RE: 210361
Lot 87 W0

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

Site Information:

Customer: Project Name: 210361
Lot/Block: Model:
Address: Subdivision:
City: State:

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.4
Wind Code: ASCE716LowRise Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 85 individual, dated Truss Design Drawings and 0 Additional Drawings.

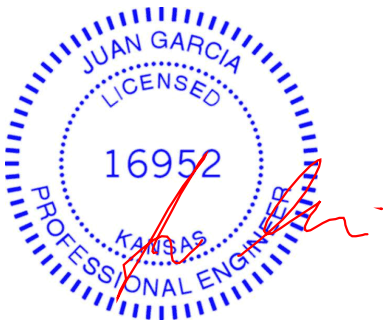
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I45442739	A5	3/31/2021	21	I45442759	D2	3/31/2021
2	I45442740	A11	3/31/2021	22	I45442760	D3	3/31/2021
3	I45442741	A12	3/31/2021	23	I45442761	D4	3/31/2021
4	I45442742	A17	3/31/2021	24	I45442762	E1	3/31/2021
5	I45442743	A18	3/31/2021	25	I45442763	E2	3/31/2021
6	I45442744	A19	3/31/2021	26	I45442764	E3	3/31/2021
7	I45442745	A20	3/31/2021	27	I45442765	G1	3/31/2021
8	I45442746	B1	3/31/2021	28	I45442766	G2	3/31/2021
9	I45442747	B2	3/31/2021	29	I45442767	G3	3/31/2021
10	I45442748	B3	3/31/2021	30	I45442768	G4	3/31/2021
11	I45442749	C10A	3/31/2021	31	I45442769	G5	3/31/2021
12	I45442750	C11A	3/31/2021	32	I45442770	G6	3/31/2021
13	I45442751	C12A	3/31/2021	33	I45442771	G7	3/31/2021
14	I45442752	C13A	3/31/2021	34	I45442772	G8	3/31/2021
15	I45442753	C14A	3/31/2021	35	I45442773	H1	3/31/2021
16	I45442754	C15	3/31/2021	36	I45442774	H2	3/31/2021
17	I45442755	C16	3/31/2021	37	I45442775	J1	3/31/2021
18	I45442756	C17	3/31/2021	38	I45442776	J2	3/31/2021
19	I45442757	C18	3/31/2021	39	I45442777	J3	3/31/2021
20	I45442758	D1	3/31/2021	40	I45442778	J4	3/31/2021

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

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Kansas is April 30, 2022.

Kansas COA: E-943



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

March 31, 2021

Garcia, Juan

RE: 210361 - Lot 87 W0

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

Site Information:

Project Customer: Project Name: 210361
Lot/Block: Subdivision:
Address:
City, County: State:

No.	Seal#	Truss Name	Date
41	I45442779	J5	3/31/2021
42	I45442780	J6	3/31/2021
43	I45442781	J7	3/31/2021
44	I45442782	J8	3/31/2021
45	I45442783	J9	3/31/2021
46	I45442784	J10	3/31/2021
47	I45442785	J11	3/31/2021
48	I45442786	J12	3/31/2021
49	I45442787	J13	3/31/2021
50	I45442788	J14	3/31/2021
51	I45442789	J15	3/31/2021
52	I45442790	J16	3/31/2021
53	I45442791	J17	3/31/2021
54	I45442792	J18	3/31/2021
55	I45442793	J19	3/31/2021
56	I45442794	J20	3/31/2021
57	I45442795	J21	3/31/2021
58	I45442796	J22	3/31/2021
59	I45442797	J23	3/31/2021
60	I45442798	J24	3/31/2021
61	I45442799	J25	3/31/2021
62	I45442800	LAY1B	3/31/2021
63	I45442801	LAY3	3/31/2021
64	I45442802	LAY4	3/31/2021
65	I45442803	LAY5	3/31/2021
66	I45442804	LAY6	3/31/2021
67	I45442805	LAY7	3/31/2021
68	I45442806	LAY8	3/31/2021
69	I45442807	V6	3/31/2021
70	I45442808	V7	3/31/2021
71	I45442809	V8	3/31/2021
72	I45442810	V9	3/31/2021
73	I45442811	V10	3/31/2021
74	I45442812	V11	3/31/2021
75	I45442813	V12	3/31/2021
76	I45442814	V13	3/31/2021
77	I45442815	V14	3/31/2021
78	I45442816	V15	3/31/2021
79	I45442817	V16	3/31/2021
80	I45442818	V19	3/31/2021
81	I45442819	V20	3/31/2021
82	I45442820	V21	3/31/2021
83	I45442821	V22	3/31/2021
84	I45442822	V23	3/31/2021

No.	Seal#	Truss Name	Date
85	I45442823	V24	3/31/2021

RE: 210361
Lot 87 W0

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

Site Information:

Customer: Project Name: 210361
Lot/Block: Model:
Address: Subdivision:
City: State:

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.4
Wind Code: ASCE716LowRise Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 85 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I45442739	A5	3/31/2021	21	I45442759	D2	3/31/2021
2	I45442740	A11	3/31/2021	22	I45442760	D3	3/31/2021
3	I45442741	A12	3/31/2021	23	I45442761	D4	3/31/2021
4	I45442742	A17	3/31/2021	24	I45442762	E1	3/31/2021
5	I45442743	A18	3/31/2021	25	I45442763	E2	3/31/2021
6	I45442744	A19	3/31/2021	26	I45442764	E3	3/31/2021
7	I45442745	A20	3/31/2021	27	I45442765	G1	3/31/2021
8	I45442746	B1	3/31/2021	28	I45442766	G2	3/31/2021
9	I45442747	B2	3/31/2021	29	I45442767	G3	3/31/2021
10	I45442748	B3	3/31/2021	30	I45442768	G4	3/31/2021
11	I45442749	C10A	3/31/2021	31	I45442769	G5	3/31/2021
12	I45442750	C11A	3/31/2021	32	I45442770	G6	3/31/2021
13	I45442751	C12A	3/31/2021	33	I45442771	G7	3/31/2021
14	I45442752	C13A	3/31/2021	34	I45442772	G8	3/31/2021
15	I45442753	C14A	3/31/2021	35	I45442773	H1	3/31/2021
16	I45442754	C15	3/31/2021	36	I45442774	H2	3/31/2021
17	I45442755	C16	3/31/2021	37	I45442775	J1	3/31/2021
18	I45442756	C17	3/31/2021	38	I45442776	J2	3/31/2021
19	I45442757	C18	3/31/2021	39	I45442777	J3	3/31/2021
20	I45442758	D1	3/31/2021	40	I45442778	J4	3/31/2021

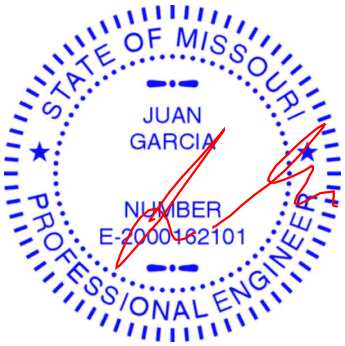
The truss drawing(s) referenced above have been prepared by MiTek USA, Inc under my direct supervision based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

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

Missouri COA: 001193

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



March 31, 2021

Garcia, Juan

RE: 210361 - Lot 87 W0

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

Site Information:

Project Customer: Project Name: 210361
Lot/Block: Subdivision:
Address:
City, County: State:

No.	Seal#	Truss Name	Date
41	I45442779	J5	3/31/2021
42	I45442780	J6	3/31/2021
43	I45442781	J7	3/31/2021
44	I45442782	J8	3/31/2021
45	I45442783	J9	3/31/2021
46	I45442784	J10	3/31/2021
47	I45442785	J11	3/31/2021
48	I45442786	J12	3/31/2021
49	I45442787	J13	3/31/2021
50	I45442788	J14	3/31/2021
51	I45442789	J15	3/31/2021
52	I45442790	J16	3/31/2021
53	I45442791	J17	3/31/2021
54	I45442792	J18	3/31/2021
55	I45442793	J19	3/31/2021
56	I45442794	J20	3/31/2021
57	I45442795	J21	3/31/2021
58	I45442796	J22	3/31/2021
59	I45442797	J23	3/31/2021
60	I45442798	J24	3/31/2021
61	I45442799	J25	3/31/2021
62	I45442800	LAY1B	3/31/2021
63	I45442801	LAY3	3/31/2021
64	I45442802	LAY4	3/31/2021
65	I45442803	LAY5	3/31/2021
66	I45442804	LAY6	3/31/2021
67	I45442805	LAY7	3/31/2021
68	I45442806	LAY8	3/31/2021
69	I45442807	V6	3/31/2021
70	I45442808	V7	3/31/2021
71	I45442809	V8	3/31/2021
72	I45442810	V9	3/31/2021
73	I45442811	V10	3/31/2021
74	I45442812	V11	3/31/2021
75	I45442813	V12	3/31/2021
76	I45442814	V13	3/31/2021
77	I45442815	V14	3/31/2021
78	I45442816	V15	3/31/2021
79	I45442817	V16	3/31/2021
80	I45442818	V19	3/31/2021
81	I45442819	V20	3/31/2021
82	I45442820	V21	3/31/2021
83	I45442821	V22	3/31/2021
84	I45442822	V23	3/31/2021

No.	Seal#	Truss Name	Date
85	I45442823	V24	3/31/2021

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	A5	Half Hip Girder	1	2	I45442739
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:15 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-apUZcAcQk9?Li_2FHFROtlUa_T6r9NfmY6kVwRzVRzo

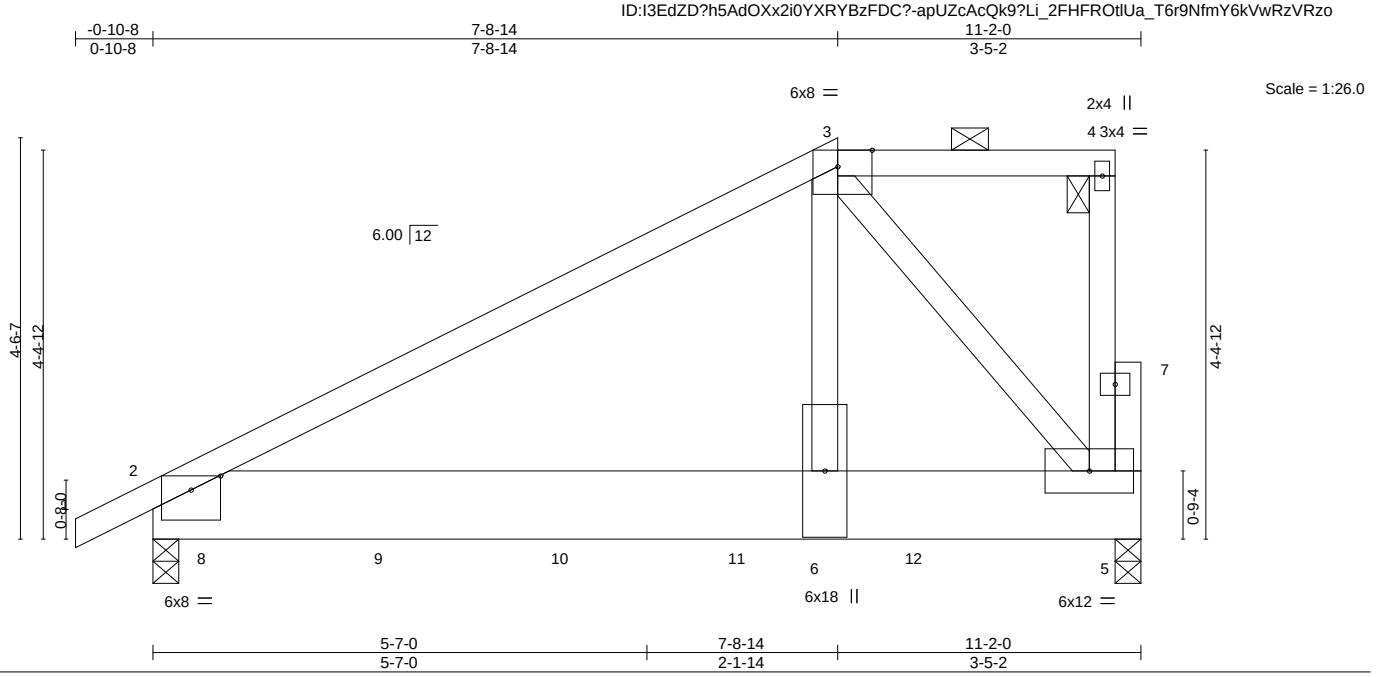


Plate Offsets (X,Y)-- [2:0-4-0,0-1-15], [3:0-4-10,Edge]

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	0.70	Vert(LL)	-0.07	2-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.13	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.60	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03	2-6	>999	240	Weight: 145 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x10 SP DSS
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

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

REACTIONS. (size) 5=0-3-8 (req. 0-3-13), 2=0-3-8 (req. 0-3-10)
Max Horz 2=131(LC 5)
Max Uplift 5=-112(LC 5)
Max Grav 5=4878(LC 2), 2=4637(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3598/63
BOT CHORD 2-6=-76/3103, 5-6=-76/2921
WEBS 3-6=-24/4888, 3-5=-4612/99

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-3-0 oc.
   Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; 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) WARNING: Required bearing size at joint(s) 5, 2 greater than input bearing size.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=112.
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) 1444 lb down at 0-8-0, 1442 lb down and 36 lb up at 2-8-0, 1421 lb down and 44 lb up at 4-8-0, 1439 lb down and 46 lb up at 6-8-0, and 1439 lb down and 46 lb up at 8-8-0, and 1447 lb down and 38 lb up at 10-10-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

March 31,2021

LOAD CASE(S) Standard

Continued on page 2

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-70, 3-4=-70, 2-5=-20
   Concentrated Loads (lb)
   Vert: 5=-1383(B) 8=-1378(B) 9=-1373(B) 10=-1375(B) 11=-1375(B) 12=-1375(B)

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

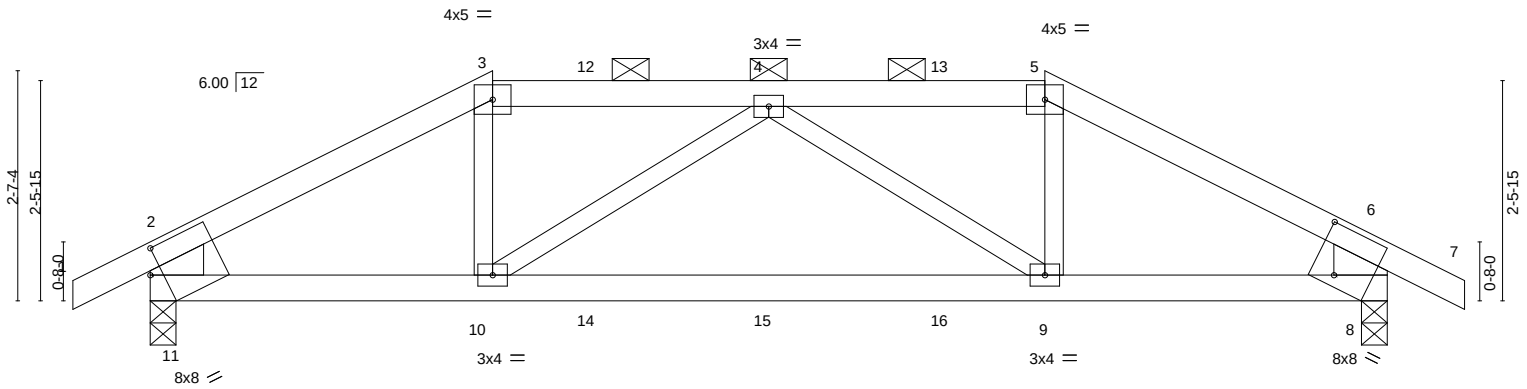
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	A11	Hip Girder	1	1	I45442740
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:09 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-lf7IL7Xf8JEC_3a5x_K_eUEXu20ulmit9AHAjnzVRzu

-0-10-8	3-10-8	7-0-0	10-1-8	14-0-0	14-10-8
0-10-8	3-10-8	3-1-8	3-1-8	3-10-8	0-10-8

Scale = 1:26.1



3-10-8	10-1-8	14-0-0
3-10-8	6-3-0	3-10-8

Plate Offsets (X,Y)-- [8:0-3-2,0-6-8], [11:0-1-10,0-3-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.11	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.25	9-10	>651	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.18	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.09	9-10	>999	240	Weight: 47 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF 2100F 1.8E *Except*
3-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-11,6-8: 2x8 SP DSS

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-0-4 oc purlins, except end verticals, and 2-0-0 oc purlins (5-0-6 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 9-5-3 oc bracing.

