-0, 31=178/30-0-0, 32=180/30-0-0, 33=181/30-0-0, 34=178/30-0-0, 35=190/30-0-0, 36=99/30-0-0, 37=131/30-0-0

Max Horiz 37=92 (LC 13)
Max Uplift 20=3 (LC 5), 21=65 (LC 9), 22=36 (LC 9), 23=38 (LC 9), 24=38 (LC 9), 25=38 (LC 9), 26=39 (LC 9), 27=38 (LC 9), 30=39 (LC 8), 31=39 (LC 8), 32=38 (LC 8), 33=38 (LC 8), 34=39 (LC 8), 35=35 (LC 8), 36=84 (LC 8), 37=25 (LC 9)
Max Grav 20=131 (LC 22), 21=99 (LC 1), 22=190 (LC 22), 23=178 (LC 1), 24=181 (LC 1), 25=180 (LC 22), 26=178 (LC 1), 27=190 (LC 22), 29=176 (LC 18), 30=190 (LC 21), 31=178 (LC 1), 32=180 (LC 21), 33=181 (LC 1), 34=178 (LC 1), 35=190 (LC 21), 36=99 (LC 1), 37=133 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-37=-118/22, 1-2=0/27, 2-3=-122/50, 3-4=-89/61, 4-5=-62/67, 5-6=-44/85, 6-7=-27/103, 7-8=-26/122, 8-9=-25/142, 9-10=-29/159, 10-11=-29/153, 11-12=-25/120, 12-13=-26/88, 13-14=-26/69, 14-15=-26/51, 15-16=-37/41, 16-17=-55/36, 17-18=-85/13, 18-19=0/27, 18-20=-118/13
BOT CHORD 36-37=-13/83, 35-36=-13/83, 34-35=-13/83, 33-34=-13/83, 32-33=-13/83, 31-32=-13/83, 30-31=-13/83, 29-30=-13/83, 27-29=-13/83, 26-27=-13/83, 25-26=-13/83, 24-25=-13/83, 23-24=-13/83, 22-23=-13/83, 21-22=-13/83, 20-21=-13/83
WEBS 10-29=-136/0, 9-30=-150/63, 8-31=-138/63, 7-32=-140/62, 6-33=-140/62, 5-34=-138/62, 4-35=-147/62, 3-36=-77/76, 11-27=-150/62, 12-26=-138/63, 13-25=-140/62, 14-24=-140/62, 15-23=-138/62, 16-22=-147/63, 17-21=-77/66

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 37, 3 lb uplift at joint 20, 39 lb uplift at joint 30, 39 lb uplift at joint 31, 38 lb uplift at joint 32, 38 lb uplift at joint 33, 39 lb uplift at joint 34, 35 lb uplift at joint 35, 84 lb uplift at joint 36, 38 lb uplift at joint 27, 39 lb uplift at joint 26, 38 lb uplift at joint 25, 38 lb uplift at joint 24, 38 lb uplift at joint 23, 36 lb uplift at joint 22 and 65 lb uplift at joint 21.
- 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.

LOAD CASE(S) Standard
E-2000162101



October 27, 2021

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



16023 Swingley Ridge Rd
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Chesterfield, MO 63017

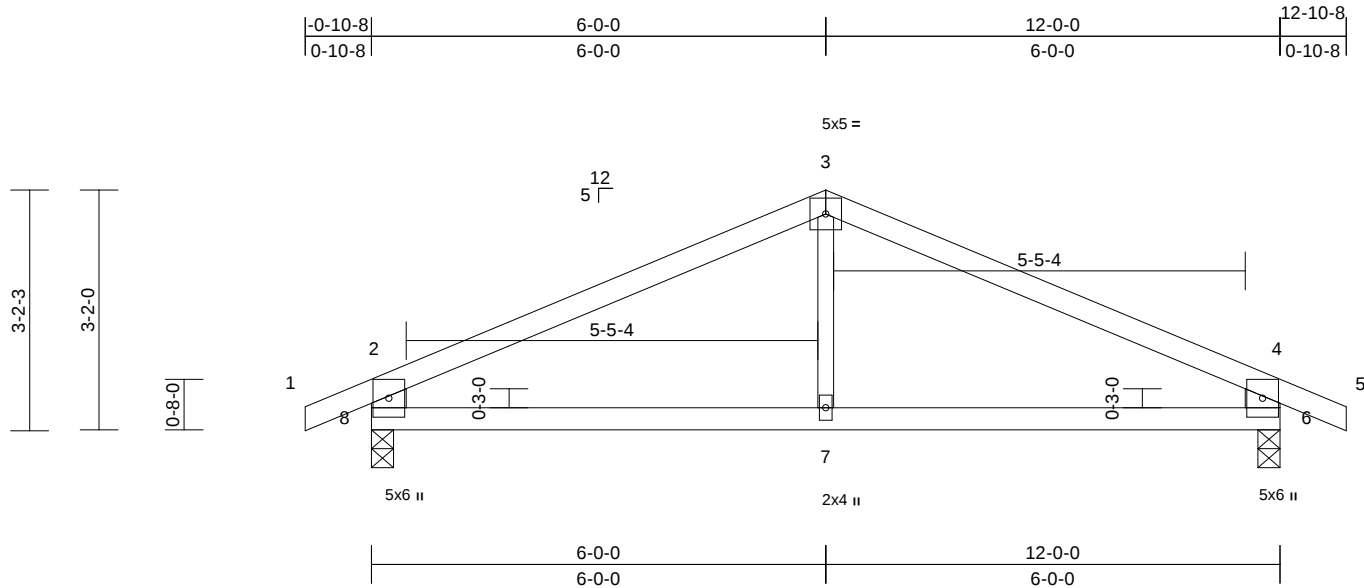
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148534163 LEE'S SUMMIT, MISSOURI
H4132	E3	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:29 Page: 1

