



RE: B230098
Lot 98 RR

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Site Information:

Customer: Project Name: B230098
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 77 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I58885167	A1	6/13/2023	21	I58885187	D4	6/13/2023
2	I58885168	A2	6/13/2023	22	I58885188	D5	6/13/2023
3	I58885169	A3	6/13/2023	23	I58885189	D6	6/13/2023
4	I58885170	A4	6/13/2023	24	I58885190	D7	6/13/2023
5	I58885171	A5	6/13/2023	25	I58885191	D8	6/13/2023
6	I58885172	B1	6/13/2023	26	I58885192	D9	6/13/2023
7	I58885173	B2	6/13/2023	27	I58885193	E1	6/13/2023
8	I58885174	B3	6/13/2023	28	I58885194	E2	6/13/2023
9	I58885175	C1	6/13/2023	29	I58885195	E3	6/13/2023
10	I58885176	C2	6/13/2023	30	I58885196	E4	6/13/2023
11	I58885177	C3	6/13/2023	31	I58885197	G1	6/13/2023
12	I58885178	C4	6/13/2023	32	I58885198	G2	6/13/2023
13	I58885179	C5	6/13/2023	33	I58885199	G3	6/13/2023
14	I58885180	C6	6/13/2023	34	I58885200	J1	6/13/2023
15	I58885181	C7	6/13/2023	35	I58885201	J2	6/13/2023
16	I58885182	C8	6/13/2023	36	I58885202	J3	6/13/2023
17	I58885183	C9	6/13/2023	37	I58885203	J4	6/13/2023
18	I58885184	D1	6/13/2023	38	I58885204	J5	6/13/2023
19	I58885185	D2	6/13/2023	39	I58885205	J6	6/13/2023
20	I58885186	D3	6/13/2023	40	I58885206	J7	6/13/2023

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: Nathan Fox

My license renewal date for the state of Missouri is December 31, 2024.

Missouri COA: 001193

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



June 13, 2023



07/03/2023

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Chesterfield, MO 63017
314-434-1200

Site Information:

Project Customer: Project Name: B230098

Lot/Block:

Subdivision:

Address:

City, County:

State:

No.	Seal#	Truss Name	Date
41	I58885207	J8	6/13/2023
42	I58885208	J9	6/13/2023
43	I58885209	J10	6/13/2023
44	I58885210	J11	6/13/2023
45	I58885211	J12	6/13/2023
46	I58885212	J13	6/13/2023
47	I58885213	J14	6/13/2023
48	I58885214	J15	6/13/2023
49	I58885215	J16	6/13/2023
50	I58885216	J17	6/13/2023
51	I58885217	J18	6/13/2023
52	I58885218	J19	6/13/2023
53	I58885219	J20	6/13/2023
54	I58885220	J21	6/13/2023
55	I58885221	J22	6/13/2023
56	I58885222	J23	6/13/2023
57	I58885223	J24	6/13/2023
58	I58885224	J25	6/13/2023
59	I58885225	J26	6/13/2023
60	I58885226	J27	6/13/2023
61	I58885227	J28	6/13/2023
62	I58885228	J29	6/13/2023
63	I58885229	LAY1	6/13/2023
64	I58885230	LAY2	6/13/2023
65	I58885231	LAY3	6/13/2023
66	I58885232	LAY4	6/13/2023
67	I58885233	LAY5	6/13/2023
68	I58885234	LAY6	6/13/2023
69	I58885235	R1	6/13/2023
70	I58885236	V1	6/13/2023
71	I58885237	V2	6/13/2023
72	I58885238	V3	6/13/2023
73	I58885239	V4	6/13/2023
74	I58885240	V5	6/13/2023
75	I58885241	V6	6/13/2023
76	I58885242	V7	6/13/2023
77	I58885243	V8	6/13/2023

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 12 14:38:2023 Page 2

ID:2ncXplsOfbjB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbSKWODdH74zJGfH

3-3-8	7-3-14	14-4-3	21-4-8	27-1-5	32-11-9	38-8-2	5-10-5	5-8-9	7-3-14	16-10-8
3-3-8	4-0-6	7-0-5	7-0-5	5-8-13						0-10-8

[illegible]

LUMBER-		BRACING-	
TOP CHORD	2x6 SP 2400F 2.0E	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD	2x6 SP 2400F 2.0E *Except*		2-0-0 oc purlins (6-0-0 max.): 3-9.
	5-16: 2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2 *Except*		
	2-20: 2x6 SPF No.2		

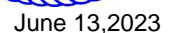
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-17879/1837, 2-3=-12726/1287, 3-4=-18586/1826, 4-5=-18584/1825,
5-7=-23072/2271, 7-8=-11977/1195, 8-9=-11979/1196, 9-10=-8825/909

BOT CHORD 1-20=-1659/16368, 19-20=-1410/14056, 18-19=-1152/11906, 17-18=-2246/23584,
16-17=0/262, 5-17=0/1021, 15-16=-169/1692, 13-15=-1339/14304, 12-13=-777/8020,
10-12=-780/8059

WEBS 2-20=-516/4833, 2-19=-2079/317, 3-19=-105/1578, 3-18=-632/7110, 4-18=-1108/318,
5-18=-5254/506, 15-17=-1199/12925, 7-17=-912/9260, 7-15=-2716/420, 7-13=-2688/243,
8-13=-788/240, 9-13=-403/4632, 9-12=-56/856

- 1) 4-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) 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.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 390 lb uplift at joint 1 and 407 lb uplift at joint 10.



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



Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	A1	Hip Girder	1	4	
Wheeler Lumber, Waverly, KS - 66871,					Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 14:38:20 2022 Page 7
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4zJC44

- NOTES-**
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 115 lb down and 76 lb up at 9-0-0, 115 lb down and 76 lb up at 11-0-0, 115 lb down and 76 lb up at 13-0-0, 115 lb down and 76 lb up at 15-0-0, 115 lb down and 76 lb up at 17-0-0, 115 lb down and 76 lb up at 19-0-0, 115 lb down and 76 lb up at 21-0-0, 114 lb down and 75 lb up at 23-0-0, 114 lb down and 75 lb up at 25-0-0, 114 lb down and 75 lb up at 27-0-0, 114 lb down and 75 lb up at 29-0-0, 114 lb down and 75 lb up at 31-0-0, 114 lb down and 75 lb up at 33-0-0, and 114 lb down and 75 lb up at 35-0-0, and 114 lb down and 75 lb up at 37-0-0 on top chord, and 454 lb down and 143 lb up at 5-0-0, 230 lb down and 46 lb up at 7-0-0, 70 lb down at 9-0-0, 70 lb down at 11-0-0, 70 lb down at 13-0-0, 70 lb down at 15-0-0, 70 lb down at 17-0-0, 70 lb down at 19-0-0, 70 lb down at 21-0-0, 70 lb down at 23-0-0, 70 lb down at 25-0-0, 70 lb down at 27-0-0, 70 lb down at 29-0-0, 70 lb down at 31-0-0, 70 lb down at 33-0-0, 70 lb down at 35-0-0, 70 lb down at 37-0-0, and 232 lb down and 44 lb up at 39-0-0, and 463 lb down and 143 lb up at 41-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-3=-70, 3-9=-70, 9-11=-70, 1-20=-20, 17-20=-20, 10-16=-20
- Concentrated Loads (lb)
- Vert: 19=-230(F) 15=-50(F) 7=-114(F) 8=-114(F) 13=-50(F) 12=-232(F) 21=-115(F) 22=-115(F) 23=-115(F) 24=-115(F) 25=-115(F) 26=-115(F) 27=-115(F) 28=-114(F) 29=-114(F) 30=-114(F) 31=-114(F) 32=-114(F) 33=-114(F) 34=-454(F) 35=-49(F) 36=-49(F) 37=-49(F) 38=-49(F) 39=-49(F) 40=-49(F) 41=-49(F) 42=-50(F) 43=-50(F) 44=-50(F) 45=-50(F) 46=-50(F) 47=-50(F) 48=-463(F)

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	A2	HIP	1	2	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 14:44:2022 Page 2
ID:2ncXplsOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWODmJ4ZJC44
15885168
07/03/2023

Scale = 1:82.0

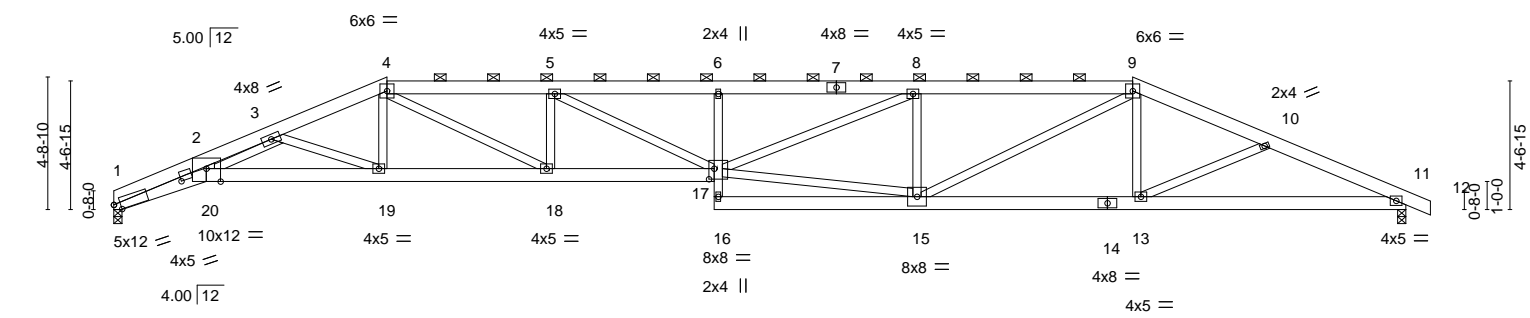


Plate Offsets (X,Y)--	[1:0-2-13,0-2-13], [1:2-6-9,0-0-7], [17:0-2-4,0-4-8], [20:0-6-2,Edge]
-----------------------	-----------------------------------------------------------------------

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.72	Vert(LL) -0.41	17	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.91	Vert(CT) -0.74	17	>738	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.64	Horz(CT) 0.28	11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.31	17	>999	240		
							Weight: 486 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins, except
BOT CHORD 2x6 SPF No.2	2-0-0 oc purlins (5-7-1 max.): 4-9.
WEBS 2x4 SPF No.2	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
	2-2-0 oc bracing: 1-20.

REACTIONS.	(size) 1=0-3-8, 11=0-3-8
	Max Horz 1=-79(LC 13)
	Max Uplift 1=-273(LC 4), 11=-305(LC 5)
	Max Grav 1=2055(LC 1), 11=2128(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-8828/1182, 2-3=-7598/1071, 3-4=-5449/836, 4-5=-6736/1127, 5-6=-7496/1278, 6-8=-7425/1272, 8-9=-5437/943, 9-10=-4127/640, 10-11=-4303/658
BOT CHORD	1-20=-1059/8034, 19-20=-886/6362, 18-19=-676/4969, 17-18=-1011/6733, 15-16=-40/290, 13-15=-488/3781, 11-13=-541/3842
WEBS	6-17=-412/174, 2-20=-198/1843, 4-19=-21/774, 4-18=-394/2123, 5-18=-951/277, 5-17=-184/966, 15-17=-788/5194, 8-17=-366/2177, 9-15=-381/1989, 9-13=0/345, 3-19=-1445/264, 3-20=-123/1049, 8-15=-1481/389

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 273 lb uplift at joint 1 and 305 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

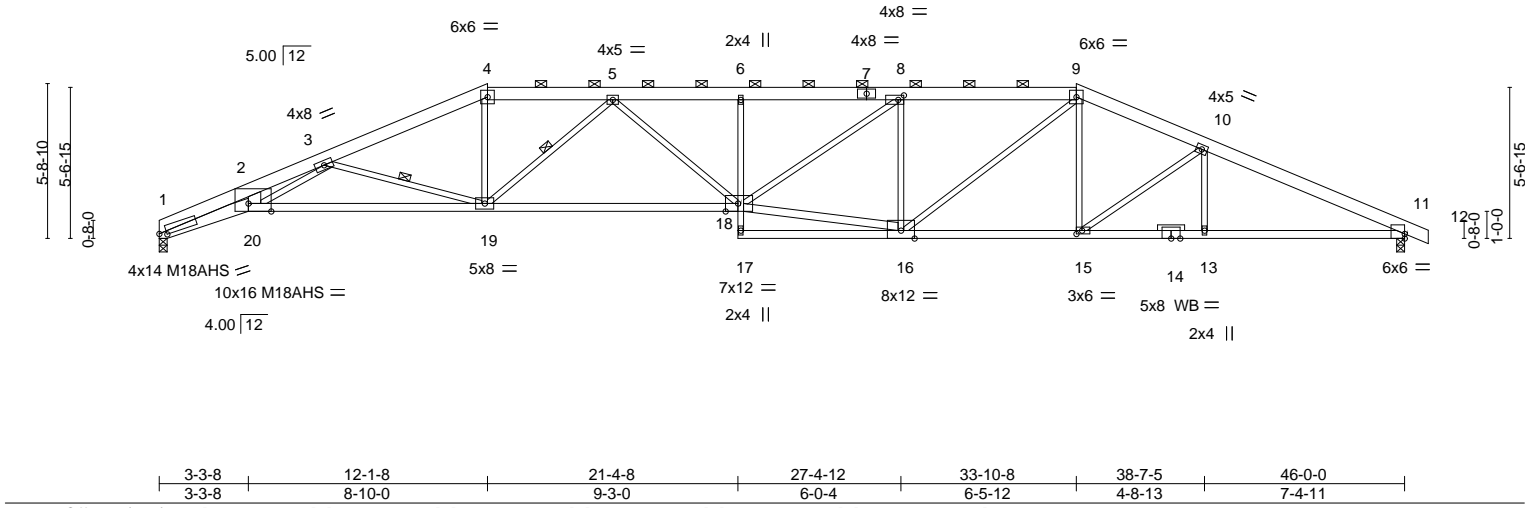


June 13,2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	A3	Hip	1	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 14:42 2022 Page 1
ID:2ncXplsXOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODmJ4zJC44
15885169
07/03/2023
10-0-0 18-10-0
3-3-8 6-2-15 12-1-8 16-9-0 27-4-12 27-8-12 33-10-8 38-7-5 46-0-0
3-3-8 2-11-7 5-10-9 4-7-8 10-7-12 0-4-0 6-1-12 4-8-13 7-4-11 0-10-8

Scale = 1:85.1



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.58 18 >939 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-1.16 18-19 >473 240	M18AHS		142/136	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.50 11 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.42 18 >999 240	Weight: 212 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SPF No.2 *Except* 1-4: 2x6 SP 2400F 2.0E	TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (2-10-6 max.): 4-9.
BOT CHORD	2x4 SPF 2100F 1.8E *Except* 1-20: 2x6 SP 2400F 2.0E, 14-17: 2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	2x3 SPF No.2 *Except* 2-20: 2x6 SPF No.2, 16-18: 2x4 SPF 2100F 1.8E	WEBS	1 Row at midpt 3-19, 5-19
OTHERS	2x3 SPF No.2		

REACTIONS.	
(size)	1=0-3-8, 11=0-3-8
Max Horz	1=-97(LC 9)
Max Uplift	1=-243(LC 4), 11=-275(LC 5)
Max Grav	1=2055(LC 1), 11=2128(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	1-2=-9072/1061, 2-3=-7679/961, 3-4=-4780/664, 4-5=-4325/635, 5-6=-5564/894, 6-8=-5561/896, 8-9=-4404/727, 9-10=-3824/585, 10-11=-4266/557
BOT CHORD	1-20=-952/8272, 19-20=-755/5972, 18-19=-701/5146, 15-16=-400/3474, 13-15=-436/3803, 11-13=-436/3803
WEBS	6-18=-350/145, 2-20=-165/1897, 3-20=-136/1546, 3-19=-1683/377, 4-19=-131/1416, 5-19=-1234/294, 5-18=-81/676, 16-18=-581/4409, 8-18=-215/1434, 9-16=-232/1315, 9-15=-49/357, 10-15=-412/187, 10-13=0/252, 8-16=-1343/330

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 243 lb uplift at joint 1 and 275 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 13, 2023

07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	A4	Hip	1	1	

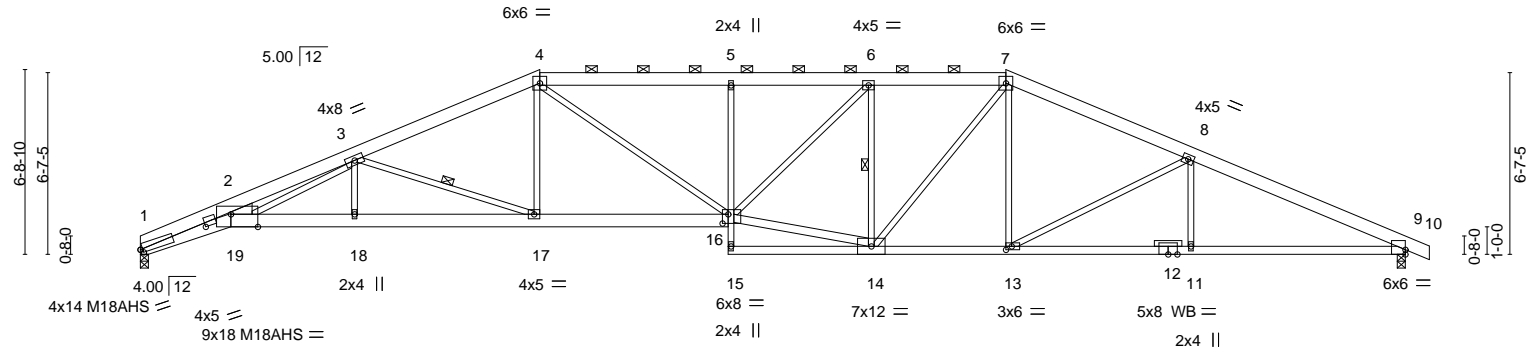
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 14:43 2022 Page 2

ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4zJC44

3-3-8	7-9-7	14-6-5	21-4-8	26-7-0	31-5-11	38-2-7	46-0-0	18-10-8
3-3-8	4-5-15	6-8-13	6-10-3	5-2-8	4-10-12	6-8-12	7-9-9	0-10-8

Scale = 1:83.8



3-3-8	7-9-7	14-6-5	21-4-8	26-7-0	31-5-11	38-2-7	46-0-0
3-3-8	4-5-15	6-8-13	6-10-3	5-2-8	4-10-12	6-8-12	7-9-9

Plate Offsets (X,Y)-- [1:0-1-1,0-1-9], [1:2-6-3,0-0-7], [9:0-0-0,0-2-1], [13:0-2-8,0-1-8], [16:0-2-8,0-4-0], [19:0-11-12,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.46 16 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.83 16-17 >658 240	M18AHS	142/136
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.44 9 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.32 16 >999 240	Weight: 240 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2 *Except* 1-4: 2x6 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 2-3-11 oc purlins, except
BOT CHORD 2x6 SP 2400F 2.0E *Except* 12-15: 2x4 SPF No.2, 9-12: 2x4 SPF 2100F 1.8E	2-0-0 oc purlins (2-11-12 max.): 4-7.
WEBS 2x3 SPF No.2 *Except* 2-19: 2x10 SP 2400F 2.0E, 14-16: 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
OTHERS 2x3 SPF No.2	2-2-0 oc bracing: 11-13.
	WEBS 1 Row at midpt 3-17, 6-14
REACTIONS. (size) 1=0-3-8, 9=0-3-8 Max Horz 1=115(LC 9) Max Uplift 1=214(LC 4), 9=246(LC 5) Max Grav 1=2055(LC 1), 9=2128(LC 1)	

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-8561/885, 2-3=-7102/820, 3-4=-4382/581, 4-5=-4565/687, 5-6=-4567/689, 6-7=-3696/573, 7-8=-3619/510, 8-9=-4277/490
BOT CHORD 1-19=-789/7793, 18-19=-577/5567, 17-18=-577/5567, 16-17=-391/3945, 13-14=-306/3250, 11-13=-375/3817, 9-11=-375/3817
WEBS 5-16=-480/192, 2-19=-105/1706, 3-19=-238/1239, 3-18=0/356, 3-17=-1712/352, 4-17=-26/742, 4-16=-178/971, 14-16=-403/3738, 6-16=-173/1245, 6-14=-1246/265, 7-14=-146/876, 7-13=-45/419, 8-13=-653/234, 8-11=0/314

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- The Fabrication Tolerance at joint 19 = 6%, joint 19 = 6%
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 214 lb uplift at joint 1 and 246 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 13,2023

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



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Chesterfield, MO 63017

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3-3-8	7-10-1	12-4-9	16-11-2	29-0-14	34-7-7	40-1-1	16-0-0	16-18-9
3-3-8	4-6-9	4-6-9	4-6-9	12-1-13	5-6-9	5-6-9	5-10-1	0-10-8

The diagram illustrates a roof truss system with the following components and dimensions:

- Members:**
 - Top Chord: 1-2, 2-3, 3-4, 4-5, 5-6, 6-7, 7-8, 8-9, 9-10
 - Bottom Chord: 1-17, 17-16, 16-15, 15-14, 14-13, 13-12
 - Verticals: 2-18, 3-19, 4-20, 5-18, 6-17, 7-16, 8-15, 9-14
 - Diagonals: 2-3, 3-4, 4-5, 5-6, 6-7, 7-8, 8-9, 9-10
 - Internal Bracing: 18-17, 17-16, 16-15, 15-14, 14-13
- Joints:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20
- Dimensions:**
 - Overall Height: 7'-8"-10"
 - Overall Width: 7'-6"-15"
 - Vertical Spacing: 0'-8"-0"
 - Horizontal Spacing: 4'-0" @ 12'
 - Member Spacing: 3'-3"-8", 10'-1"-5", 16'-11"-2", 21'-4"-8", 29'-0"-14", 36'-9"-0", 46'-0"-0"
- Labels:**
 - 4x14 M18AHS = (Member 1-2)
 - 10x12 M18AHS = (Member 1-17)
 - 4x5 = (Member 2-18)
 - 4x8 = (Member 3-19)
 - 6x6 = (Member 4-20)
 - 3x4 || (Member 5-6)
 - 8x8 = (Member 6-7)
 - 3x6 = (Member 7-8)
 - 6x6 = (Member 8-9)
 - 8x8 = (Member 9-10)
 - 3x6 = (Member 18-17)
 - 7x12 = (Member 17-16)
 - 3x6 = (Member 16-15)
 - 6x12 = (Member 15-14)
 - 4x8 = (Member 14-13)
 - 3x6 = (Member 13-12)
 - 8x8 = (Member 12-13)

LUMBER-		BRACING-	
TOP CHORD	2x6 SP 2400F 2.0E *Except* 5-7: 2x6 SPF No.2, 7-11: 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-1-9 max.): 5-7.
BOT CHORD	2x4 SPF 2100F 1.8E *Except* 1-20: 2x6 SP 2400F 2.0E, 6-16: 2x3 SPF No.2, 14-16: 2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 13-15.
WEBS	2x3 SPF No.2 *Except* 2-20,9-12: 2x4 SPF No.2, 10-12: 2x6 SP 2400F 2.0E	WEBS	1 Row at midpt 9-12

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

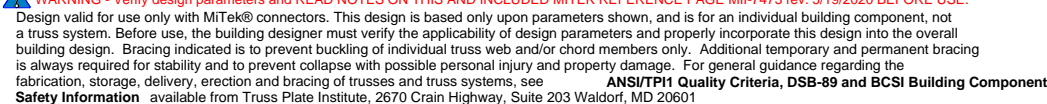
TOP CHORD
1-2=8701/927, 2-3=7673/913, 3-4=5104/531, 4-5=3821/478, 5-6=3787/524,
6-7=3763/526, 7-8=3312/431, 8-9=3875/407, 9-10=1047/162, 10-12=675/163

BOT CHORD
1-20=931/7900, 19-20=578/5401, 18-19=340/4138, 17-18=256/3496, 6-17=585/224,
13-15=270/3417, 12-13=329/3604

WEBS
5-18=97/763, 5-17=131/683, 7-15=50/307, 8-15=584/218, 8-13=6/328,
7-17=154/1129, 15-17=219/2829, 4-18=888/242, 4-19=120/1052, 3-19=1109/273,
3-20=336/2047, 2-20=59/1525, 9-12=3040/342

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 212 lb uplift at joint 1 and 237 lb uplift at joint 12.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
NATHANIEL
FOX
NUMBER
PE-2022042259
PROFESSIONAL ENGINEER



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ID:2ncXplsXOfbjB6l7Q?gPMzYWU-RfC?PsB70Hq3N SgPqnlLw3uITxbSKWvODd734zJG-H

0-10-8 3-3-8 7-5-5 14-2-4 19-3-14 26-8-2 31-10-2 38-0-0

0-10-8 3-3-8 4-1-13 6-8-15 5-1-10 7-4-3 5-2-0 6-1-14

Structural diagram of a roof truss system. The diagram shows a series of interconnected members forming a truss structure. Key dimensions and member labels are as follows:

- Vertical Dimensions:**
 - Left side: 8'-8" (10'-0" total height)
 - Right side: 7'-6" (15'-0" total height)
 - Internal vertical spacing: 3'-0" (0'-0" total height)
 - Bottom right corner: 1'-0" (0'-0" total height)
- Horizontal Dimensions:**
 - Top: 5'-0" (12'-0" total length)
 - Bottom: 3'-3" (8'-0" total length), 10'-9" (15'-0" total length), 19'-3" (14'-0" total length), 26'-8" (2'-0" total length), 31'-10" (2'-0" total length), 38'-0" (1'-14" total length)
- Member Labels:**
 - Top chord: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
 - Bottom chord: 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
 - Internal members: 4x5, 4x8, 6x8, 5x8, 3x4, 8x8, 3x10, 4x5, 4x8, 3x6
 - Supports: 6x12, 9x12 M18AHS, 4x5, 4.00 (12'-0" total length)

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 7-8: 2x4 SPF 2100F 1.8E, 1-5: 2x6 SP 2400F 2.0E	TOP CHORD	Structural wood sheathing directly applied or 2-8-9 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-4 max.): 7-8.
BOT CHORD	2x4 SPF No.2 *Except* 2-17: 2x6 SP 2400F 2.0E, 14-17: 2x4 SPF 2100F 1.8E	BOT CHORD	Rigid ceiling directly applied or 9-2-1 oc bracing.
WEBS	2x3 SPF No.2 *Except* 3-17,7-13,10-11: 2x4 SPF No.2	WEBS	1 Row at midpt 6-15, 7-13

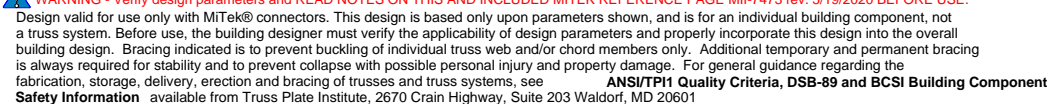
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-7514/1015, 3-4=-6575/961, 4-6=-4041/492, 6-7=-2630/315, 7-8=-1956/276,
8-9=-2175/278, 9-10=-1977/206, 10-11=-1682/178

BOT CHORD 2-17=-1068/6829, 16-17=-734/4624, 15-16=-353/3023, 13-15=-197/2376,
12-13=-172/1768

WEBS 3-17=-120/1409, 4-17=-292/1792, 4-16=-1219/376, 6-16=-119/1125, 6-15=-917/282,
7-15=-103/1011, 7-13=-681/138, 8-13=-16/442, 9-13=-12/390, 9-12=-641/136,
10-12=-157/1884

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 243 lb uplift at joint 2 and 147 lb uplift at joint 11.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	B2	Hip	1	1	

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-0-10-8	3-3-8	7-5-5	14-2-4	21-8-11	24-3-5	31-10-1	38-0-0		
0-10-8	3-3-8	4-1-13	6-8-15	7-6-7	2-6-10	7-6-13	6-1-15		

Scale = 1:69.7

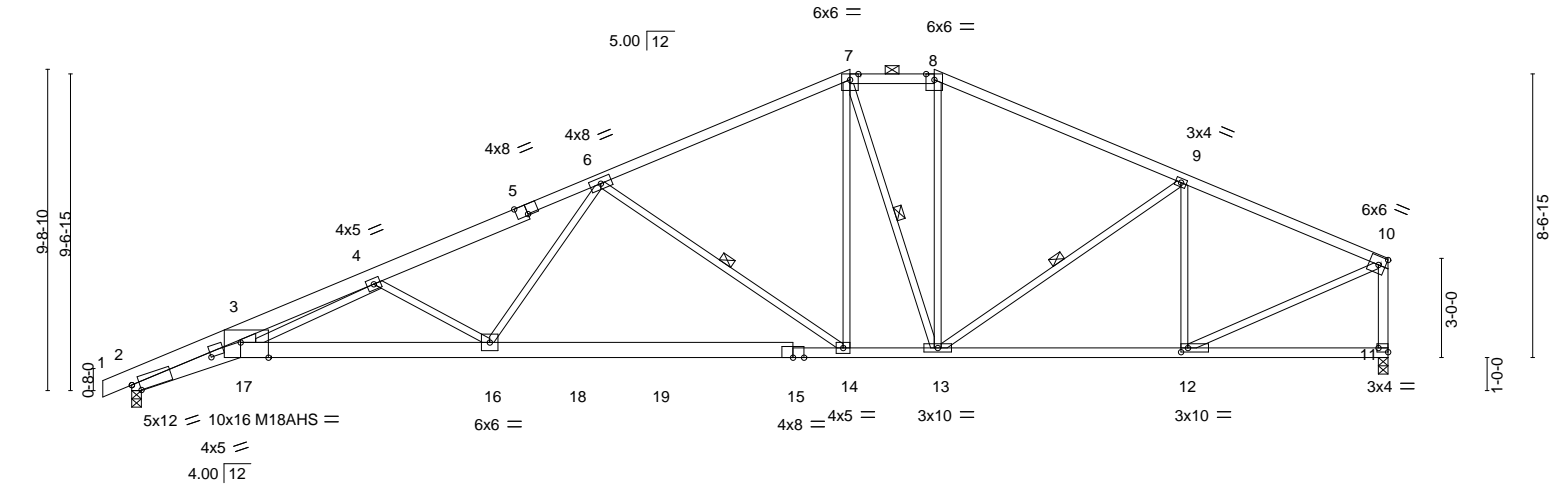


Plate Offsets (X,Y)--	[2:2-6-9,0-0-7], [2:0-2-13,0-2-13], [5:0-4-0,Edge], [11:Edge,0-1-8], [12:0-2-8,0-1-8], [17:0-10-2,Edge]
-----------------------	---------------------------------------------------------------------------------------------------------

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.94	Vert(LL) -0.35	14-16	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.88	Vert(CT) -0.62	14-16	>729	240	M18AHS	142/136
BCLL 0.0 *	Rep Stress Incr YES	WB 0.98	Horz(CT) 0.26	11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.25	16-17	>999	240	Weight: 191 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 5-7: 2x4 SPF 2100F 1.8E, 1-5: 2x6 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-0-10 max.): 7-8.
BOT CHORD 2x6 SP 2400F 2.0E *Except* 11-15: 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 8-9-11 oc bracing.
WEBS 2x3 SPF No.2 *Except* 3-17: 2x6 SPF No.2, 10-11: 2x4 SPF No.2	WEBS 1 Row at midpt 6-14, 7-13, 9-13

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=200(LC 8)
Max Uplift 2=259(LC 8), 11=170(LC 9)
Max Grav 2=1827(LC 2), 11=1758(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7277/1102, 3-4=-6199/1022, 4-6=-4119/541, 6-7=-2237/314, 7-8=-1861/287,
8-9=-2107/292, 9-10=-1973/196, 10-11=-1669/197
BOT CHORD 2-17=-1164/6614, 16-17=-793/4619, 14-16=-438/3015, 13-14=-146/1978,
12-13=-165/1773
WEBS 3-17=-139/1424, 4-16=-1115/360, 6-14=-1254/356, 7-14=-122/910, 7-13=-527/143,
8-13=-69/536, 9-13=-84/278, 9-12=-626/157, 10-12=-151/1906, 6-16=-87/1284,
4-17=-308/1386

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Bearing at joint(s) 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 259 lb uplift at joint 2 and 170 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 13,2023

07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	B3	Roof Special	2	1	

Wheeler Lumber, Waverly, KS - 66871,

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-0-10-8	3-3-8	8-4-11	15-8-4	23-0-0	31-10-2	38-0-0
0-10-8	3-3-8	5-1-3	7-3-9	7-3-12	8-10-2	6-1-15

5x8 =

Scale = 1:69.4

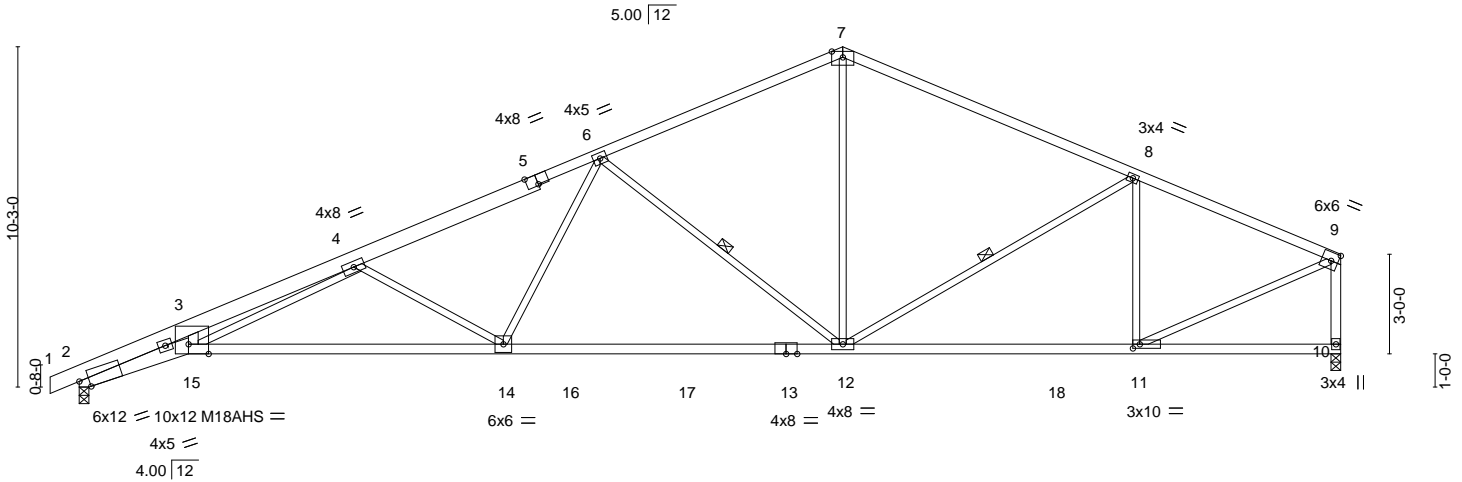


Plate Offsets (X,Y)--	[2:0-3-9,Edge], [5:0-4-0,Edge], [11:0-2-8,0-1-8], [15:0-7-4,Edge]
-----------------------	-------------------------------------------------------------------

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.88	Vert(LL) -0.48	14-15	>949	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.89	Vert(CT) -0.91	14-15	>500	240	M18AHS	142/136
BCLL 0.0 *	Rep Stress Incr YES	WB 1.00	Horz(CT) 0.30	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.31	14-15	>999	240	Weight: 164 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
7-9: 2x4 SPF 2100F 1.8E, 1-5: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF 2100F 1.8E *Except*
2-15: 2x6 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except*
3-15,9-10: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-10-3 oc bracing.
WEBS 1 Row at midpt 6-12, 8-12

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
Max Horz 2=210(LC 8)
Max Uplift 2=-265(LC 8), 10=-182(LC 9)
Max Grav 2=1840(LC 2), 10=1796(LC 2)

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

TOP CHORD 2-3=-7492/1135, 3-4=-6598/1094, 4-6=-3691/501, 6-7=-2102/307, 7-8=-2126/328,
8-9=-2035/216, 9-10=-1712/207
BOT CHORD 2-15=-1206/6807, 14-15=-779/4315, 12-14=-399/2812, 11-12=-188/1835
WEBS 3-15=-103/1330, 4-15=-393/2110, 4-14=-1217/397, 6-14=-81/1115, 6-12=-1220/349,
8-11=-628/172, 9-11=-181/1983, 7-12=-87/1110

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 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 265 lb uplift at joint 2 and 182 lb uplift at joint 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.