REACTIONS. (size) 11=0-3-8, 8=0-3-8
Max Horz 11=49(LC 28)
Max Uplift 11=-241(LC 8), 8=-241(LC 9)
Max Grav 11=1034(LC 1), 8=1034(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1484/321, 3-4=-1206/304, 4-5=-1206/304, 5-6=-1484/321, 2-11=-953/237, 6-8=-953/237
BOT CHORD 10-11=-262/1227, 9-10=-386/1516, 8-9=-236/1227
WEBS 3-10=-54/529, 4-9=-412/185, 5-9=-54/529, 4-10=-412/185

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=241, 8=241.
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) 77 lb down and 72 lb up at 3-10-8, 84 lb down and 72 lb up at 5-0-0, 84 lb down and 72 lb up at 7-0-0, and 84 lb down and 72 lb up at 9-0-0, and 77 lb down and 72 lb up at 10-1-8 on top chord, and 210 lb down and 75 lb up at 3-10-8, 29 lb down at 5-0-0, 29 lb down at 7-0-0, and 29 lb down at 9-0-0, and 210 lb down and 75 lb up at 10-0-12 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

March 31,2021

Continued on page 2

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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, 8-11=-20
   Concentrated Loads (lb)
   Vert: 3=-42(F) 5=-42(F) 10=-210(F) 9=-210(F) 4=-42(F) 12=-42(F) 13=-42(F) 14=-23(F) 15=-23(F) 16=-23(F)

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

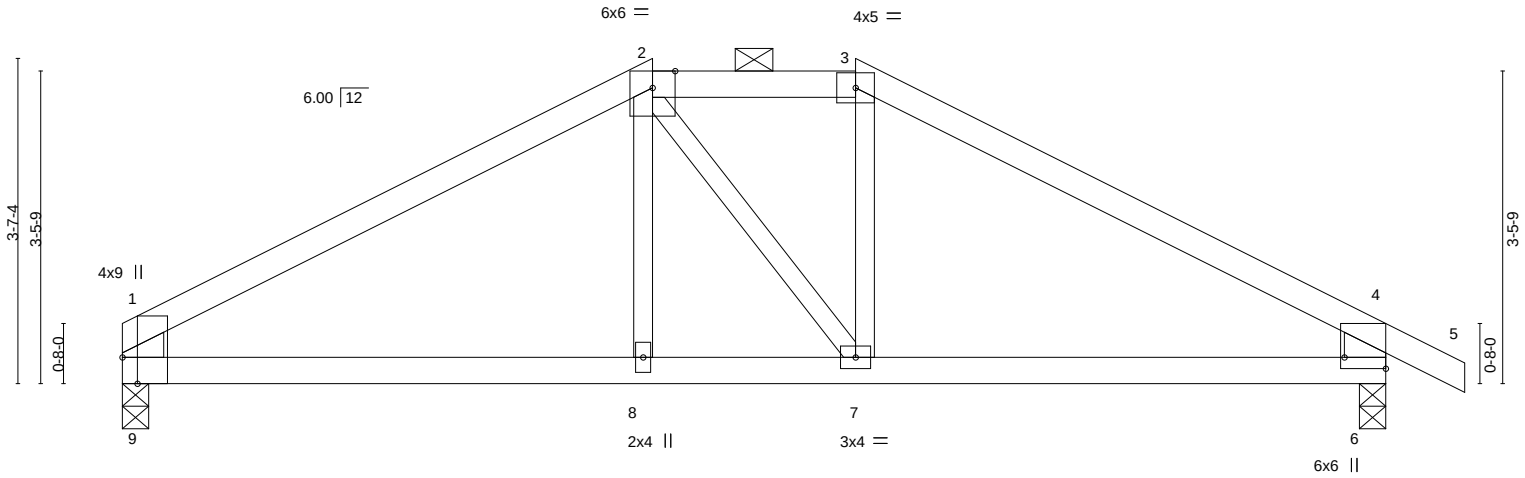
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	A12	Hip	1	1	I45442741
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:10 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-DrggZTYHvdN2cD9HUirDAhnmPSScUFv1Oq1kFDzVRzt

5-10-8 | 8-1-8 | 14-0-0 | 14-10-8
5-10-8 | 2-3-0 | 5-10-8 | 0-10-8

Scale = 1:25.5



5-10-8 | 8-1-8 | 14-0-0
5-10-8 | 2-3-0 | 5-10-8

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

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.03	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.07	6-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.01	7	>999	240	Weight: 44 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-9,4-6: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-10-8 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 9=0-3-8, 6=0-3-8
Max Horz 9=-64(LC 4)
Max Uplift 9=-67(LC 8), 6=-93(LC 9)
Max Grav 9=606(LC 1), 6=690(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-805/75, 2-3=-635/112, 3-4=-815/76, 1-9=-531/106, 4-6=-627/136
BOT CHORD 8-9=-28/636, 7-8=-29/635, 6-7=0/638

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

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	A17	Common	1	1	I45442742
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:11 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-h2E3mpZvgwVvDNkT2PMSjvKw2soeDhiAdUmHngzVRzs

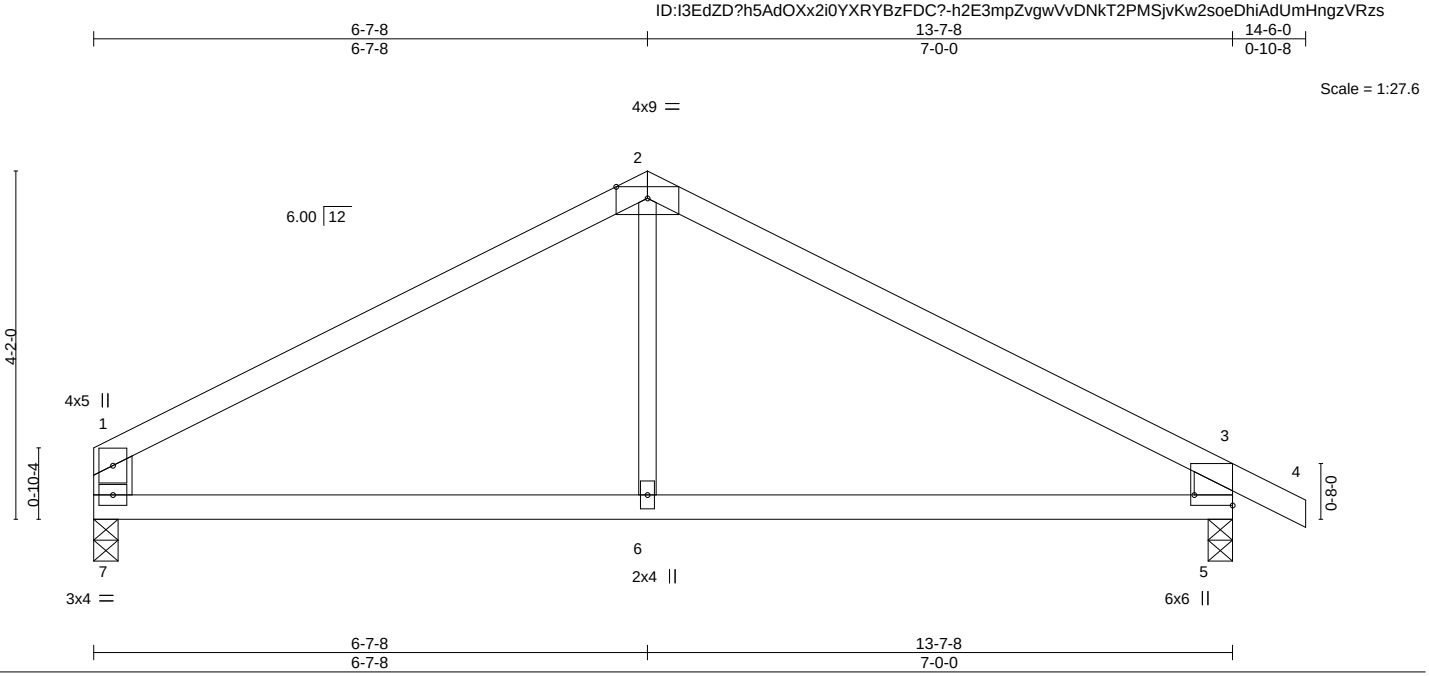


Plate Offsets (X,Y)-- [5:Edge,0-5-8]

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	0.57	Vert(LL)	-0.06	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.12	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.04	5-6	>999	240	Weight: 39 lb	FT = 10%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-9-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=0-3-8, 5=0-3-8
Max Horz 7=-78(LC 4)
Max Uplift 7=-71(LC 8), 5=-100(LC 9)
Max Grav 7=589(LC 1), 5=673(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-721/102, 2-3=-730/100, 1-7=-514/114, 3-5=-610/148
BOT CHORD 6-7=-16/549, 5-6=-16/549
WEBS 2-6=0/272

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 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.

March 31,2021

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

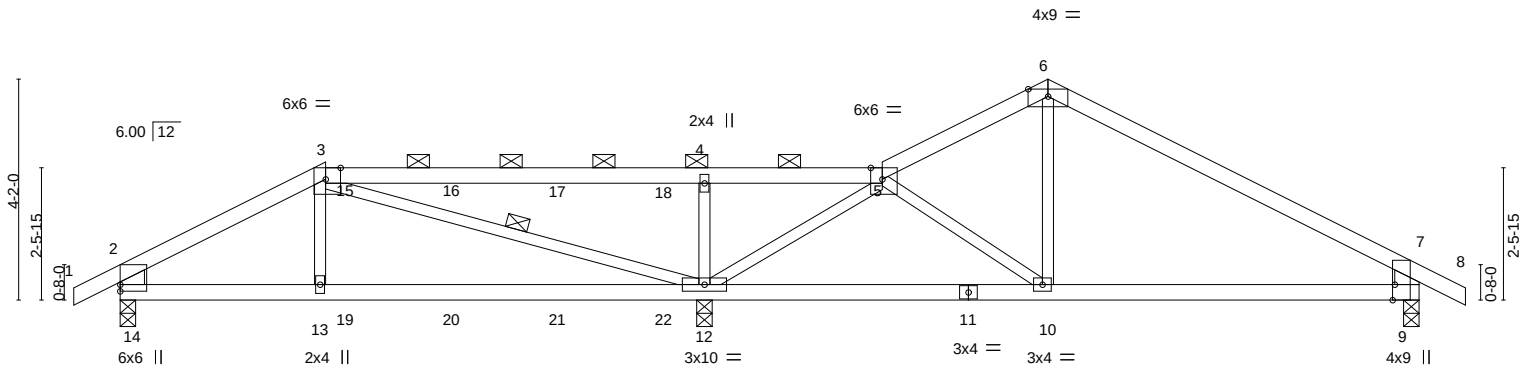
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	A18	Roof Special Girder	1	1	I45442743
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:12 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-9EoRz9ZXREdmrXJgc7thG6s3RF5Sy0WKs8WrK6zVRzr

0-10-8	3-10-8	11-0-4	14-4-8	17-6-0	24-6-0	25-4-8
0-10-8	3-10-8	7-1-12	3-4-4	3-1-8	7-0-0	0-10-8

Scale = 1:43.5



3-10-8	11-0-4	17-6-0	24-6-0
3-10-8	7-1-12	6-5-12	7-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.09	12-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.20	12-13	>633	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.02	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.05	12-13	>999	240	Weight: 80 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
3-5: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-14,7-9: 2x6 SPF No.2

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

REACTIONS. (size) 14=0-3-8, 12=0-3-8, 9=0-3-8
Max Horz 14=-69(LC 6)
Max Uplift 14=-200(LC 8), 12=-281(LC 8), 9=-156(LC 30)
Max Grav 14=731(LC 1), 12=1500(LC 1), 9=599(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1004/273, 3-4=0/305, 4-5=0/303, 5-6=-493/224, 6-7=-586/188, 2-14=-662/190, 7-9=-544/205
BOT CHORD 13-14=-234/832, 12-13=-237/817, 10-12=-217/381, 9-10=-67/422
WEBS 3-13=0/400, 3-12=-1143/239, 4-12=-621/305, 5-12=-626/125

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=200, 12=281, 9=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) 92 lb down and 72 lb up at 3-10-8, 92 lb down and 72 lb up at 4-3-0, 92 lb down and 72 lb up at 6-3-0, and 92 lb down and 72 lb up at 8-3-0, and 92 lb down and 72 lb up at 10-3-0 on top chord, and 210 lb down and 75 lb up at 3-10-8, 29 lb down at 4-3-0, 29 lb down at 6-3-0, and 29 lb down at 8-3-0, and 29 lb down at 10-3-0 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