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11/04/2021



Scale = 1:30.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.03	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.06	6-7	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 34 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x6 SPF No.2 *Except* 7-3:2x3 SPF No.2

BRACING

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

REACTIONS (lb/size) 6=597/0-3-8, 8=597/0-3-8
 Max Horiz 8=-31 (LC 13)
 Max Uplift 6=-67 (LC 9), 8=-67 (LC 8)

FORCES (lb) - Maximum Compression/Maximum
 Tension

TOP CHORD 1-2=0/30, 2-3=-692/63, 3-4=-692/62,
 4-5=0/30, 2-8=-540/106, 4-6=-540/106

BOT CHORD 7-8=-6/556, 6-7=-6/556
 WEBS 3-7=0/241

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 8 and 67 lb uplift at joint 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.

LOAD CASE(S) Standard



October 27, 2021

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

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
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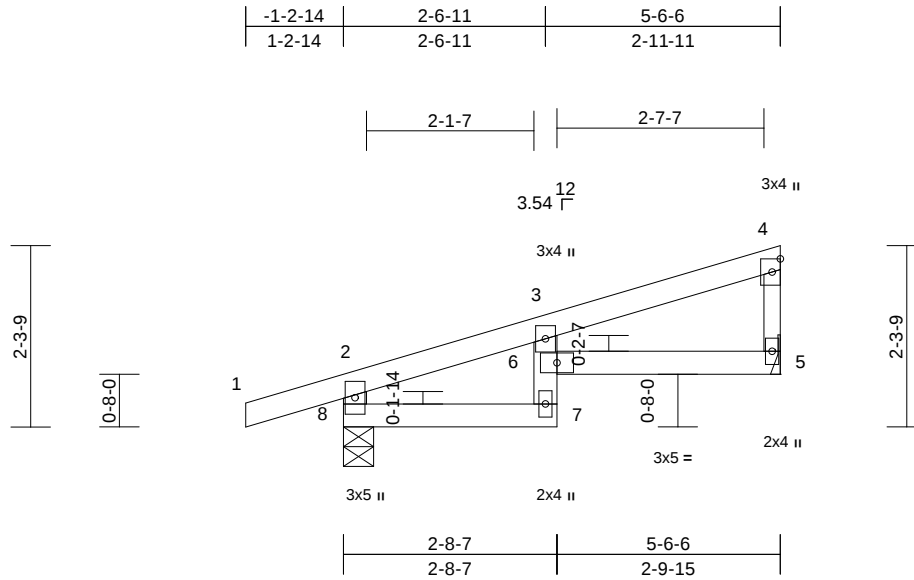
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION
H4132	J1	Diagonal Hip Girder	2	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148534164
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:23 Page: 1

ID:2ncXplsXOffjIB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKw/rCDoi7J423C44

11/04/2021



Scale = 1:29.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.04	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.07	6	>957	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 16 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2 *Except* 4-5:2x3 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	(lb/size) 5=224/ Mechanical, 8=346/0-4-9
	Max Horiz 8=73 (LC 5)
	Max Uplift 5=-37 (LC 8), 8=-84 (LC 4)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	2-8=-311/97, 1-2=0/27, 2-3=-246/26, 3-4=-94/14, 4-5=-140/42
BOT CHORD	7-8=-39/185, 6-7=0/44, 3-6=-15/66, 5-6=-15/79

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 8 and 37 lb uplift at joint 5.
- 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.

- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 61 lb down and 30 lb up at 2-9-8, and 61 lb down and 30 lb up at 2-9-8 on top chord, and 2 lb down and 1 lb up at 2-6-11, and 2 lb down and 1 lb up at 2-6-11 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.
- 7) 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 (lb/ft)
Vert: 1-2=-70, 2-4=-70, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 7=2 (F=1, B=1)



October 27, 2021

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

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

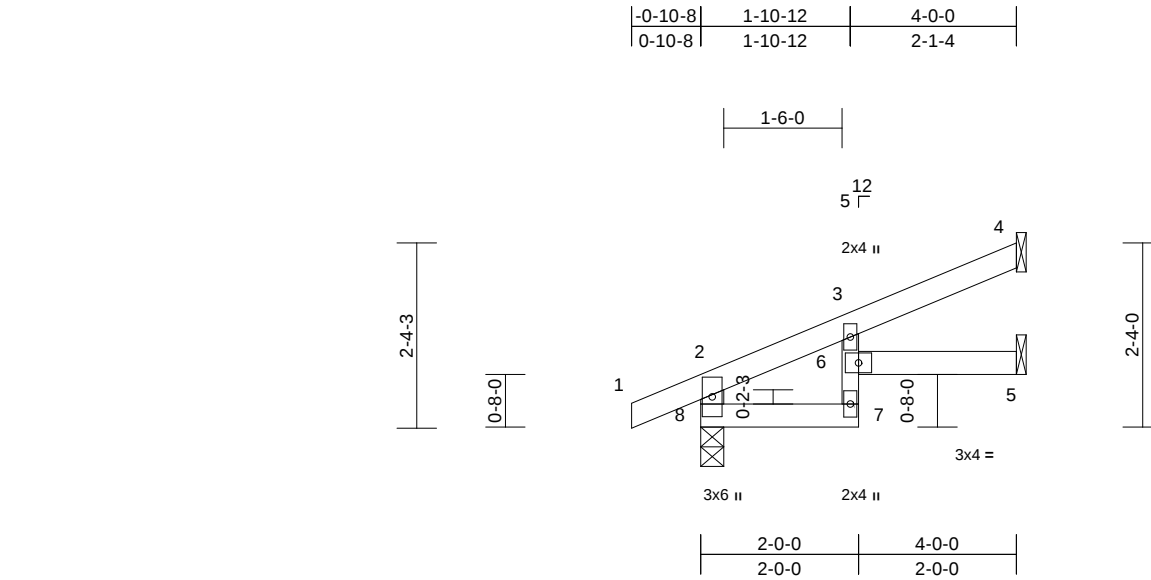
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4
H4132	J2	Jack-Open	3	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:21
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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
148534165
LEE'S SUMMIT, MISSOURI

11/04/2021



Scale = 1:29.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	0.01	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	7	>999	240	
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R						Weight: 12 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 7-3:2x3 SPF No.2
WEBS 2x4 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 (lb/size) 4=107/ Mechanical, 5=54/ Mechanical, 8=252/0-3-8
Max Horiz 8=66 (LC 8)
Max Uplift 4=-39 (LC 8), 5=-1 (LC 8), 8=-27 (LC 8)
Max Grav 4=107 (LC 1), 5=61 (LC 3), 8=252 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-8=-233/45, 1-2=0/27, 2-3=-140/0, 3-4=-24/36
BOT CHORD 7-8=-36/85, 6-7=0/35, 3-6=0/56, 5-6=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 8, 39 lb uplift at joint 4 and 1 lb uplift at joint 5.
- 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.

LOAD CASE(S) Standard



October 27, 2021

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

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



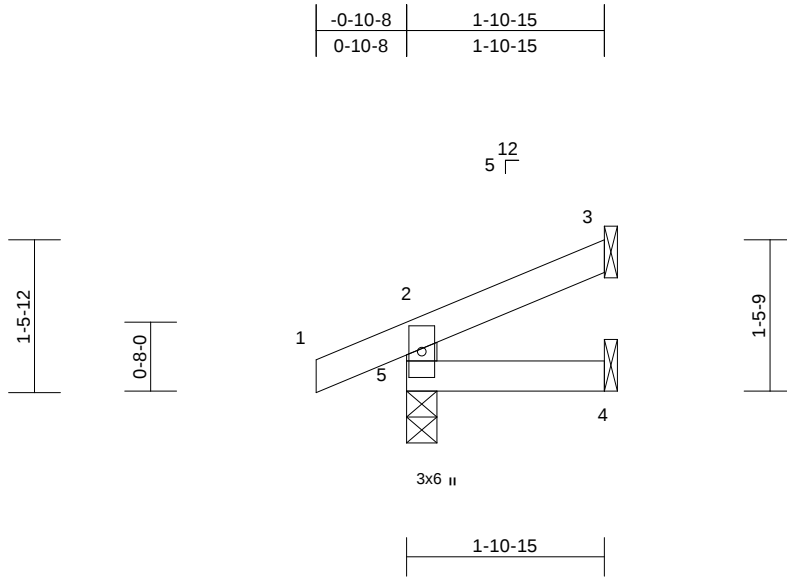
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148534166 LEE'S SUMMIT, MISSOURI
H4132	J3	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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11/04/2021