June 13,2023

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 98 RR
B230098	C1	ROOF SPECIAL	1	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 14:55:2022 Page 1
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4zJC44

07/03/2023

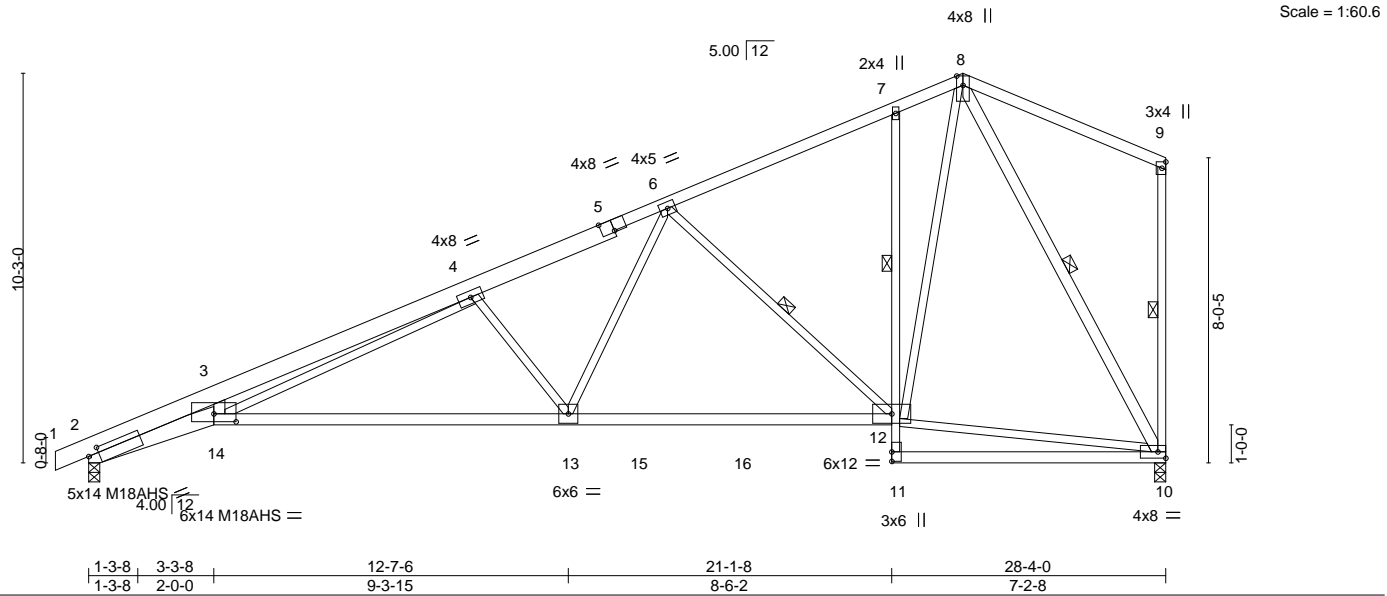


Plate Offsets (X,Y)-- [2:0-3-5,0-1-12], [5:0-4-0,Edge], [14:0-7-0,0-2-8]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.60	Vert(LL)	-0.40 13-14	>851	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.89	Vert(CT)	-0.76 13-14	>446	240	M18AHS	142/136
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.26 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.27 13-14	>999	240	Weight: 150 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 1-5: 2x6 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 3-7-2 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2 *Except* 2-14: 2x6 SPF No.2, 12-14: 2x4 SPF 2100F 1.8E, 7-11: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 7-5-0 oc bracing: 2-14.
WEBS 2x3 SPF No.2 *Except* 3-14,8-10: 2x4 SPF No.2	WEBS 1 Row at midpt 7-12 1 Row at midpt 6-12, 9-10, 8-10

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=336(LC 7)
Max Uplift 2=217(LC 8), 10=186(LC 8)
Max Grav 2=1377(LC 2), 10=1321(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5243/903, 3-4=-4680/936, 4-6=-2392/402, 6-7=-1012/214, 7-8=-964/290
BOT CHORD 2-14=-988/4744, 13-14=-511/2592, 12-13=-266/1642, 7-12=-337/179
WEBS 3-14=0/777, 4-14=-485/1953, 4-13=-840/309, 6-13=-138/1134, 6-12=-1059/283,
8-12=-299/1359, 10-12=-143/569, 8-10=-1292/171

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 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 217 lb uplift at joint 2 and 186 lb uplift at joint 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.



June 13,2023

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

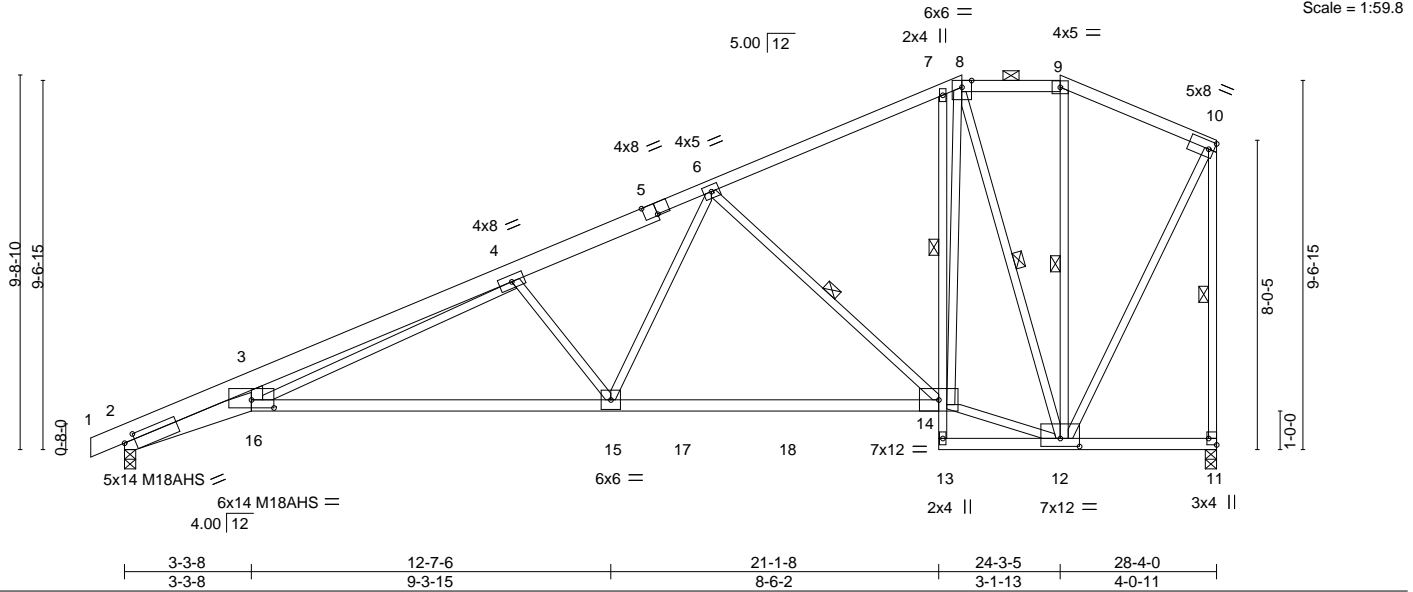


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	C2	HIP	1	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 14:55:2022 Page 1
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3dITXbCKWwODm7J4zJC41
0-10-8 3-3-8 10-1-12 15-2-12 21-1-8 21-8-11 24-3-5 28-4-0
0-10-8 3-3-8 6-10-4 5-1-0 5-10-12 0-7-3 2-6-10 4-0-11

07/03/2023



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.80	Vert(LL)	-0.40 15-16	>837	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.89	Vert(CT)	-0.77 15-16	>439	240	M18AHS	142/136
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.99	Horz(CT)	0.27 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.29 15-16	>999	240	Weight: 156 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 1-5: 2x6 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 3-6-13 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-9.
BOT CHORD 2x4 SPF No.2 *Except* 2-16: 2x6 SPF No.2, 14-16: 2x4 SPF 2100F 1.8E, 7-13: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
WEBS 2x3 SPF No.2 *Except* 3-16: 2x4 SPF No.2	WEBS 1 Row at midpt 7-14 1 Row at midpt 6-14, 9-12, 10-11, 8-12

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=349(LC 8)
Max Uplift 2=194(LC 8), 11=186(LC 8)
Max Grav 2=1377(LC 2), 11=1321(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5244/976, 3-4=-4682/991, 4-6=-2392/370, 6-7=-1011/168, 7-8=-901/231,
8-9=-500/115, 9-10=-568/111, 10-11=-1263/206
BOT CHORD 2-16=-1202/4745, 15-16=-635/2590, 14-15=-376/1644
WEBS 3-16=-21/776, 4-16=-568/1956, 4-15=-836/323, 6-15=-151/1130, 6-14=-1069/295,
10-12=-167/1078, 12-14=-104/865, 8-14=-342/1260, 8-12=-1145/251

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Bearing at joint(s) 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 194 lb uplift at joint 2 and 186 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

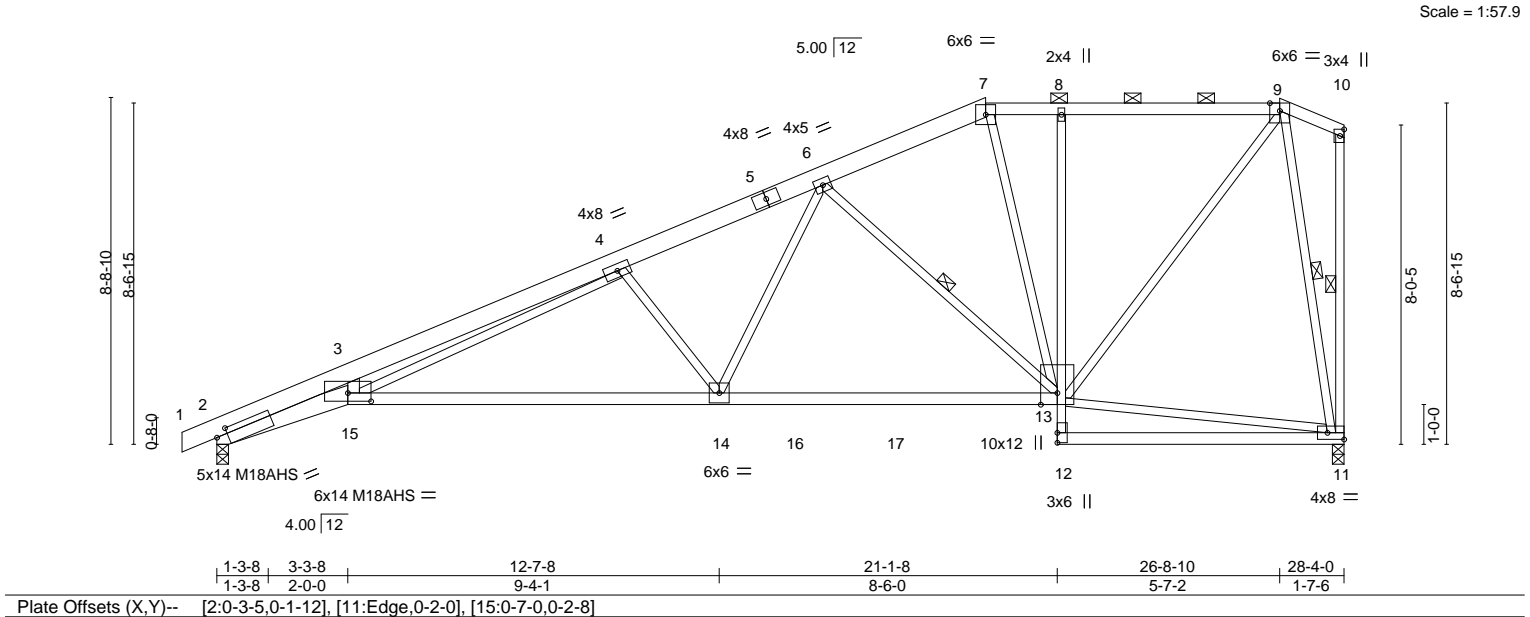


June 13, 2023

07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	C3	HIP	1	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 14:55:2023 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITKbCKWwODm734zJC41



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.60	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.89	Vert(LL) -0.39 14-15 >859 360	M18AHS	142/136
BCLL 0.0 *	Lumber DOL 1.15	WB 0.82	Vert(CT) -0.75 14-15 >449 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.25 11 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.25 14-15 >999 240		
				Weight: 152 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 5-7: 2x6 SPF No.2, 1-5: 2x6 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 3-9-3 oc purlins, except end verticals, and 2-0-0 oc purlins (5-3-11 max.): 7-9.
BOT CHORD 2x6 SPF No.2 *Except* 13-15: 2x4 SPF 2100F 1.8E, 8-12: 2x3 SPF No.2 11-12: 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 7-9-6 oc bracing: 2-15.
WEBS 2x3 SPF No.2 *Except* 3-15: 2x4 SPF No.2	WEBS 1 Row at midpt 6-13, 10-11, 9-11
REACTIONS. (size) 2=0-3-8, 11=0-3-8 Max Horz 2=341(LC 7) Max Uplift 2=210(LC 8), 11=175(LC 5) Max Grav 2=1375(LC 2), 11=1319(LC 2)	
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 2-3=-5223/832, 3-4=-4651/873, 4-6=-2399/374, 6-7=-1025/186, 7-8=-983/198, 8-9=-983/201	
BOT CHORD 2-15=-895/4724, 14-15=-458/2605, 13-14=-277/1643, 8-13=-363/149	
WEBS 3-15=0/792, 4-15=-447/1913, 4-14=-852/311, 6-14=-140/1143, 6-13=-992/249, 9-11=-1237/300, 9-13=-159/1268	

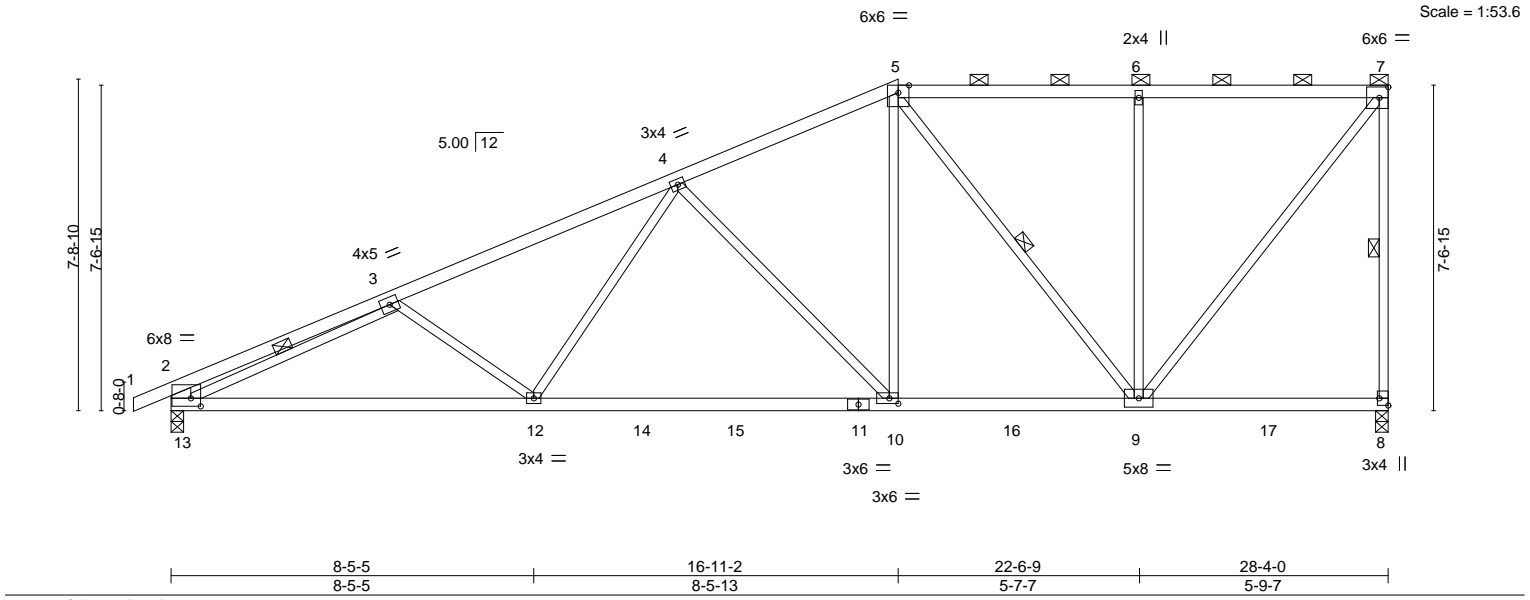
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Bearing at joint(s) 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 210 lb uplift at joint 2 and 175 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 13,2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	C4	HALF HIP	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 14:53:2022 Page 1
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4zJC41
0-10-8 5-2-7 11-9-9 16-11-2 22-6-9 28-4-0
0-10-8 5-2-7 6-7-2 5-1-9 5-7-7 5-9-7



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.82	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.90	Vert(LL) -0.21 10-12 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.89	Vert(CT) -0.37 10-12 >897 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.06 8 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.09 10-12 >999 240		
				Weight: 118 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-3-1 oc purlins, except end verticals, and 2-0-0 oc purlins (5-9-4 max.): 5-7.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 8-0-8 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-13: 2x6 SPF No.2	WEBS 1 Row at midpt 7-8, 5-9, 3-13

REACTIONS. (size) 8=0-3-8, 13=0-3-8
Max Horz 13=289(LC 8)
Max Uplift 8=205(LC 4), 13=182(LC 8)
Max Grav 8=1372(LC 2), 13=1395(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-735/100, 3-4=-2263/248, 4-5=-1453/171, 5-6=-887/134, 6-7=-885/132, 7-8=-1256/233, 2-13=-488/121
BOT CHORD 12-13=-526/2165, 10-12=-348/1751, 9-10=-180/1275
WEBS 3-12=-262/210, 4-12=-15/510, 4-10=-677/242, 5-10=-92/787, 5-9=-644/146, 6-9=-478/195, 7-9=-213/1426, 3-13=-1731/227

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 205 lb uplift at joint 8 and 182 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 13,2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	C5	Half Hip	1	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 14:58 2023 Page 2
ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3dITXbCKWwODm7J4zJC44

0-10-8 2-9-8 7-5-7 10-10-0 14-6-5 20-4-6 26-2-8 28-4-0
0-10-8 2-9-8 4-7-15 3-4-10 3-8-5 5-10-2 5-10-2 2-1-8

Scale = 1:51.6

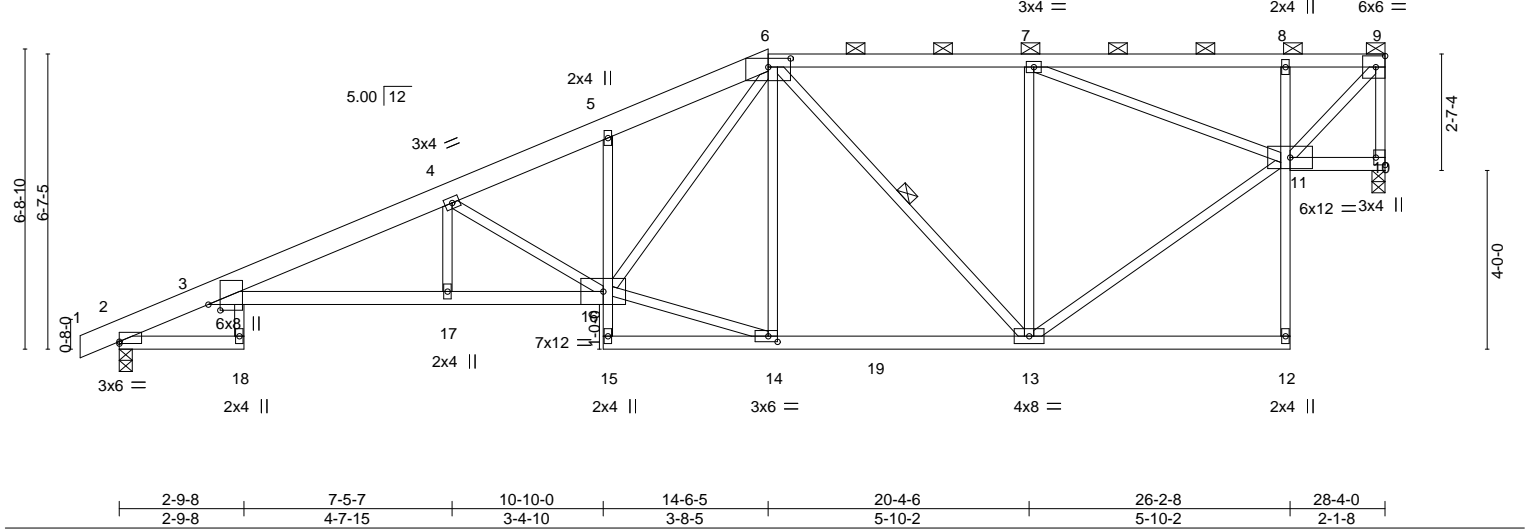


Plate Offsets (X,Y)-- [2:0-0-0,0-0-8], [3:0-1-9,0-3-3], [6:0-6-0,0-2-5], [10:Edge,0-2-8], [14:0-2-8,0-1-8]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.93	Vert(LL)	-0.34	18	>999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.67	Vert(CT)	-0.59	18	>570		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.58	Horz(CT)	0.25	10	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.27	18	>999		
	Code IRC2018/TPI2014						Weight: 141 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SP 2400F 2.0E *Except* 6-9: 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-11-6 max.): 6-9.
BOT CHORD 2x4 SPF No.2 *Except* 3-16: 2x4 SPF 2100F 1.8E, 5-15,8-12: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-18.
WEBS 2x3 SPF No.2	WEBS 1 Row at midpt 6-13

REACTIONS. (size) 10=0-3-8, 2=0-3-8
Max Horz 2=215(LC 8)
Max Uplift 10=-211(LC 5), 2=-172(LC 8)
Max Grav 10=1319(LC 2), 2=1399(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-666/0, 3-4=-3491/447, 4-5=-2557/322, 5-6=-2437/367, 6-7=-1238/221,
7-8=-1149/218, 8-9=-1135/212, 9-10=-1256/217
BOT CHORD 3-17=-557/3332, 16-17=-557/3332, 13-14=-216/1508, 8-11=-298/129
WEBS 4-16=-1287/285, 14-16=-215/1477, 6-16=-279/1313, 6-14=-270/116, 6-13=-398/110,
7-13=-446/193, 11-13=-239/1494, 9-11=-283/1660

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 211 lb uplift at joint 10 and 172 lb uplift at joint 2.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 13,2023

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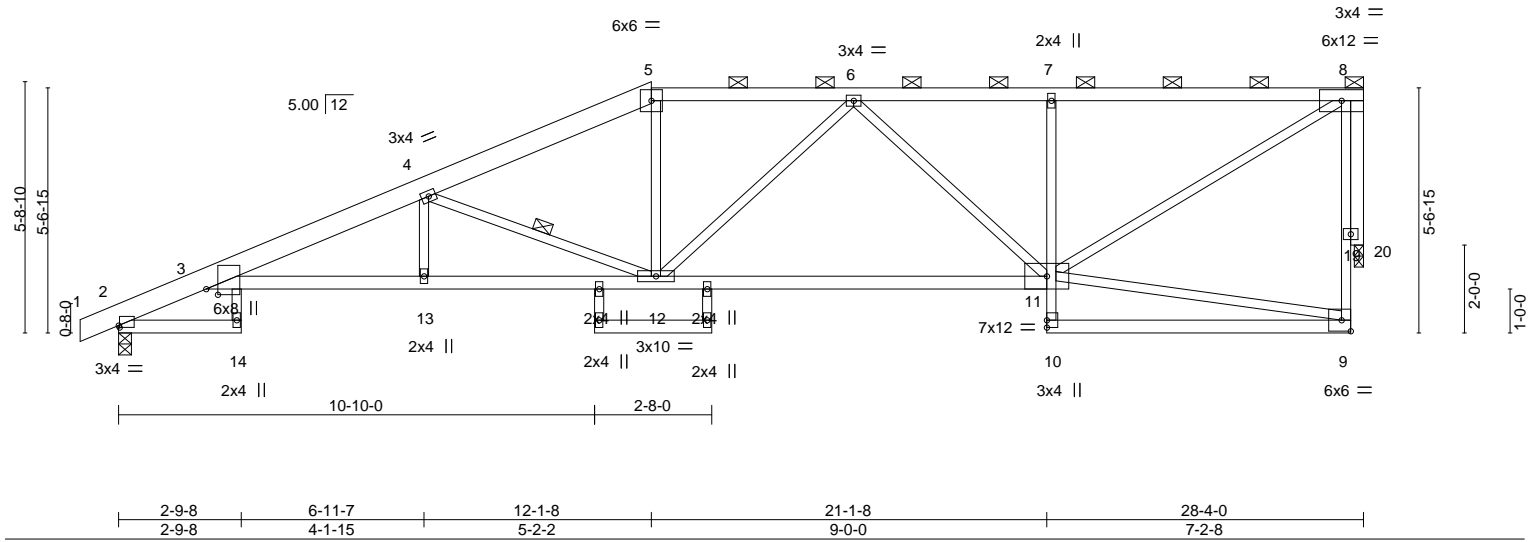
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	C6	Half Hip	1	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:00 2023 Page 1
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC41

07/03/2023

Scale = 1:52.4



LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.86	Vert(LL) -0.31	14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.65	Vert(CT) -0.56	14	>604	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.62	Horz(CT) 0.39	20	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.24	14	>999	240		
							Weight: 132 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SP 2400F 2.0E *Except* 5-8: 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-2-6 max.): 5-8.
BOT CHORD 2x4 SPF No.2 *Except* 3-11: 2x4 SPF 2100F 1.8E, 7-10: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x3 SPF No.2	WEBS 1 Row at midpt 4-12
OTHERS 2x4 SPF No.2	

REACTIONS.	(size)
Max Horz 2=182(LC 8)	2=0-3-8, 20=0-2-8
Max Uplift 2=151(LC 8), 20=214(LC 4)	
Max Grav 2=1351(LC 1), 20=1238(LC 1)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-625/0, 3-4=-3385/392, 4-5=-2310/307, 5-6=-2061/301, 6-7=-1615/273, 7-8=-1615/279
BOT CHORD	3-13=-472/3222, 12-13=-472/3222, 11-12=-371/1997, 7-11=-448/186
WEBS	4-12=-1271/324, 5-12=-16/589, 6-11=-527/112, 8-11=-309/1797, 8-20=-1244/215

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Bearing at joint(s) 20 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate at joint(s) 20.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 151 lb uplift at joint 2 and 214 lb uplift at joint 20.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