March 31,2021

Continued on page 2

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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, 7-8=-70, 9-14=-20
   Concentrated Loads (lb)
   Vert: 3=-42(F) 13=-210(F) 15=-42(F) 16=-42(F) 17=-42(F) 18=-42(F) 19=-23(F) 20=-23(F) 21=-23(F) 22=-23(F)

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

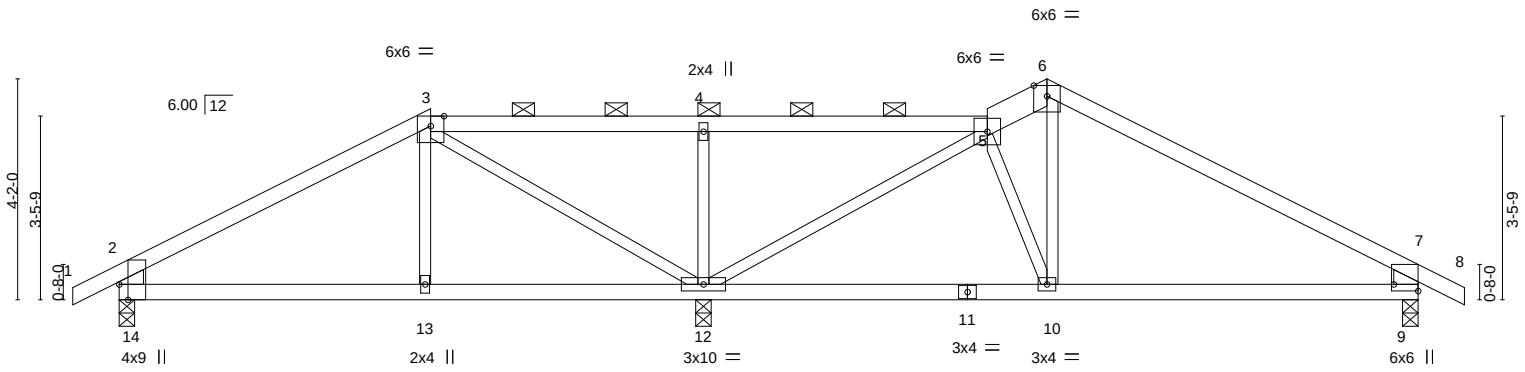
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	A19	Roof Special	1	1	I45442744
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:13 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-eQMpBVaACYldTgusAqOwoKPGNfTEhSCT4oFOsYzVRzq

0-10-8	5-10-8	11-0-4	16-4-8	17-6-0	24-6-0	25-4-8
0-10-8	5-10-8	5-1-12	5-4-4	1-1-8	7-0-0	0-10-8

Scale = 1:43.5



5-10-8	11-0-4	17-6-0	24-6-0
5-10-8	5-1-12	6-5-12	7-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.04	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.09	9-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.02	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.02	9-10	>999	240	Weight: 82 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-14,7-9: 2x6 SPF No.2

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

REACTIONS. (size) 14=0-3-8, 12=0-3-8, 9=0-3-8
Max Horz 14=-69(LC 6)
Max Uplift 14=-138(LC 8), 12=-123(LC 8), 9=-147(LC 9)
Max Grav 14=531(LC 1), 12=1140(LC 1), 9=647(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-517/159, 5-6=-573/191, 6-7=-696/170, 2-14=-481/175, 7-9=-592/192
BOT CHORD 13-14=-110/378, 12-13=-112/375, 10-12=-88/544, 9-10=-54/523
WEBS 3-12=-538/41, 4-12=-418/177, 5-12=-677/20, 6-10=-55/258

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=138, 12=123, 9=147.
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.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	A20	Half Hip	1	1	I45442745
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:14 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-6dwBOrbozrtU4qT2jYw9LXyPu3oDQ0bcJS?xO_zVRzp

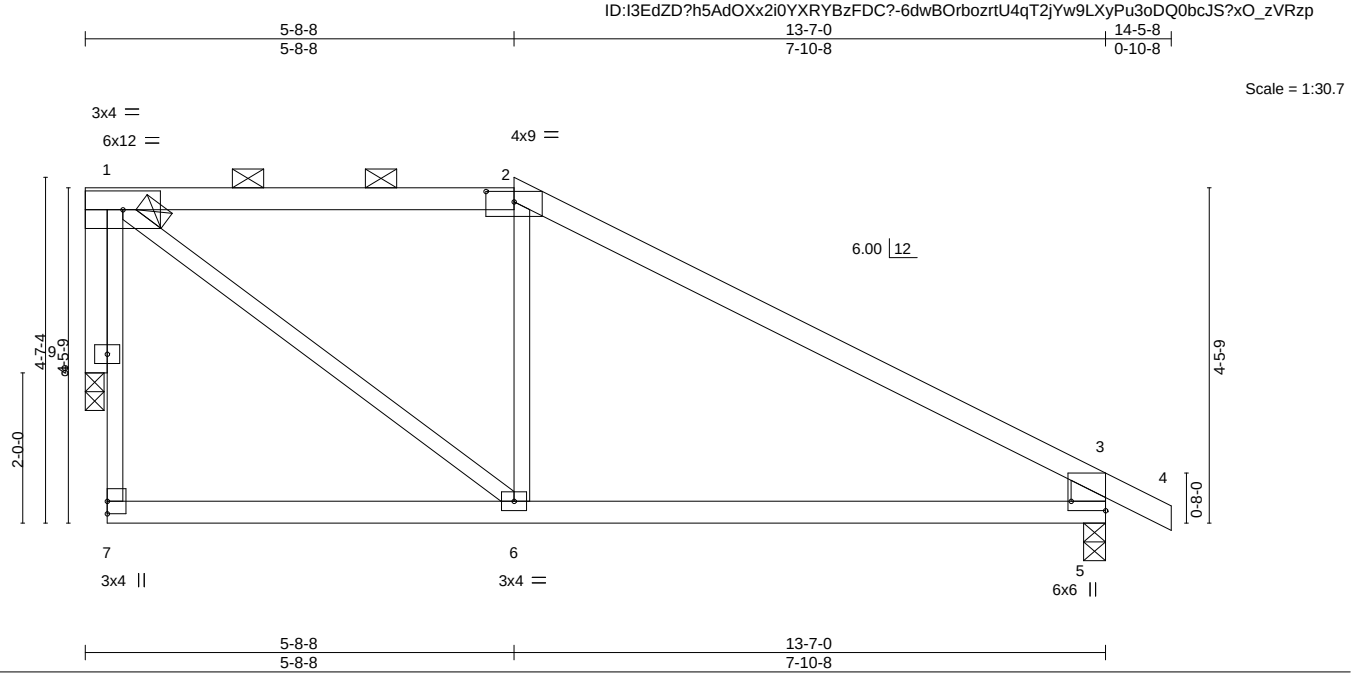


Plate Offsets (X,Y)-- [2:0-4-8,0-1-11], [5:Edge,0-5-8]

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	0.66	Vert(LL)	-0.08	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.16	5-6	>962	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.07	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04	5-6	>999	240	Weight: 48 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 3-5: 2x6 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

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

REACTIONS. (size) 5=0-3-8, 9=0-3-0
Max Horz 9=-143(LC 4)
Max Uplift 5=-110(LC 9), 9=-70(LC 4)
Max Grav 5=676(LC 1), 9=568(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-526/138, 2-3=-705/88, 3-5=-618/169
BOT CHORD 5-6=0/519
WEBS 1-6=-93/591, 1-9=-574/72

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 5=110.
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.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

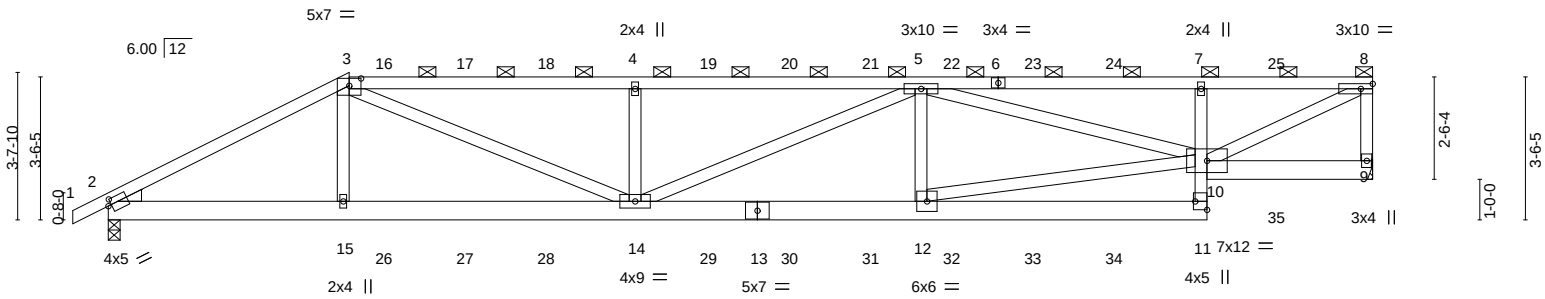
Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	B1	Half Hip Girder	1	2	I45442746
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:18 2021 Page 1

ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-_O9iECeI04NwZSmqyN_5VN64Fg4WMiMCE4z9XmzVRzI

-0-10-8	5-11-4	12-11-13	20-0-7	27-1-0	31-2-0
0-10-8	5-11-4	7-0-9	7-0-9	7-0-9	4-1-0

Scale = 1:56.8



5-11-4	12-11-13	20-0-7	27-1-0	31-2-0
5-11-4	7-0-9	7-0-9	7-0-9	4-1-0

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

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	0.76	Vert(LL)	-0.22	12-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.39	12-14	>943	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.06	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.14	12-14	>999	240	Weight: 292 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except* 3-6: 2x4 SPF 2100F 1.8E

BOT CHORD 2x6 SPF No.2 *Except* 7-11: 2x4 SPF No.2

WEBS 2x4 SPF No.2

WEDGE Left: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-2-15 oc purlins, except end verticals, and 2-0-0 oc purlins (5-3-15 max.): 3-8.

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

REACTIONS. (size) 9=Mechanical, 2=0-3-8
Max Horz 2=93(LC 5)
Max Uplift 9=-251(LC 5), 2=-240(LC 5)
Max Grav 9=2784(LC 1), 2=2715(LC 1)

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

TOP CHORD 2-3=-5119/514, 3-4=-6772/647, 4-5=-6769/646, 5-7=-4328/425, 7-8=-4333/407, 8-9=-2520/294

BOT CHORD 2-15=-495/4400, 14-15=-497/4369, 12-14=-585/6272, 11-12=-57/892, 10-11=0/290, 7-10=-702/216

WEBS 3-15=0/691, 3-14=-229/2713, 4-14=-990/291, 5-14=-95/544, 5-12=-501/255, 10-12=-534/5436, 5-10=-2036/154, 8-10=-452/4793

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; 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) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=251, 2=240.
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.

Continued on page 2

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 133 lb down and 72 lb up at 5-11-4, 114 lb down and 72 lb up at 6-9-0, 109 lb down and 72 lb up at 8-9-0, 109 lb down and 72 lb up at 10-9-0, 109 lb down and 72 lb up at 12-9-0, 109 lb down and 72 lb up at 14-9-0, 109 lb down and 72 lb up at 16-9-0, 109 lb down and 72 lb up at 18-9-0, 109 lb down and 72 lb up at 20-9-0, 109 lb down and 72 lb up at 22-9-0, 109 lb down and 72 lb up at 24-9-0, 109 lb down and 72 lb up at 26-9-0, and 110 lb down and 73 lb up at 28-9-0, and 136 lb down and 67 lb up at 31-0-4 on top chord, and 408 lb down and 116 lb up at 5-11-4, 68 lb down at 6-9-0, 68 lb down at 8-9-0, 68 lb down at 10-9-0, 68 lb down at 12-9-0, 68 lb down at 14-9-0, 68 lb down at 16-9-0, 68 lb down at 18-9-0, 68 lb down at 20-9-0, 68 lb down at 22-9-0, and 68 lb down at 24-9-0, and 68 lb down at 26-11-4 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: 1-3=-70, 3-8=-70, 2-11=-20, 9-10=-20
   Concentrated Loads (lb)
   Vert: 3=-109(F) 8=-136(F) 9=-59 11=-52(F) 7=-109(F) 15=-408(F) 14=-52(F) 4=-109(F) 16=-109(F) 17=-109(F) 18=-109(F) 19=-109(F) 20=-109(F) 21=-109(F) 22=-109(F) 23=-109(F) 24=-109(F) 25=-110(F) 26=-52(F) 27=-52(F) 28=-52(F) 29=-52(F) 30=-52(F) 31=-52(F) 32=-52(F) 33=-52(F) 34=-52(F) 35=-51

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

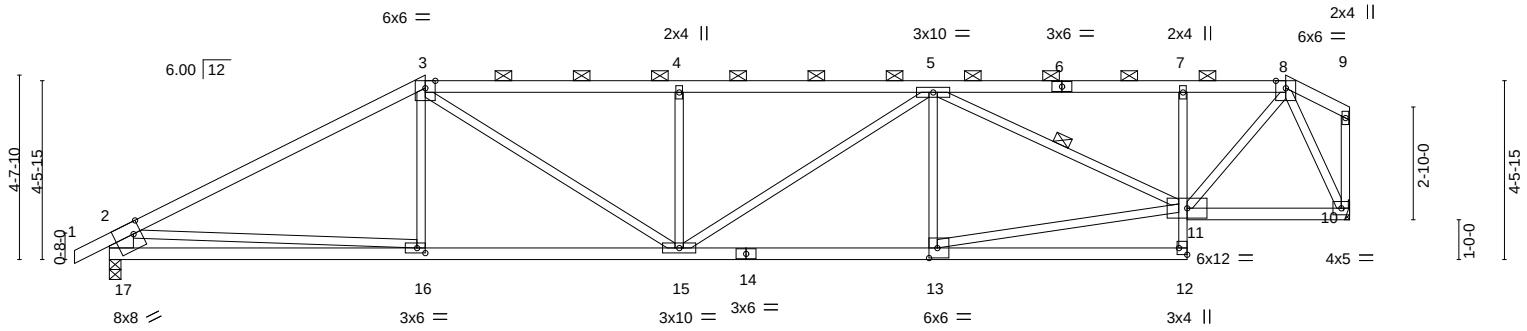
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	B2	Hip	1	1	I45442747
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:19 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-Saj4RYfwnOVnBbL0W5VK2bfCz4S3583MTkii3CzVRzk

-0-10-8	7-11-4	14-3-13	20-8-7	27-1-0	29-6-12	31-2-0
0-10-8	7-11-4	6-4-9	6-4-9	6-4-9	2-5-12	1-7-4

Scale = 1:57.9



7-11-4	14-3-13	20-8-7	27-1-0	31-2-0
7-11-4	6-4-9	6-4-9	6-4-9	4-1-0

Plate Offsets (X,Y)-- [12:Edge,0-2-8], [13:0-2-8,0-3-0], [16:0-2-8,0-1-8], [17:0-2-4,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.16	13-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.31	13-15	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.07	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.09	13-15	>999	240	Weight: 124 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 7-12: 2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 2-17: 2x8 SP DSS

BRACING-

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

REACTIONS. (size) 17=0-3-8, 10=Mechanical
Max Horz 17=120(LC 5)
Max Uplift 17=-9(LC 5), 10=-40(LC 5)
Max Grav 17=1468(LC 1), 10=1383(LC 1)

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

TOP CHORD	2-3=-2262/61, 3-4=-2578/114, 4-5=-2576/113, 5-7=-1559/87, 7-8=-1566/85, 2-17=-1395/52
BOT CHORD	16-17=-200/921, 15-16=-101/1906, 13-15=-123/2328, 7-11=-398/87, 10-11=-47/590
WEBS	3-15=-95/913, 4-15=-504/116, 5-15=-20/300, 11-13=-127/2226, 5-11=-870/29, 8-11=-77/1569, 2-16=-44/1199, 8-10=-1378/79

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 10.
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.