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	4-5	>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							Weight: 6 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 3=44/ Mechanical, 4=14/ Mechanical, 5=171/0-3-8
Max Horiz 5=35 (LC 8)
Max Uplift 3=-24 (LC 8), 5=-27 (LC 4)
Max Grav 3=44 (LC 1), 4=31 (LC 3), 5=171 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-150/40, 1-2=0/27, 2-3=-31/12
BOT CHORD 4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 5 and 24 lb uplift at joint 3.
- 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.

LOAD CASE(S) Standard



October 27, 2021

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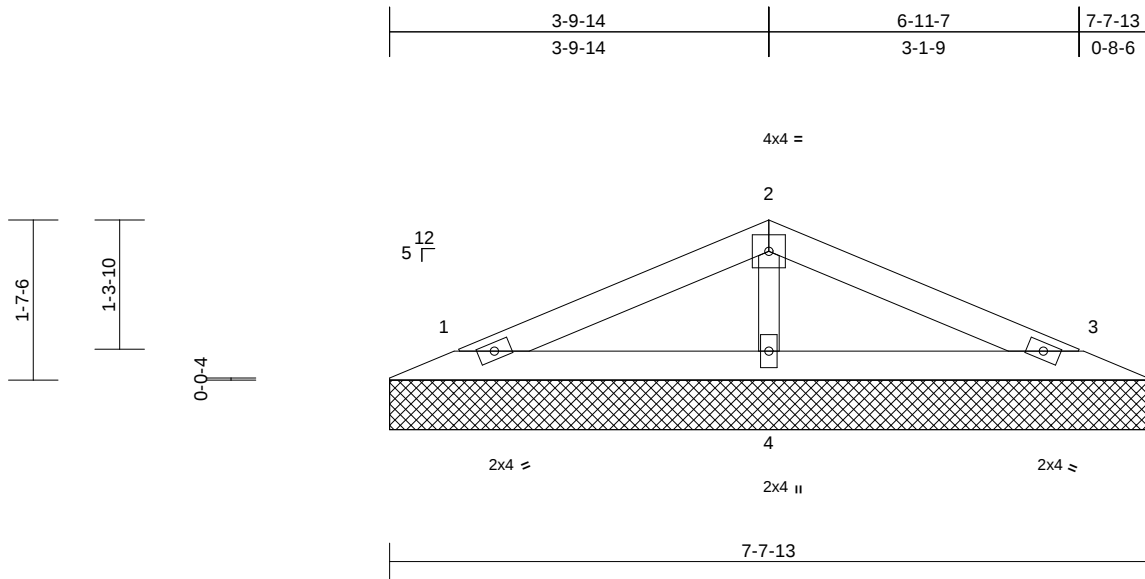
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148534167 LEE'S SUMMIT, MISSOURI
H4132	V1	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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11/04/2021



Scale = 1:23.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 lb	FT = 20%

LUMBER

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

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

LOAD CASE(S) Standard

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 (lb/size) 1=142/7-7-13, 3=142/7-7-13, 4=278/7-7-13
 Max Horiz 1=21 (LC 12)
 Max Uplift 1=-26 (LC 8), 3=-29 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-57/30, 2-3=-57/21
 BOT CHORD 1-4=0/24, 3-4=0/24
 WEBS 2-4=-200/45

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 1 and 29 lb uplift at joint 3.