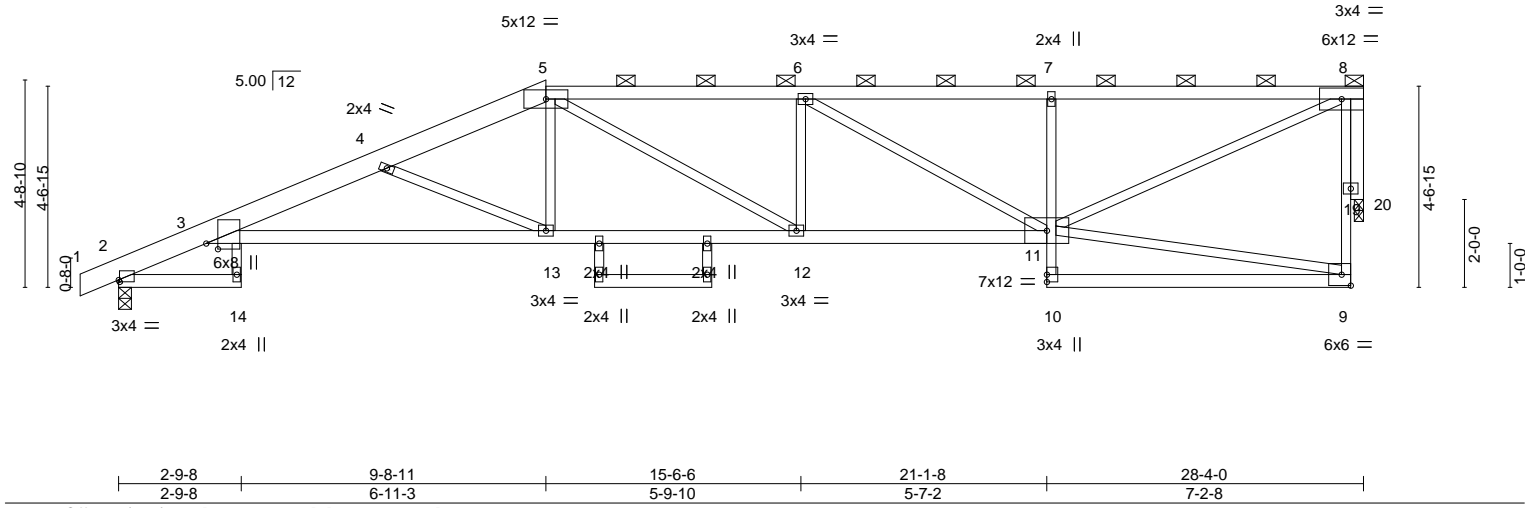
June 13, 2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	C7	Half Hip	1	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 15:03:20 2022 Page 13885181
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC44

07/03/2023

Scale = 1:52.4



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.89	Vert(LL) -0.29 3-13 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.59	Vert(CT) -0.60 3-13 >557 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.78	Horz(CT) 0.38 20 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.23 3-13 >999 240	Weight: 125 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SP 2400F 2.0E *Except* 5-8: 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-7-0 max.): 5-8.
BOT CHORD 2x4 SPF No.2 *Except* 3-11: 2x4 SPF 2100F 1.8E, 7-10: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-14.
WEBS 2x3 SPF No.2	
OTHERS 2x4 SPF No.2	

REACTIONS.	(size) 2=0-3-8, 20=0-2-8
	Max Horz 2=148(LC 5)
	Max Uplift 2=160(LC 4), 20=219(LC 4)
	Max Grav 2=1351(LC 1), 20=1238(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-625/21, 3-4=-3629/511, 4-5=-2735/395, 5-6=-2737/467, 6-7=-2096/377, 7-8=-2095/383
BOT CHORD	3-13=-580/3504, 12-13=-402/2483, 11-12=-492/2736, 7-11=-474/196
WEBS	4-13=-1135/290, 5-13=-27/608, 5-12=-104/458, 6-11=-739/103, 8-11=-406/2194, 8-20=-1251/223

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Bearing at joint(s) 20 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate at joint(s) 20.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 160 lb uplift at joint 2 and 219 lb uplift at joint 20.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 13, 2023

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jan 12 11:50:03 2022 Page 2

ID:2ncXplsXOfbjB6l7Q?gPMzrYWU-RfC?PsB70Hq3N5gPqnLw3uITXbOKWvODd734zJG+r

0-10-8 2-9-8 7-3-14 14-3-15 21-1-8 28-1-8
0-10-8 2-9-8 4-6-6 7-0-1 6-9-9 7-2-8

The diagram illustrates the structural layout of a bridge deck, including the main span, approach spans, and various structural members. Key components and dimensions are labeled as follows:

- Dimensions:**
 - Overall length: 28-4-0 (7-2-8)
 - Span lengths: 21-1-8 (6-9-9), 14-3-15 (7-0-1), 7-3-14 (4-6-6), 2-9-8 (2-9-8)
 - Vertical dimensions: 3-8-10, 3-6-15, 3-6-15, 2-0-0, 1-0-0
- Structural Members and Connections:**
 - Deck:** 5x12 =, 2x4 ||, 3x6 =, 3x4 =, 6x12 =, 3x4 =
 - Trusses:** 2x4 =, 4, 3, 14, 13, 11, 10, 21
 - Columns/Piers:** 15, 12, 10, 11, 12, 10, 11, 10
 - Other Members:** 8x8, 3x4 =, 2x4 ||, 3x4 =, 2x4 ||, 3x10 =, 2x4 ||, 2x4 ||, 2x4 ||, 10x12 =, 3x4 ||, 6x6 =

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF 2100F 1.8E *Except* 1-5: 2x6 SP 2400F 2.0E	TOP CHORD	Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-1-8 max.): 5-9.
BOT CHORD	2x4 SPF No.2 *Except* 3-12: 2x4 SPF 2100F 1.8E, 8-11: 2x3 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x3 SPF No.2 *Except* 3-15,9-12: 2x4 SPF No.2		
OTHERS	2x4 SPF No.2		
REACTIONS.	(size) 2=0-3-8, 21=0-2-8 Max Horz 2=121(LC 5) Max Uplift 2=-184(LC 4), 21=-224(LC 5) Max Grav 2=1350(LC 1), 21=1237(LC 1)		
FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.		
TOP CHORD	2-3=-626/58, 3-4=-4258/644, 4-5=-3264/509, 5-6=-4008/704, 6-8=-4007/704, 8-9=-3230/613		
BOT CHORD	3-14=-710/4178, 13-14=-522/3041, 12-13=-639/3265, 8-12=-761/244		
WEBS	5-14=0/484, 5-13=-224/1163, 6-13=-507/210, 8-13=-107/784, 9-12=-624/3227, 4-14=-1210/229, 9-21=-1274/233		

-
- The seal is circular with a blue border. The outer ring contains the text "STATE OF MISSOURI" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two blue stars. The inner circle contains the name "NATHANIEL FOX" in blue capital letters. Overlaid on the seal is a red signature that reads "Nathaniel Fox". Below the signature, the license number "PE-2022042259" is printed in blue capital letters.

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

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

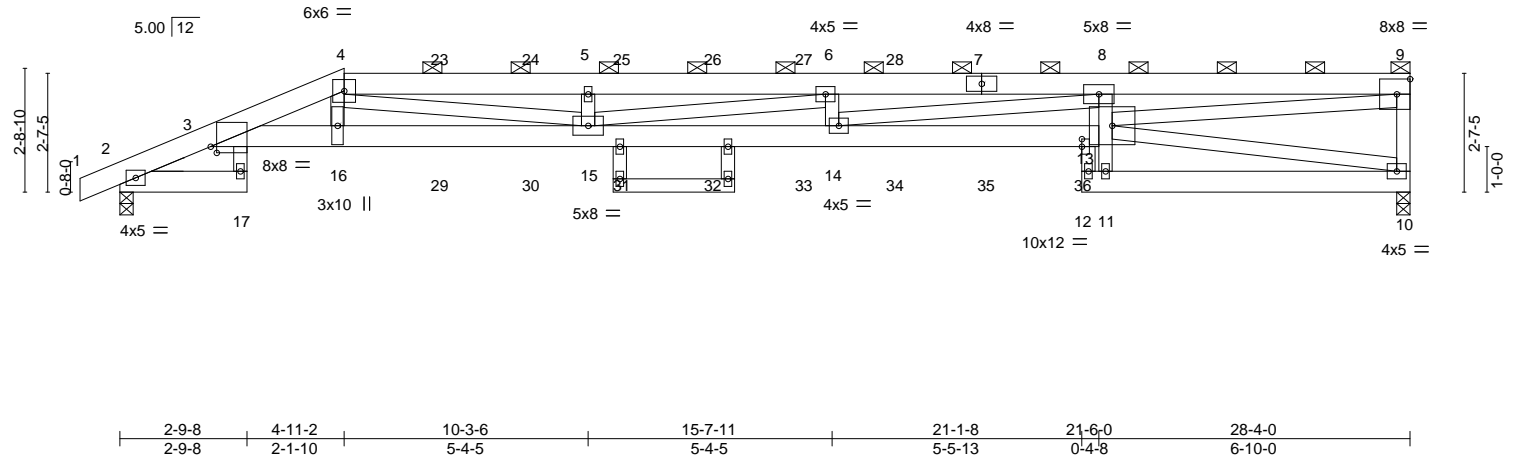
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	C9	Half Hip Girder	1	2	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 12 15:00:2022 Page 13885183
ID:2ncXplsxOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4zJC44

07/03/2023

Scale = 1:50.6



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.48 14-15 >701 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.87 14-15 >386 240				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.31 10 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.44 14-15 >769 240				
								Weight: 369 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP 2400F 2.0E	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-9.
BOT CHORD	2x6 SP 2400F 2.0E *Except*	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS	2x4 SPF No.2		6-0-0 oc bracing: 2-17.
			10-0-0 oc bracing: 11-13

REACTIONS.	
(size)	10=0-3-8, 2=0-3-8
Max Horz	2=98(LC 7)
Max Uplift	10=-398(LC 5), 2=-387(LC 4)
Max Grav	10=1751(LC 1), 2=1958(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-864/180, 3-4=-7592/1597, 4-5=-10130/2272, 5-6=-10130/2272, 6-8=-10794/2516, 8-9=-7288/1750, 9-10=-1583/414
BOT CHORD	3-16=-1591/7301, 15-16=-1578/7178, 14-15=-2552/10794, 13-14=-1993/8216, 8-13=-902/310, 10-11=-172/792
WEBS	3-17=-37/276, 4-16=-104/977, 4-15=-758/3115, 5-15=-393/228, 6-15=-748/263, 6-14=-359/220, 8-14=-569/2625, 10-13=-620/151, 9-13=-1757/7219

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



June 13, 2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	C9	Half Hip Girder	1	2	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 15:00 2022 Page 2
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4zJC44

RELEASE FOR CONSTRUCTION

AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

15885183

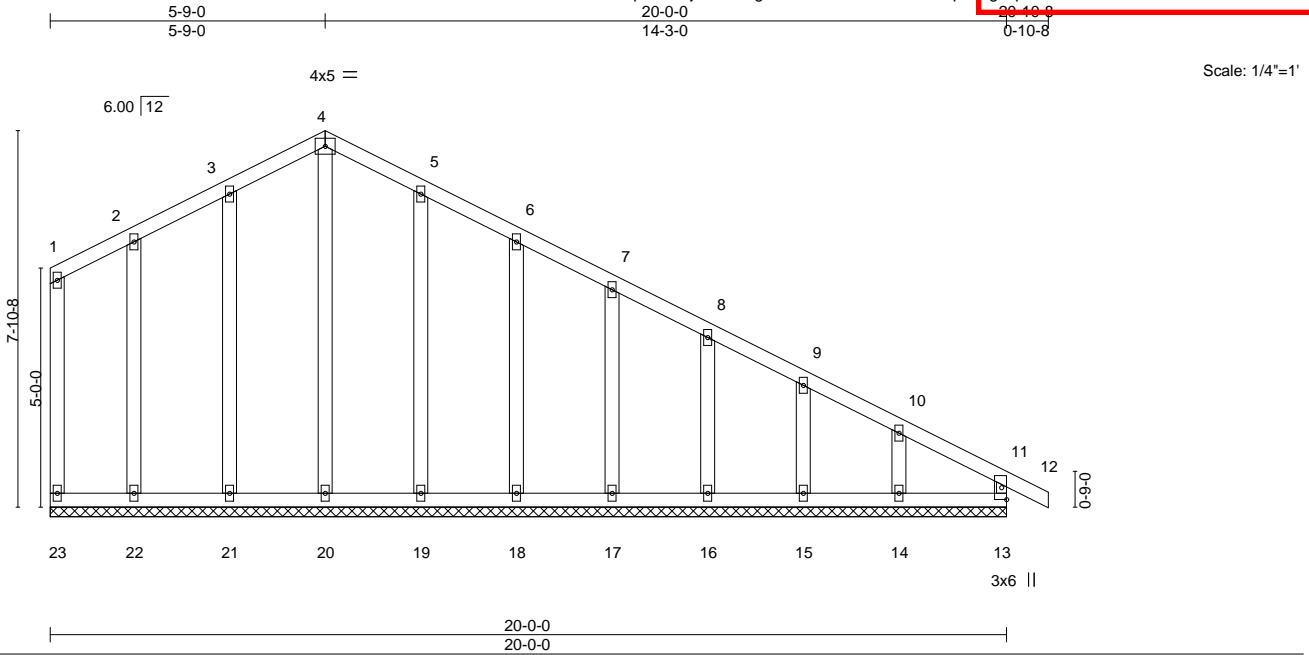
07/03/2023

- NOTES-**
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 398 lb uplift at joint 10 and 387 lb uplift at joint 2.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 81 lb down and 63 lb up at 4-11-2, 86 lb down and 63 lb up at 7-0-0, 86 lb down and 63 lb up at 9-0-0, 86 lb down and 77 lb up at 11-0-0, 86 lb down and 77 lb up at 13-0-0, 87 lb down and 78 lb up at 15-0-0, and 87 lb down and 78 lb up at 17-0-0, and 87 lb down and 78 lb up at 19-0-0 on top chord, and 263 lb down and 77 lb up at 4-11-2, 51 lb down at 7-0-0, 51 lb down at 9-0-0, 32 lb down at 11-0-0, 32 lb down at 13-0-0, 32 lb down at 15-0-0, 32 lb down at 17-0-0, and 32 lb down at 19-0-0, and 262 lb down and 101 lb up at 21-1-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
Vert: 1-4=-70, 4-9=-70, 2-17=-20, 3-13=-20, 11-12=-20, 10-11=-20
 - Concentrated Loads (lb)
Vert: 4=-39(B) 7=-48(B) 16=-263(B) 23=-39(B) 24=-39(B) 25=-48(B) 26=-48(B) 27=-48(B) 28=-48(B) 29=-46(B) 30=-46(B) 31=-23(B) 32=-23(B) 33=-22(B) 34=-22(B) 35=-22(B) 36=-262(B)

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	D1	Common Supported Gable	1	1	
Job Reference (optional)					

Wheeler Lumber,	Waverly, KS - 66871,	8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 15:08:2023 Page 2
ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWvODm7J4zJC44		15885184
20-0-0	14-3-0	0-10-8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	-0.00	12	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.00	12	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01	13	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 103 lb	FT = 10%

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

REACTIONS.	All bearings 20-0-0.
(lb) - Max Horz	23=-242(LC 6)
Max Uplift	All uplift 100 lb or less at joint(s) 23, 13, 21, 22, 19, 18, 17, 16, 15 except 14=-123(LC 9)
Max Grav	All reactions 250 lb or less at joint(s) 23, 13, 20, 21, 22, 19, 18, 17, 16, 15, 14

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
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- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 13, 21, 22, 19, 18, 17, 16, 15 except (jt=lb) 14=123.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

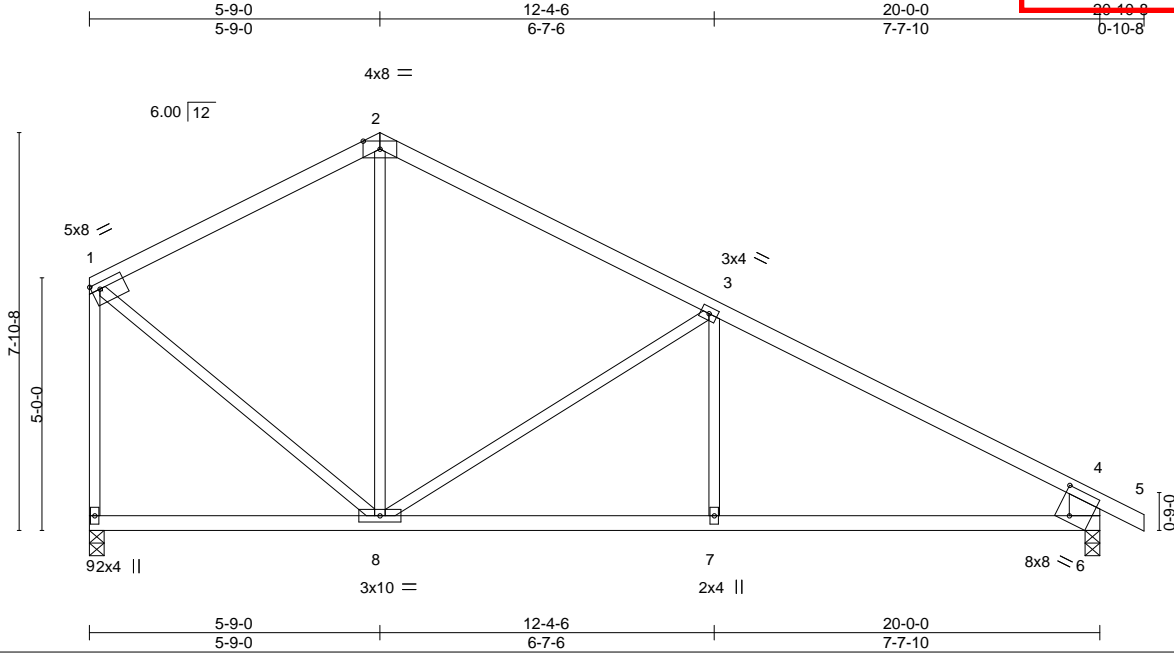


June 13,2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	D2	Common	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 12 15:00:00 2023 Page 2
ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm734zJcH

07/03/2023



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.07 7-8 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.14 7-8 >999 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.02 6 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03 7 >999 240				
								Weight: 76 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2 *Except* 4-6: 2x8 SP 2400F 2.0E		

REACTIONS.	
(size)	9=0-3-8, 6=0-3-8
Max Horz	9=-243(LC 4)
Max Uplift	9=-106(LC 9), 6=-151(LC 9)
Max Grav	9=879(LC 1), 6=967(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	1-2=-617/161, 2-3=-665/137, 3-4=-1258/182, 1-9=-833/137, 4-6=-877/197
BOT CHORD	7-8=-63/1010, 6-7=-63/1010
WEBS	3-8=-631/232, 3-7=0/273, 1-8=-67/632

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=106, 6=151.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 13,2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	D3	Common	2	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:11:13 2023 Page 2
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4zJcH

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/03/2023

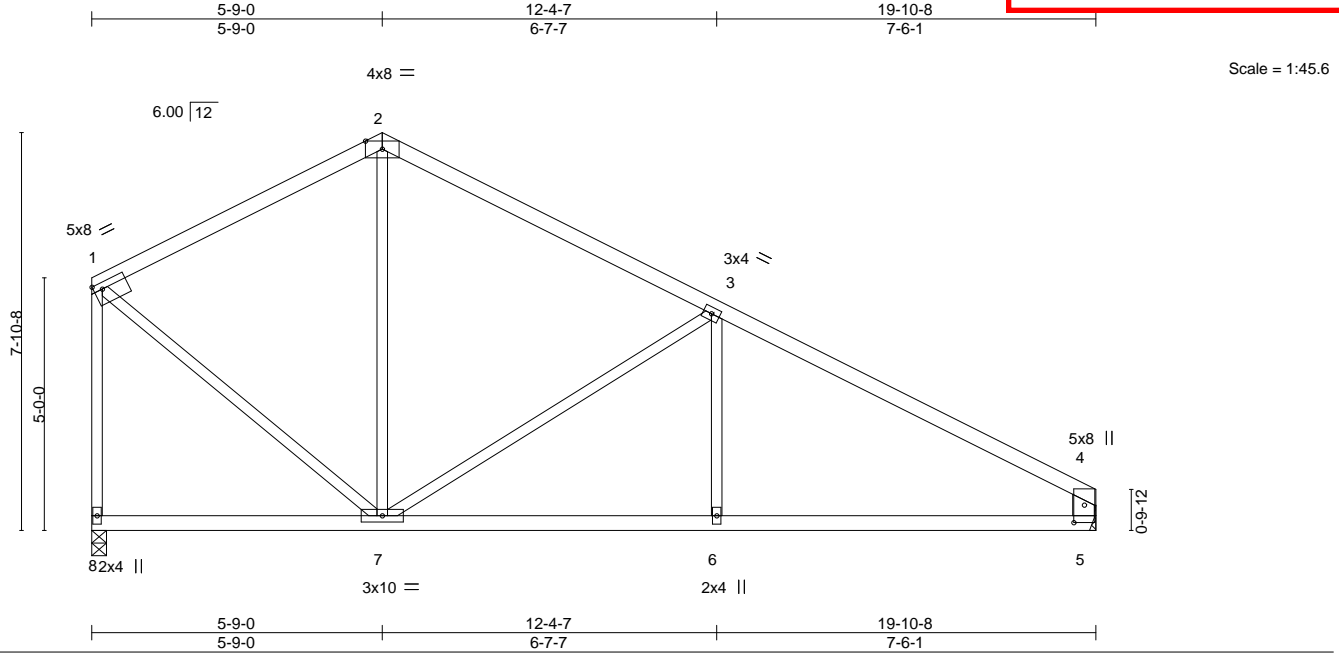


Plate Offsets (X,Y)-- [1:0-2-0,0-1-8], [4:0-4-3,0-2-8]									
LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.64	Vert(LL)	-0.12	6-7	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.22	6-7	>999	240	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.95	Horz(CT)	0.02	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06	6-7	>999	240	
									Weight: 74 lb
									FT = 10%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 4-5-7 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2 *Except* 4-5: 2x6 SP 2400F 2.0E		

REACTIONS. (size) 8=0-3-8, 5=Mechanical
Max Horz 8=-232(LC 4)
Max Uplift 8=-106(LC 9), 5=-123(LC 9)
Max Grav 8=879(LC 1), 5=879(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-619/162, 2-3=-668/137, 3-4=-1242/180, 1-8=-836/137, 4-5=-769/163
BOT CHORD 6-7=-84/1004, 5-6=-84/1004
WEBS 3-7=-624/230, 3-6=0/256, 1-7=-68/634

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=106, 5=123.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 13,2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	D4	Roof Special Girder	1	2	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 15:11:13 2022 Page 2
ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITkbCKWwODm7J4ZJC41
07/03/2023

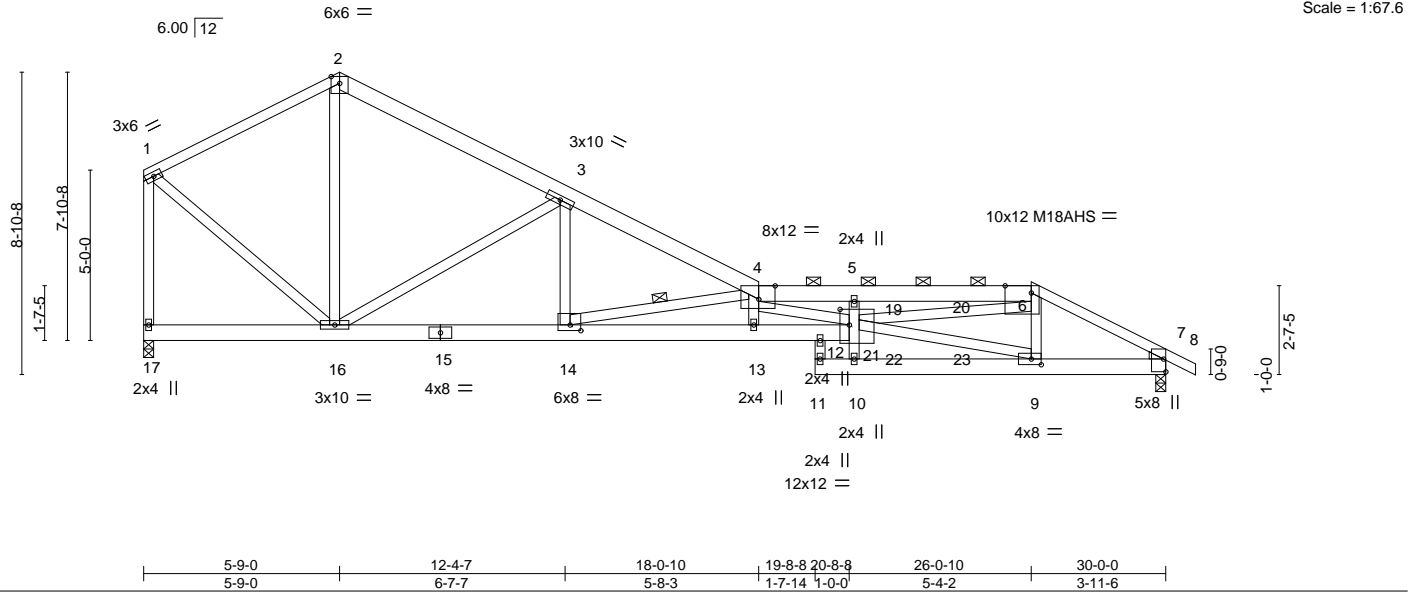


Plate Offsets (X,Y)--	[4:0-5-12,Edge], [6:0-9-4,Edge], [7:Edge,0-0-13], [9:0-3-8,0-2-0], [12:0-3-4,0-5-8], [14:0-3-12,0-2-0]
-----------------------	--------------------------------------------------------------------------------------------------------

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.83	Vert(LL)	-0.55	11	>649	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.67	Vert(CT)	-0.98	11	>363	M18AHS	142/136
BCLL 0.0 *	Rep Stress Incr NO	WB 0.86	Horz(CT)	0.16	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL)	0.44	11	>802	Weight: 372 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 2-4,4-6: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-3 oc purlins, except end verticals, and 2-0-0 oc purlins (3-3-1 max.): 4-6.
BOT CHORD 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2 *Except* 6-12: 2x4 SPF 2100F 1.8E	WEBS 1 Row at midpt 4-14

WEDGE
Right: 2x3 SPF No.2

REACTIONS. (size) 17=0-3-8, 7=0-3-8
Max Horz 17=-257(LC 4)
Max Uplift 17=-262(LC 9), 7=-494(LC 9)
Max Grav 17=1729(LC 1), 7=2458(LC 1)

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

TOP CHORD 1-2=-1319/284, 2-3=-1352/257, 3-4=-4193/728, 4-5=-13044/2468, 5-6=-12389/2363,
6-7=-4371/844, 1-17=-1664/288

BOT CHORD 14-16=-500/3717, 13-14=-2251/12943, 12-13=-2265/12986, 9-10=-148/850,
7-9=-660/3678

WEBS 10-12=0/276, 5-12=-402/214, 2-16=-117/767, 3-16=-3059/671, 3-14=-336/2336,
4-14=-9414/1786, 4-13=-341/116, 4-12=-613/496, 9-12=-526/2880, 6-12=-1649/8950,
1-16=-215/1432

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=262, 7=494.



Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	D4	Roof Special Girder	1	2	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 15:13 2022 Page 2
ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4zJC44
15885187

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

07/03/2023

- NOTES-**
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 127 lb down and 83 lb up at 21-11-4, and 127 lb down and 83 lb up at 23-11-4, and 127 lb down and 83 lb up at 26-1-4 on top chord, and 852 lb down and 193 lb up at 19-8-8, 49 lb down at 21-11-4, and 49 lb down at 23-11-4, and 262 lb down and 72 lb up at 25-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-2=-70, 2-4=-70, 4-6=-70, 6-8=-70, 12-17=-20, 7-11=-20
 - Concentrated Loads (lb)
 - Vert: 6=-77(F) 9=-262(F) 19=-77(F) 20=-77(F) 21=-852(F) 22=-38(F) 23=-38(F)

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	D5	Roof Special	1	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 15:13 2022 Page 2
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4zJC41
15885188
07/03/2023

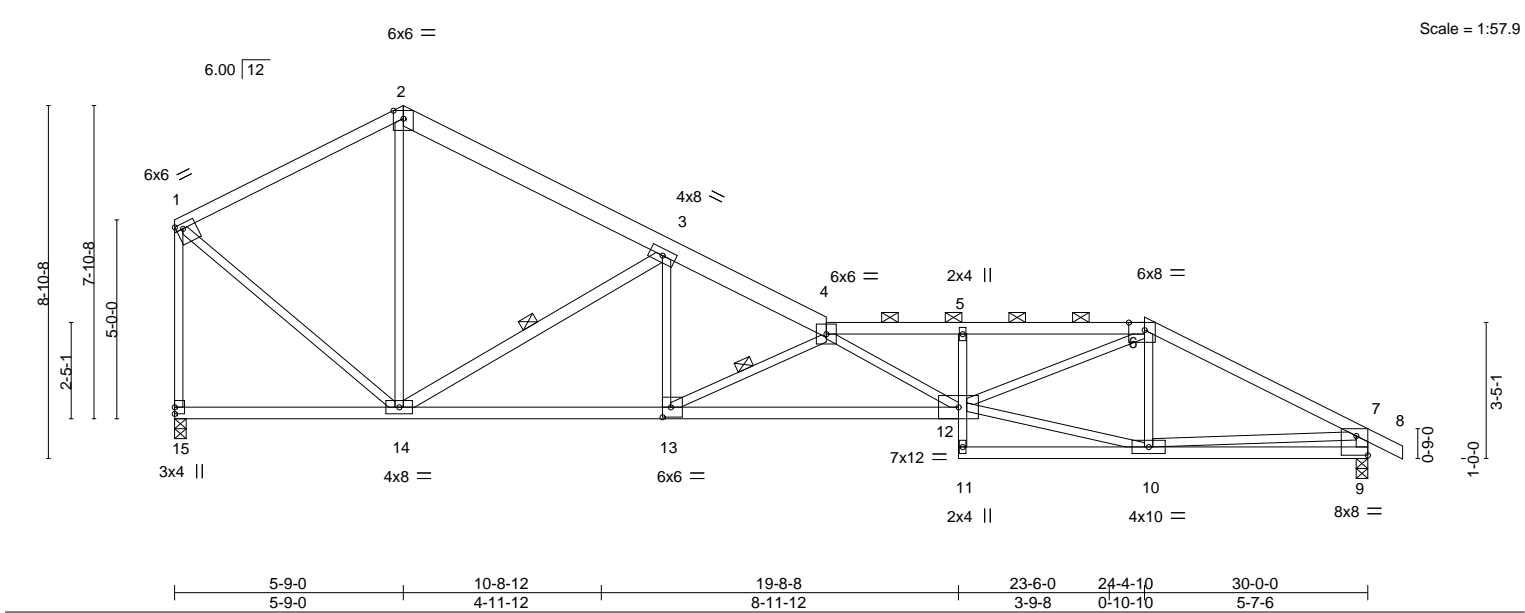


Plate Offsets (X,Y)--	[1:0-2-0,0-1-8], [6:0-4-12,Edge], [9:Edge,0-5-13], [13:0-2-8,0-3-0]
-----------------------	---------------------------------------------------------------------

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.93	Vert(LL) -0.31	12-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.60	Vert(CT) -0.61	12-13	>581	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.85	Horz(CT) 0.14	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.24	12-13	>999	240	Weight: 131 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 2-4: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-6-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-15 max.): 4-6.
BOT CHORD 2x4 SPF No.2 *Except* 12-15: 2x4 SPF 2100F 1.8E, 5-11: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 9-11-5 oc bracing.
WEBS 2x3 SPF No.2 *Except* 3-14,7-9: 2x4 SPF No.2	WEBS 1 Row at midpt 3-14, 4-13

REACTIONS. (size) 15=0-3-8, 9=0-3-8
Max Horz 15=-266(LC 4)
Max Uplift 15=-177(LC 9), 9=-247(LC 9)
Max Grav 15=1338(LC 1), 9=1411(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-990/219, 2-3=-1038/190, 3-4=-2695/419, 4-5=-4198/689, 5-6=-4150/691,
6-7=-2206/365, 1-15=-1290/208, 7-9=-1350/274
BOT CHORD 13-14=-220/2388, 12-13=-624/4529, 5-12=-378/138, 9-10=-158/532
WEBS 2-14=-51/463, 3-14=-1836/402, 3-13=-123/1301, 4-13=-2426/458, 4-12=-391/62,
10-12=-220/1797, 6-12=-357/2484, 6-10=-418/127, 1-14=-136/1080, 7-10=-88/1369