March 31,2021

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

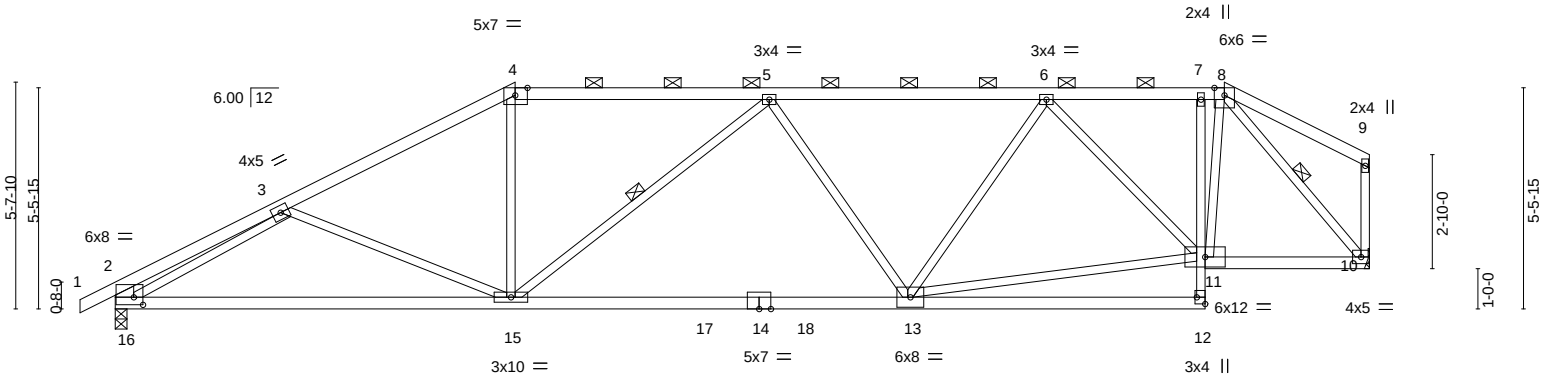
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	B3	Hip	1	1	I45442748
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:20 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-wnHSfugZYhdeolwC4o0ZaoCRUUisqYtVhOSGcezVRzj

-0-10-8	4-2-13	9-11-4	16-3-0	23-1-11	27-1-0	27-6-12	31-2-0
0-10-8	4-2-13	5-8-7	6-3-12	6-10-10	3-11-5	0-5-12	3-7-4

Scale = 1:57.3



9-11-4	19-8-5	27-1-0	31-2-0
9-11-4	9-9-2	7-4-11	4-1-0

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

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.28	13-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.49	13-15	>761	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07	13-15	>999	240	Weight: 127 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 14-16: 2x4 SPF 2100F 1.8E, 7-12: 2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 2-16: 2x6 SPF No.2

BRACING-

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

REACTIONS. (size) 16=0-3-8, 10=Mechanical
Max Horz 16=130(LC 5)
Max Uplift 10=-8(LC 4)
Max Grav 16=1509(LC 2), 10=1444(LC 2)

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

TOP CHORD	2-3=-683/0, 3-4=-2211/38, 4-5=-1908/50, 5-6=-2022/48, 6-7=-1200/55, 7-8=-1205/54, 2-16=-465/11
BOT CHORD	15-16=-133/1997, 13-15=-117/2168, 10-11=-43/1066
WEBS	4-15=0/628, 5-15=-502/122, 5-13=-351/93, 6-13=0/396, 11-13=-99/1709, 6-11=-929/70, 8-11=-29/1056, 3-16=-1741/86, 8-10=-1630/45

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10.
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.

March 31,2021

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

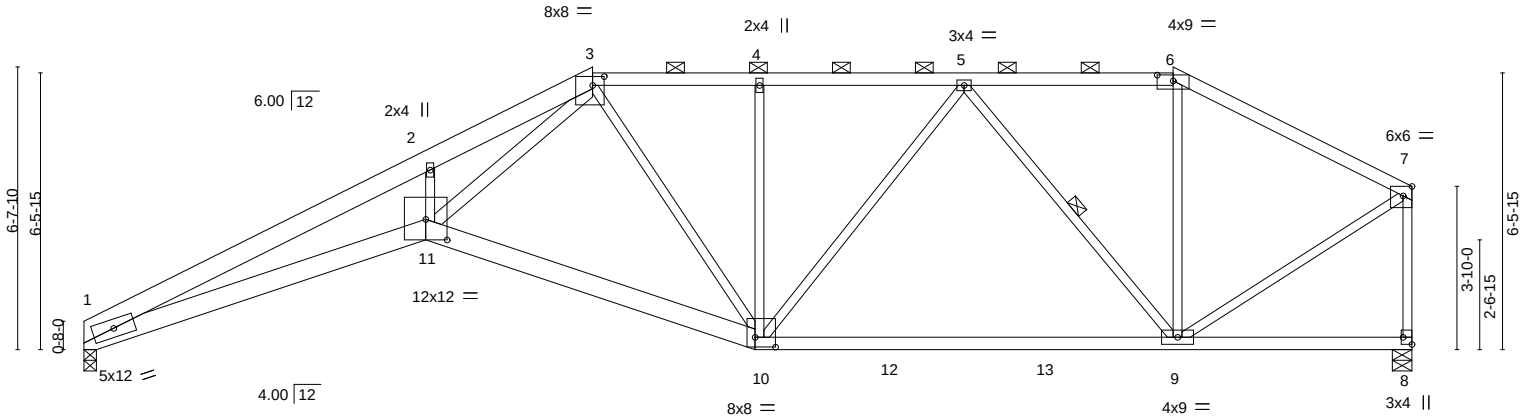
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	C10A	Hip	1	1	I45442749
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:21 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-PzrrsEgBJ?lVQvVOeWYo70kcUu6YZ2Tew1Bp85zVRzi

4-1-6	8-0-4	11-11-4	15-9-0	20-7-14	25-6-12	31-2-0
4-1-6	3-10-14	3-11-0	3-9-12	4-10-14	4-10-14	5-7-4

Scale = 1:54.1



8-0-4	15-9-0	25-6-12	31-2-0
8-0-4	7-8-12	9-9-12	5-7-4

Plate Offsets (X,Y)-- [3:0-3-4,0-2-8], [6:0-4-8,0-1-11], [7:0-2-8,Edge], [8:Edge,0-2-8], [10:0-5-12,0-2-12], [11:0-6-0,0-5-13]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.44	9-10	>849	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.77	9-10	>482	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.39	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.26	11	>999	240	Weight: 137 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x6 SPF 1650F 1.4E
BOT CHORD 2x6 SPF 1650F 1.4E *Except*
10-11: 2x6 SPF No.2, 8-10: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
3-11: 2x4 SPF 2100F 1.8E

BRACING-

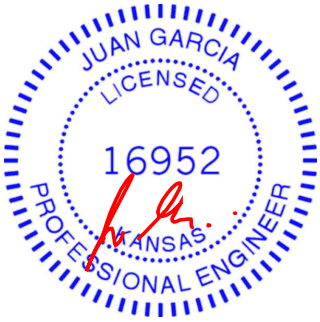
TOP CHORD Structural wood sheathing directly applied or 2-9-3 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-14 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-9

REACTIONS. (size) 1=0-3-8, 8=0-5-8
Max Horz 1=184(LC 7)
Max Uplift 1=-144(LC 8), 8=-109(LC 4)
Max Grav 1=1448(LC 2), 8=1466(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-6015/678, 2-3=-5846/750, 3-4=-1874/241, 4-5=-1873/240, 5-6=-1115/157, 6-7=-1309/152, 7-8=-1427/126
BOT CHORD 1-11=-759/5532, 10-11=-359/2297, 9-10=-264/1622
WEBS 2-11=-182/271, 3-11=-586/4139, 3-10=-556/128, 4-10=-318/131, 5-10=-28/430, 5-9=-876/209, 6-9=0/334, 7-9=-123/1324

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=144, 8=109.
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.



March 31,2021

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

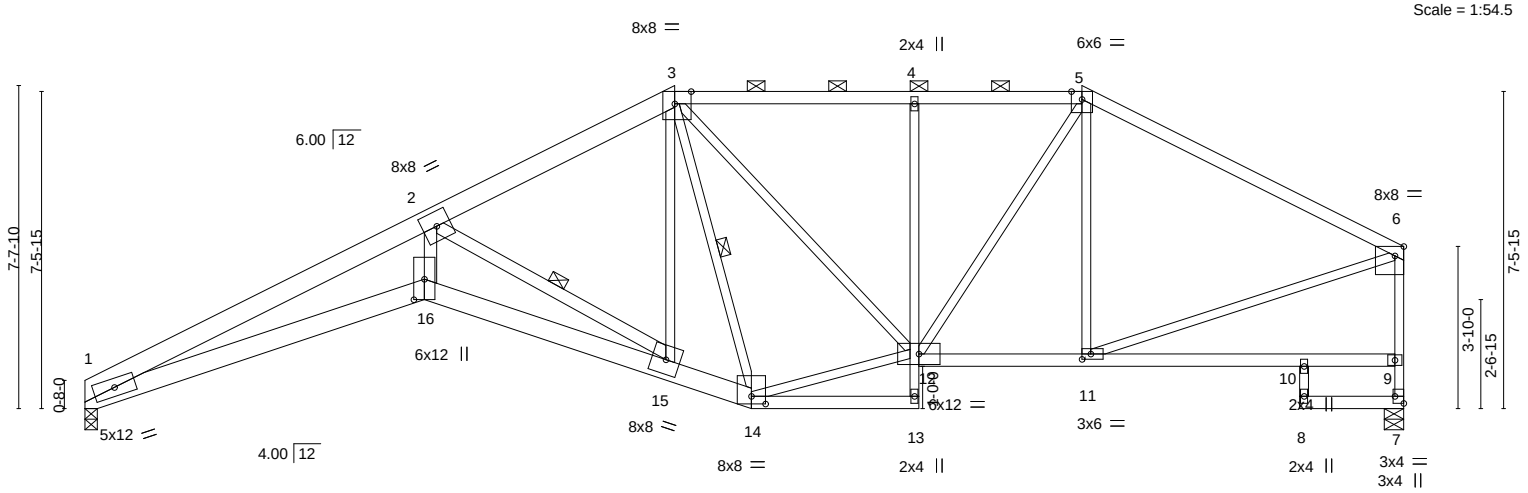
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	C11A	Hip	1	1	I45442750
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:22 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-t9PD4ahp4JtM234bBD31gDHkPHWNIU?o9hxMgXzVRzh

8-0-4	13-11-4	15-9-0	19-8-8	23-6-12	28-8-8	30-11-8	31-2-0
8-0-4	5-11-0	1-9-12	3-11-8	3-10-4	5-1-12	2-3-0	0-2-8

Scale = 1:54.5



8-0-4	13-11-4	15-9-0	19-8-8	23-6-12	28-8-8	31-2-0
8-0-4	5-11-0	1-9-12	3-11-8	3-10-4	5-1-12	2-5-8

Plate Offsets (X,Y)-- [3:0-4-10,Edge], [6:0-2-8,Edge], [7:Edge,0-2-8], [11:0-2-8,0-1-8], [14:0-4-0,0-2-3], [16:0-5-13,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.37	16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.66	16	>558	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.40	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.26	16	>999	240	Weight: 163 lb	FT = 10%

LUMBER-

TOP CHORD	2x6 SPF 1650F 1.4E *Except*
	3-5: 2x4 SPF No.2, 5-6: 2x4 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2 *Except*
	1-16,14-16: 2x6 SP DSS, 4-13: 2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except*
	2-16,2-15: 2x4 SPF No.2

BRACING-

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

REACTIONS. (size) 1=0-3-8, 7=0-5-8
Max Horz 1=197(LC 7)
Max Uplift 1=-161(LC 8), 7=-100(LC 9)
Max Grav 1=1391(LC 1), 7=1391(LC 1)

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

TOP CHORD	1-2=-5795/706, 2-3=-1951/234, 3-4=-1633/194, 4-5=-1634/196, 5-6=-1556/125, 7-9=-1360/113, 6-9=-1316/137
BOT CHORD	1-16=-707/5273, 15-16=-668/4955, 14-15=-219/1775, 4-12=-391/162, 11-12=-133/1299
WEBS	2-16=-342/3326, 2-15=-3588/638, 3-15=-121/1099, 3-14=-937/151, 12-14=-175/1408, 3-12=-91/403, 5-12=-146/714, 5-11=-281/119, 6-11=-105/1283

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 1=161.
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.