October 27, 2021

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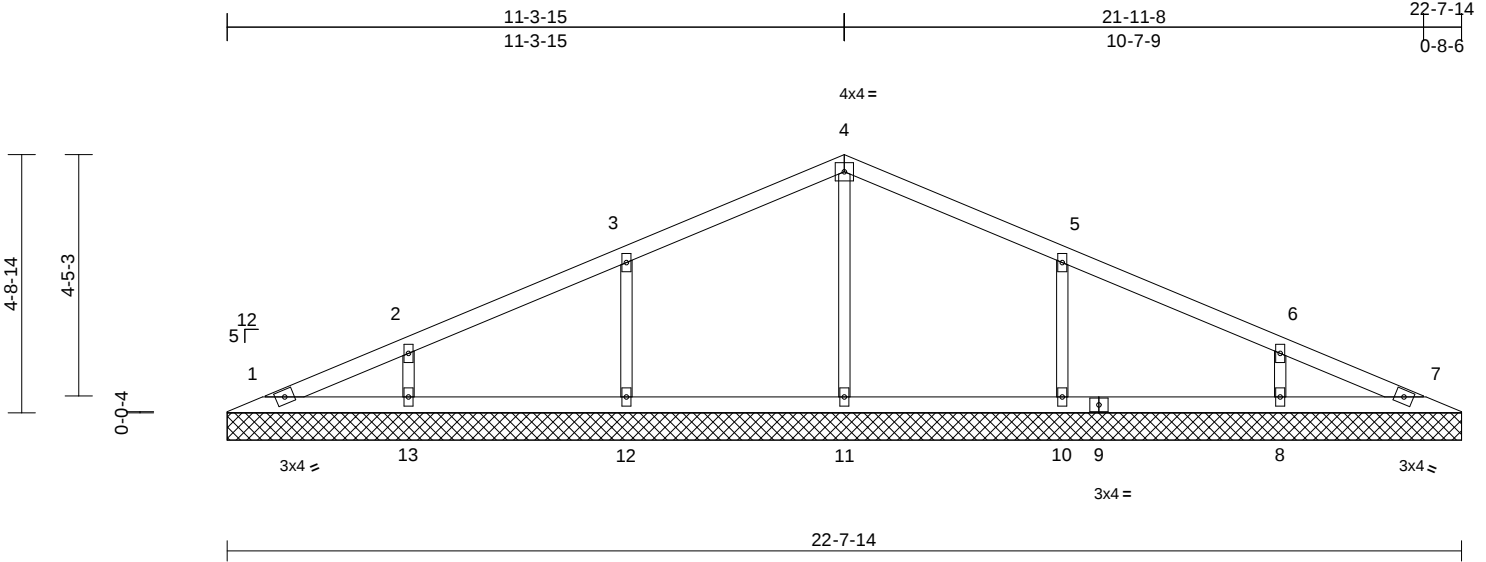
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION
H4132	V3	Valley	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148534168
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

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11/04/2021



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 61 lb	FT = 10%

LUMBER		
TOP CHORD	2x4 SPF No.2	
BOT CHORD	2x4 SPF No.2	
OTHERS	2x3 SPF No.2	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
REACTIONS	(lb/size)	
	1=91/22-7-14, 7=91/22-7-14, 8=326/22-7-14, 10=385/22-7-14, 11=308/22-7-14, 12=385/22-7-14, 13=326/22-7-14	
	Max Horiz 1=-70 (LC 9)	
	Max Uplift 1=-6 (LC 9), 8=-67 (LC 9), 10=-87 (LC 9), 12=-87 (LC 8), 13=-68 (LC 8)	
	Max Grav 1=91 (LC 1), 7=91 (LC 1), 8=326 (LC 1), 10=392 (LC 22), 11=308 (LC 1), 12=392 (LC 21), 13=326 (LC 1)	
FORCES	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-85/42, 2-3=-80/68, 3-4=-87/106, 4-5=-87/95, 5-6=-78/41, 6-7=-62/28	
BOT CHORD	1-13=-1/56, 12-13=-1/56, 11-12=-1/56, 10-11=-1/56, 8-10=-1/56, 7-8=-1/56	
WEBS	4-11=-229/13, 3-12=-310/137, 2-13=-249/109, 5-10=-310/137, 6-8=-249/109	

- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1, 87 lb uplift at joint 12, 68 lb uplift at joint 13, 87 lb uplift at joint 10 and 67 lb uplift at joint 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.