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=177, 9=247.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 13, 2023

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

07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	D6	Roof Special	2	1	

Wheeler Lumber,	Waverly, KS - 66871,	8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 12 15:13 2023 Page 2
5-9-0	14-8-10	ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3N5gPqnLw3uITXbCKWtODm742JC41
5-9-0	8-11-10	19-8-8
	4-11-14	22-8-10
		3-0-2
		7-3-6
		0-10-8

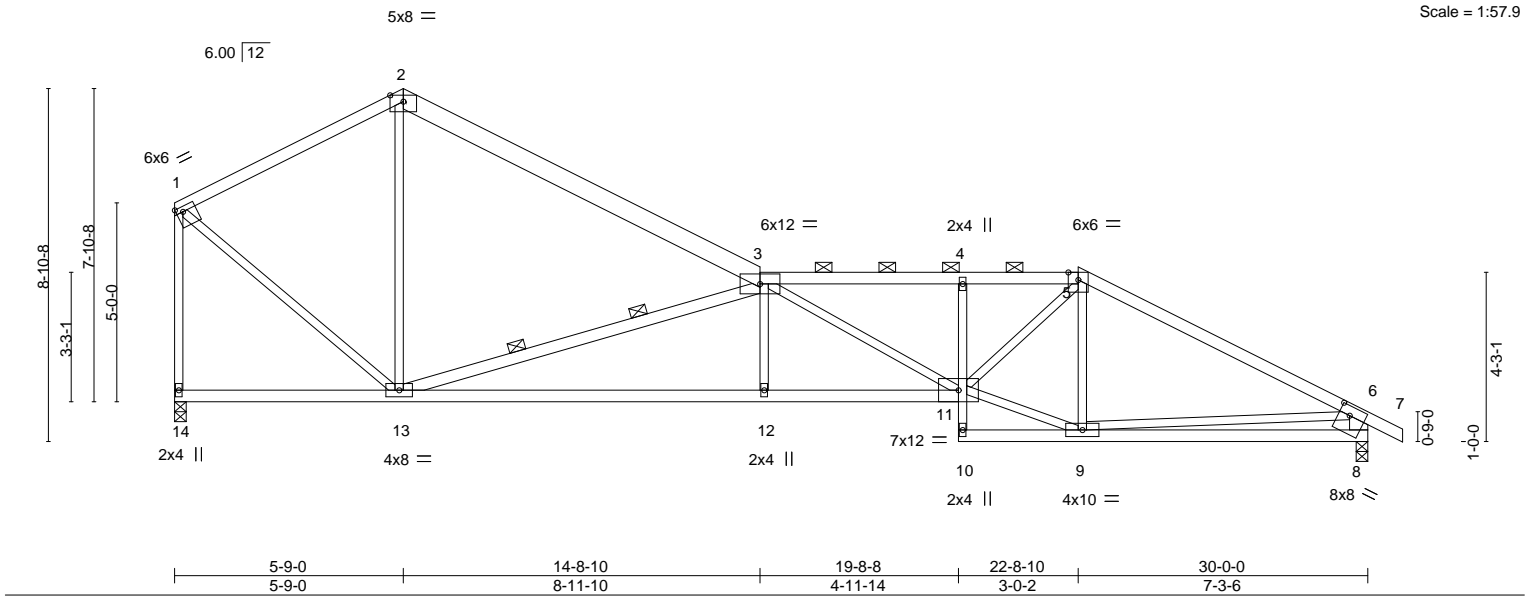


Plate Offsets (X,Y)--		[1:0-2-0,0-1-8], [8:0-3-4,0-2-12]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.90	Vert(LL) -0.23 11-12 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.50	Vert(CT) -0.45 12-13 >786 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.89	Horz(CT) 0.11 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.17 11-12 >999 240	Weight: 130 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 2-3: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-0-3 max.): 3-5.
BOT CHORD 2x4 SPF No.2 *Except* 11-14: 2x4 SPF 2100F 1.8E, 4-10: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 3-13: 2x4 SPF No.2, 6-8: 2x6 SPF No.2	WEBS 2 Rows at 1/3 pts 3-13

REACTIONS.	(size) 14=0-3-8, 8=0-3-8
	Max Horz 14=-267(LC 4)
	Max Uplift 14=-176(LC 9), 8=-248(LC 9)
	Max Grav 14=1334(LC 1), 8=1414(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 1-2=-1000/216, 2-3=-1084/164, 3-4=-2990/526, 4-5=-2969/522, 5-6=-2148/358, 1-14=-1299/201, 6-8=-1342/288	
BOT CHORD 12-13=-394/3391, 11-12=-391/3397, 4-11=-319/141, 8-9=-254/764	
WEBS 2-13=0/415, 3-13=-2682/541, 3-12=0/323, 3-11=-471/18, 9-11=-211/1828, 5-11=-218/1642, 5-9=-554/141, 1-13=-137/1102, 6-9=-42/1053	

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=176, 8=248.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 13, 2023

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 98 RR
B230098	D7	Roof Special	2	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:11:13 2022 Page 1
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3dITXbCKWvODm7J4ZdC41
19-8-8 21-0-10 24-4-7 30-0-0 30-0-0 30-0-0
6-7-14 1-4-2 3-3-13 5-7-9 0-10-8

07/03/2023

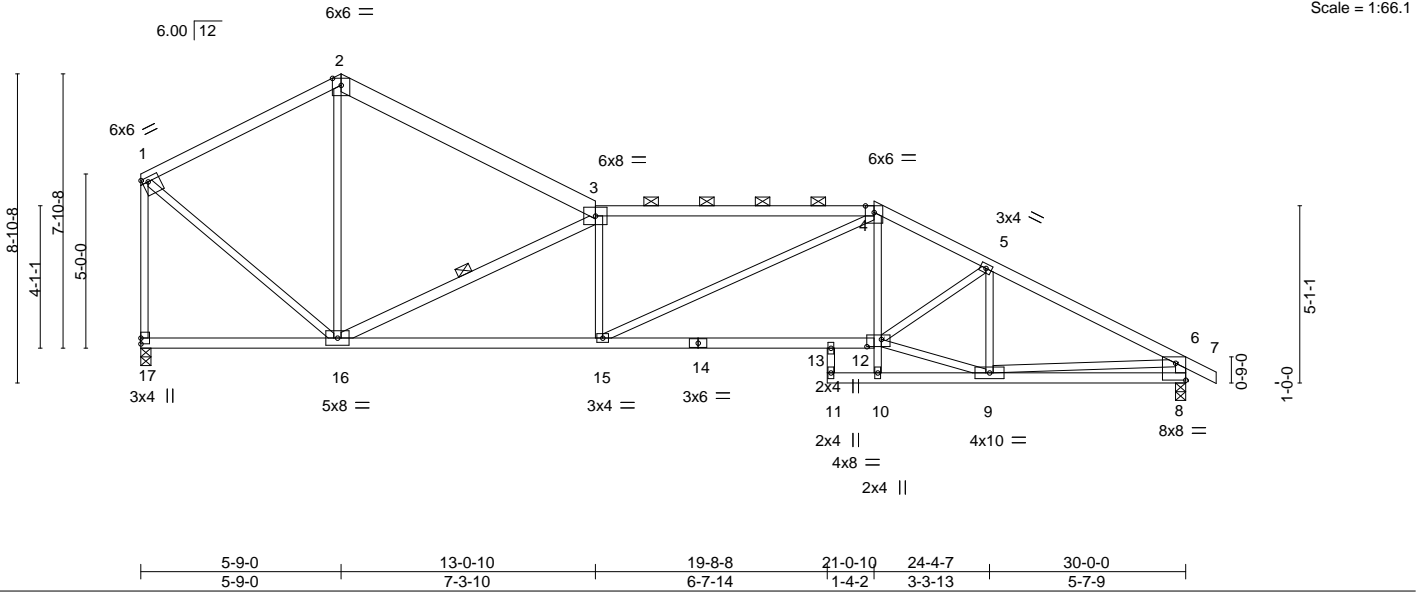


Plate Offsets (X,Y)-- [1:0-2-0,0-1-8], [8:Edge,0-5-13], [12:0-5-0,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.99	Vert(LL) -0.16	15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.75	Vert(CT) -0.34	13-15	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.69	Horz(CT) 0.10	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.12	15	>999	240		
							Weight: 131 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 2-3: 2x6 SPF No.2, 3-4: 2x4 SPF 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied or 3-4-10 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-4.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 3-16: 2x4 SPF No.2, 6-8: 2x4 SPF 2100F 1.8E	WEBS 1 Row at midpt 3-16

REACTIONS. (size) 17=0-3-8, 8=0-3-8
Max Horz 17=-266(LC 4)
Max Uplift 17=-177(LC 9), 8=-247(LC 9)
Max Grav 17=1338(LC 1), 8=1411(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-993/218, 2-3=-1053/181, 3-4=-2647/445, 4-5=-2503/438, 5-6=-2172/372,
1-17=-1294/206, 6-8=-1345/278
BOT CHORD 15-16=-260/2647, 13-15=-232/2214, 12-13=-232/2215, 8-9=-144/559
WEBS 2-16=-29/436, 3-16=-2041/429, 4-15=-28/479, 5-12=-53/449, 5-9=-645/134,
1-16=-137/1085, 4-12=-19/462, 6-9=-107/1299, 9-12=-260/1923

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - The Fabrication Tolerance at joint 6 = 6%
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=177, 8=247.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 13, 2023

07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	D8	Roof Special	2	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 15:13 2023 Page 2
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15885191

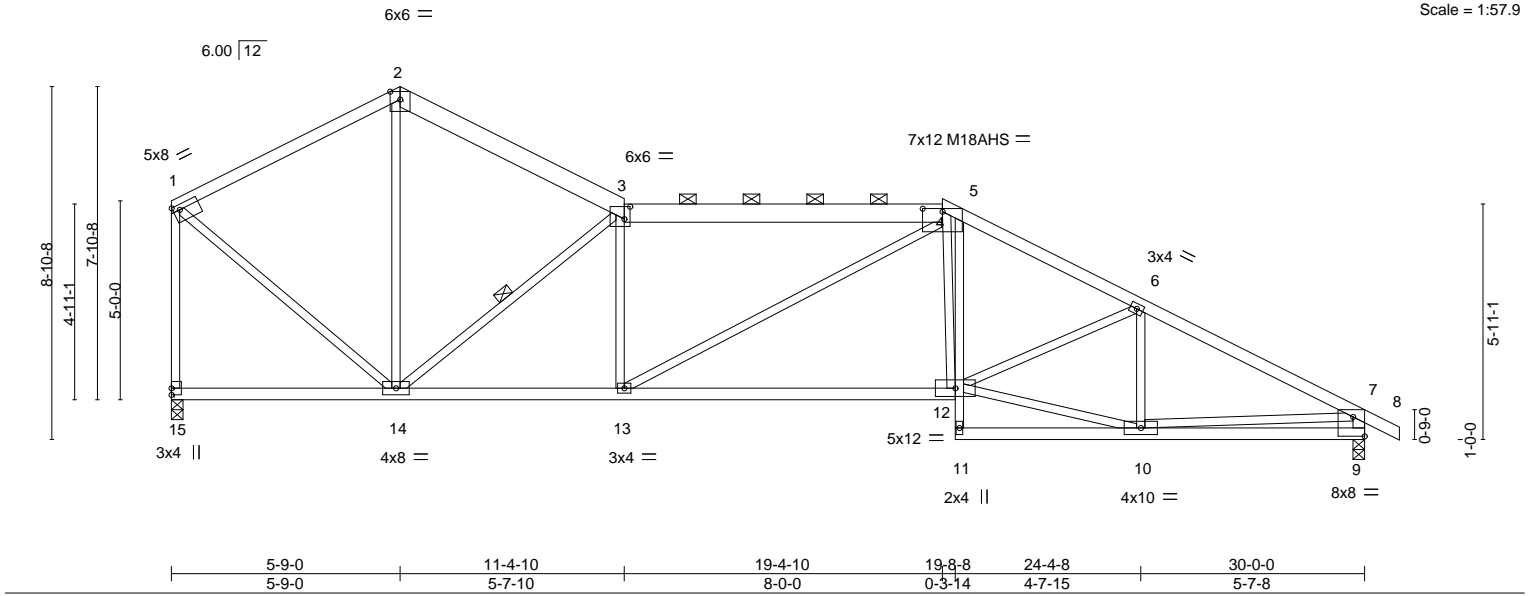


Plate Offsets (X,Y)--		[1:0-2-0,0-1-8], [3:0-1-12,0-3-12], [4:0-6-0,0-0-15], [9:Edge,0-5-13]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.94	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.72	Vert(LL) -0.19 12-13 >999 360
BCLL 0.0 *	Rep Stress Incr YES	WB 0.82	Vert(CT) -0.43 12-13 >821 240
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.08 9 n/a n/a
			Wind(LL) 0.10 12-13 >999 240
			PLATES GRIP
			MT20 197/144
			M18AHS 142/136
			Weight: 137 lb FT = 10%

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

REACTIONS. (size) 15=0-3-8, 9=0-3-8
Max Horz 15=-266(LC 4)
Max Uplift 15=-177(LC 9), 9=-247(LC 9)
Max Grav 15=1338(LC 1), 9=1411(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-986/220, 2-3=-1019/196, 3-4=-2097/371, 4-5=-2076/407, 5-6=-2287/409,
6-7=-2188/372, 1-15=-1286/210, 7-9=-1346/274
BOT CHORD 13-14=-147/2094, 12-13=-179/1957, 9-10=-132/508
WEBS 2-14=-66/495, 3-14=-1628/344, 3-13=0/256, 4-12=-11/380, 10-12=-222/1888,
6-10=-447/134, 1-14=-138/1073, 7-10=-121/1371

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=177, 9=247.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 13, 2023

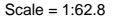
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 12 1:51:19 2023 Page 2
ID:2ncXplsOfbjB6l7Q?gPMzYwU-RfC?PsB70Hq3NsgPqnLw3uITxbQKWODd734JzG+r



LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.94	Vert(LL) -0.20 15-17 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.88	Vert(CT) -0.39 15-17 >926 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.68	Horz(CT) 0.10 9 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.09 15 >999 240	Weight: 135 lb	FT = 10%

BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 3-3-3 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-8 max.): 3-4.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 3-18

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

TOP CHORD
1-2=1043/220, 2-3=1036/213, 3-4=1910/380, 4-5=2186/382, 5-6=2822/458,
6-7=2231/357, 1-19=1319/211, 7-9=1400/260

BOT CHORD
17-18=61/1751, 15-17=60/1756, 14-15=281/2492, 13-14=281/2492, 9-10=59/326

WEBS
2-18=108/664, 3-18=1481/308, 3-17=0/307, 10-13=268/1973, 6-13=16/564,
6-10=625/152, 1-18=137/1135, 7-10=207/1634, 5-13=24/472, 5-15=704/192,
4-15=0/569

A circular blue seal for the State of Missouri Professional Engineer. The outer ring contains the text "STATE OF MISSOURI" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. The center of the seal contains the name "NATHANIEL FOX" and the license number "PE-2022042259". A red signature, "Nathaniel Fox", is written across the seal.

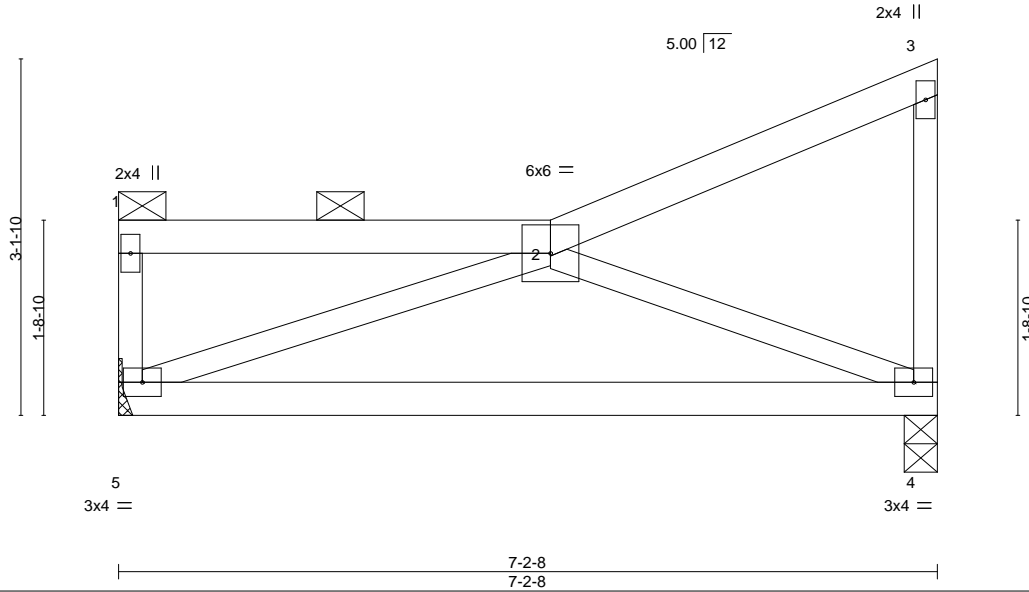
June 13, 2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	E1	ROOF SPECIAL	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 15:28:20 2022 Page 2
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC41

07/03/2023

3-9-10 3-9-10 7-2-8 3-4-14



Scale = 1:20.3

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.26	Vert(LL)	-0.14	4-5	>583	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.56	Vert(CT)	-0.29	4-5	>292		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.14	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.00	5	****	Weight: 26 lb	FT = 10%
	Code IRC2018/TPI2014							

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 7-2-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 1-2.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	

REACTIONS. (size) 5=Mechanical, 4=0-3-8
Max Horz 5=114(LC 5)
Max Uplift 5=-55(LC 8), 4=-62(LC 8)
Max Grav 5=315(LC 1), 4=315(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 4-5=-104/301
WEBS 2-5=-322/122, 2-4=-327/144

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



June 13, 2023

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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07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	E2	Monopitch	2	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 15:22:2022 Page 2
ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWvODm7J4ZdC41

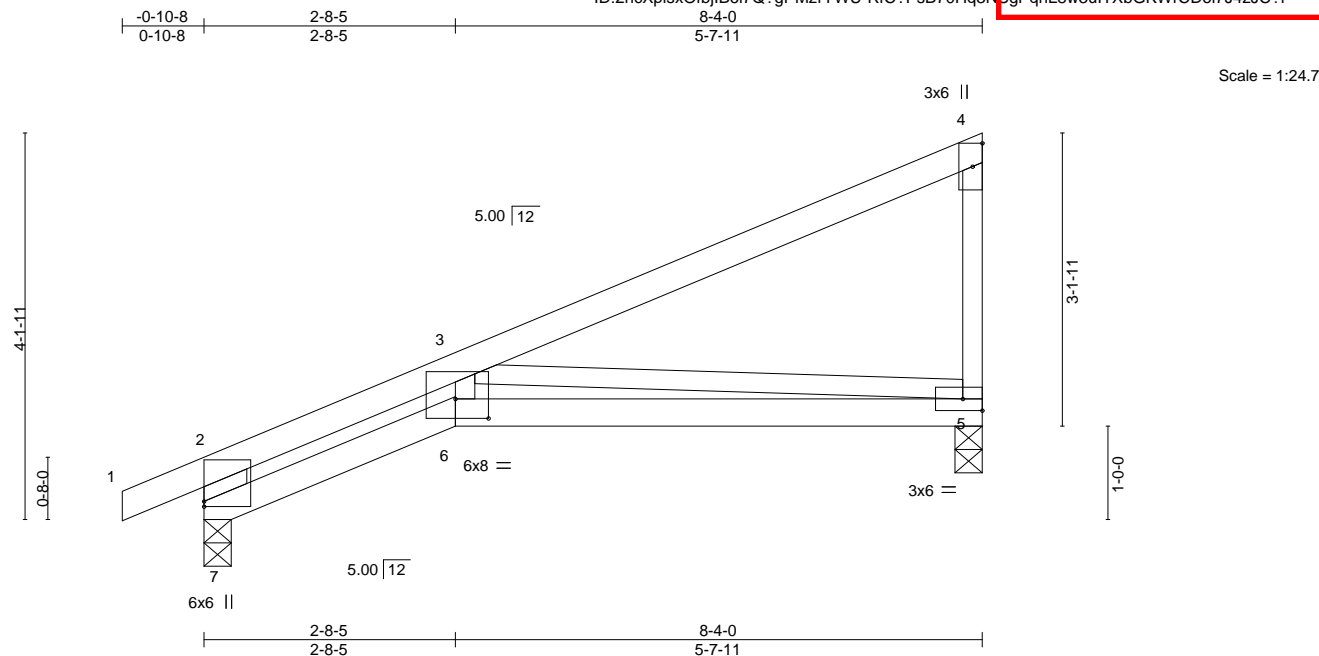


Plate Offsets (X,Y)-- [6:0-4-4,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.61	Vert(LL)	-0.11	5-6	>883	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.60	Vert(CT)	-0.21	5-6	>467	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.64	Horz(CT)	0.09	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.10	5-6	>951	240	Weight: 29 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-5-7 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-7: 2x6 SP 2400F 2.0E	

REACTIONS. (size) 7=0-3-8, 5=0-3-8
Max Horz 7=157(LC 5)
Max Uplift 7=-74(LC 8), 5=-85(LC 8)
Max Grav 7=443(LC 1), 5=355(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-697/170, 2-3=-1114/258
BOT CHORD 6-7=-302/992, 5-6=-282/881
WEBS 3-6=-26/364, 3-5=-841/301

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



June 13, 2023

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jan 12 11:51:23 2022 Page 2

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0-10-8 2-8-5 5-6-0 7-3-14 8-4-0
0-10-8 2-8-5 2-9-11 1-9-14 1-0-2

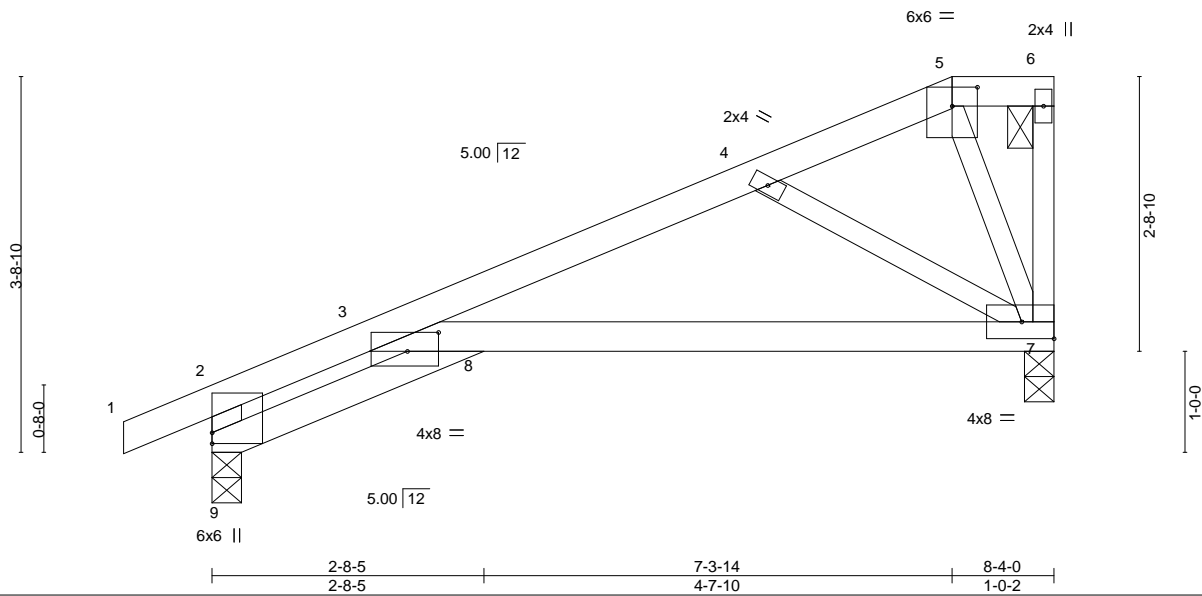


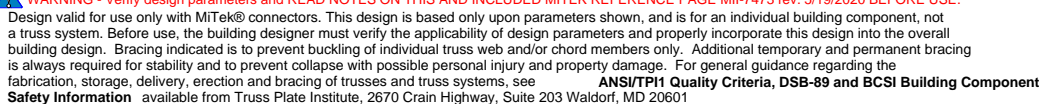
Plate Offsets (X,Y)-- [5:0-3-0,0-2-4], [8:0-3-11,0-2-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.11	7-8	>899	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.26	7-8	>379	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.09	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.11	7-8	>883	240	Weight: 29 lb	FT = 10%

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

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



June 13, 2023



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	E4	Half Hip Girder	1	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 12 15:22 2023 Page 15885196
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC44

07/03/2023

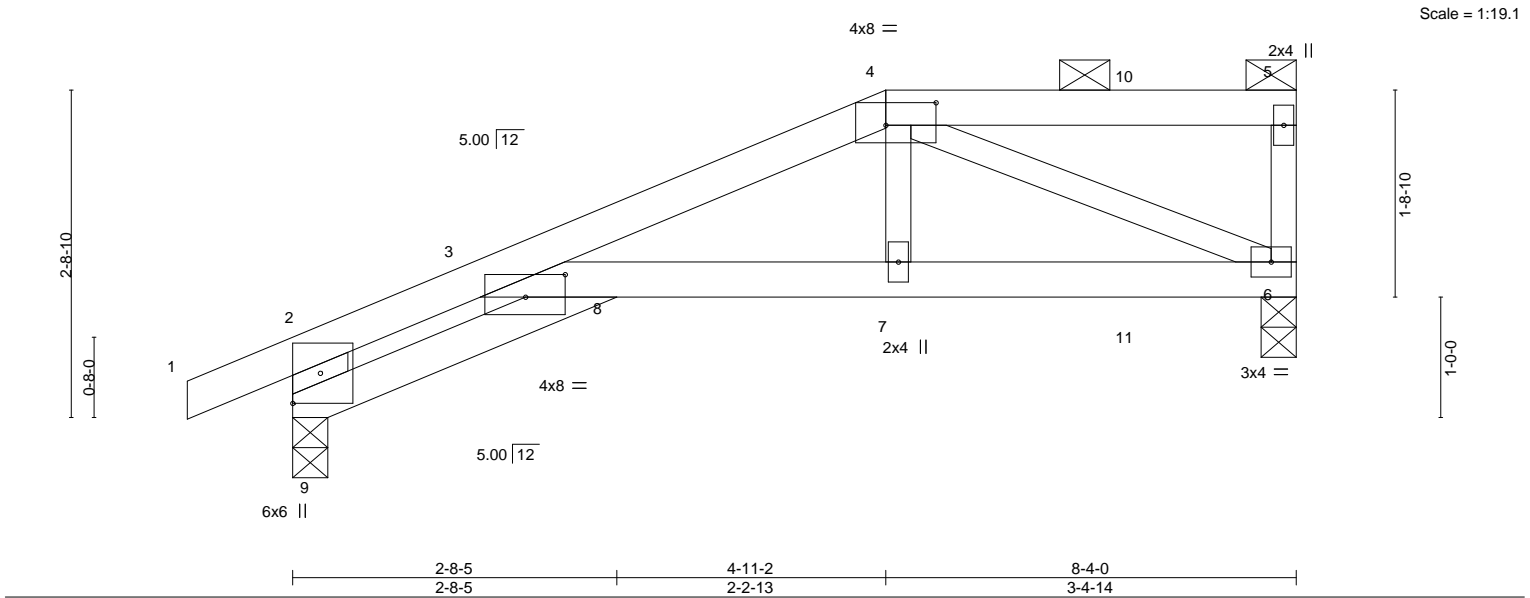


Plate Offsets (X,Y)-- [4:0-5-0,0-2-4], [8:0-3-15,0-2-4]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.55	Vert(LL)	-0.07	7-8	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.13	7-8	>721		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.35	Horz(CT)	0.07	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07	7-8	>999	Weight: 27 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-11-13 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-9: 2x6 SPF No.2	

REACTIONS. (size) 9=0-3-8, 6=0-3-8
Max Horz 9=97(LC 22)
Max Uplift 9=128(LC 8), 6=156(LC 5)
Max Grav 9=569(LC 1), 6=587(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-9=-725/211, 2-3=-790/221, 3-4=-1081/274
BOT CHORD 8-9=-224/622, 3-8=-92/395, 7-8=-273/984, 6-7=-277/1018
WEBS 4-7=-62/471, 4-6=-1073/286

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Provide adequate drainage to prevent water ponding.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 5) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=128, 6=156.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 82 lb down and 78 lb up at 4-11-2, and 87 lb down and 78 lb up at 7-0-0 on top chord, and 239 lb down and 85 lb up at 4-11-2, and 32 lb down at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 4-5=-70, 8-9=-20, 6-8=-20



June 13, 2023

Continued on page 2

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	E4	Half Hip Girder	1	1	
Job Reference (optional)					

Wheeler Lumber,
Waverly, KS - 66871,

8.430 s Jan 6 2022
MiTek Industries, Inc.
Mon Jun 7 2 15:21 2022
Page 2
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LOAD CASE(S) Standard
 Concentrated Loads (lb)
 Vert: 7=-239(B) 4=-48(B) 10=-48(B) 11=-22(B)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

07/03/2023



07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	G1	Hip Girder	1	1	
Wheeler Lumber, Waverly, KS - 66871,					
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 15:22 2022 Page 1					
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3dITXbCKWwODonJ4zJC44					
Job Reference (optional)					
-0-10-8 2-2-5 7-6-0 12-9-11 15-0-0 0-10-8					
0-10-8 2-2-5 5-3-11 5-3-11 2-2-5 0-10-8					

Scale = 1:27.7

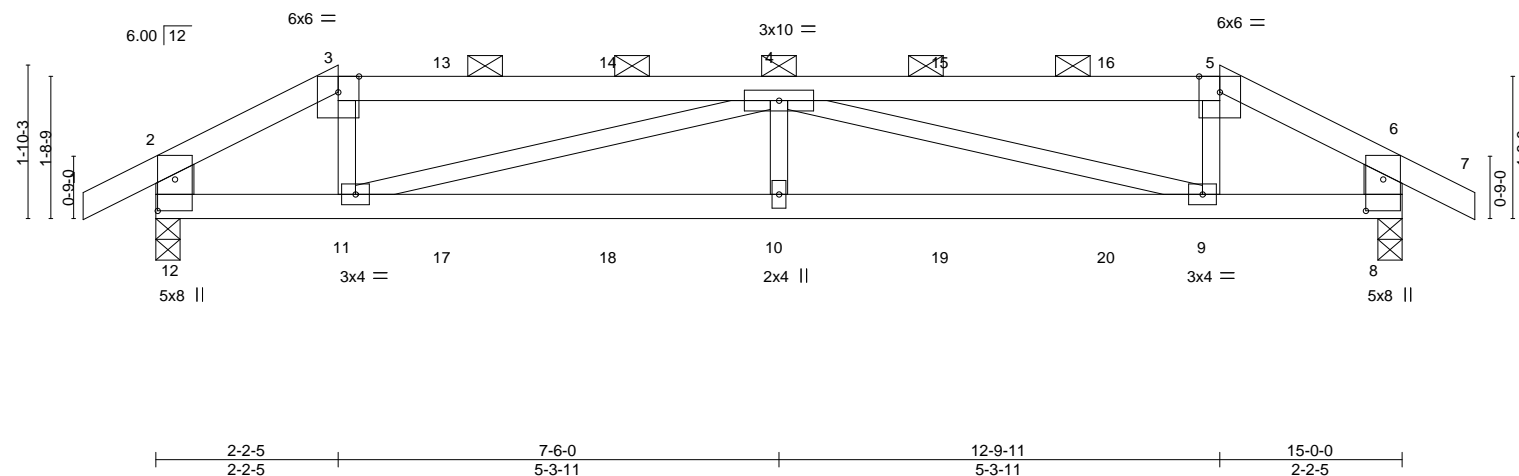


Plate Offsets (X,Y)--		[8:0-4-9,0-2-8], [12:0-4-9,0-2-8]		[12:0-4-9,0-2-8]		[15:0-0-2-2-5]	
LOADING (psf)		SPACING-		CSI.		DEFL.	
TCLL 25.0		2-0-0		TC 0.68		in (loc) l/defl L/d	
TCDL 10.0		Plate Grip DOL 1.15		BC 0.66		Vert(LL) -0.11 10 >999 360	
BCLL 0.0 *		Lumber DOL 1.15		WB 0.85		Vert(CT) -0.20 10 >870 240	
BCDL 10.0		Rep Stress Incr NO		Matrix-S		Horz(CT) 0.04 8 n/a n/a	
		Code IRC2018/TPI2014				Wind(LL) 0.10 10 >999 240	
						PLATES	
						MT20	
						GRIP	
						197/144	
						Weight: 50 lb	
						FT = 10%	

LUMBER-		BRACING-	
TOP CHORD 2x4 SPF No.2		TOP CHORD	
BOT CHORD 2x4 SPF No.2		Structural wood sheathing directly applied or 4-9-2 oc purlins, except end verticals, and 2-0-0 oc purlins (5-9-11 max.): 3-5.	
WEBS 2x3 SPF No.2 *Except*		BOT CHORD	
2-12,6-8: 2x6 SPF No.2		Rigid ceiling directly applied or 8-10-6 oc bracing.	