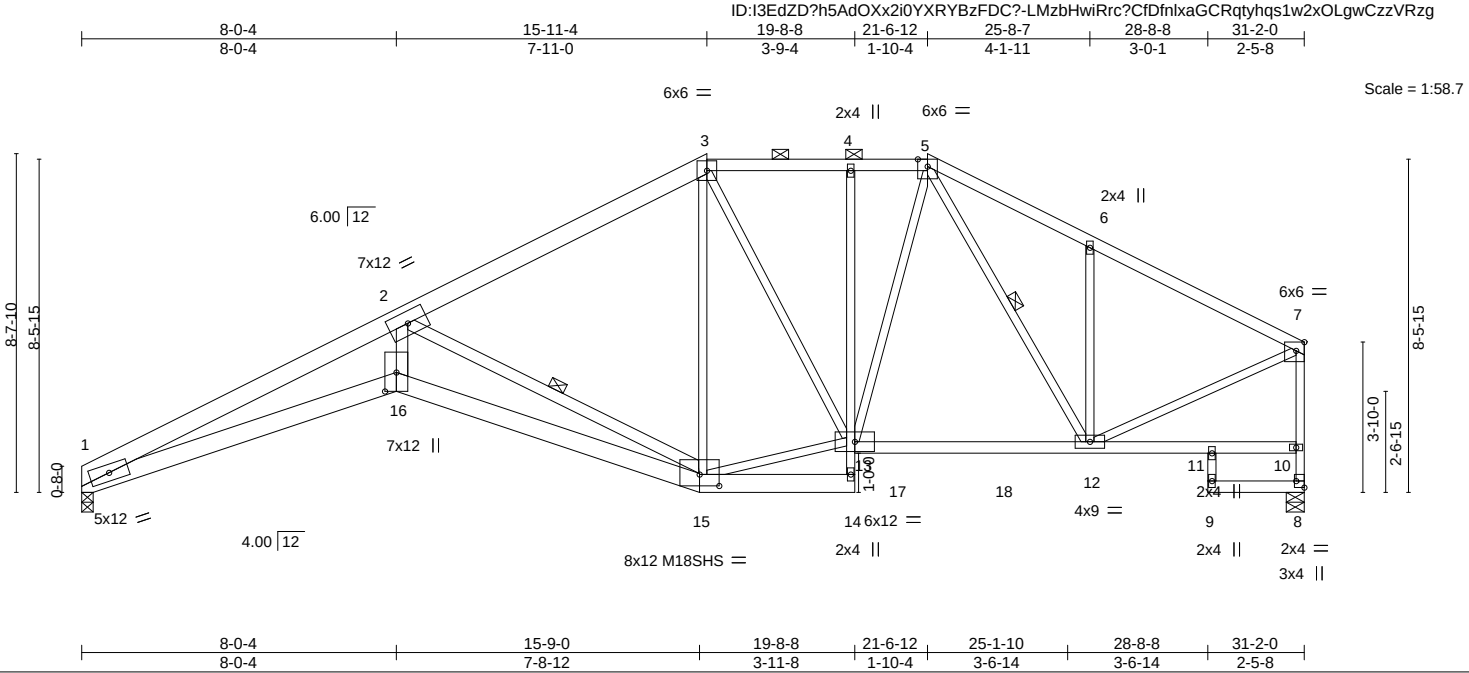
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	C12A	Hip	1	1	I45442751
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:23 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-LMzbHwiRrc?CfDfnlxaGCRqtyhqs1w2xOLgwCzzVRzg



8-0-4	15-9-0	19-8-8	21-6-12	25-1-10	28-8-8	31-2-0
8-0-4	7-8-12	3-11-8	1-10-4	3-6-14	3-6-14	2-5-8

Plate Offsets (X,Y)-- [7:0-2-8,Edge], [8:Edge,0-2-8], [15:0-6-0,0-3-8], [16:0-5-13,0-3-8]

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	0.96	Vert(LL)	-0.41	15-16	>902	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.72	15-16	>514	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.43	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.29	16	>999	240	Weight: 171 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
1-16,15-16: 2x6 SP DSS, 14-15: 2x6 SPF No.2, 4-14: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-16: 2x4 SPF No.2, 2-15: 2x4 SPF 2100F 1.8E

BRACING-

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

REACTIONS. (size) 1=0-3-8, 8=0-5-8
Max Horz 1=209(LC 7)
Max Uplift 1=-175(LC 8), 8=-121(LC 9)
Max Grav 1=1443(LC 2), 8=1491(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-6047/836, 2-3=-1692/226, 3-4=-1471/210, 4-5=-1476/210, 5-6=-1500/245, 6-7=-1507/132, 8-10=-1448/134, 7-10=-1388/143
BOT CHORD 1-16=-849/5570, 15-16=-809/5231, 12-13=-93/1323
WEBS 2-16=-417/3643, 2-15=-4029/780, 3-15=-49/279, 13-15=-98/1465, 5-13=-76/640, 6-12=-374/218, 7-12=-64/1393

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) 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) 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 100 lb uplift at joint(s) except (jt=lb) 1=175, 8=121.
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.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	C13A	Hip	1	1	I45442752
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:24 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-pYXzVFj3cw73HNEzJe5VleM145CxmNx5c?QTlPzVRzf

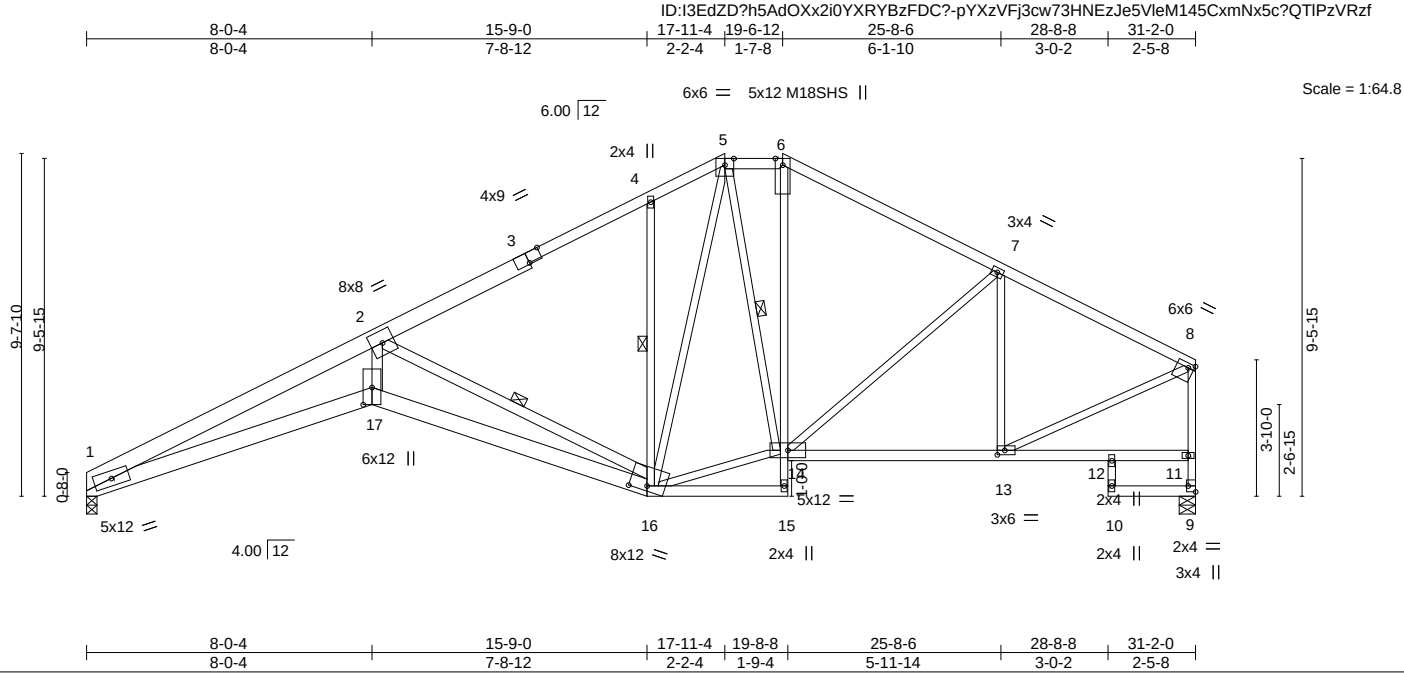


Plate Offsets (X,Y)-- [3:0-4-8,Edge], [8:0-2-0,0-1-8], [9:Edge,0-2-8], [13:0-2-8,0-1-8], [16:0-6-0,0-1-11], [17:0-5-13,0-3-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.39	17	>957	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.70	16-17	>530	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.41	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.31	17	>999	240	Weight: 169 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
1-17,16-17: 2x6 SP DSS, 6-15: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-17: 2x4 SPF No.2, 2-16: 2x4 SPF 2100F 1.8E

BRACING-

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

REACTIONS. (size) 1=0-3-8, 9=0-5-8
Max Horz 1=222(LC 7)
Max Uplift 1=-186(LC 8), 9=-139(LC 9)
Max Grav 1=1391(LC 1), 9=1391(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-5869/931, 2-4=-1626/258, 4-5=-1551/363, 5-6=-1227/242, 6-7=-1475/250, 7-8=-1443/162, 9-11=-1365/153, 8-11=-1342/162
BOT CHORD 1-17=-956/5374, 16-17=-912/5070, 6-14=-53/366, 13-14=-129/1231
WEBS 2-17=-490/3473, 2-16=-3969/842, 4-16=-391/216, 5-16=-271/636, 7-13=-450/125, 8-13=-97/1332, 14-16=-52/1243

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) 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 100 lb uplift at joint(s) except (jt=lb) 1=186, 9=139.
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.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	C14A	Roof Special	3	1	I45442753
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:26 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-lwekvxkJ8XOnWgNMQ37zq3RNevtPEHQN4JvapIzVRzd

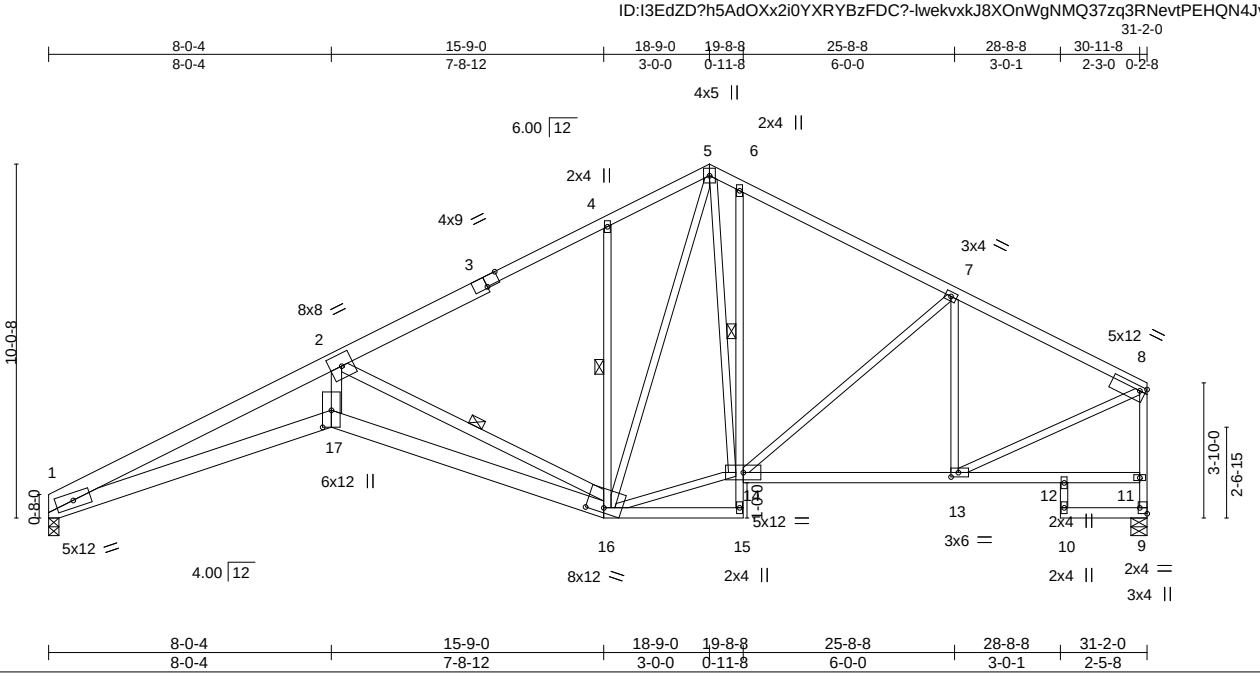


Plate Offsets (X,Y)-- [3:0-4-8,Edge], [8:0-2-0,0-1-8], [9:Edge,0-2-8], [13:0-2-8,0-1-8], [16:0-6-0,0-1-11], [17:0-5-13,0-3-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.39	17	>953	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.70	16-17	>528	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.41	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.31	17	>999	240	Weight: 170 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except*
	1-3: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except*
	1-17,16-17: 2x6 SP DSS, 6-15: 2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except*
	2-17: 2x4 SPF No.2, 2-16: 2x4 SPF 2100F 1.8E

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing. Except:	
	1 Row at midpt	6-14
WEBS	1 Row at midpt	2-16, 4-16

REACTIONS. (size) 1=0-3-8, 9=0-5-8
Max Horz 1=227(LC 7)
Max Uplift 1=-189(LC 8), 9=-145(LC 9)
Max Grav 1=1391(LC 1), 9=1391(LC 1)

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

TOP CHORD	1-2=-5873/964, 2-4=-1625/264, 4-5=-1578/384, 5-6=-1425/314, 6-7=-1474/268, 7-8=-1442/174, 9-11=-1365/159, 8-11=-1342/168
BOT CHORD	1-17=-996/5379, 16-17=-950/5075, 6-14=-328/200, 13-14=-134/1229
WEBS	2-17=-515/3475, 2-16=-3976/867, 4-16=-434/229, 5-16=-292/722, 5-14=-231/708, 7-13=-450/127, 8-13=-102/1329, 14-16=-42/1174

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=189, 9=145.
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.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	C15	Roof Special	3	1	I45442754
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:27 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-D7C67HlyvrWe8qyY_meCNH_b_I9QzjXXIze7LkzVRzc