LOAD CASE(S) Standard



October 27, 2021

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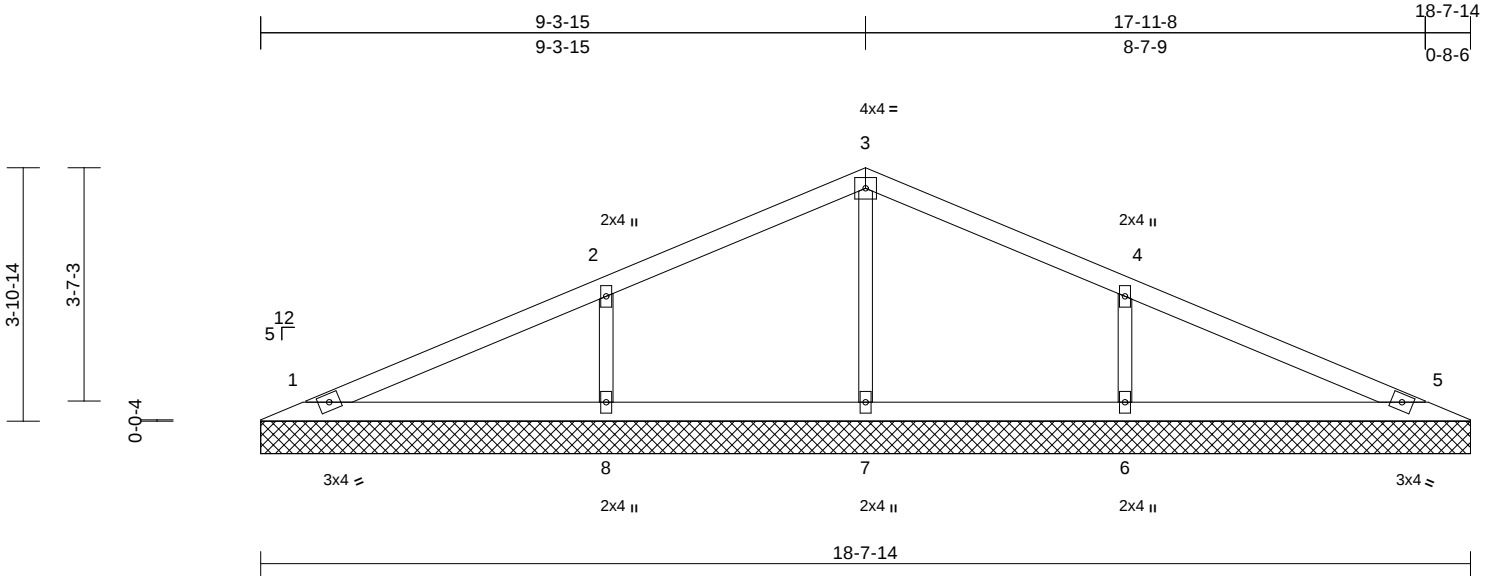
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148534169 LEE'S SUMMIT, MISSOURI
H4132	V4	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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11/04/2021



Scale = 1:35.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 48 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 (lb/size) 1=174/18-7-14, 5=174/18-7-14, 6=468/18-7-14, 7=267/18-7-14, 8=468/18-7-14
Max Horiz 1=57 (LC 8)
Max Uplift 1=-6 (LC 8), 5=-16 (LC 9), 6=-103 (LC 9), 8=-103 (LC 8)
Max Grav 1=174 (LC 1), 5=174 (LC 1), 6=472 (LC 22), 7=267 (LC 1), 8=472 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-80/67, 2-3=-89/86, 3-4=-89/75, 4-5=-64/57
BOT CHORD 1-8=-1/45, 7-8=-1/45, 6-7=-1/45, 5-6=-1/45
WEBS 3-7=-205/18, 2-8=-361/156, 4-6=-361/156

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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 4-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1, 16 lb uplift at joint 5, 103 lb uplift at joint 8 and 103 lb uplift at joint 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.

LOAD CASE(S) Standard



October 27, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



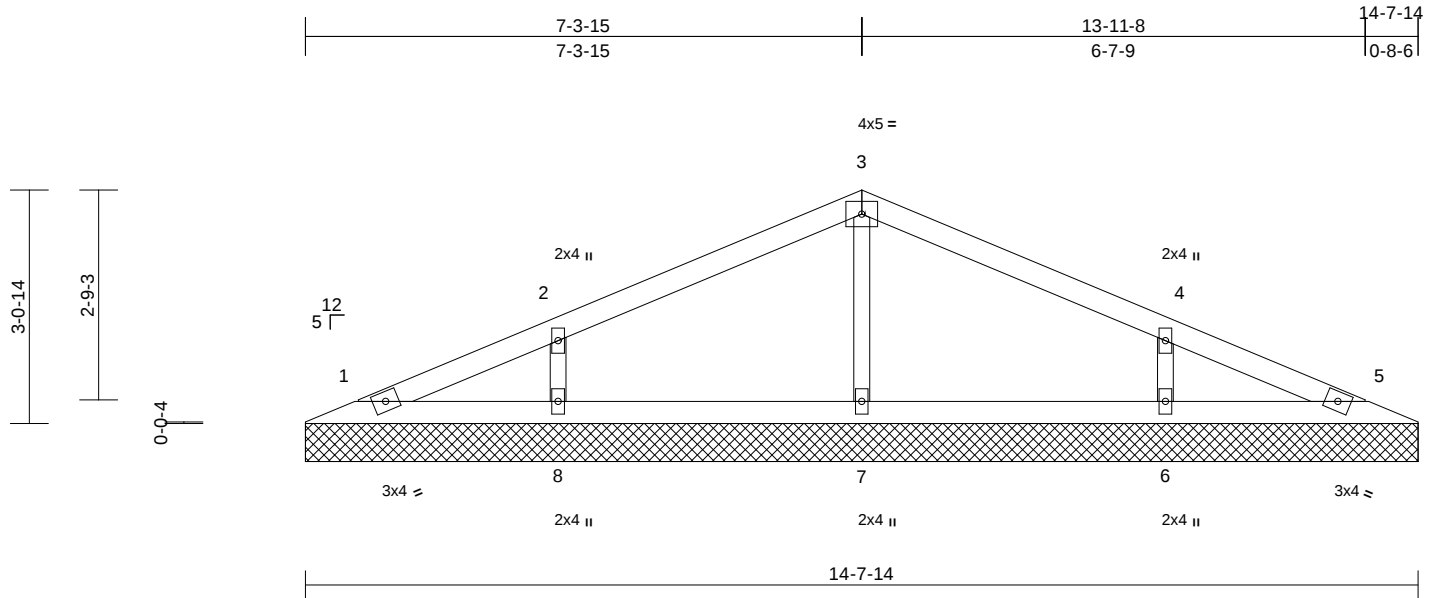
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION
H4132	V5	Valley	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148534170
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:22 Page: 1
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11/04/2021