REACTIONS.	
(size) 12=0-3-8, 8=0-3-8	
Max Horz 12=40(LC 28)	
Max Uplift 12=-141(LC 8), 8=-141(LC 9)	
Max Grav 12=779(LC 1), 8=779(LC 1)	

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 2-3=-979/209, 3-4=-829/189, 4-5=-829/189, 5-6=-979/209, 2-12=-664/127, 6-8=-664/127	
BOT CHORD 11-12=-175/806, 10-11=-441/1955, 9-10=-441/1955, 8-9=-158/806	
WEBS 3-11=0/318, 4-11=-1172/294, 4-10=0/256, 4-9=-1172/293, 5-9=0/318	

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=141, 8=141.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 68 lb down and 52 lb up at 2-2-5, 67 lb down and 47 lb up at 3-6-0, 67 lb down and 47 lb up at 5-6-0, 67 lb down and 47 lb up at 7-6-0, 67 lb down and 47 lb up at 9-6-0, and 67 lb down and 47 lb up at 11-6-0, and 68 lb down and 52 lb up at 12-9-11 on top chord, and 17 lb down at 2-2-5, 16 lb down at 3-6-0, 16 lb down at 5-6-0, 16 lb down at 7-6-0, 16 lb down at 9-6-0, and 16 lb down at 11-6-0, and 17 lb down at 12-9-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S)	Standard
June 13,2023	



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.
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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	G1	Hip Girder	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 15:28 2022 Page 2
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODd7J4zJdC44

RELEASE FOR CONSTRUCTION
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LEE'S SUMMIT, MISSOURI

07/03/2023

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-6=-70, 6-7=-70, 8-12=-20
Concentrated Loads (lb)
Vert: 3=-0(F) 5=-0(F) 11=-3(F) 10=-8(F) 9=-3(F) 4=-9(F) 13=-9(F) 14=-9(F) 15=-9(F) 16=-9(F) 17=-8(F) 18=-8(F) 19=-8(F) 20=-8(F)

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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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 98 RR
B230098	G2	Hip	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:22:2022 Page 1
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODonJ4zJC44
15-0-0 15-0-0 15-10-8 15-10-8

Scale = 1:27.7

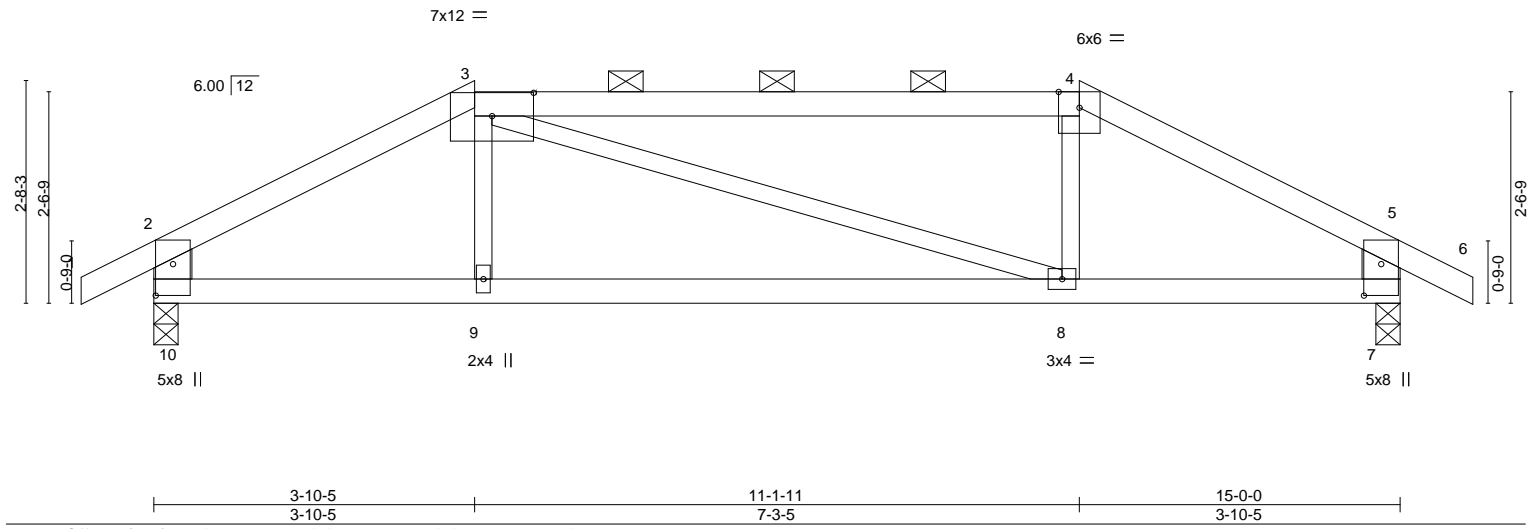


Plate Offsets (X,Y)--		[3:0-6-0,0-3-6], [7:0-4-9,0-2-8], [10:0-4-9,0-2-8]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.61	in (loc) l/defl L/d
TCDL 10.0	Plate Grip DOL 1.15	BC 0.56	Vert(LL) -0.10 8-9 >999 360
BCLL 0.0 *	Lumber DOL 1.15	WB 0.10	Vert(CT) -0.22 8-9 >781 240
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.02 7 n/a n/a
	Code IRC2018/TPI2014		Wind(LL) 0.07 8-9 >999 240
		PLATES	
		GRIP	
		MT20 197/144	
		Weight: 48 lb FT = 10%	

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

REACTIONS. (size) 10=0-3-8, 7=0-3-8
Max Horz 10=51(LC 7)
Max Uplift 10=-73(LC 8), 7=-73(LC 9)
Max Grav 10=732(LC 1), 7=732(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-978/114, 3-4=-811/116, 4-5=-979/114, 2-10=-653/89, 5-7=-654/89
BOT CHORD 9-10=-94/807, 8-9=-90/810, 7-8=-62/808

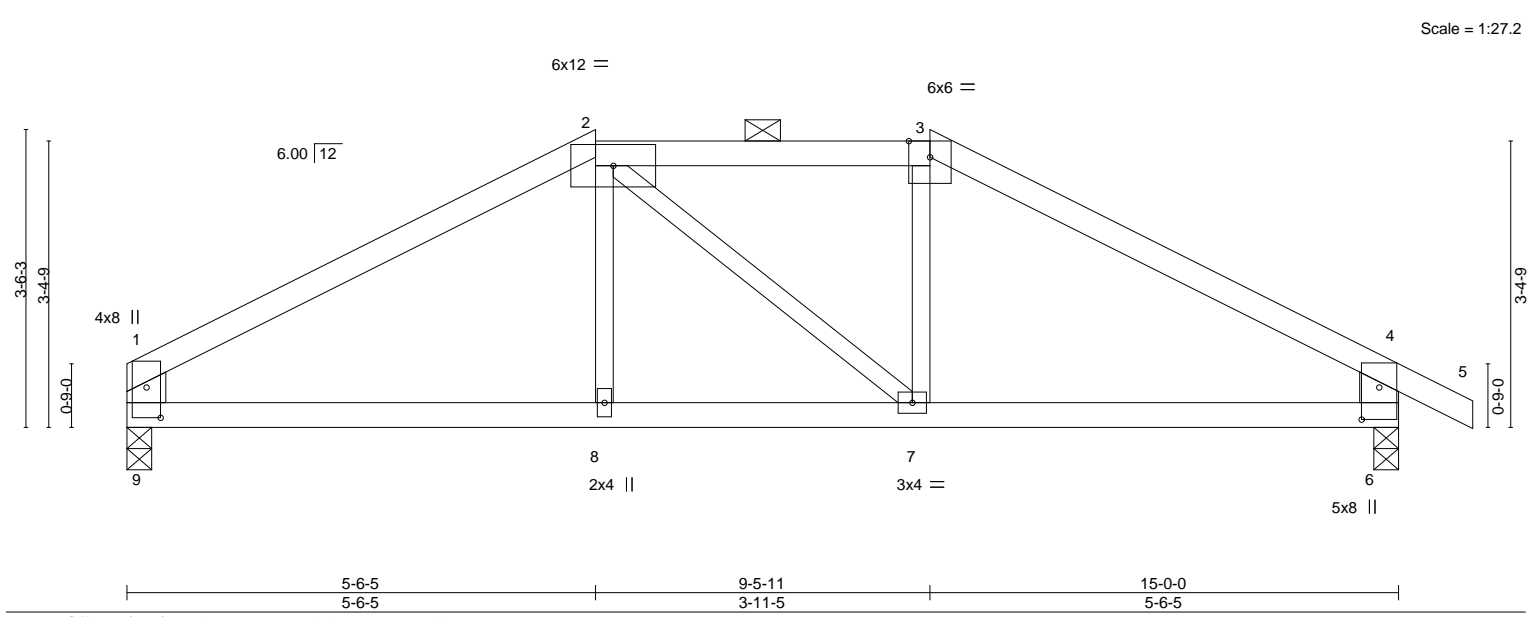
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed;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



June 13,2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	G3	Hip	1	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:28 2023 Page 13885199
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3dITXbCKWwODonJ4zJC44 15-10-8 07/03/2023



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.06 7-8 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.11 7-8 >999 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.02 6 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04 7-8 >999 240				
								Weight: 47 lb		FT = 10%	

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

REACTIONS.	
(size)	9=0-3-8, 6=0-3-8
Max Horz	9=-65(LC 4)
Max Uplift	9=-65(LC 8), 6=-91(LC 9)
Max Grav	9=651(LC 1), 6=735(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	1-2=-881/73, 2-3=-709/103, 3-4=-892/74, 1-9=-563/102, 4-6=-662/131
BOT CHORD	8-9=-38/705, 7-8=-36/707, 6-7=-6/707

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

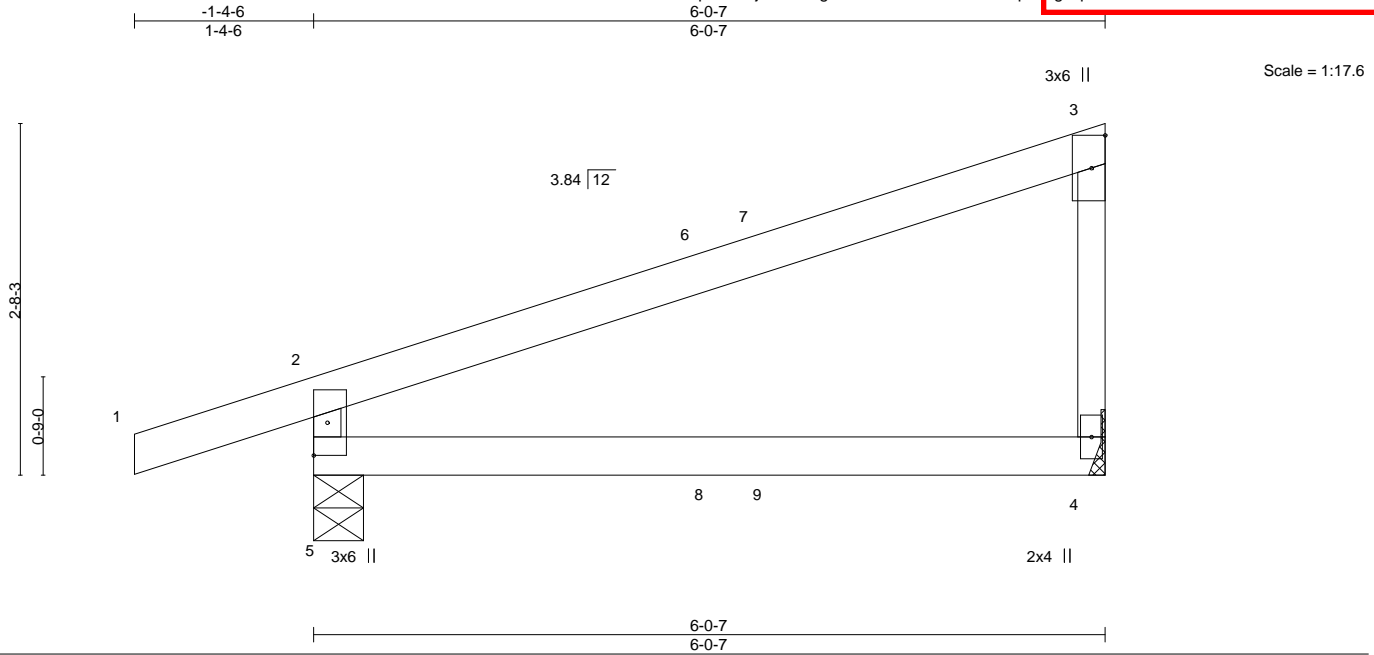


June 13,2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J1	Diagonal Hip Girder	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 15:33:2022 Page 2
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4zJC44

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07/03/2023



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.51	Vert(LL) -0.05	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.31	Vert(CT) -0.10	4-5	>713	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Horz(CT) -0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.01	4-5	>999	240	Weight: 18 lb	FT = 10%

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

REACTIONS. (size) 5=0-4-9, 4=Mechanical
Max Horz 5=111(LC 5)
Max Uplift 5=110(LC 4), 4=-54(LC 8)
Max Grav 5=379(LC 1), 4=250(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-332/152

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=110.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 78 lb down and 46 lb up at 3-0-14, and 67 lb down and 43 lb up at 3-6-3 on top chord, and 6 lb down at 3-0-14, and 6 lb down at 3-6-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-5=-20

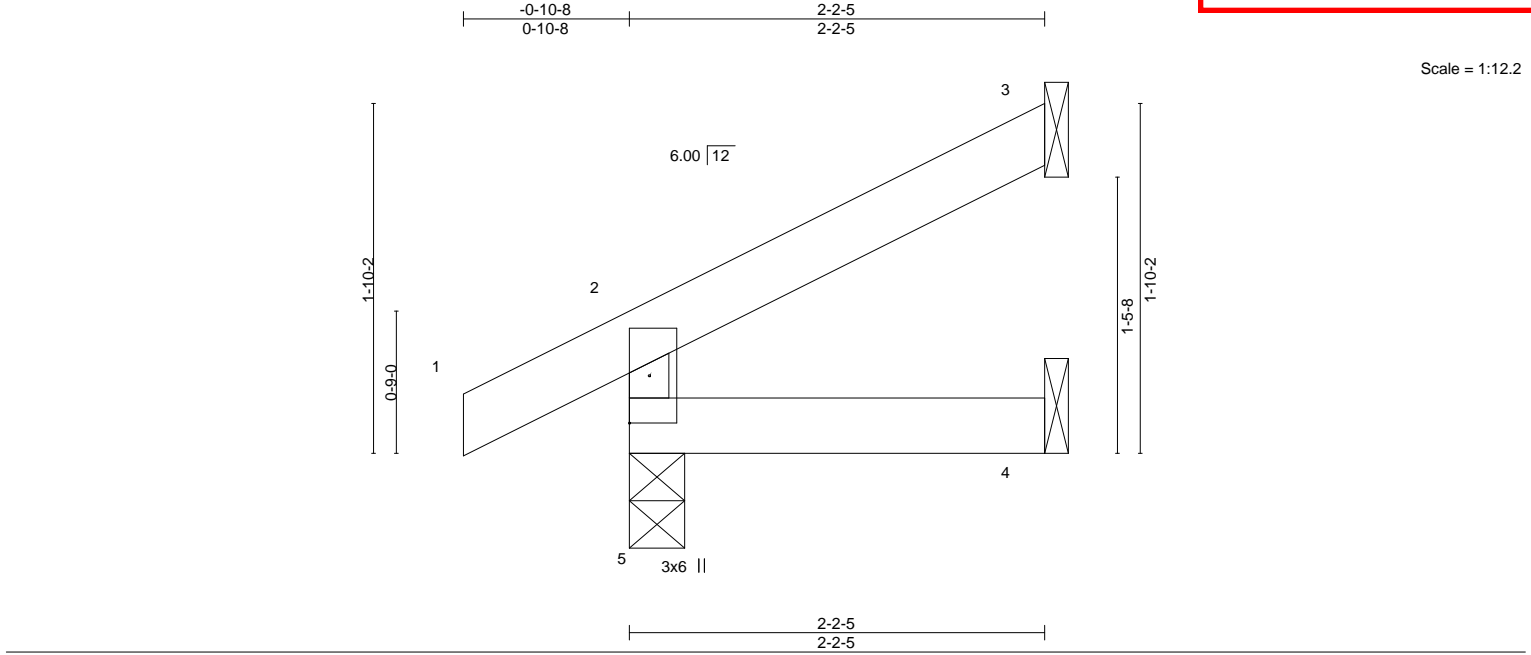
Concentrated Loads (lb)
Vert: 8=-1(F) 9=-0(B)



June 13, 2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J2	Jack-Open	1	1	
Wheeler Lumber, Waverly, KS - 66871,					Job Reference (optional)

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:42:2023 Page 1
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC41



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.07	Vert(LL)	-0.00	5	>999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT)	-0.00	4-5	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-R	Wind(LL)	0.00	5	>999		
	Code IRC2018/TPI2014						Weight: 7 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-5 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=51(LC 8)
Max Uplift 5=-23(LC 8), 3=-37(LC 8)
Max Grav 5=176(LC 1), 3=55(LC 1), 4=38(LC 3)

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

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

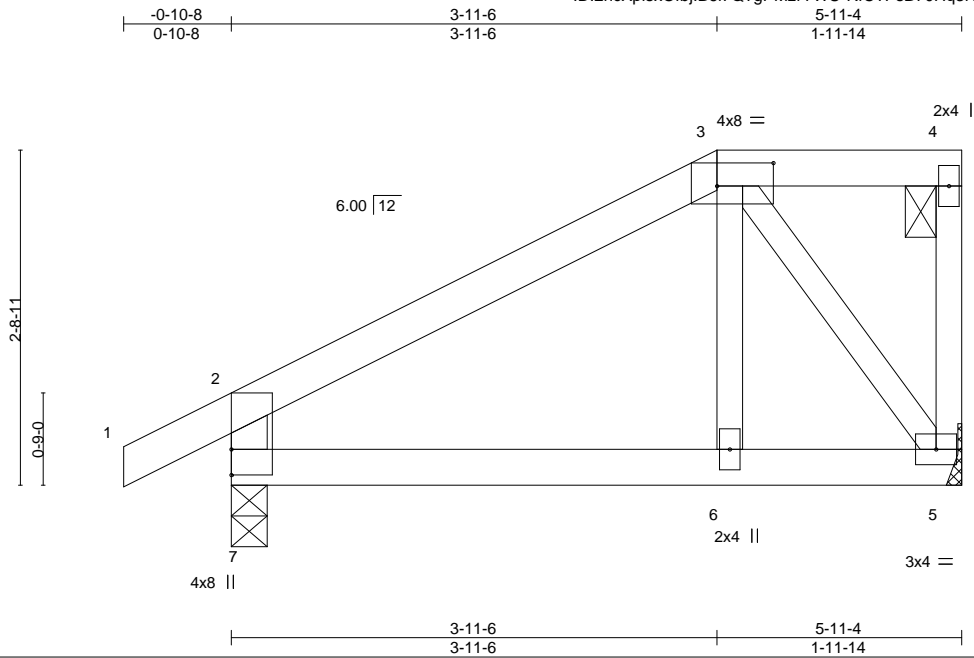


June 13, 2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J3	Jack-Closed Girder	1	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 15:58 2022 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZdC4

07/03/2023



Scale = 1:18.7

Plate Offsets (X,Y)-- [3:0-5-8,0-2-4]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	-0.01 6-7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.02 6-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.13	Horz(CT)	0.00 5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.01 6	>999	240	Weight: 21 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-7: 2x4 SPF No.2	

REACTIONS. (size) 7=0-3-8, 5=Mechanical
Max Horz 7=109(LC 24)
Max Uplift 7=-93(LC 8), 5=-123(LC 5)
Max Grav 7=442(LC 1), 5=483(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-388/118, 2-3=-411/89
BOT CHORD 6-7=-101/301, 5-6=-101/313
WEBS 3-6=-16/294, 3-5=-502/137

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 5=123.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 92 lb down and 85 lb up at 3-11-6 on top chord, and 261 lb down and 72 lb up at 3-11-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



June 13, 2023

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.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J3	Jack-Closed Girder	1	1	
Job Reference (optional)					

Wheeler Lumber,
Waverly, KS - 66871,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 15:58 2022 Page 2
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODd7J4zJcH

LOAD CASE(S) Standard
 Concentrated Loads (lb)
 Vert: 6=-261(F) 3=-81(F)

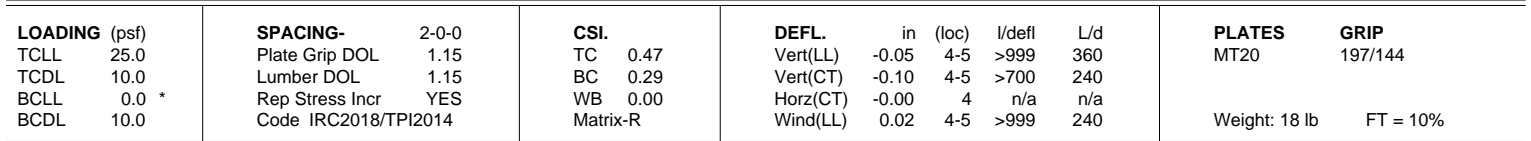
RELEASE FOR CONSTRUCTION
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Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 12 11:50:58 2023 Page 1
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REACTIONS. (size) 5=0-3-8, 4=Mechanical
Max Horz 5=116(LC 7)
Max Uplift 5=-11(LC 8), 4=-24(LC 8)
Max Grav 5=332(LC 1), 4=252(LC 1)

NOTES-

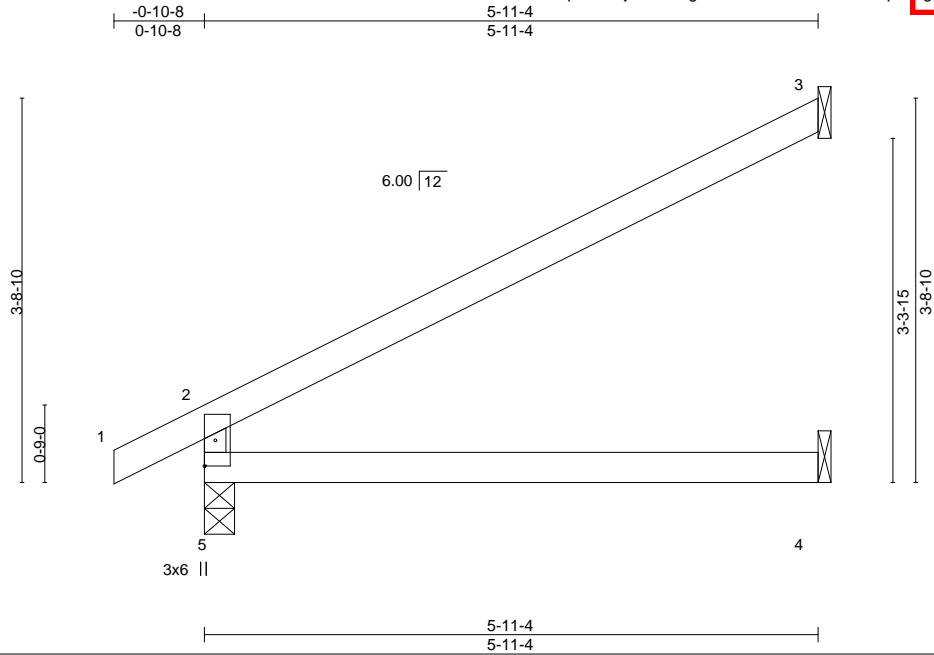
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom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



Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J5	Jack-Open	8	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 15:53 2022 Page 1
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZdC41

07/03/2023



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.55	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.12	4-5	>583	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.04	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.04	4-5	>999	240	Weight: 16 lb	FT = 10%

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=89(LC 8)
Max Uplift 3=61(LC 8)
Max Grav 5=334(LC 1), 3=184(LC 1), 4=110(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-289/44

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



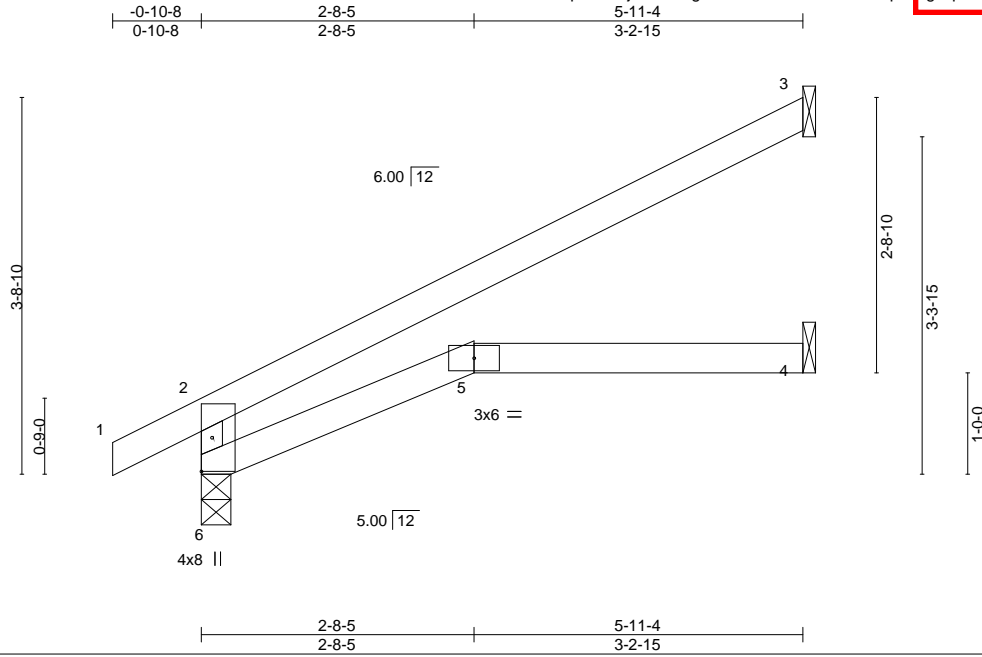
June 13, 2023

07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J6	Jack-Open	7	1	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 12 15:58:2022 Page 2
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC44



Scale = 1:22.7

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.55	Vert(LL) -0.05	4-5	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.29	Vert(CT) -0.12	4-5	>569	240			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.05	4	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.04	5	>999	240			

Weight: 16 lb FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 6=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 6=89(LC 8)
Max Uplift 3=62(LC 8)
Max Grav 6=334(LC 1), 3=185(LC 1), 4=110(LC 3)

FORCES.