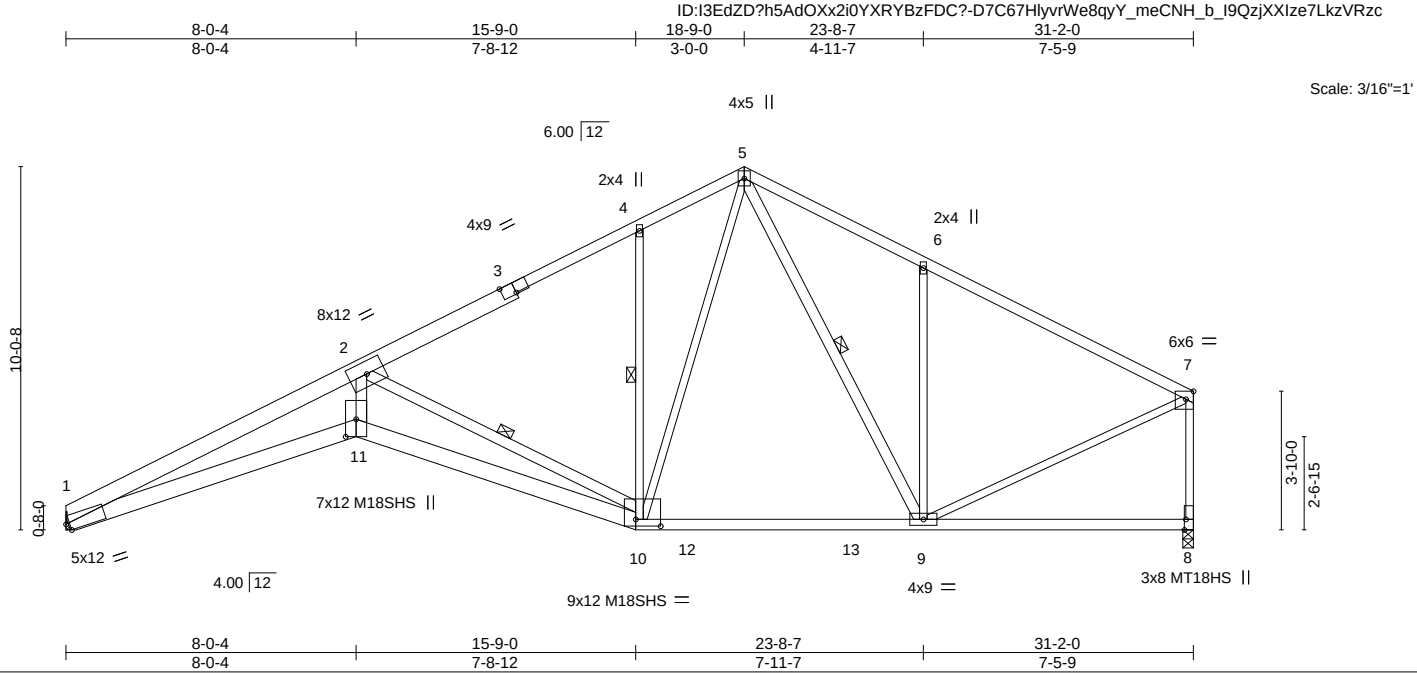


Plate Offsets (X,Y)-- [1:0-1-4,Edge], [3:0-4-8,Edge], [7:0-2-8,Edge], [8:0-3-8,Edge], [10:0-8-4,0-2-4], [11:0-5-13,0-3-8]

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	0.83	Vert(LL)	-0.43	10-11	>858	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.75	10-11	>493	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.41	8	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.22	11	>999	240	Weight: 159 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x6 SPF 1650F 1.4E
BOT CHORD 2x6 SP DSS *Except*
8-10: 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-11,5-9: 2x4 SPF No.2, 2-10: 2x4 SPF 2100F 1.8E

BRACING-

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

REACTIONS. (size) 1=Mechanical, 8=0-3-8
Max Horz 1=187(LC 7)
Max Uplift 1=-26(LC 8), 8=-1(LC 9)
Max Grav 1=1459(LC 2), 8=1476(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-6257/227, 2-4=-1711/83, 4-5=-1676/160, 5-6=-1452/128, 6-7=-1450/51, 7-8=-1375/34
BOT CHORD 1-11=-262/5845, 10-11=-257/5504, 9-10=0/1151
WEBS 2-11=-61/3865, 2-10=-4276/286, 4-10=-434/135, 5-10=-117/1104, 5-9=-99/334, 6-9=-525/179, 7-9=0/1321

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8.
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.

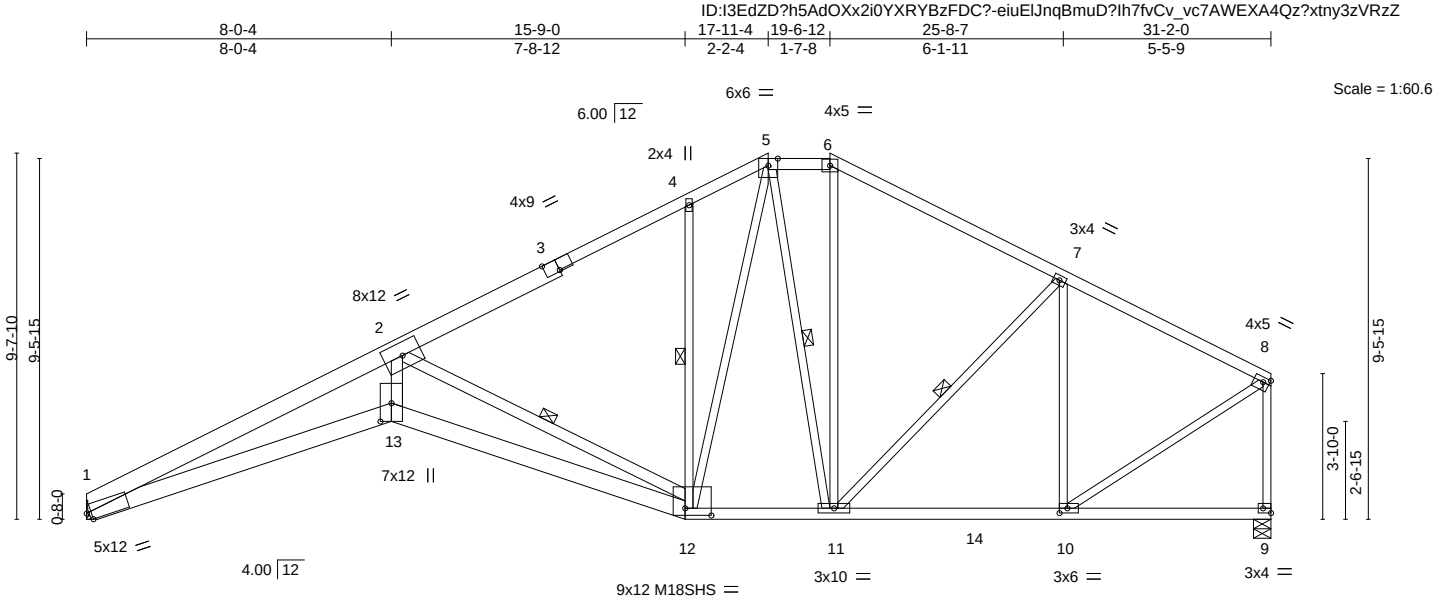
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	C16	Hip	1	1	I45442755
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:30 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-eiuElJnqBmuD?Ih7fvCv_vc7AWEXA4Qz?xtny3zVRzZ



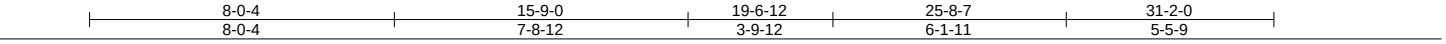


Plate Offsets (X,Y)-- [1:0-1-8,0-2-6], [3:0-4-8,Edge], [8:0-2-0,0-1-8], [9:Edge,0-1-8], [10:0-2-8,0-1-8], [12:0-8-4,0-2-4], [13:0-5-13,0-3-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.42	12-13	>877	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.75	12-13	>498	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.41	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.22	13	>999	240	Weight: 165 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x6 SPF 1650F 1.4E
BOT CHORD 2x6 SP DSS *Except*
9-12: 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-13: 2x4 SPF No.2, 2-12: 2x4 SPF 2100F 1.8E

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-9-3 oc purlins, except end verticals, and 2-0-0 oc purlins (5-3-14 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-12, 4-12, 5-11, 7-11

REACTIONS. (size) 1=Mechanical, 9=0-5-8
Max Horz 1=182(LC 7)
Max Uplift 1=-24(LC 8)
Max Grav 1=1441(LC 2), 9=1462(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-6130/206, 2-4=-1661/82, 4-5=-1596/149, 5-6=-1151/91, 6-7=-1372/90, 7-8=-1275/36, 8-9=-1386/21
BOT CHORD 1-13=-237/5722, 12-13=-232/5390, 11-12=0/1205, 10-11=0/1091
WEBS 2-13=-43/3803, 2-12=-4214/268, 4-12=-388/130, 5-12=-133/918, 5-11=-374/57, 6-11=-3/378, 7-10=-560/67, 8-10=0/1294

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.
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.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	C17	Half Hip	1	1	I45442756
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:31 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-6uSdzfoSy404dRGJDcj8X69EUwadvWf7DbcLUVzVRzY

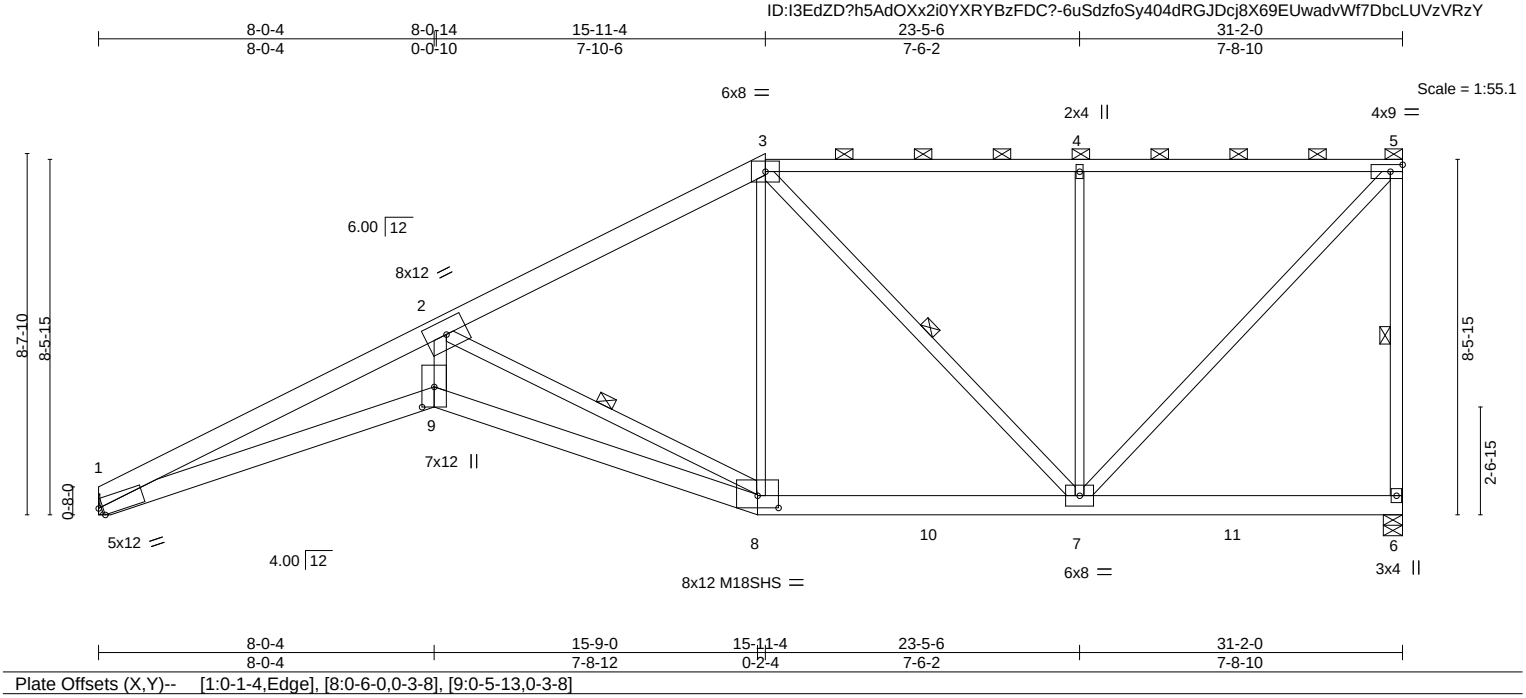


Plate Offsets (X,Y)-- [1:0-1-4,Edge], [8:0-6-0,0-3-8], [9:0-5-13,0-3-8]

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	0.98	Vert(LL)	-0.43	8-9	>868	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.74	8-9	>500	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.41	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.22	9	>999	240	Weight: 174 lb	FT = 10%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except*
3-5: 2x4 SPF No.2
BOT CHORD 2x6 SP DSS *Except*
6-8: 2x6 SPF No.2
WEBS 2x4 SPF No.2 *Except*
2-8: 2x4 SPF 2100F 1.8E, 4-7,3-8: 2x3 SPF No.2

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

REACTIONS. (size) 1=Mechanical, 6=0-5-8
Max Horz 1=268(LC 5)
Max Uplift 1=-16(LC 8), 6=-71(LC 5)
Max Grav 1=1462(LC 2), 6=1522(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-6177/184, 2-3=-1716/54, 3-4=-1123/45, 4-5=-1122/44, 5-6=-1370/99
BOT CHORD 1-9=-402/5693, 8-9=-388/5347, 7-8=-123/1454
WEBS 2-9=-142/3718, 2-8=-4117/268, 3-7=-518/50, 4-7=-613/149, 5-7=-71/1624, 3-8=0/683

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 6.
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.