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	5	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 36 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	(lb/size)	1=86/14-7-14, 5=86/14-7-14, 6=350/14-7-14, 7=321/14-7-14, 8=350/14-7-14
	Max Horiz	1=44 (LC 8)
	Max Uplift	1=-5 (LC 9), 5=-1 (LC 9), 6=-82 (LC 9), 8=-82 (LC 8)
	Max Grav	1=86 (LC 1), 5=86 (LC 1), 6=358 (LC 22), 7=321 (LC 1), 8=358 (LC 21)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-62/37, 2-3=-87/66, 3-4=-87/54, 4-5=-47/31
BOT CHORD	1-8=0/39, 7-8=0/39, 6-7=0/39, 5-6=0/39
WEBS	3-7=-238/38, 2-8=-284/124, 4-6=-284/124

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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 4-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 1, 1 lb uplift at joint 5, 82 lb uplift at joint 8 and 82 lb uplift at joint 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.

LOAD CASE(S) Standard



October 27, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

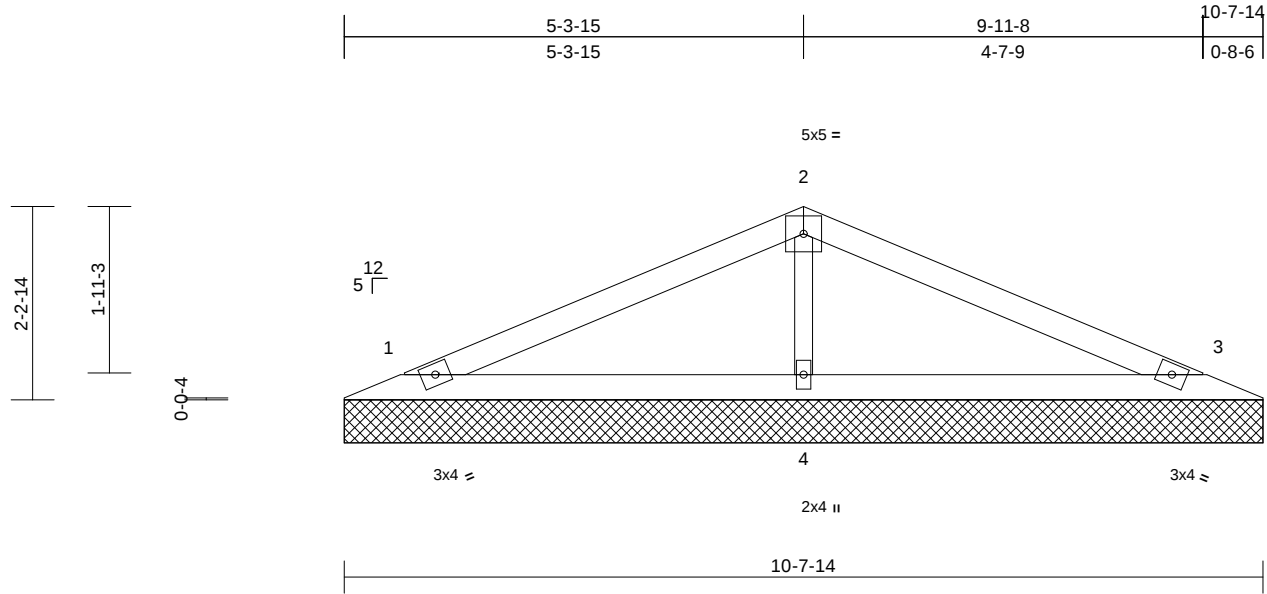
Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION
H4132	V6	Valley	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148534171
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:23 Page: 1

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11/04/2021



Scale = 1:26.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	3	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
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	(lb/size)	1=187/10-7-14, 3=187/10-7-14, 4=458/10-7-14
	Max Horiz	1=-31 (LC 9)
	Max Uplift	1=-31 (LC 8), 3=-36 (LC 9), 4=-13 (LC 8)
	Max Grav	1=191 (LC 21), 3=191 (LC 22), 4=458 (LC 1)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-98/46, 2-3=-98/38
BOT CHORD	1-4=-1/38, 3-4=-1/38
WEBS	2-4=-318/70

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 1, 36 lb uplift at joint 3 and 13 lb uplift at joint 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.