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

TOP CHORD 2-6=-288/43

NOTES-

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



June 13,2023

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

07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J7	Jack-Closed	1	1	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 15:58:2022 Page 1
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4zJC44

-0-10-8 2-8-5 5-7-6 5-11-4
0-10-8 2-8-5 2-11-1 0-3-14

Scale: 1/2"=1'

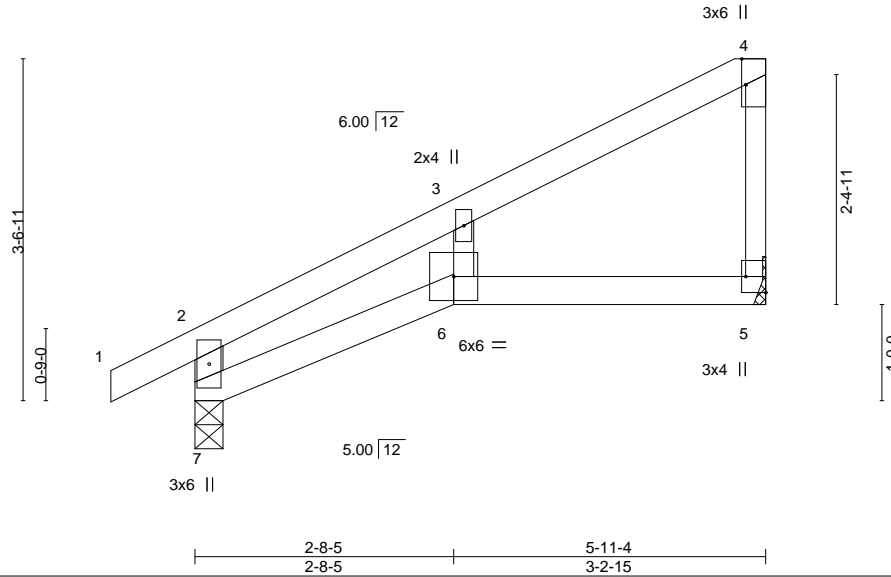


Plate Offsets (X,Y)--		[4:0-3-4,Edge], [5:Edge,0-2-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.37
TCDL 10.0	Lumber DOL	1.15	BC 0.27
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.08 6 >866 360
			Vert(CT) -0.14 6 >487 240
			Horz(CT) 0.06 5 n/a n/a
			Wind(LL) 0.06 6 >999 240
			PLATES GRIP
			MT20 197/144
			Weight: 18 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=0-3-8, 5=Mechanical
Max Horz 7=105(LC 5)
Max Uplift 7=-10(LC 8), 5=-26(LC 8)
Max Grav 7=334(LC 1), 5=250(LC 1)

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

TOP CHORD 2-7=-282/17

NOTES-

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



June 13,2023

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 98 RR
B230098	J8	Jack-Closed Girder	1	1	

Wheeler Lumber,	Waverly, KS - 66871,	8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 15:03:2022 Page 13885207
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		ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC44	
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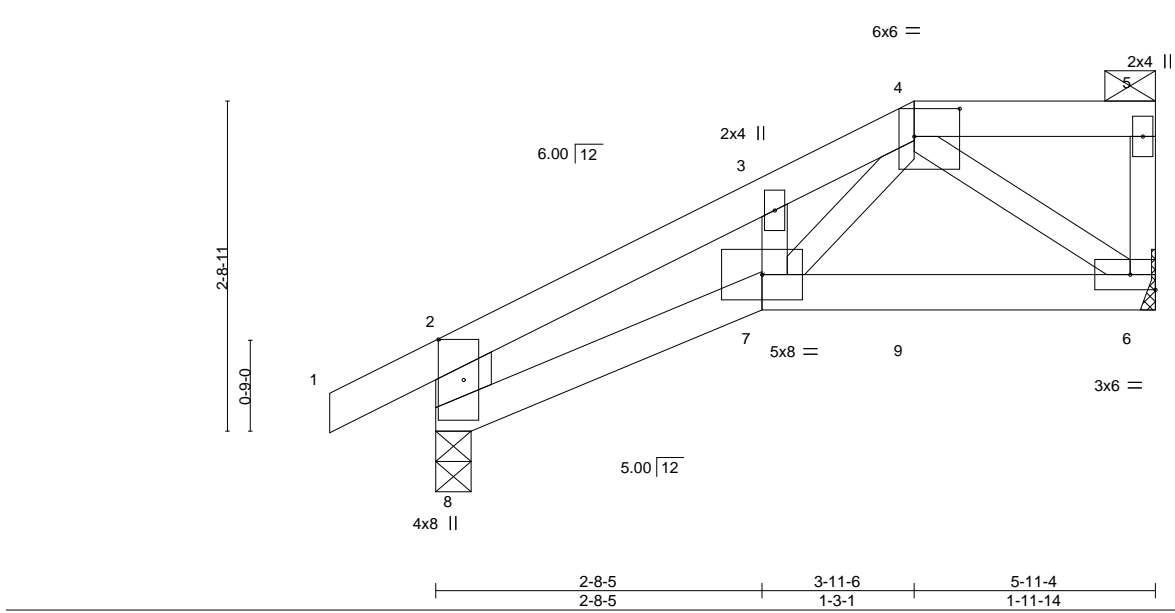


Plate Offsets (X,Y)--		[4:0-4-8,0-2-12], [8:0-4-0,Edge]			
		2-8-5	3-11-6	5-11-4	
		2-8-5	1-3-1	1-11-14	

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.61	Vert(LL) -0.04	6-7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.57	Vert(CT) -0.07	6-7	>970	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.09	Horz(CT) 0.03	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.03	6-7	>999	240	Weight: 21 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-9-6 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-8: 2x6 SPF No.2	

REACTIONS.	(size) 8=0-3-8, 6=Mechanical
	Max Horz 8=94(LC 5)
	Max Uplift 8=-96(LC 8), 6=-123(LC 5)
	Max Grav 8=453(LC 1), 6=474(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-8=-619/171, 2-3=-754/186, 3-4=-558/202
BOT CHORD	7-8=-191/611, 6-7=-137/389
WEBS	4-6=-434/148

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Provide adequate drainage to prevent water ponding.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 6=123.
 - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 93 lb down and 87 lb up at 3-11-6 on top chord, and 260 lb down and 74 lb up at 3-11-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S)	Standard
1) Dead + Roof Live (balanced):	Lumber Increase=1.15, Plate Increase=1.15



Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J8	Jack-Closed Girder	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 15 :03 2022 Page 2

ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODd7J4zJdC44

RELEASE FOR CONSTRUCTION

AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

158885207

07/03/2023

LOAD CASE(S) Standard

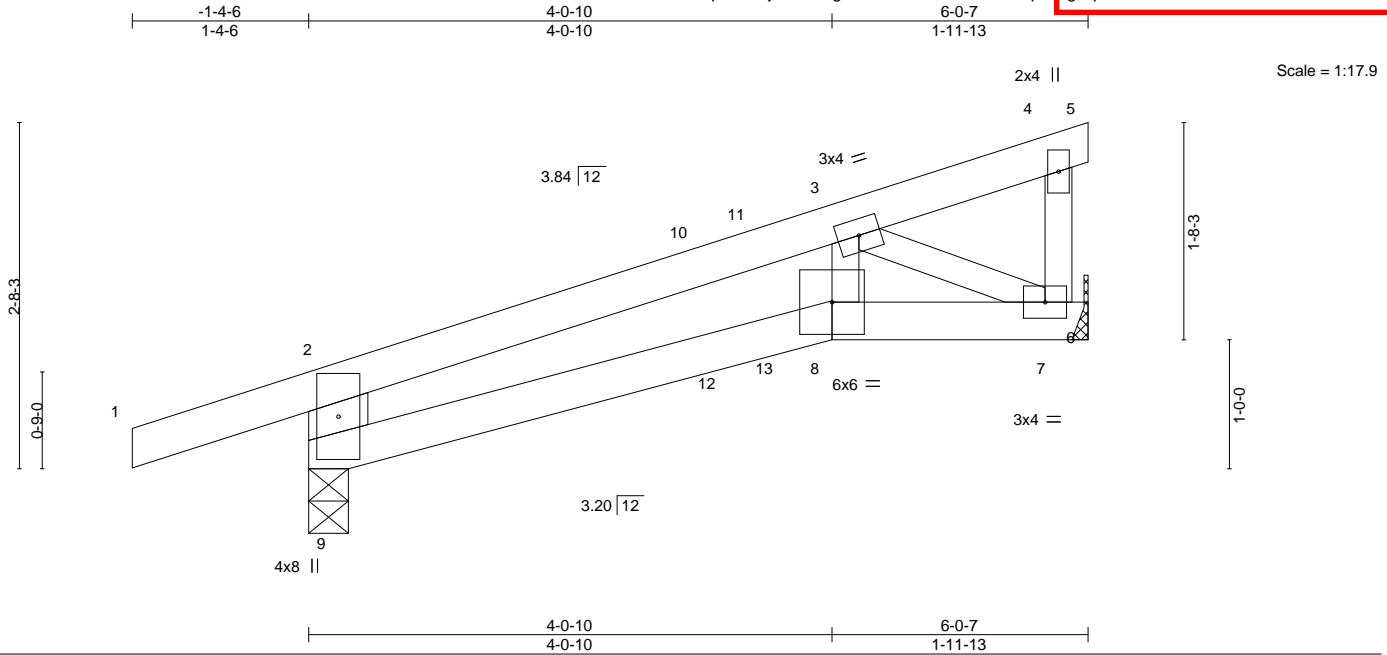
- Uniform Loads (plf)
 - Vert: 1-2=-70, 2-4=-70, 4-5=-70, 7-8=-20, 6-7=-20
- Concentrated Loads (lb)
 - Vert: 4=-86(B) 9=-260(B)



07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J9	Diagonal Hip Girder	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 15:03:2022 Page 15885208
ID:2ncXplsxOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4zJC44



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.39	Vert(LL) -0.02	8	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT) -0.03	8	>999	240			
BCLL 0.0 *	Rep Stress Incr NO	WB 0.06	Horz(CT) 0.01	7	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.01	8	>999	240			
								Weight: 19 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 9=0-3-11, 7=Mechanical
Max Horz 9=95(LC 5)
Max Uplift 9=112(LC 4), 7=-57(LC 8)
Max Grav 9=381(LC 1), 7=247(LC 1)

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

TOP CHORD 2-9=-400/150, 2-3=-380/75
BOT CHORD 8-9=-109/320, 7-8=-101/294
WEBS 3-7=-309/111

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 9=112.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 81 lb down and 51 lb up at 3-0-13, and 68 lb down and 44 lb up at 3-6-3 on top chord, and 7 lb down at 3-0-13, and 7 lb down at 3-6-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 4-5=-20, 8-9=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 12=-4(B) 13=-0(F)



June 13, 2023

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

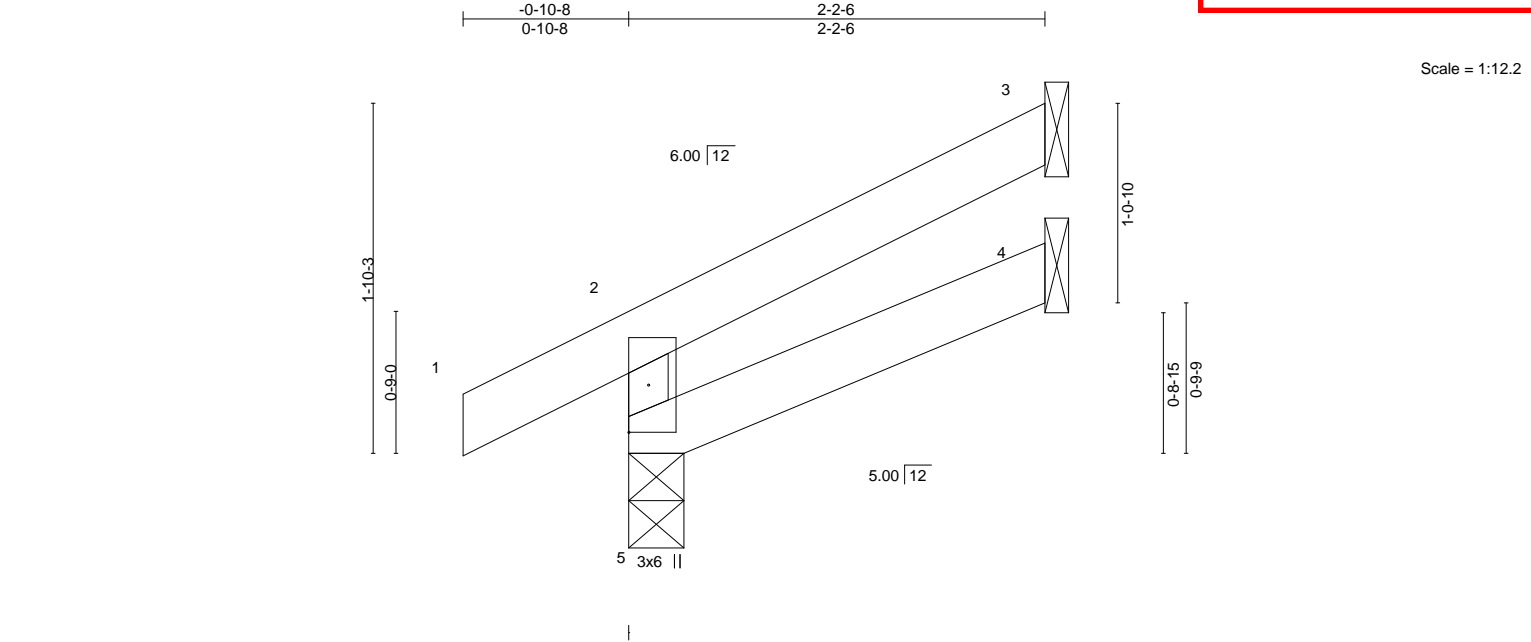
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J10	Jack-Open	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:33:2023 Page 2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	4-5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999		
								Weight: 7 lb	FT = 10%

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=51(LC 8)
Max Uplift 5=22(LC 8), 3=38(LC 8)
Max Grav 5=177(LC 1), 3=56(LC 1), 4=38(LC 3)

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

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

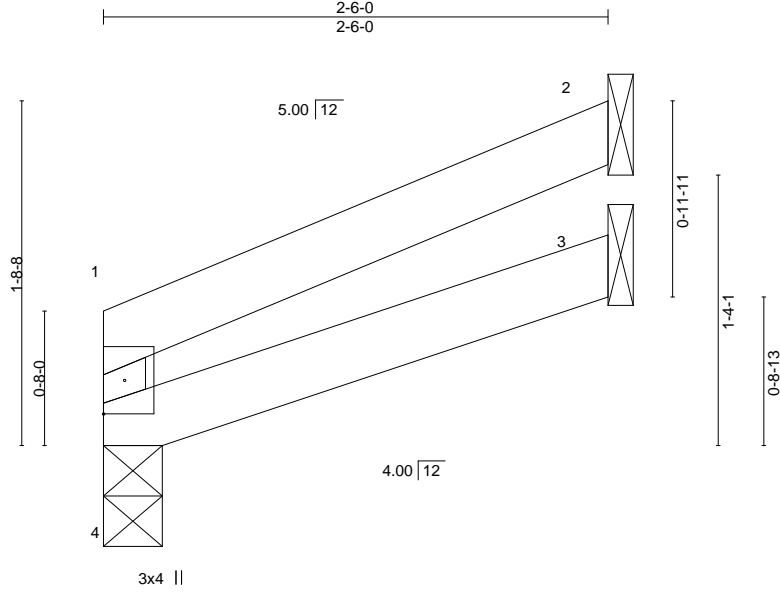


June 13, 2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J11	Jack-Open	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:33:20 2023 Page 1
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZdC41

07/03/2023



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00 3-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00 3-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00 2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00 3-4	>999	240		
								Weight: 6 lb	FT = 10%

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

REACTIONS. (size) 4=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 4=36(LC 5)
Max Uplift 4=-4(LC 8), 2=-42(LC 8)
Max Grav 4=105(LC 1), 2=77(LC 1), 3=45(LC 3)

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

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



June 13, 2023

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

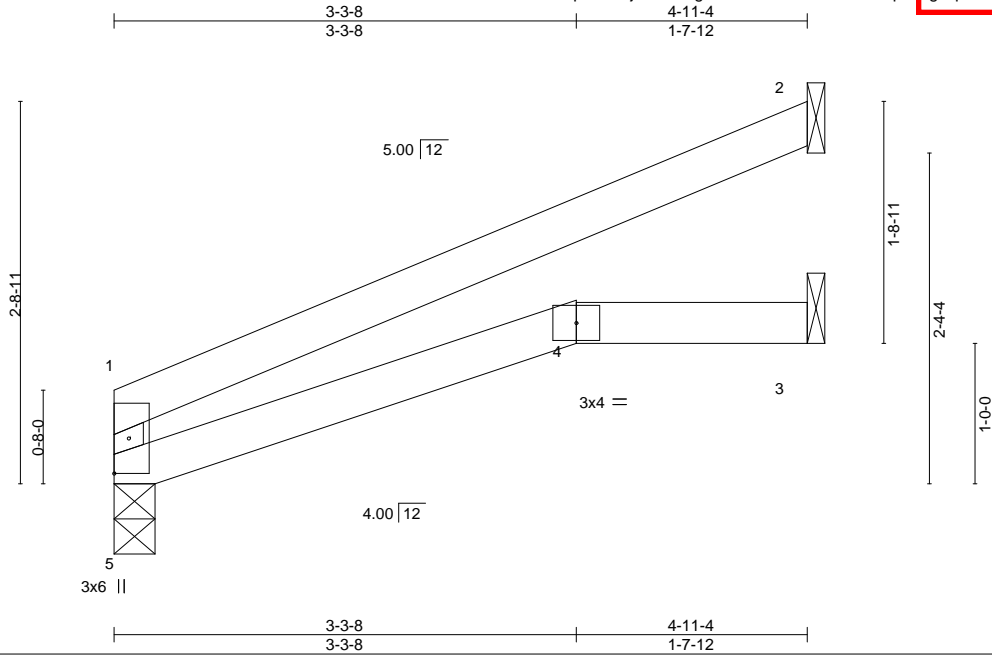
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J12	Jack-Open	1	1	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 15:33 2022 Page 1
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZdC4



Scale = 1:16.4

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.38	Vert(LL)	-0.03	4-5	>999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.20	Vert(CT)	-0.06	4-5	>985		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.02	2	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-R	Wind(LL)	0.02	4-5	>999		
	Code IRC2018/TPI2014						Weight: 12 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 5=75(LC 8)
Max Uplift 5=16(LC 8), 2=-79(LC 8)
Max Grav 5=215(LC 1), 2=156(LC 1), 3=91(LC 3)

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

NOTES-

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



June 13, 2023

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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



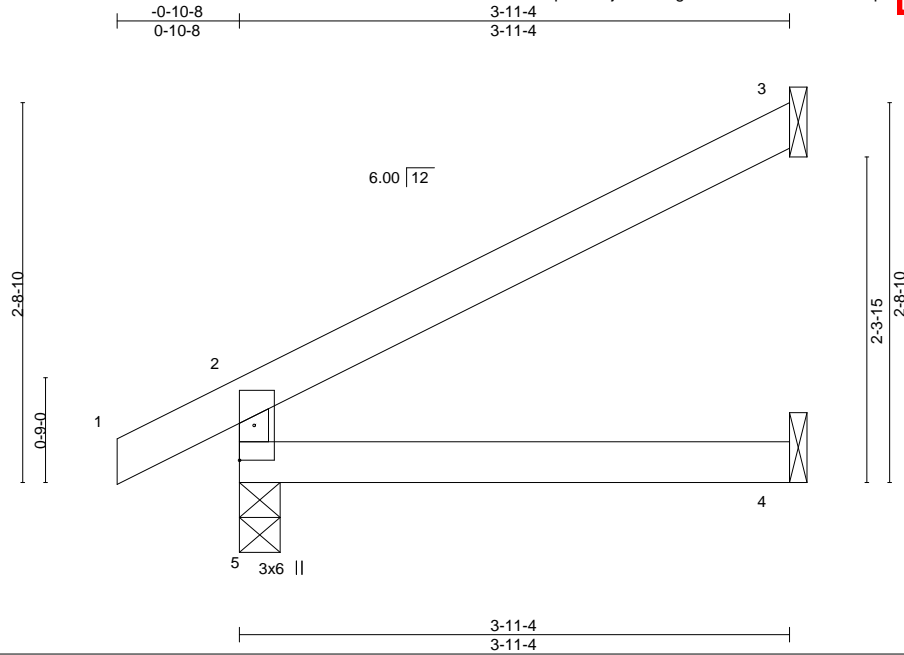
16023 Swingley Ridge Rd
Chesterfield, MO 63017

07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J13	Jack-Open	2	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 15:33 2022 Page 2
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC44



Scale = 1:16.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=87(LC 8)
Max Uplift 5=-27(LC 8), 3=-68(LC 8)
Max Grav 5=247(LC 1), 3=118(LC 1), 4=72(LC 3)

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

NOTES-

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



June 13, 2023

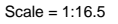
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MITek Industries, Inc. Mon Jun 12 11:50:38 2023 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-Rfc?PsB70Hq3N5gPqnLaw3uITXbCKWtOD6t7J4zJCpf



LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals.
BOT CHORD	2x6 SPF No.2		
WEBS	2x3 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SPF No.2		
WEDGE			
Left: 2x3 SPF No.2			

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 295 lb down and 75 lb up at 2-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 2-4=-20
Concentrated Loads (lb)
Vert: 7=-295(B)



June 13, 2023



WARNING – verify design parameters and **READ NOTES ON THIS AND INCLUDED WITH REFERENCE TO AISC M14-13 161, JF 15/2020 BY ONE USER.** 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

07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J15	DIAGONAL HIP GIRDER	1	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 15:33:2022 Page 13885214
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWvODm7J4ZJC44

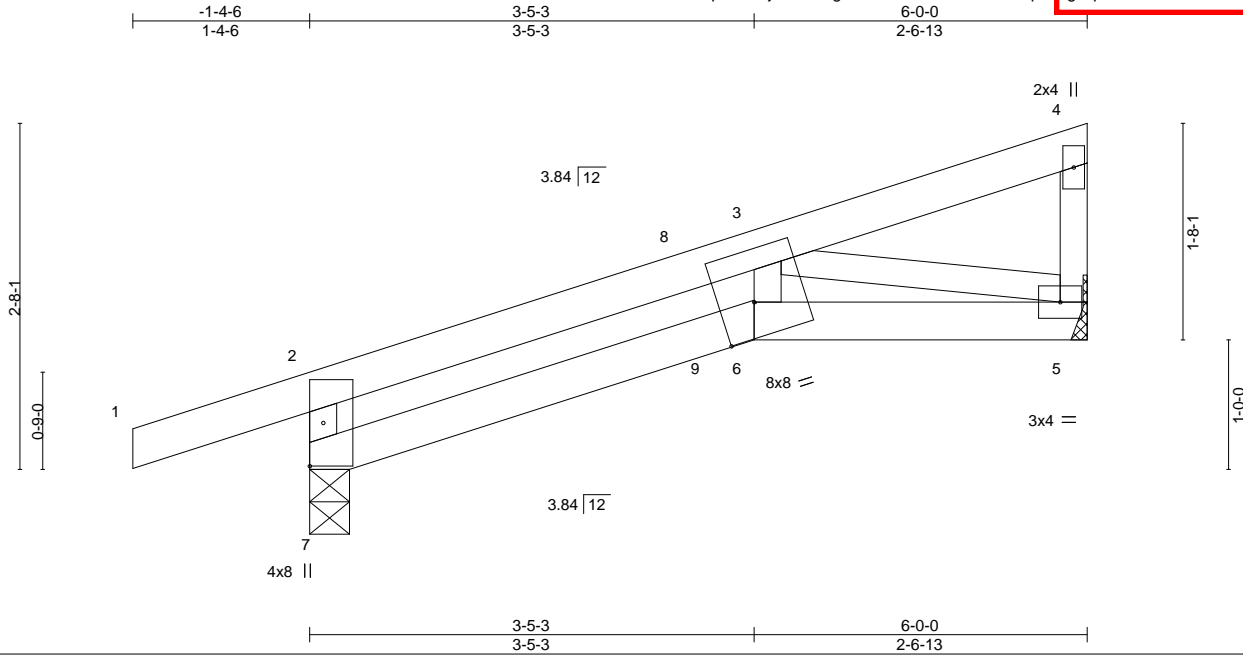


Plate Offsets (X,Y)-- [6:0-3-4,0-3-4]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	-0.04 6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.07 6	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.07	Horz(CT)	0.02 5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03 6	>999	240	Weight: 19 lb	FT = 10%

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

REACTIONS. (size) 7=0-3-11, 5=Mechanical
Max Horz 7=95(LC 5)
Max Uplift 7=-107(LC 4), 5=-56(LC 8)
Max Grav 7=377(LC 1), 5=248(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-415/149, 2-3=-438/94
BOT CHORD 6-7=-122/375, 5-6=-115/342
WEBS 3-5=-321/122

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=107.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 77 lb down and 45 lb up at 2-11-11, and 68 lb down and 44 lb up at 3-6-3 on top chord, and 5 lb down at 3-5-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 6-7=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 6=0(B) 9=-1(F)



June 13,2023

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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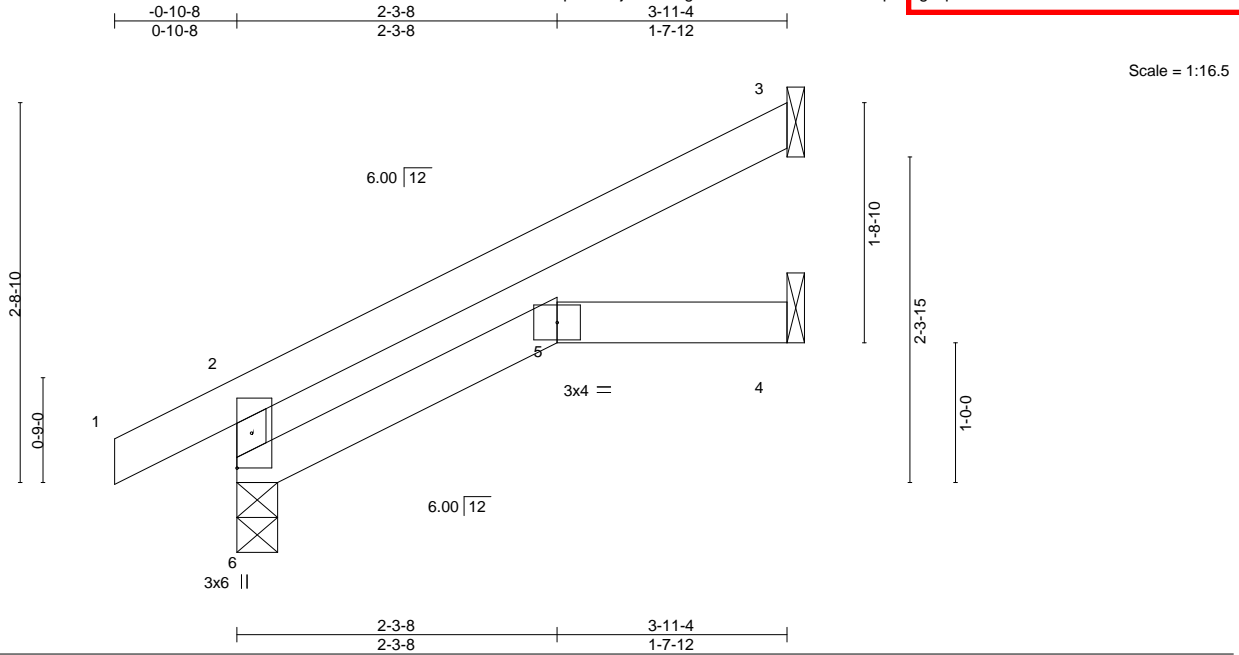
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J16	Jack-Open	5	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:33:2023 Page 2
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC41

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

07/03/2023



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.21	Vert(LL) -0.01	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.12	Vert(CT) -0.02	5	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.01	5-6	>999	240		
							Weight: 11 lb	FT = 10%

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

REACTIONS. (size) 6=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 6=86(LC 8)
Max Uplift 6=-25(LC 8), 3=-70(LC 8)
Max Grav 6=247(LC 1), 3=118(LC 1), 4=72(LC 3)

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

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

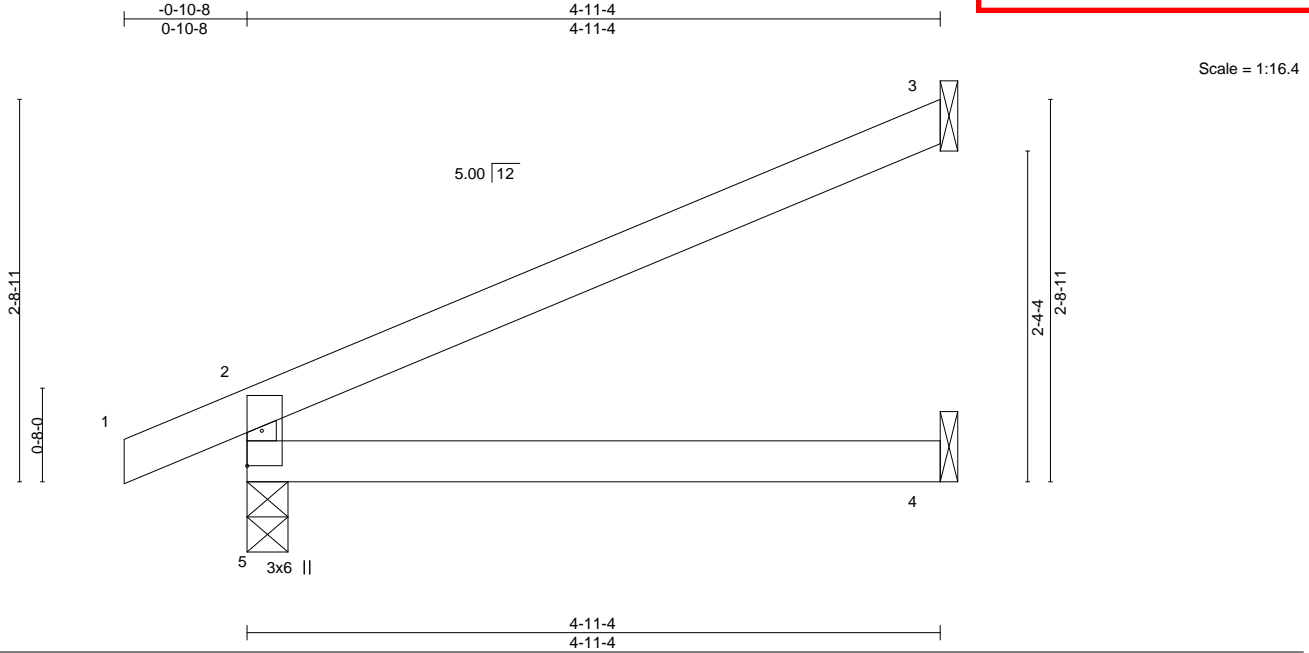


June 13, 2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J17	Jack-Open	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 15:38:2022 Page 2
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RIC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC41

07/03/2023



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.35	Vert(LL) -0.02	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.21	Vert(CT) -0.05	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.02	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.02	4-5	>999	240	Weight: 13 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=90(LC 8)
Max Uplift 5=-41(LC 8), 3=-77(LC 8)
Max Grav 5=290(LC 1), 3=151(LC 1), 4=91(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-252/83

NOTES-

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



June 13, 2023

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

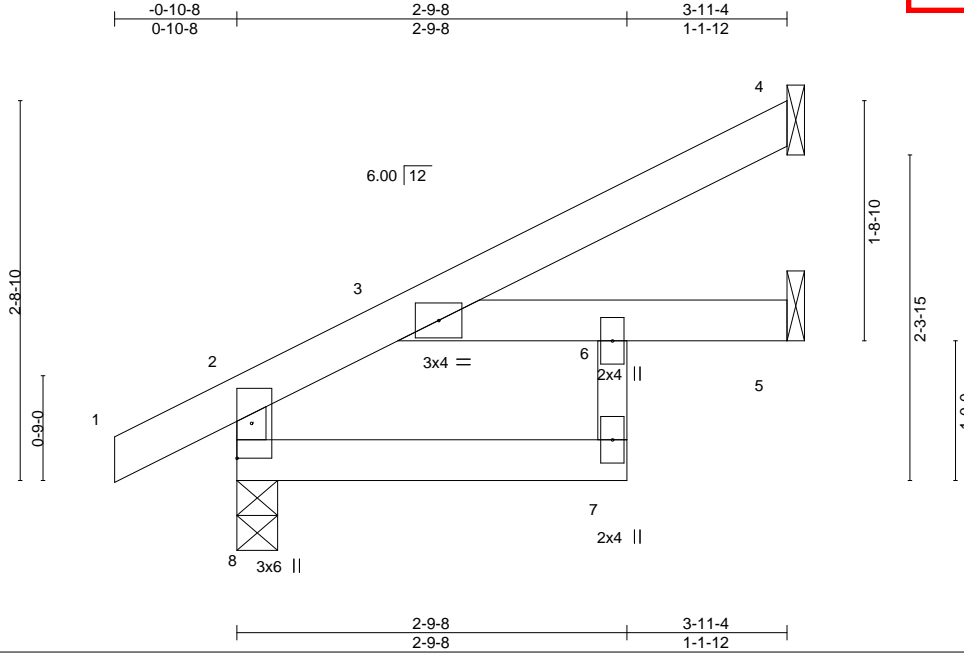


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J18	Jack-Open	3	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 15:48 2022 Page 2
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4zJC44

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/03/2023



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.17	Vert(LL) -0.01	3-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.15	Vert(CT) -0.03	3-6	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.02	Horz(CT) 0.02	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.02	3-6	>999	240		
							Weight: 13 lb	FT = 10%

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

REACTIONS. (size) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=87(LC 8)
Max Uplift 8=18(LC 8), 4=54(LC 8)
Max Grav 8=263(LC 1), 4=109(LC 1), 5=91(LC 3)

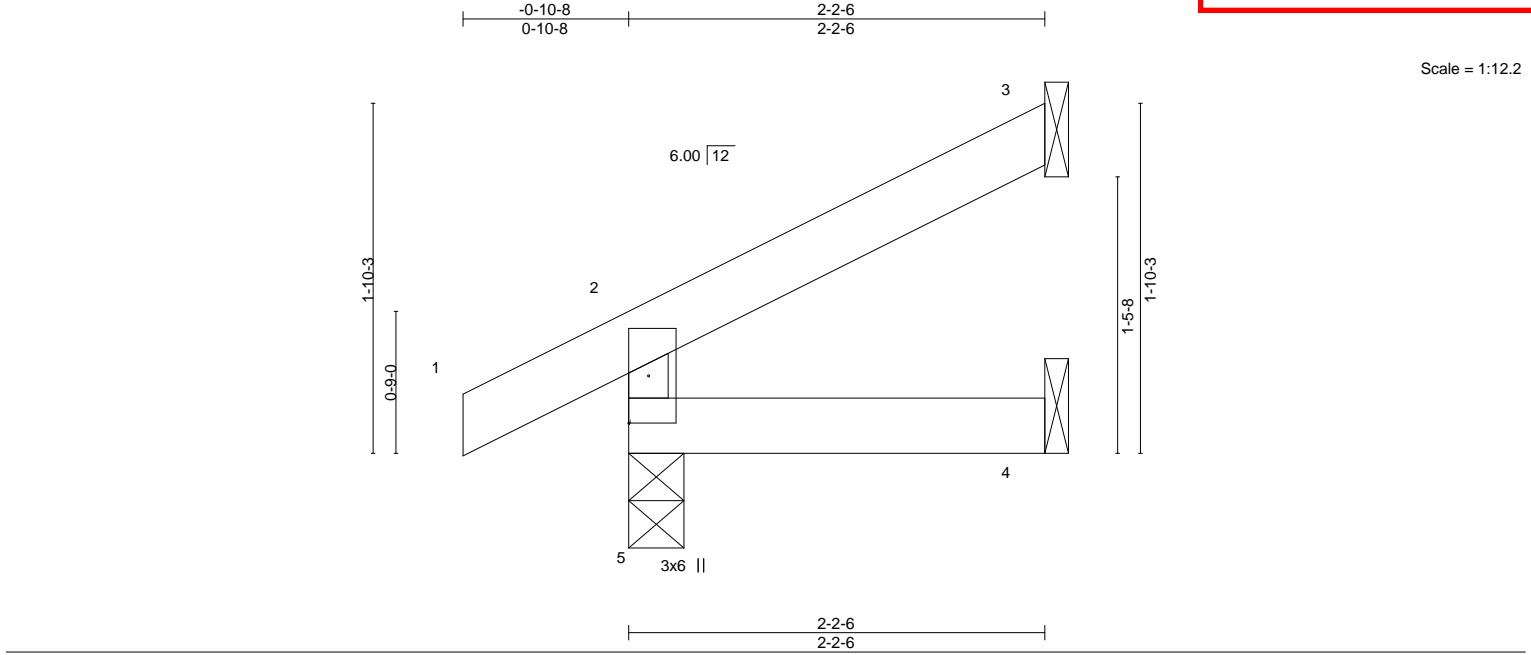
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 4.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J19	JACK-OPEN	2	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:42:2023 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC41