March 31,2021

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

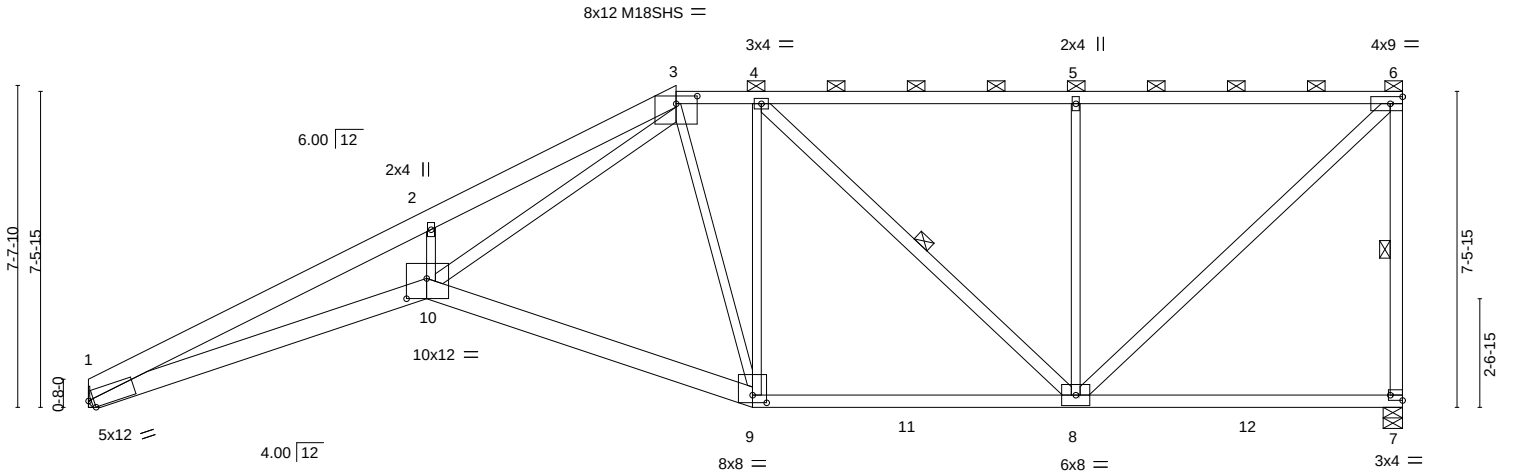
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	C18	Half Hip	1	1	I45442757
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:31 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-6uSdzfoSy404dRGJDcj8X69HPwWCva17DbcLUVzVRzY

8-0-4 | 13-11-4 | 15-9-0 | 23-5-0 | 31-2-0
8-0-4 | 5-11-0 | 1-9-12 | 7-8-0 | 7-9-0

Scale = 1:54.6



8-0-4 | 15-9-0 | 23-5-0 | 31-2-0
8-0-4 | 7-8-12 | 7-8-0 | 7-9-0

Plate Offsets (X,Y)-- [1:0-1-8,0-2-6], [3:0-6-0,0-2-3], [7:Edge,0-1-8], [9:0-4-0,0-2-3], [10:0-5-12,0-5-12]

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	0.80	Vert(LL)	-0.44	9-10	>848	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.76	9-10	>487	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.40	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.23	10	>999	240	Weight: 162 lb	FT = 10%

LUMBER-
TOP CHORD 2x6 SPF 1650F 1.4E *Except*
3-6: 2x4 SPF No.2
BOT CHORD 2x6 SP DSS *Except*
7-9: 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
6-7,4-8,6-8: 2x4 SPF No.2, 3-10: 2x4 SPF 2100F 1.8E

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

REACTIONS. (size) 1=Mechanical, 7=0-5-8
Max Horz 1=204(LC 8)
Max Uplift 7=-61(LC 5)
Max Grav 1=1459(LC 2), 7=1513(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-6078/200, 2-3=-5947/324, 3-4=-1650/60, 4-5=-1263/49, 5-6=-1263/49, 6-7=-1361/97
BOT CHORD 1-10=-333/5594, 9-10=-83/1844, 8-9=-62/1650
WEBS 2-10=-275/189, 3-10=-341/4487, 3-9=-346/104, 4-8=-533/52, 5-8=-596/141, 6-8=-66/1709

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left 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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7.
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.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

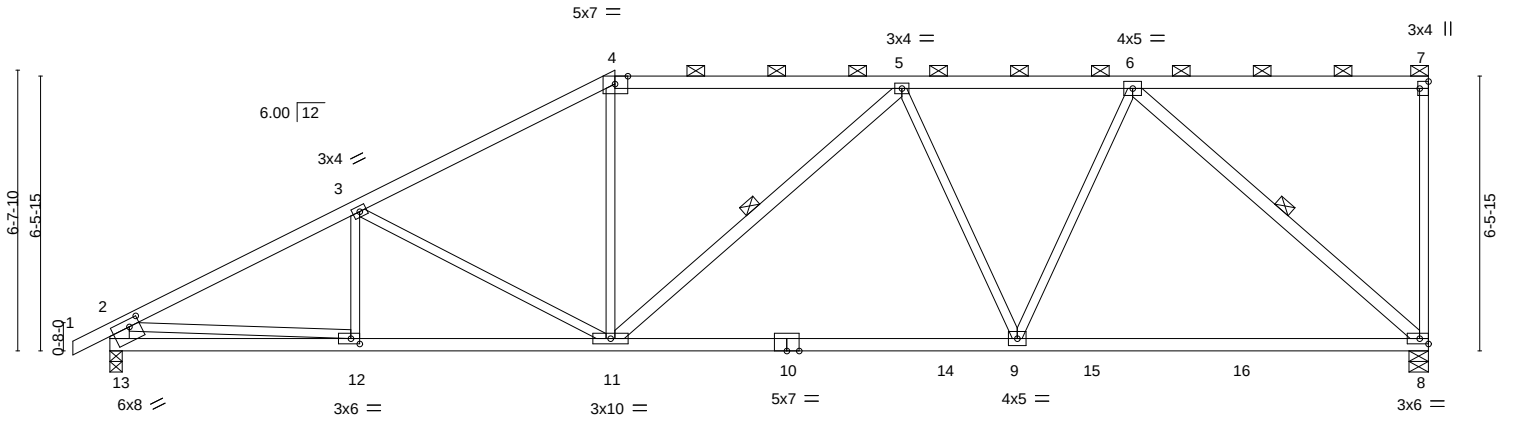
Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	D1	Half Hip	1	1	I45442758
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:33 2021 Page 1

ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-2HZNNKqjUhGoslQiL1lccXEd1jA0NUDPhv5SZOzVRzW

-0-10-8	5-9-9	11-11-4	18-8-10	24-2-2	31-2-0
0-10-8	5-9-9	6-1-10	6-9-6	5-5-7	6-11-14

Scale = 1:54.5



5-9-9	11-11-4	21-5-6	31-2-0
5-9-9	6-1-10	9-6-2	9-8-10

Plate Offsets (X,Y)-- [4:0-3-10,Edge], [7:Edge,0-2-8], [12:0-2-8,0-1-8], [13:0-3-0,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.26	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.46	8-9	>800	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07	9-11	>999	240	Weight: 127 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except*
	8-10: 2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except*
	5-11,6-8: 2x4 SPF No.2, 2-13: 2x6 SPF No.2

BRACING-

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

REACTIONS. (size) 8=0-5-8, 13=0-3-8
Max Horz 13=266(LC 5)
Max Uplift 8=-250(LC 5), 13=-167(LC 8)
Max Grav 8=1499(LC 2), 13=1525(LC 2)

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

TOP CHORD	2-3=-2430/232, 3-4=-2053/221, 4-5=-1765/221, 5-6=-1671/215, 2-13=-1417/198
BOT CHORD	12-13=-281/586, 11-12=-361/2105, 9-11=-358/1814, 8-9=-288/1324
WEBS	3-11=-411/197, 4-11=0/525, 5-9=-445/162, 6-9=-11/862, 6-8=-1758/317, 2-12=-81/1527

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=250, 13=167.
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.

March 31,2021

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

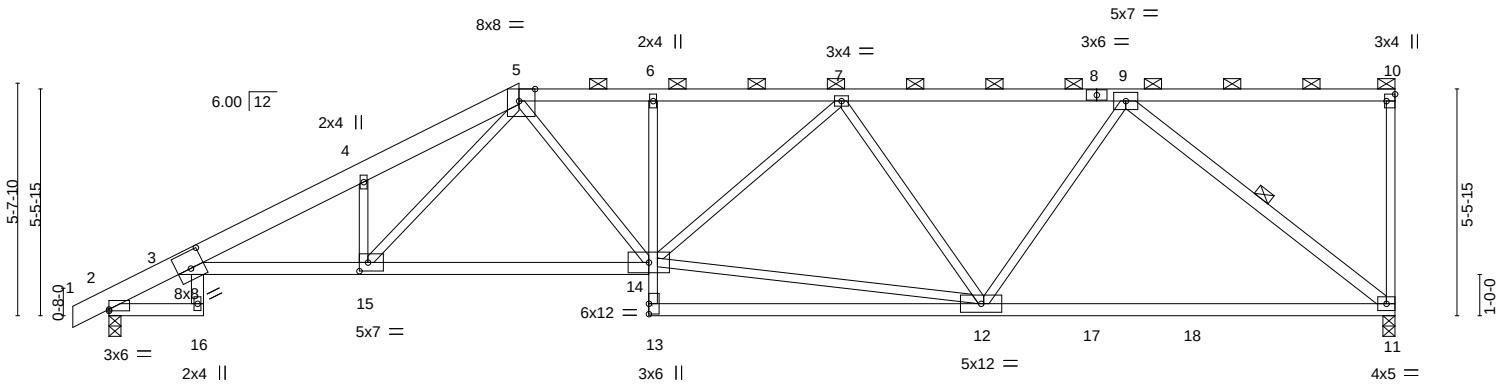
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	D2	Half Hip	1	1	I45442759
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:36 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-SsFW0MsbnceMjD8H09JJEAs84xFlaqGsNtK6AjzVRzT

-0-10-8	2-3-8	6-2-1	9-11-4	13-1-0	17-9-1	24-7-11	31-2-0
0-10-8	2-3-8	3-10-9	3-9-3	3-1-12	4-8-1	6-10-11	6-6-5

Scale = 1:55.8



2-3-8	6-2-1	9-11-4	13-1-0	21-2-7	31-2-0
2-3-8	3-10-9	3-9-3	3-1-12	8-1-7	9-11-9

Plate Offsets (X,Y)-- [2:0-0-0,0-0-7], [3:0-4-0,0-4-12], [5:0-4-10,Edge], [10:Edge,0-2-8], [15:0-2-8,0-2-8]

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	0.80	Vert(LL)	-0.31	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.57	11-12	>649	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.32	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.18	14-15	>999	240	Weight: 138 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-5: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
3-14: 2x4 SPF 2100F 1.8E, 6-13: 2x3 SPF No.2
11-13: 2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except*
3-16,9-11: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-4-5 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-13 max.): 5-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-16.
WEBS 1 Row at midpt 9-11

REACTIONS. (size) 11=0-3-8, 2=0-3-8
Max Horz 2=220(LC 5)
Max Uplift 11=-253(LC 5), 2=-141(LC 8)
Max Grav 11=1459(LC 2), 2=1515(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-872/75, 3-4=-3424/398, 4-5=-3648/501, 5-6=-2601/403, 6-7=-2583/402, 7-9=-1924/264
BOT CHORD 3-15=-542/3191, 14-15=-442/2261, 6-14=-262/108, 11-12=-326/1438
WEBS 5-14=-131/632, 12-14=-427/2193, 7-14=-42/371, 7-12=-781/234, 9-12=-8/867, 9-11=-1823/364, 4-15=-805/251, 5-15=-232/1397

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=253, 2=141.
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.

March 31,2021

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

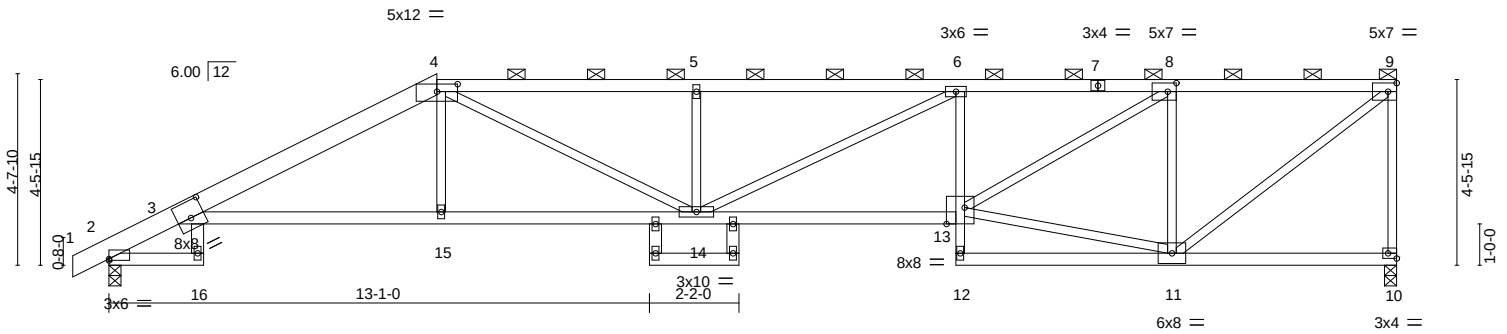
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	D3	Half Hip	1	1	I45442760
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:38 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-PENGR2urJDu4yWIg7aLnJbxTMkye2lC9qBpDEbzVRzR

-0-10-8	2-3-8	7-11-4	14-2-10	20-6-0	25-8-12	31-2-0
0-10-8	2-3-8	5-7-12	6-3-6	6-3-6	5-2-12	5-5-4

Scale = 1:55.8



2-3-8	7-11-4	14-2-10	20-6-0	25-8-12	31-2-0
2-3-8	5-7-12	6-3-6	6-3-6	5-2-12	5-5-4

Plate Offsets (X,Y)-- [2:0-0-0,0-0-7], [3:0-4-0,0-4-12], [4:0-6-0,0-2-3], [8:0-2-8,0-2-8], [10:Edge,0-1-8], [13:0-5-4,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.34	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.64	13-14	>582	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.40	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.28	13-14	>999	240	Weight: 130 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
3-13: 2x4 SPF 2100F 1.8E, 6-12: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-16,17-19,18-20: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-9-12 oc purlins, except end verticals, and 2-0-0 oc purlins (2-6-2 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-16
9-9-11 oc bracing: 13-14.