LOAD CASE(S) Standard



October 27, 2021

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



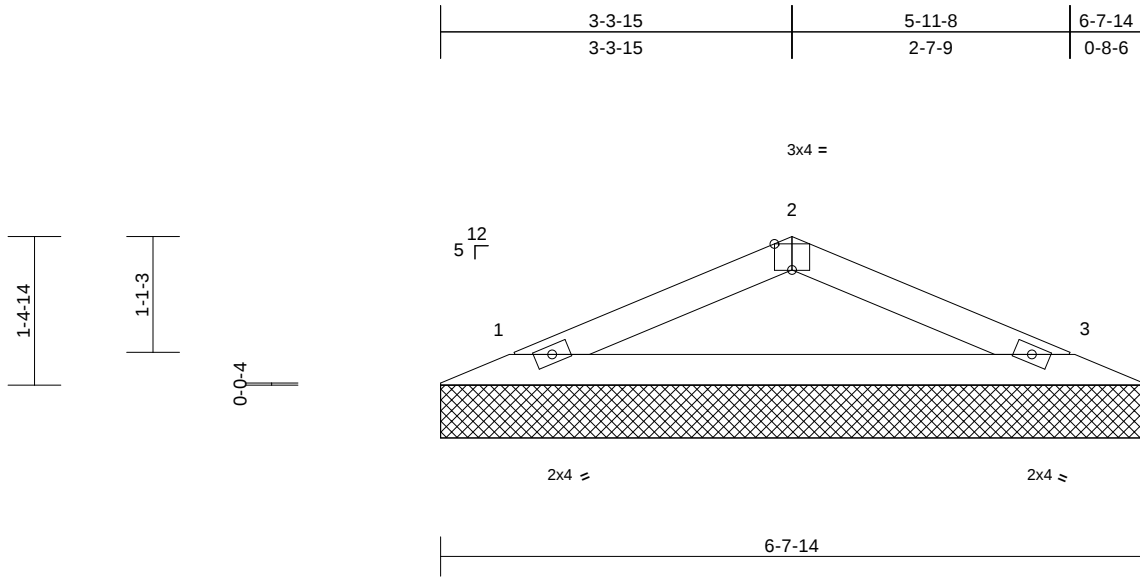
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 132 H4	RELEASE FOR CONSTRUCTION
H4132	V7	Valley	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148534172
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 16:00:23 Page: 1
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11/04/2021



Scale = 1:21.8

Plate Offsets (X, Y): [2:0-2-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 14 lb FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 1=236/6-7-14, 3=236/6-7-14
Max Horiz 1=17 (LC 12)
Max Uplift 1=-21 (LC 8), 3=-21 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-265/66, 2-3=-265/66
BOT CHORD 1-3=-45/218

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1 and 21 lb uplift at joint 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.

LOAD CASE(S) Standard



October 27, 2021

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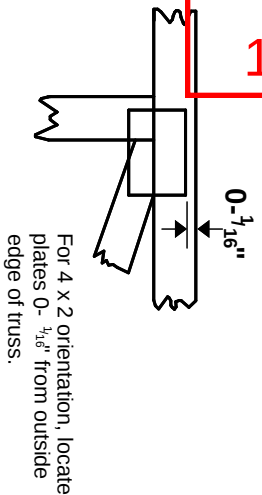
16023 Swingley Ridge Rd
Chesterfield, MO 63017

11/04/2021

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.



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

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

PLATE SIZE

4 X 4

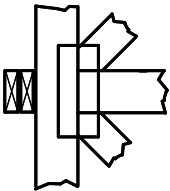
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



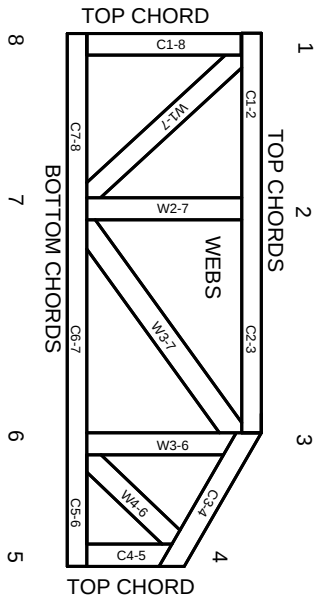
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.