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.07	Vert(LL)	-0.00	5	>999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT)	-0.00	4-5	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-R	Wind(LL)	0.00	5	>999		
	Code IRC2018/TPI2014						Weight: 7 lb	FT = 10%

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=52(LC 8)
Max Uplift 5=-23(LC 8), 3=-37(LC 8)
Max Grav 5=176(LC 1), 3=56(LC 1), 4=38(LC 3)

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

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

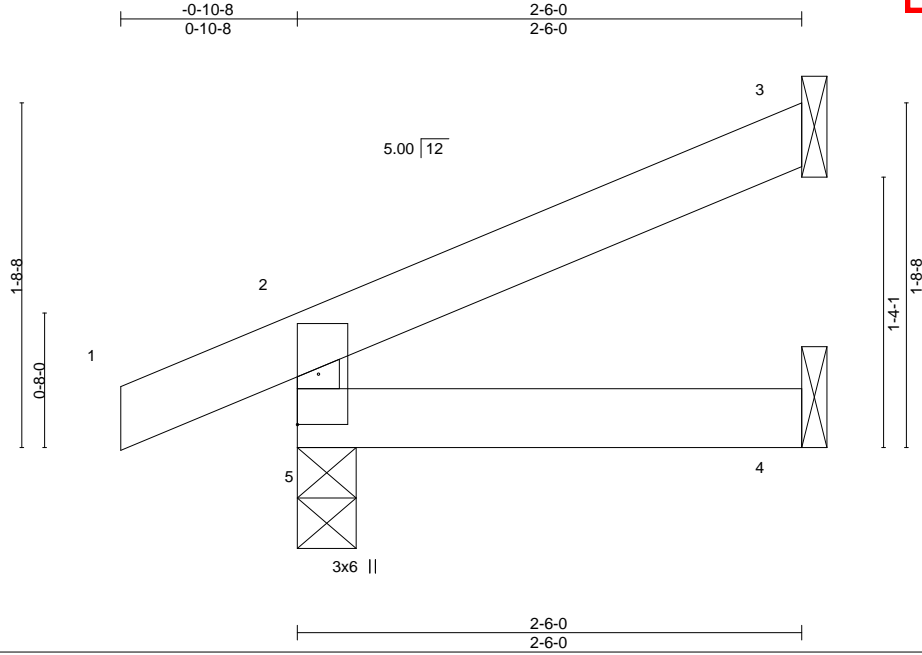


June 13, 2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J20	JACK-OPEN	3	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:43:2022 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC44

07/03/2023



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 7 lb	FT = 10%

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=48(LC 8)
Max Uplift 5=-31(LC 4), 3=-38(LC 8)
Max Grav 5=188(LC 1), 3=67(LC 1), 4=44(LC 3)

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

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

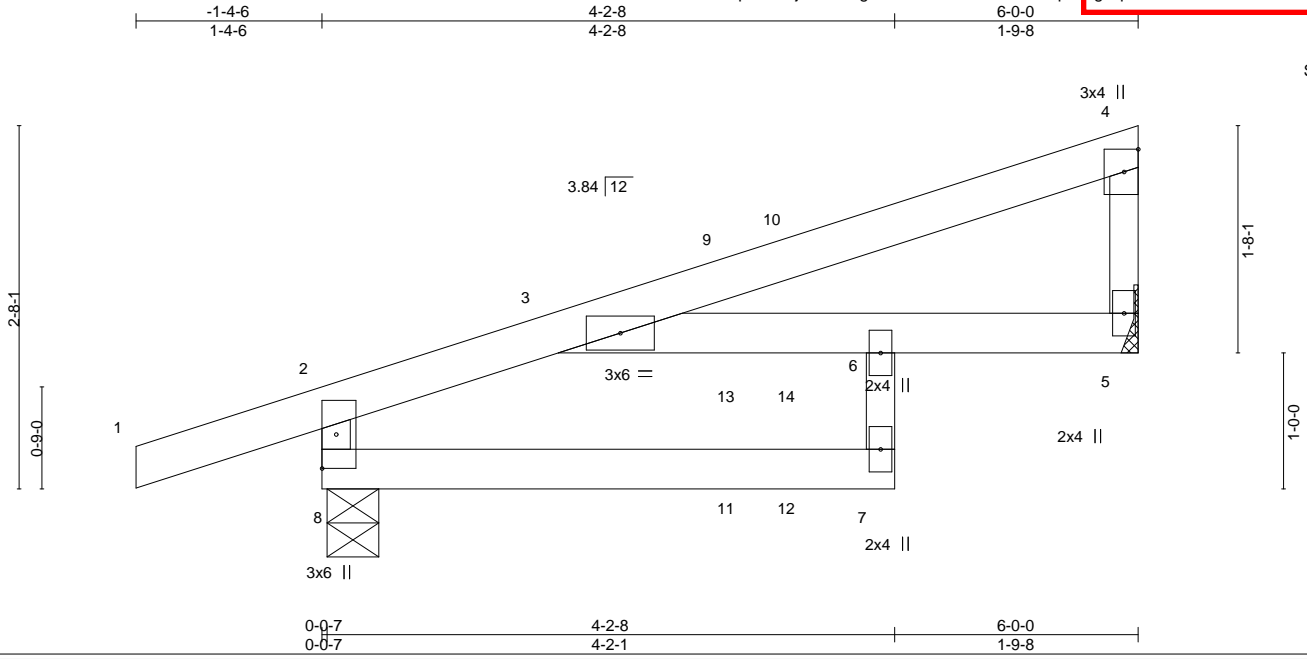


June 13, 2023

07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J21	Diagonal Hip Girder	1	1	

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 15:43 2022 Page 2
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODom74zJC44



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.41	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.33	Vert(LL) -0.06 3-6 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Vert(CT) -0.11 3-6 >628 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-R	Horz(CT) 0.06 5 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.06 3-6 >999 240		
				Weight: 20 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 8=0-4-9, 5=Mechanical
Max Horz 8=94(LC 5)
Max Uplift 8=108(LC 4), 5=-56(LC 8)
Max Grav 8=377(LC 1), 5=248(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-345/139

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 8=108.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 78 lb down and 46 lb up at 3-0-14, and 67 lb down and 43 lb up at 3-6-3 on top chord, and 6 lb down at 3-0-14, and 6 lb down at 3-6-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 11=-1(F) 12=-0(B)



June 13, 2023

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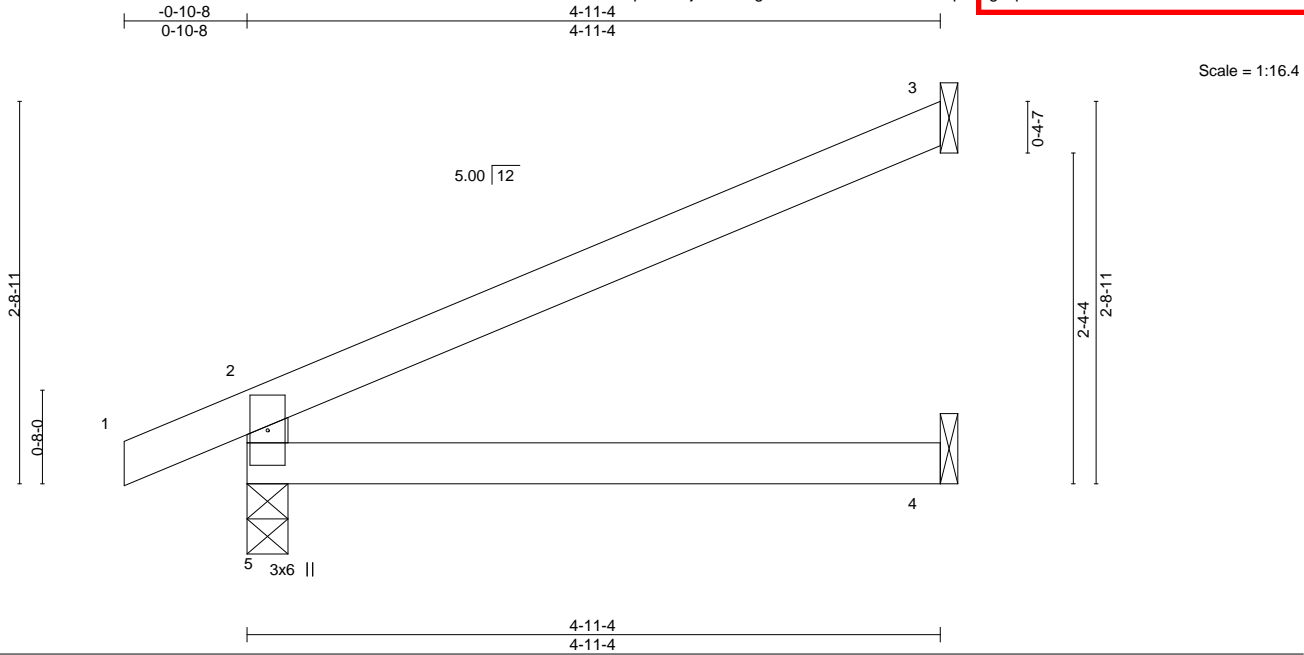
16023 Swingley Ridge Rd
Chesterfield, MO 63017

07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J22	JACK-OPEN	3	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 15:48 2023 Page 1

ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC44



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.05	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.02	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.02	4-5	>999	240	Weight: 13 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=89(LC 8)
Max Uplift 5=-41(LC 8), 3=-74(LC 8)
Max Grav 5=292(LC 1), 3=147(LC 1), 4=89(LC 3)

FORCES.

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

TOP CHORD 2-5=-255/85

NOTES-

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



June 13, 2023

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J23	Jack-Closed Girder	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 15:43:2022 Page 2
ID:2ncXplsOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL6w3uITXbCKWwODonJ4zJC41
15885222
LEE'S SUMMIT, MISSOURI
07/03/2023

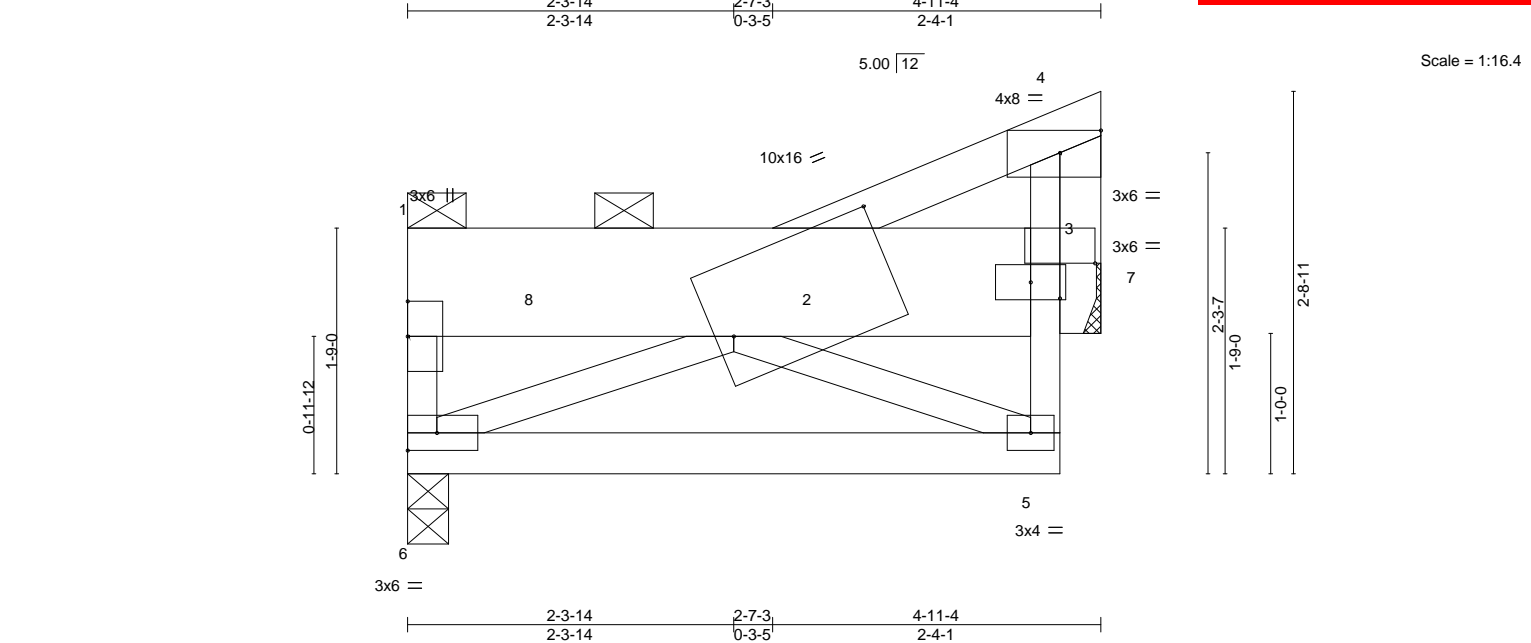


Plate Offsets (X,Y)--		[2:1-2-8,0-6-0], [3:0-3-0,0-3-0], [4:Edge,0-1-15]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.37
TCDL 10.0	Lumber DOL	1.15	BC 0.32
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.18
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-P
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.02 5-6 >999 360
			Vert(CT) -0.05 5-6 >999 240
			Horz(CT) 0.00 7 n/a n/a
			Wind(LL) 0.00 5 >999 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 33 lb FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x10 SP 2400F 2.0E *Except* 2-4: 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 1-3.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	
OTHERS 2x4 SPF No.2	

REACTIONS. (size) 6=0-3-8, 7=Mechanical
Max Horz 6=76(LC 5)
Max Uplift 6=224(LC 4), 7=173(LC 8)
Max Grav 6=1279(LC 15), 7=875(LC 15)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-6=-940/196, 3-5=-83/547, 3-4=-156/956
BOT CHORD 5-6=-139/702
WEBS 2-6=-754/146, 2-5=-812/178, 4-7=-895/177

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Provide adequate drainage to prevent water ponding.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=224, 7=173.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 945 lb down and 161 lb up at 1-0-0, and 943 lb down and 160 lb up at 2-11-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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



Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J23	Jack-Closed Girder	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 15:43 2022 Page 2
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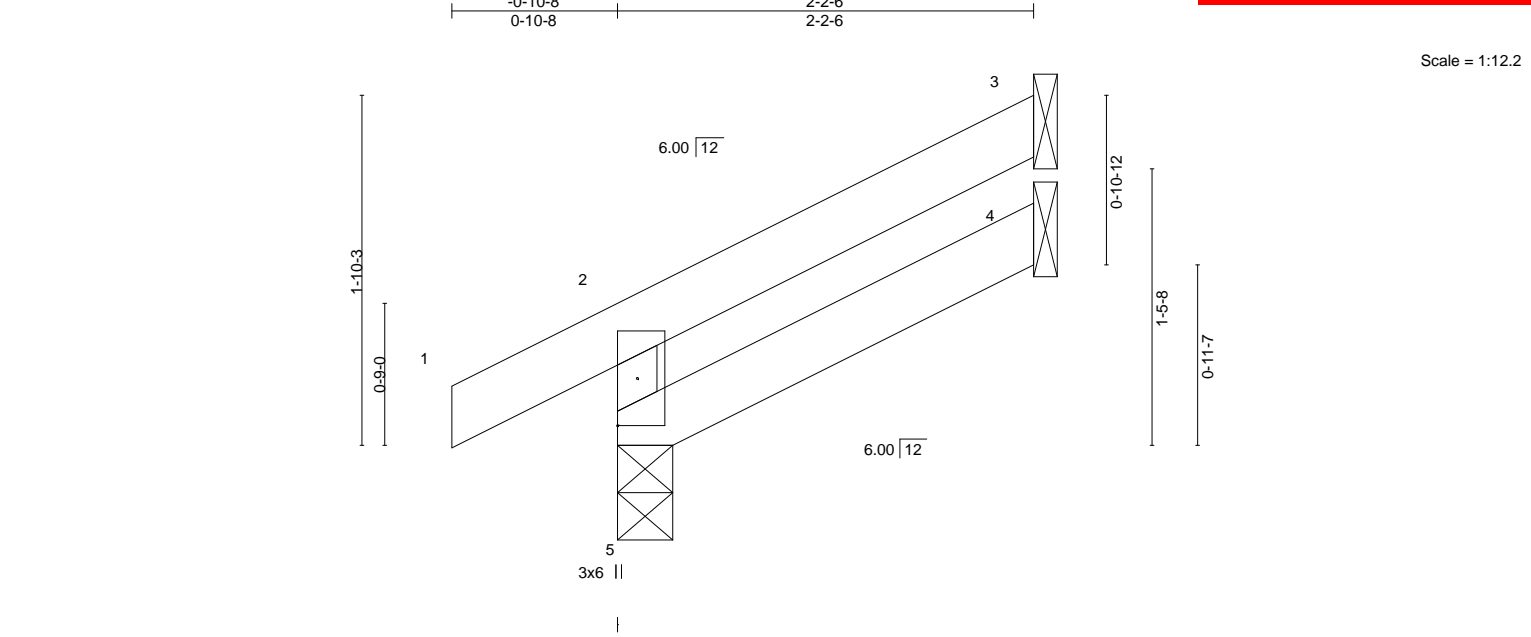
RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

07/03/2023

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 2=-859(B) 8=-860(B)

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J24	JACK-OPEN	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:48:2023 Page 2
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC44



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.07	Vert(LL)	-0.00	5	>999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT)	-0.00	4-5	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-R	Wind(LL)	0.00	4-5	>999		
	Code IRC2018/TPI2014						Weight: 7 lb	FT = 10%

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=51(LC 8)
Max Uplift 5=-21(LC 8), 3=-39(LC 8)
Max Grav 5=176(LC 1), 3=56(LC 1), 4=38(LC 3)

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

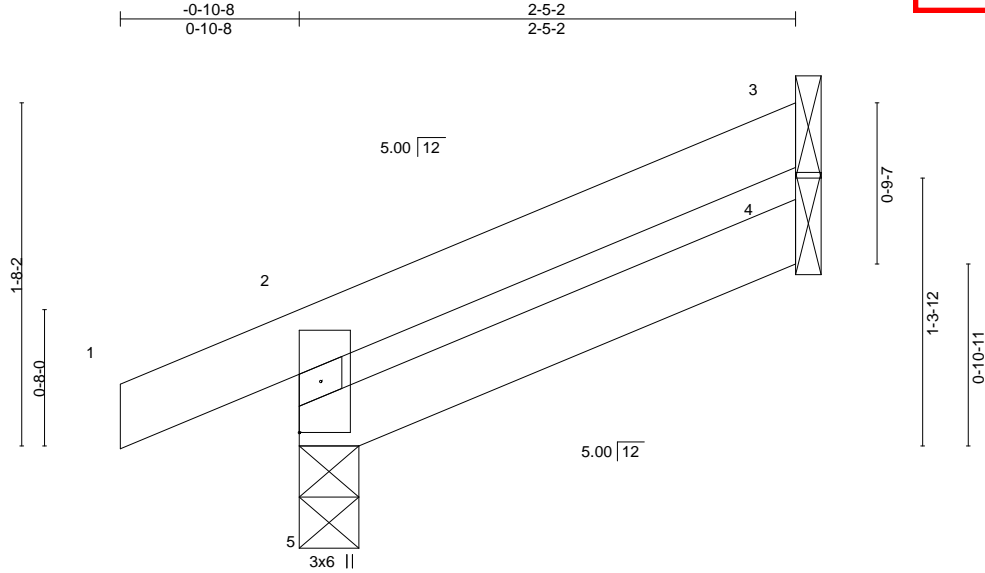
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for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



Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J25	Jack-Open	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:48:22 2023 Page 2
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC44

07/03/2023



Scale = 1:11.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 8 lb	FT = 10%

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=46(LC 8)
Max Uplift 5=-30(LC 4), 3=-38(LC 8)
Max Grav 5=185(LC 1), 3=65(LC 1), 4=42(LC 3)

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

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

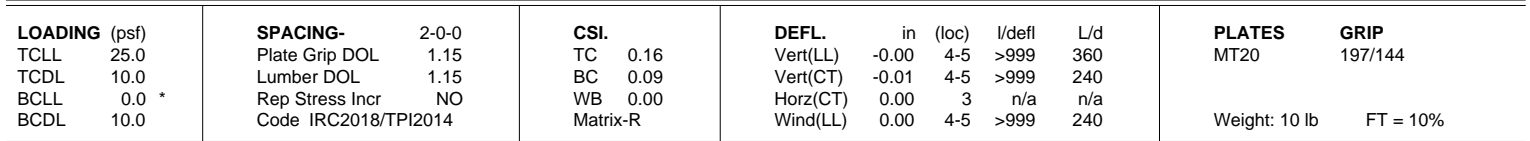


June 13, 2023

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 12 11:50:58 2023 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NsQpqnLw3uITKxbCKWtOD6l7J4zJC#1



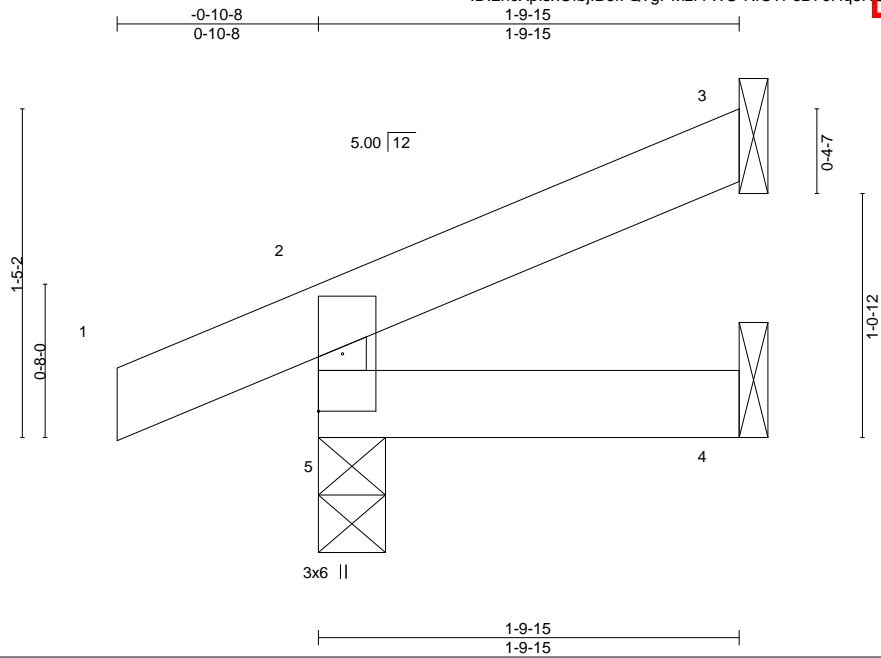
June 13, 2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J27	Jack-Open	2	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:53:2023 Page 2

ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC44

07/03/2023



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.06	Vert(LL)	-0.00	5	>999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(CT)	-0.00	5	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-R	Wind(LL)	0.00	5	>999		
	Code IRC2018/TPI2014						Weight: 6 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 1-9-15 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
 Max Horz 5=38(LC 8)
 Max Uplift 5=-33(LC 4), 3=-27(LC 8)
 Max Grav 5=165(LC 1), 3=43(LC 1), 4=32(LC 3)

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

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



June 13, 2023

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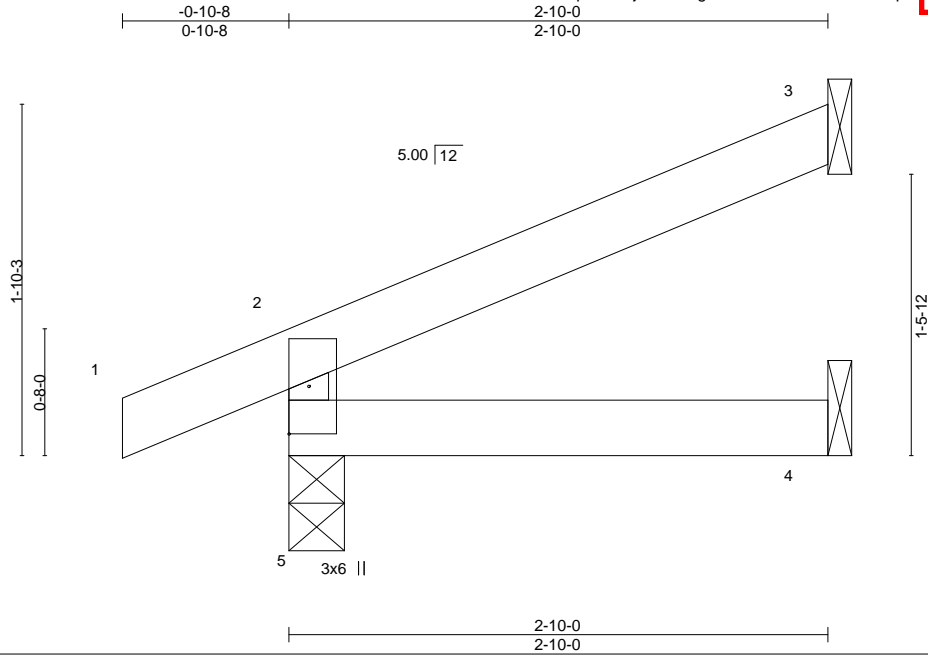
MiTek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	J28	Jack-Open	5	1	
Wheeler Lumber, Waverly, KS - 66871,					Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

07/03/2023

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 11:55:52 2022 Page 2
ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC44



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

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=54(LC 8)
Max Uplift 5=-32(LC 8), 3=-43(LC 8)
Max Grav 5=201(LC 1), 3=79(LC 1), 4=50(LC 3)

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

NOTES-

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



June 13, 2023

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

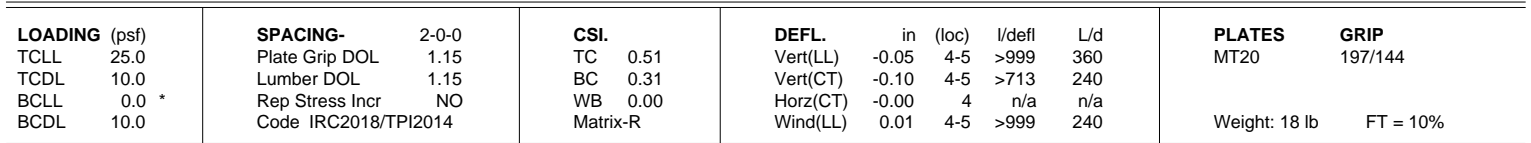
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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 12 11:50:58 2023 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITkCbKkWoDd6rJ4zJC#



June 13, 2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	LAY1	GABLE	1	1	
Job Reference (optional)					

Wheeler Lumber,	Waverly, KS - 66871,	8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:00:2022 Page 2
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWvODm7J4zJC41		07/03/2023
7-1-5	24-0-8	31-1-13
7-1-5	16-11-4	7-1-5

Scale = 1:52.1

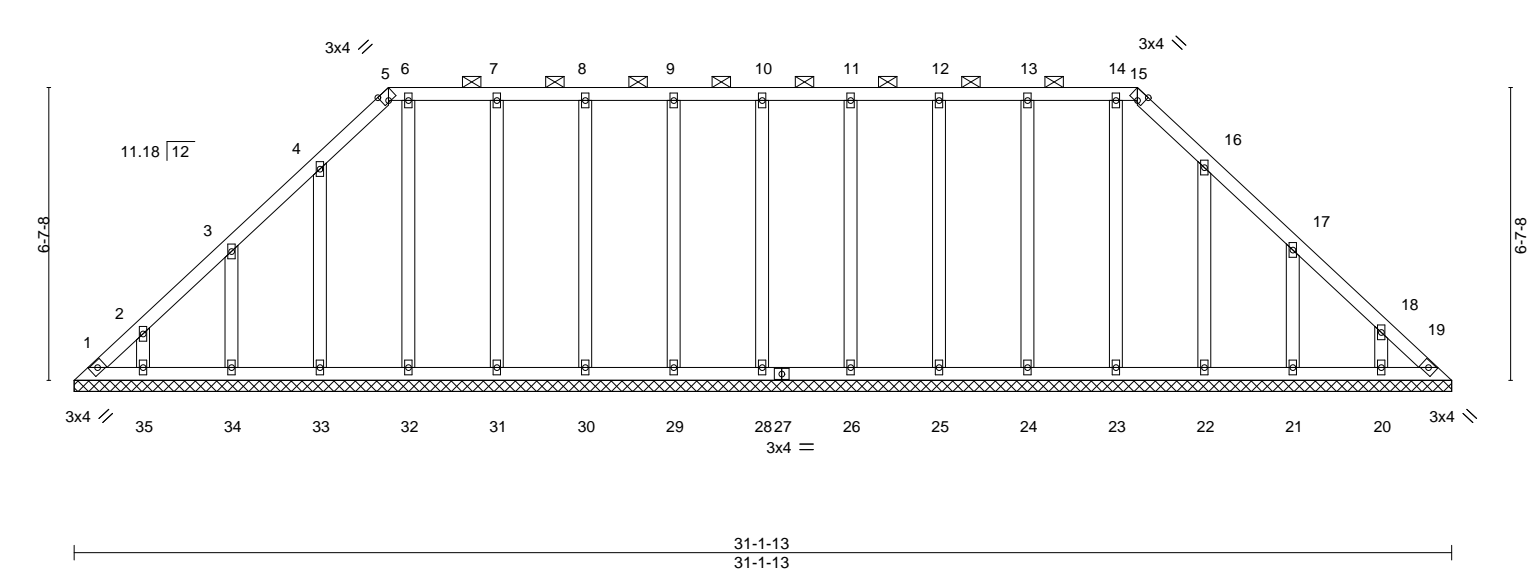


Plate Offsets (X,Y)-- [5:0-1-10,Edge], [15:0-1-10,Edge]		31-1-13		31-1-13	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	in (loc) l/defl L/d	GRIP
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(LL) n/a - n/a 999	MT20 197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Vert(CT) n/a - n/a 999	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Horz(CT) 0.01 19 n/a n/a	
Weight: 157 lb FT = 10%					

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (6-0-0 max.): 5-15.
OTHERS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.	All bearings 31-1-13.
(lb) - Max Horz	1=-165(LC 4)
Max Uplift	All uplift 100 lb or less at joint(s) 1, 19, 35, 33, 32, 31, 30, 29, 28, 26, 25, 24, 22, 20 except 34=-112(LC 8), 21=-114(LC 9)
Max Grav	All reactions 250 lb or less at joint(s) 1, 19, 35, 34, 33, 32, 31, 30, 29, 28, 26, 25, 24, 23, 22, 21, 20

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 19, 35, 33, 32, 31, 30, 29, 28, 26, 25, 24, 22, 20 except (jt=lb) 34=112, 21=114.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



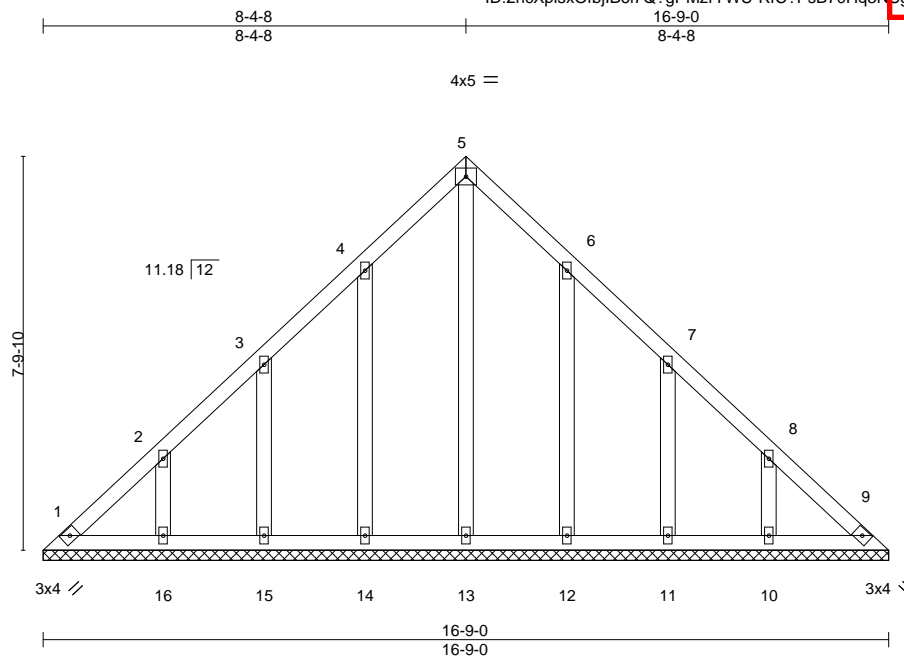
June 13,2023

07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	LAY2	GABLE	1	1	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 27 15:08:2022 Page 2
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4zJC44



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.15	Horz(CT)	0.00	9	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 76 lb	FT = 10%
	Code IRC2018/TPI2014							

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 16-9-0.
(lb) - Max Horz 1=-195(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 14=-107(LC 8), 15=-102(LC 8), 16=-118(LC 8),
12=-106(LC 9), 11=-103(LC 9), 10=-118(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 16, 12, 11, 10

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 14=-107, 15=-102, 16=-118, 12=-106, 11=-103, 10=-118.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 13, 2023

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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

07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	LAY3	GABLE	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:00:2022 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC44

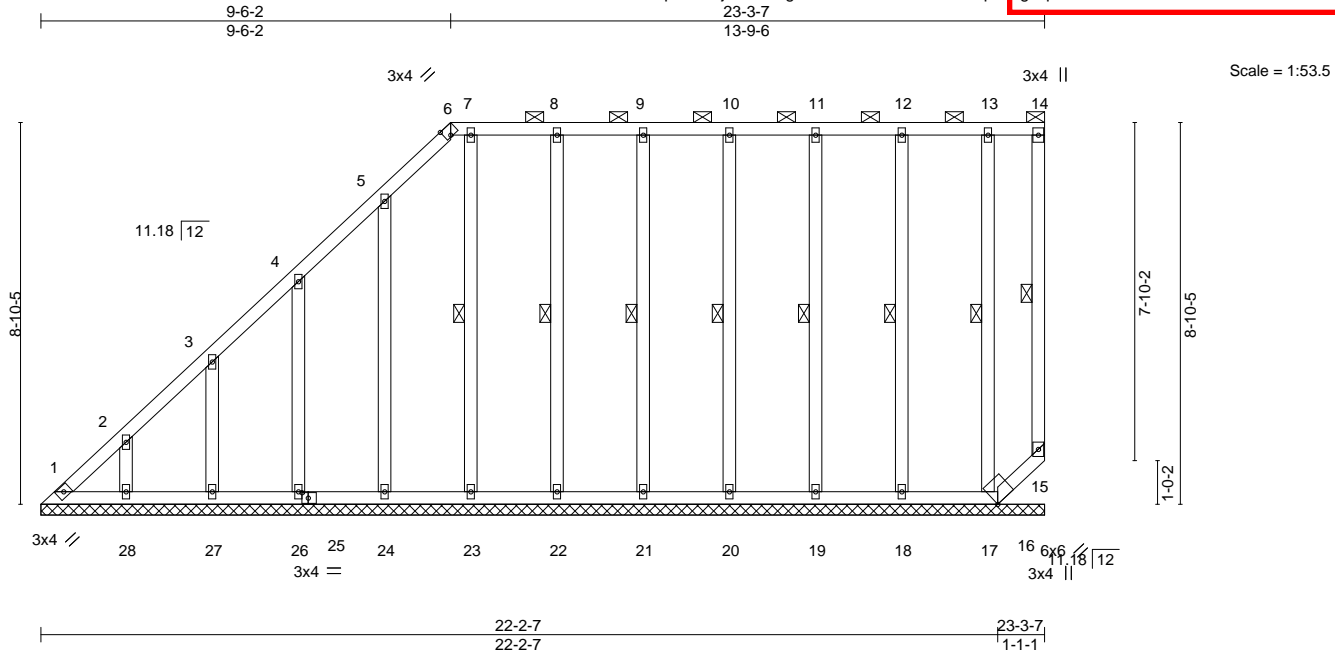


Plate Offsets (X,Y)-- [6:0-1-10,Edge], [25:0-1-12,0-1-8]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	-0.00	15	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 150 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-14.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-16.
WEBS 1 Row at midpt 14-15, 7-23, 8-22, 9-21, 10-20, 11-19, 12-18, 13-17

REACTIONS.

All bearings 23-3-7.
(lb) - Max Horz 1=326(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 24, 23, 22, 21, 20, 19, 18 except 1=112(LC 6), 15=137(LC 7), 16=233(LC 4), 28=105(LC 8), 27=104(LC 8), 26=109(LC 8), 17=133(LC 7)
Max Grav All reactions 250 lb or less at joint(s) 1, 15, 28, 27, 26, 24, 23, 22, 21, 20, 19, 18, 17 except 16=291(LC 7)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-344/224, 2-3=-290/188

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 23, 22, 21, 20, 19, 18 except (jt=lb) 1=112, 15=137, 16=233, 28=105, 27=104, 26=109, 17=133.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 15.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 13, 2023

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

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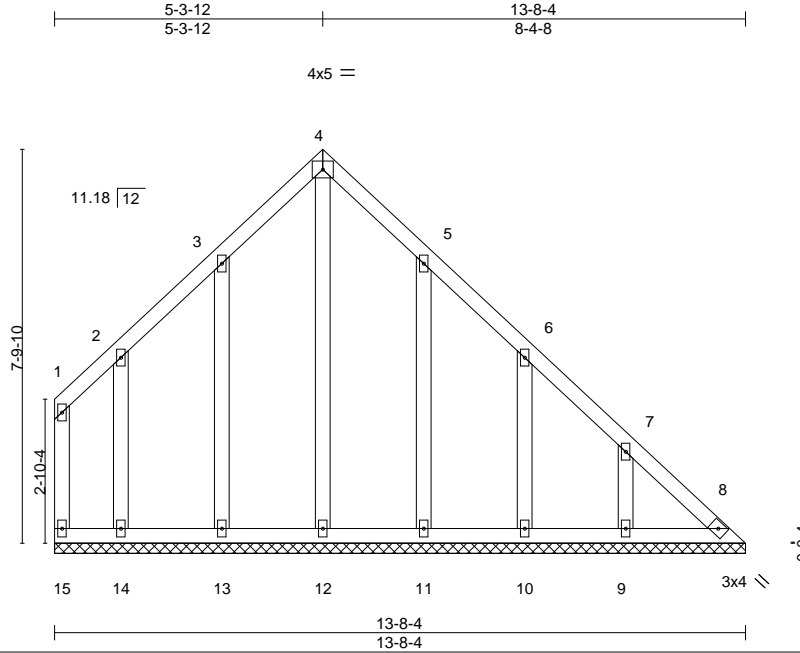
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	LAY4	GABLE	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:08 2023 Page 2
ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC44

07/03/2023



Scale = 1:45.6

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.07	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.06	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.21	Horz(CT)	0.00	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 70 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 13-8-4.
(lb) - Max Horz 15=-231(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 15, 12 except 8=-119(LC 5), 13=-104(LC 8), 14=-110(LC 8), 11=-106(LC 9), 10=-103(LC 9), 9=-118(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 15, 8, 12, 13, 14, 11, 10, 9

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 7-8=-257/232

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 12 except (jt=lb) 8=-119, 13=104, 14=110, 11=106, 10=103, 9=118.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 13, 2023

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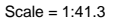
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 12 15:13:23 2023 Page 1
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3N5gPqnLow3uITKbSKWtOD0rJ4zJC#



LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD	2x4 SPF No.2		2-0-0 oc purlins (6-0-0 max.): 5-9.
OTHERS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-376/171

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 12, 14, 13, 11, 10 except (jt=lb) 1=119, 16=139, 15=193.
- 9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 11, 10.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	LAY6	GABLE	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:13 2023 Page 2
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4zJC41

07/03/2023

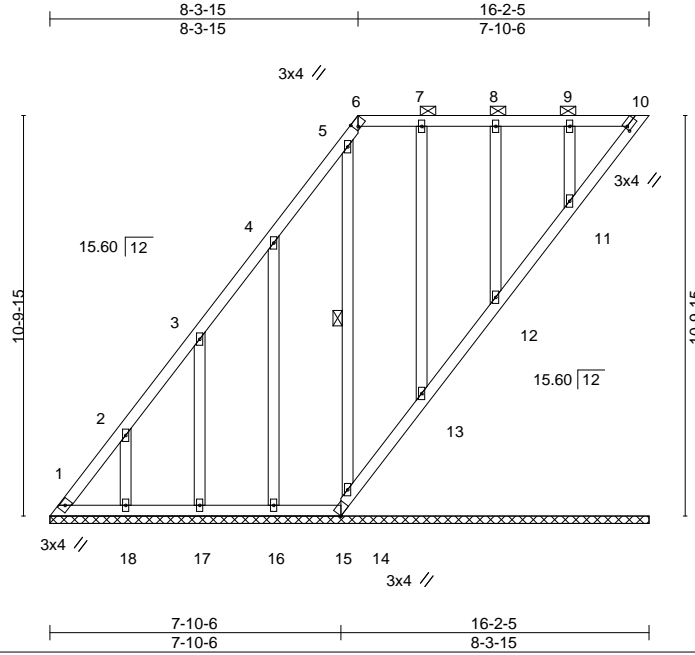


Plate Offsets (X,Y)--		[6:0-1-4,Edge], [10:0-0-12,0-1-8]	
LOADING (psf)	SPACING-	2-0-0	CSL
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 10.0	Lumber DOL	1.15	BC 0.03
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) -0.01 10 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 92 lb FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (6-0-0 max.): 6-10.
OTHERS 2x4 SPF No.2	Rigid ceiling directly applied or 10-0-0 oc bracing.
	WEBS 1 Row at midpt 5-14

REACTIONS.	All bearings 16-2-5.
(lb) - Max Horz	1=430(LC 8)
Max Uplift	All uplift 100 lb or less at joint(s) 10, 15, 14, 13, 12, 11 except 1=136(LC 6), 18=180(LC 8), 17=168(LC 8), 16=188(LC 8)
Max Grav	All reactions 250 lb or less at joint(s) 10, 15, 18, 17, 16, 14, 13, 12, 11 except 1=404(LC 8)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-525/234, 2-3=-353/161

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 15, 14, 13, 12, 11 except (jt=lb) 1=136, 18=180, 17=168, 16=188.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 10, 14, 13, 12, 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 13, 2023

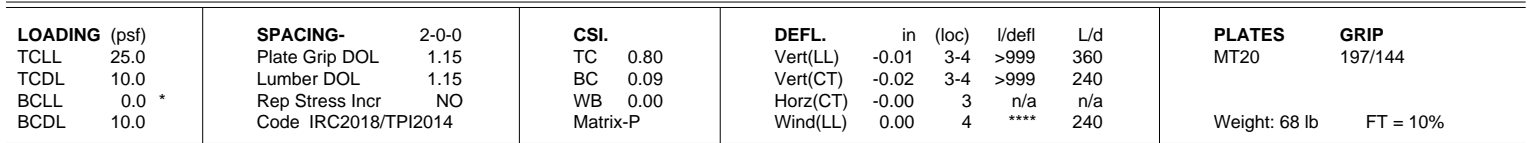
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
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Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 12 11:51:18 2023 Page 1
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June 13, 2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	R1	Flat Girder	1	2	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 15 :13 2022 Page 2
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL6w3uITXbCKWwOD6r74zJdC44

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

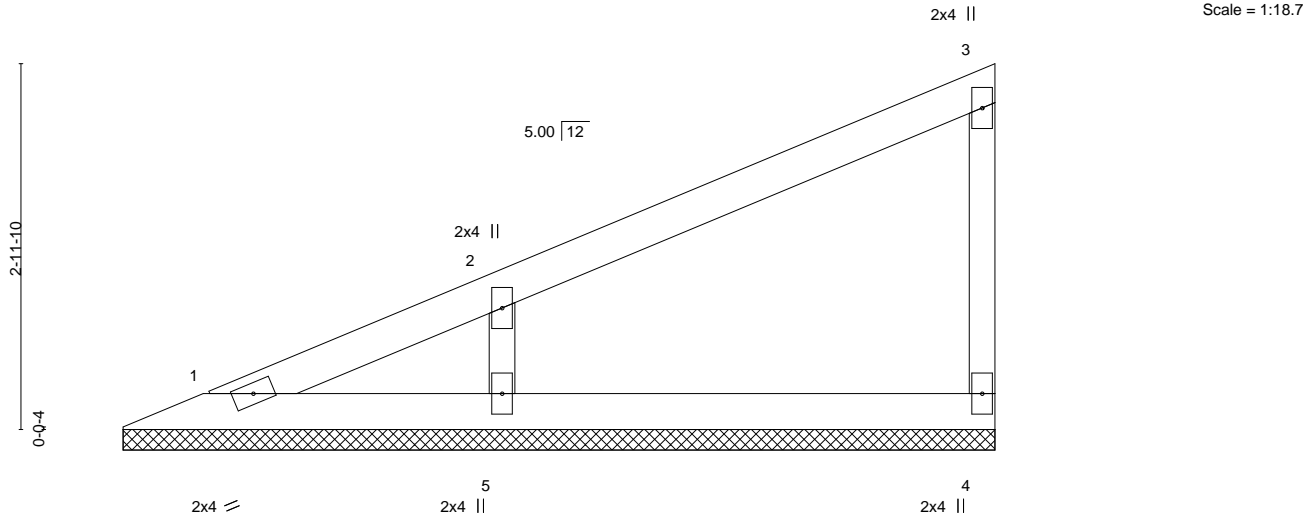
07/03/2023

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 5=-1181 6=-1168 7=-1168

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	V1	Valley	1	1	
Wheeler Lumber, Waverly, KS - 66871,					Job Reference (optional)

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07/03/2023



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 18 lb	FT = 10%

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

REACTIONS. (size) 1=7-0-14, 4=7-0-14, 5=7-0-14
Max Horz 1=115(LC 5)
Max Uplift 4=27(LC 8), 5=98(LC 8)
Max Grav 1=61(LC 16), 4=142(LC 1), 5=370(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-288/148

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

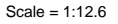


June 13, 2023

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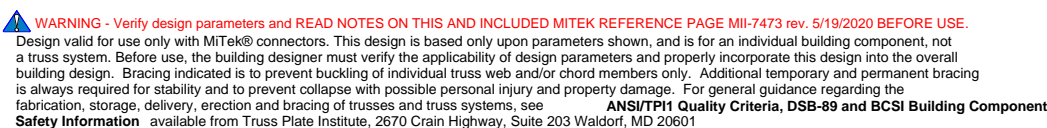
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jan 12 15:15:20 2022 Page 2
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4-8-11
4-8-11



STATE OF MISSOURI
NATHANIEL FOX
NUMBER
PE-2022042259
PROFESSIONAL ENGINEER

June 13, 2023



Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	V3	Valley	1	1	
Wheeler Lumber, Waverly, KS - 66871,					Job Reference (optional)

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07/03/2023

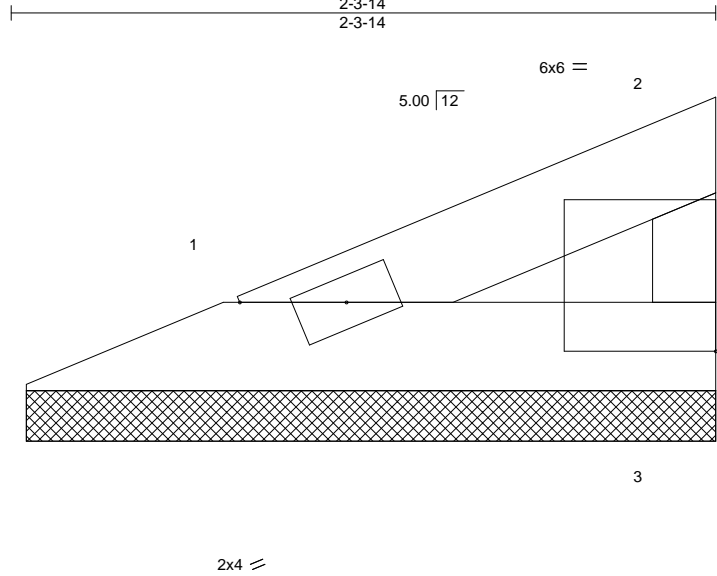


Plate Offsets (X,Y)--		[2:Edge,0-1-15]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.03
TCDL 10.0	Lumber DOL	1.15	BC 0.02
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-P
			DEFL. in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) -0.00 3 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 5 lb FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-3-14 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	

REACTIONS.	(size) 1=2-3-5, 3=2-3-5
Max Horz	1=27(LC 5)
Max Uplift	1=-10(LC 8), 3=-15(LC 8)
Max Grav	1=66(LC 1), 3=66(LC 1)

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

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



June 13,2023

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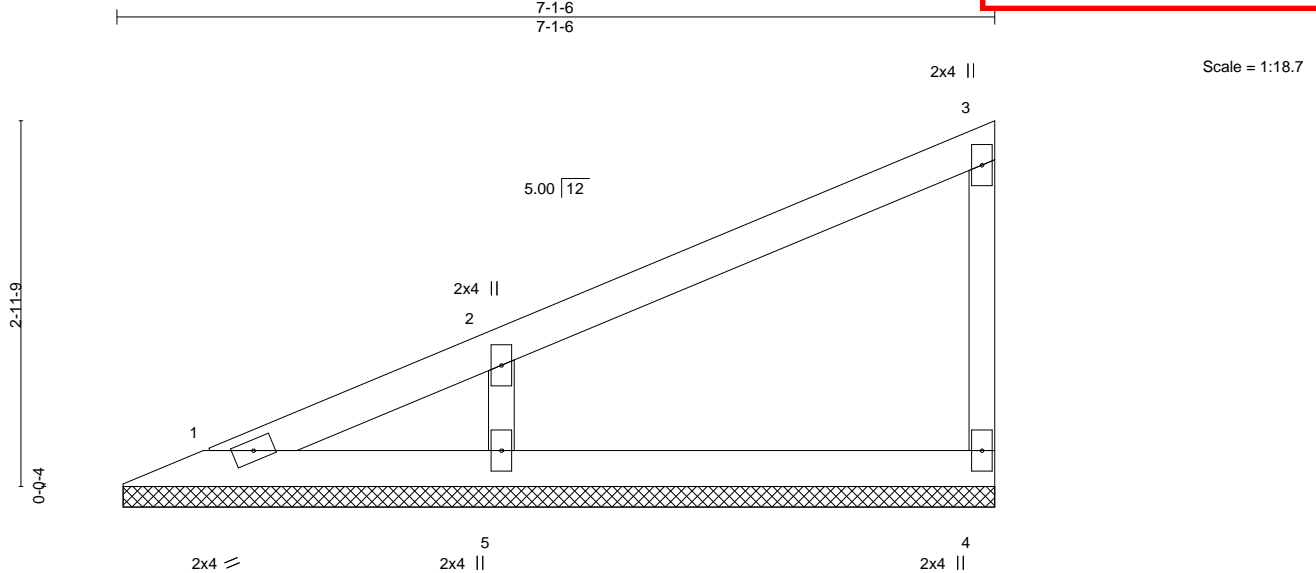
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	V4	Valley	1	1	
Wheeler Lumber, Waverly, KS - 66871,					Job Reference (optional)

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07/03/2023

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 12 15:13:2022 Page 1
ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWtODm734zJc44



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 18 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=7-0-13, 4=7-0-13, 5=7-0-13
Max Horz 1=114(LC 5)
Max Uplift 4=-27(LC 8), 5=-98(LC 8)
Max Grav 1=61(LC 16), 4=142(LC 1), 5=370(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-287/148

NOTES-

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



June 13, 2023

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

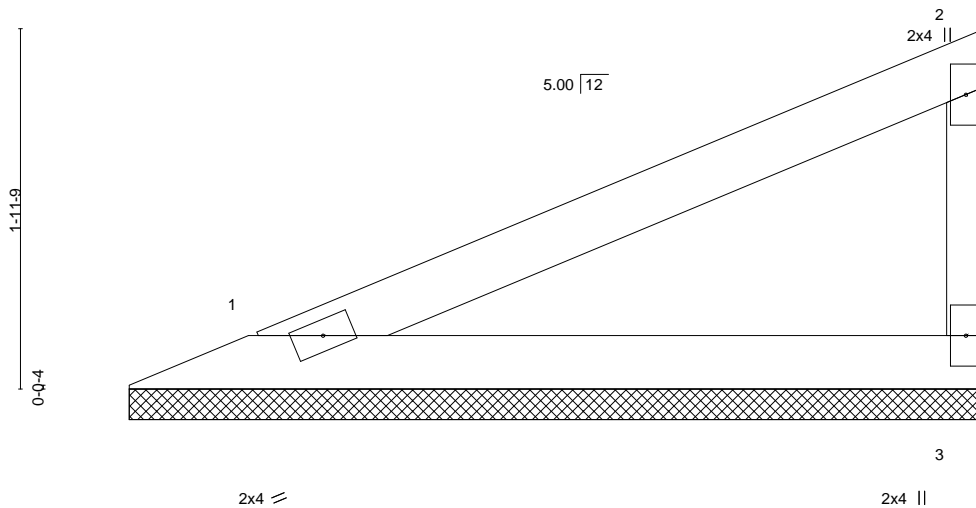


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	V5	Valley	1	1	
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:18 2023 Page 1
ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnLw3uITXbCKWwODm7J4ZJC44

07/03/2023



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 11 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-8-10 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	

REACTIONS. (size) 1=4-8-0, 3=4-8-0
Max Horz 1=71(LC 5)
Max Uplift 1=-25(LC 8), 3=-40(LC 8)
Max Grav 1=174(LC 1), 3=174(LC 1)

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

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

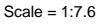


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Wheeler Lumber, Waverly, KS - 66871, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 12 11:51:18 2023 Page 1
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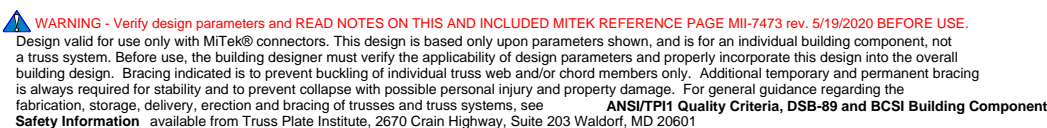


NOTES-

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



June 13, 2023



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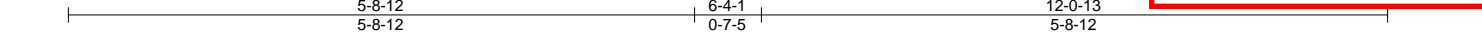
07/03/2023

Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	V7	Valley	1	1	
Job Reference (optional)					

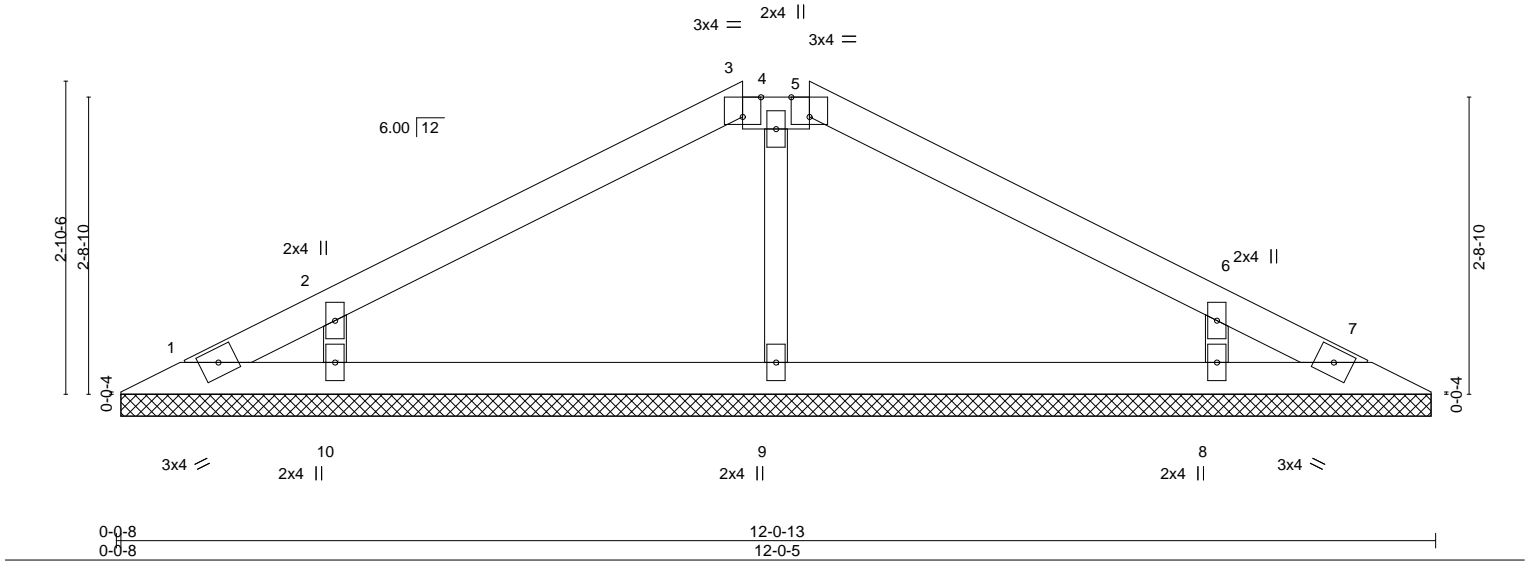
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 13 15:28:28 2023 Page 1

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Scale = 1:21.1



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00				
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
								Weight: 30 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD	2x4 SPF No.2		2-0-0 oc purlins (6-0-0 max.): 3-5.
OTHERS	2x3 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.	
All bearings 11-11-13.	
(lb) - Max Horz 1=44(LC 9)	
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 8=102(LC 9), 10=103(LC 8)	
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 9=318(LC 1), 8=330(LC 22), 10=330(LC 21)	

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
WEBS 6-8=-269/146, 2-10=-270/147	

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 8=102, 10=103.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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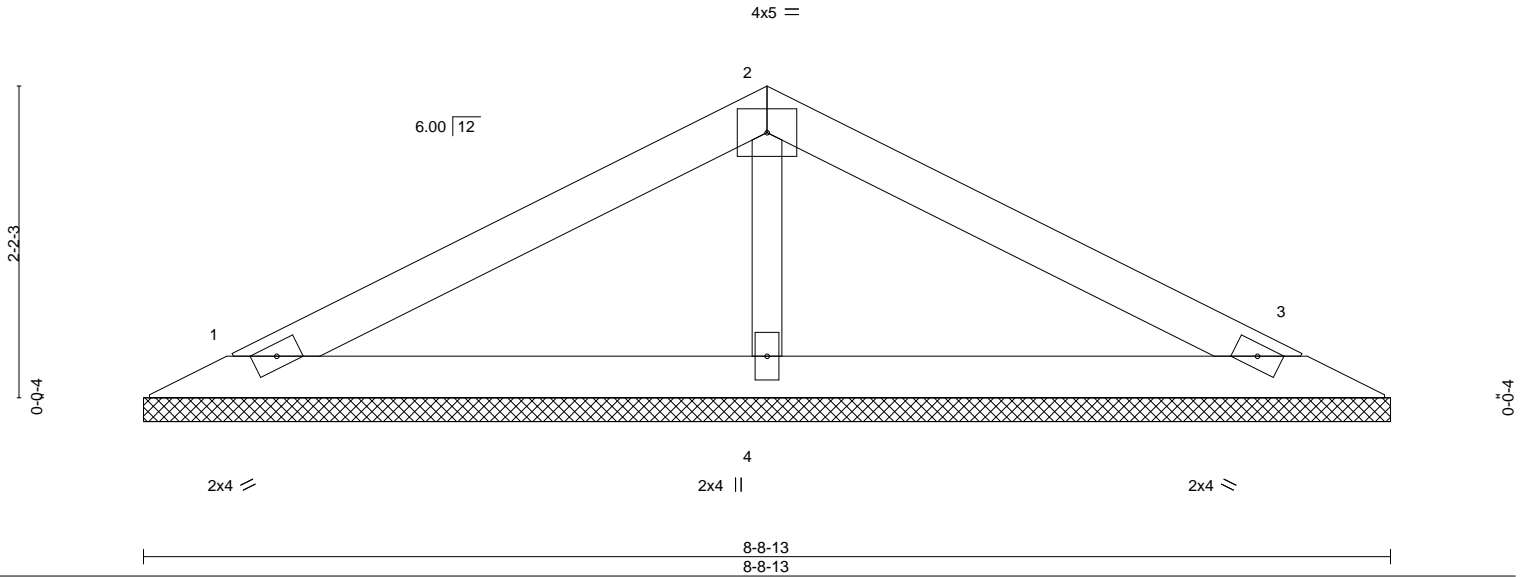
Job	Truss	Truss Type	Qty	Ply	Lot 98 RR
B230098	V8	Valley	1	1	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jun 7 2 15 :23 2022 Page 1
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbCKWwODm7J4ZJC44

4-4-7 4-4-7 8-8-13 4-4-7

Scale: 3/4"=1'



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

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=8-8-13, 3=8-8-13, 4=8-8-13
Max Horz 1=33(LC 12)
Max Uplift 1=40(LC 8), 3=46(LC 9), 4=4(LC 8)
Max Grav 1=176(LC 1), 3=176(LC 1), 4=322(LC 1)

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

NOTES-

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



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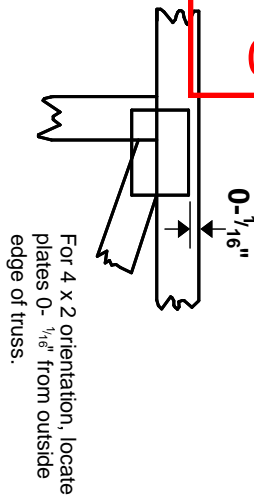
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07/03/2023

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 20/20** software or upon request.

PLATE SIZE

4 X 4

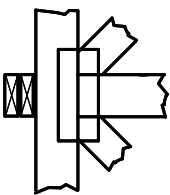
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



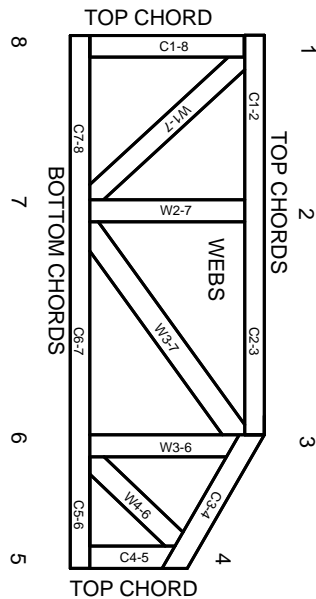
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
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.