REACTIONS. (size) 10=0-3-8, 2=0-3-8
Max Horz 2=178(LC 5)
Max Uplift 10=-256(LC 5), 2=-141(LC 5)
Max Grav 10=1391(LC 1), 2=1474(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-816/91, 3-4=-2898/428, 4-5=-3405/592, 5-6=-3405/592, 6-8=-3196/568, 8-9=-1513/286, 9-10=-1341/277
BOT CHORD 3-15=-498/2622, 14-15=-496/2628, 13-14=-644/3231, 6-13=-480/168
WEBS 4-15=0/295, 4-14=-259/1004, 5-14=-469/199, 11-13=-294/1468, 8-13=-381/1957, 8-11=-1397/363, 9-11=-347/1908

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=256, 2=141.
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.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

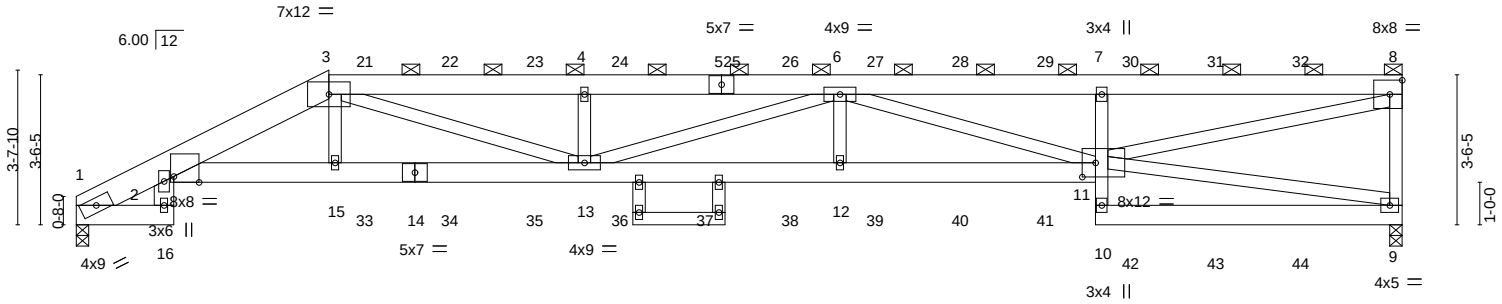
Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	D4	Half Hip Girder	1	2	I45442761
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:42 2021 Page 1

ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-H?cnGPxMNSPWR8cRMQQjTR6BELL0_WpklpnQNNzVRzN

-0-10-8	2-3-8	5-11-4	11-11-5	17-11-7	23-11-8	31-2-0
0-10-8	2-3-8	3-7-12	6-0-1	6-0-1	6-0-1	7-2-8

Scale = 1:54.2



2-3-8	5-11-4	11-11-5	17-11-7	23-11-8	31-2-0
2-3-8	3-7-12	6-0-1	6-0-1	6-0-1	7-2-8

Plate Offsets (X,Y)-- [2:0-7-2,Edge], [11:0-3-12,0-4-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.33	12-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.62	12-13	>602	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.26	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.23	12-13	>999	240	Weight: 406 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E *Except* 1-3: 2x8 SP DSS

BOT CHORD 2x6 SP 2400F 2.0E *Except* 7-10,17-18: 2x4 SPF No.2

WEBS 2x4 SPF No.2 *Except* 2-16: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-8.

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

REACTIONS. (size) 1=0-3-8, 9=0-3-8
Max Horz 1=128(LC 7)
Max Uplift 1=-223(LC 5), 9=-279(LC 5)
Max Grav 1=2697(LC 1), 9=2820(LC 1)

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

TOP CHORD 1-2=-1491/137, 2-3=-7563/730, 3-4=-10021/811, 4-6=-10021/811, 6-7=-7254/714, 7-8=-7050/711, 8-9=-2578/371

BOT CHORD 2-15=-771/7150, 13-15=-772/7216, 12-13=-887/10190, 11-12=-887/10190, 10-11=0/267, 7-11=-850/313, 9-10=-13/436

WEBS 2-16=-19/275, 3-15=-26/850, 3-13=-147/3059, 4-13=-642/239, 6-12=0/499, 6-11=-3097/128, 9-11=-340/31, 8-11=-761/7254

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 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: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; 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
5) Provide adequate drainage to prevent water ponding.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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 100 lb uplift at joint(s) except (jt=lb) 1=223, 9=279.
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.

March 31,2021

Continued on page 2

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

11) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 117 lb down and 55 lb up at 5-11-4, 109 lb down and 55 lb up at 6-9-0, 111 lb down and 55 lb up at 8-9-0, 111 lb down and 55 lb up at 10-9-0, 111 lb down and 55 lb up at 12-9-0, 111 lb down and 55 lb up at 14-9-0, 116 lb down and 67 lb up at 16-9-0, 116 lb down and 67 lb up at 18-9-0, 116 lb down and 67 lb up at 20-9-0, 116 lb down and 67 lb up at 22-9-0, 116 lb down and 67 lb up at 24-9-0, 116 lb down and 67 lb up at 26-9-0, and 116 lb down and 67 lb up at 28-9-0, and 135 lb down and 64 lb up at 31-0-4 on top chord, and 115 lb down at 14-9-0, 447 lb down and 129 lb up at 5-11-4, 73 lb down at 6-9-0, 73 lb down at 8-9-0, 73 lb down at 10-9-0, 73 lb down at 12-9-0, 68 lb down at 24-9-0, 68 lb down at 26-9-0, and 68 lb down at 28-9-0, and 83 lb down at 31-0-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
14) Filler applied to ply: 1(Front)

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-70, 3-8=-70, 1-16=-20, 2-11=-20, 9-10=-20
   Concentrated Loads (lb)
   Vert: 3=-94(B) 8=-135(B) 9=-59(B) 15=-447(B) 21=-94(B) 22=-94(B) 23=-94(B) 24=-94(B) 25=-94(B) 26=-110(B) 27=-110(B) 28=-110(B) 29=-110(B) 30=-109(B) 31=-109(B) 32=-109(B) 33=-73(B) 34=-73(B) 35=-73(B) 36=-73(B) 37=-115(B) 38=-51 39=-51 40=-51 41=-51 42=-52(B) 43=-52(B) 44=-52(B)
2) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-58, 3-8=-58, 1-16=-20, 2-11=-20, 9-10=-20
   Concentrated Loads (lb)
   Vert: 3=-79(B) 8=-112(B) 9=-56(B) 15=-383(B) 21=-79(B) 22=-79(B) 23=-79(B) 24=-79(B) 25=-79(B) 26=-92(B) 27=-92(B) 28=-92(B) 29=-92(B) 30=-91(B) 31=-91(B) 32=-91(B) 33=-65(B) 34=-65(B) 35=-65(B) 36=-65(B) 37=-115(B) 38=-48 39=-48 40=-48 41=-48 42=-48(B) 43=-48(B) 44=-48(B)
3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-3=-20, 3-8=-20, 1-16=-40, 2-11=-40, 9-10=-40
   Concentrated Loads (lb)
   Vert: 3=-47(B) 8=-49(B) 9=-83(B) 15=-298(B) 21=-47(B) 22=-47(B) 23=-47(B) 24=-47(B) 25=-47(B) 26=-42(B) 27=-42(B) 28=-42(B) 29=-42(B) 30=-42(B) 31=-42(B) 32=-42(B) 33=-73(B) 34=-73(B) 35=-73(B) 36=-73(B) 37=-115(B) 38=-68 39=-68 40=-68 41=-68 42=-68(B) 43=-68(B) 44=-68(B)
4) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-3=0, 3-8=29, 1-16=-12, 2-11=-12, 9-10=-12
   Horz: 1-3=-12, 8-9=22
   Concentrated Loads (lb)
   Vert: 3=31(B) 8=40(B) 9=-27(B) 15=109(B) 21=21(B) 22=18(B) 23=18(B) 24=18(B) 25=18(B) 26=30(B) 27=30(B) 28=30(B) 29=30(B) 30=29(B) 31=29(B) 32=29(B) 33=-26(B) 34=-26(B) 35=-26(B) 36=-26(B) 37=-115(B) 38=-22 39=-22 40=-22 41=-22 42=-22(B) 43=-22(B) 44=-22(B)
5) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-3=13, 3-8=29, 1-16=-12, 2-11=-12, 9-10=-12
   Horz: 1-3=-25, 8-9=-17
   Concentrated Loads (lb)
   Vert: 3=25(B) 8=40(B) 9=-27(B) 15=109(B) 21=19(B) 22=18(B) 23=18(B) 24=18(B) 25=18(B) 26=30(B) 27=30(B) 28=30(B) 29=30(B) 30=29(B) 31=29(B) 32=29(B) 33=-26(B) 34=-26(B) 35=-26(B) 36=-26(B) 37=-115(B) 38=-22 39=-22 40=-22 41=-22 42=-22(B) 43=-22(B) 44=-22(B)
6) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-3=-20, 3-8=9, 1-16=-20, 2-11=-20, 9-10=-20
   Horz: 1-3=-0, 8-9=10
   Concentrated Loads (lb)
   Vert: 3=51(B) 8=52(B) 9=-22(B) 15=129(B) 21=40(B) 22=38(B) 23=38(B) 24=38(B) 25=38(B) 26=50(B) 27=50(B) 28=50(B) 29=50(B) 30=49(B) 31=49(B) 32=49(B) 33=-18(B) 34=-18(B) 35=-18(B) 36=-18(B) 37=-115(B) 38=-14 39=-14 40=-14 41=-14 42=-14(B) 43=-14(B) 44=-14(B)
7) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-3=-7, 3-8=9, 1-16=-20, 2-11=-20, 9-10=-20
   Horz: 1-3=-13, 8-9=-28
   Concentrated Loads (lb)
   Vert: 3=45(B) 8=52(B) 9=-22(B) 15=129(B) 21=39(B) 22=38(B) 23=38(B) 24=38(B) 25=38(B) 26=50(B) 27=50(B) 28=50(B) 29=50(B) 30=49(B) 31=49(B) 32=49(B) 33=-18(B) 34=-18(B) 35=-18(B) 36=-18(B) 37=-115(B) 38=-14 39=-14 40=-14 41=-14 42=-14(B) 43=-14(B) 44=-14(B)
8) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-3=29, 3-8=11, 1-16=-12, 2-11=-12, 9-10=-12
   Horz: 1-3=-41, 8-9=20
   Concentrated Loads (lb)
   Vert: 3=27(B) 8=51(B) 9=-27(B) 15=109(B) 21=34(B) 22=36(B) 23=36(B) 24=36(B) 25=36(B) 26=48(B) 27=48(B) 28=48(B) 29=48(B) 30=47(B) 31=47(B) 32=47(B) 33=-26(B) 34=-26(B) 35=-26(B) 36=-26(B) 37=-115(B) 38=-22 39=-22 40=-22 41=-22 42=-22(B) 43=-22(B) 44=-22(B)
9) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-3=11, 3-8=11, 1-16=-12, 2-11=-12, 9-10=-12
   Horz: 1-3=-23, 8-9=-14

Continued on page 3

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

LOAD CASE(S) Standard

Concentrated Loads (lb)
Vert: 3=36(B) 8=51(B) 9=-27(B) 15=109(B) 21=36(B) 22=36(B) 23=36(B) 24=36(B) 25=36(B) 26=48(B) 27=48(B) 28=48(B) 29=48(B) 30=47(B) 31=47(B) 32=47(B) 33=-26(B) 34=-26(B) 35=-26(B) 36=-26(B) 37=-115(B) 38=-22 39=-22 40=-22 41=-22 42=-22(B) 43=-22(B) 44=-22(B)

10) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=29, 3-8=11, 1-16=-12, 2-11=-12, 9-10=-12
Horz: 1-3=-41, 8-9=20
Concentrated Loads (lb)
Vert: 3=27(B) 8=51(B) 9=-27(B) 15=109(B) 21=34(B) 22=36(B) 23=36(B) 24=36(B) 25=36(B) 26=48(B) 27=48(B) 28=48(B) 29=48(B) 30=47(B) 31=47(B) 32=47(B) 33=-26(B) 34=-26(B) 35=-26(B) 36=-26(B) 37=-115(B) 38=-22 39=-22 40=-22 41=-22 42=-22(B) 43=-22(B) 44=-22(B)

11) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=11, 3-8=11, 1-16=-12, 2-11=-12, 9-10=-12
Horz: 1-3=-23, 8-9=-14
Concentrated Loads (lb)
Vert: 3=36(B) 8=51(B) 9=-27(B) 15=109(B) 21=36(B) 22=36(B) 23=36(B) 24=36(B) 25=36(B) 26=48(B) 27=48(B) 28=48(B) 29=48(B) 30=47(B) 31=47(B) 32=47(B) 33=-26(B) 34=-26(B) 35=-26(B) 36=-26(B) 37=-115(B) 38=-22 39=-22 40=-22 41=-22 42=-22(B) 43=-22(B) 44=-22(B)

12) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=9, 3-8=-9, 1-16=-20, 2-11=-20, 9-10=-20
Horz: 1-3=-29, 8-9=8
Concentrated Loads (lb)
Vert: 3=47(B) 8=64(B) 9=-22(B) 15=129(B) 21=54(B) 22=55(B) 23=55(B) 24=55(B) 25=55(B) 26=67(B) 27=67(B) 28=67(B) 29=67(B) 30=67(B) 31=67(B) 32=67(B) 33=-18(B) 34=-18(B) 35=-18(B) 36=-18(B) 37=-115(B) 38=-14 39=-14 40=-14 41=-14 42=-14(B) 43=-14(B) 44=-14(B)

13) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=-9, 3-8=-9, 1-16=-20, 2-11=-20, 9-10=-20
Horz: 1-3=-11, 8-9=-26
Concentrated Loads (lb)
Vert: 3=55(B) 8=64(B) 9=-22(B) 15=129(B) 21=55(B) 22=55(B) 23=55(B) 24=55(B) 25=55(B) 26=67(B) 27=67(B) 28=67(B) 29=67(B) 30=67(B) 31=67(B) 32=67(B) 33=-18(B) 34=-18(B) 35=-18(B) 36=-18(B) 37=-115(B) 38=-14 39=-14 40=-14 41=-14 42=-14(B) 43=-14(B) 44=-14(B)

14) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-3=-20, 3-8=-20, 1-16=-20, 2-11=-20, 9-10=-20
Concentrated Loads (lb)
Vert: 3=-35(B) 8=-43(B) 9=-44(B) 15=-194(B) 21=-35(B) 22=-35(B) 23=-35(B) 24=-35(B) 25=-35(B) 26=-36(B) 27=-36(B) 28=-36(B) 29=-36(B) 30=-36(B) 31=-36(B) 32=-36(B) 33=-43(B) 34=-43(B) 35=-43(B) 36=-43(B) 37=-115(B) 38=-37 39=-37 40=-37 41=-37 42=-37(B) 43=-37(B) 44=-37(B)

15) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=-57, 3-8=-36, 1-16=-20, 2-11=-20, 9-10=-20
Horz: 1-3=-0, 8-9=7
Concentrated Loads (lb)
Vert: 3=35(B) 8=34(B) 9=-22(B) 15=72(B) 21=27(B) 22=25(B) 23=25(B) 24=25(B) 25=25(B) 26=34(B) 27=34(B) 28=34(B) 29=34(B) 30=33(B) 31=33(B) 32=33(B) 33=-18(B) 34=-18(B) 35=-18(B) 36=-18(B) 37=-115(B) 38=-14 39=-14 40=-14 41=-14 42=-14(B) 43=-14(B) 44=-14(B)

16) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=-48, 3-8=-36, 1-16=-20, 2-11=-20, 9-10=-20
Horz: 1-3=-10, 8-9=-21
Concentrated Loads (lb)
Vert: 3=31(B) 8=34(B) 9=-22(B) 15=72(B) 21=26(B) 22=25(B) 23=25(B) 24=25(B) 25=25(B) 26=34(B) 27=34(B) 28=34(B) 29=34(B) 30=33(B) 31=33(B) 32=33(B) 33=-18(B) 34=-18(B) 35=-18(B) 36=-18(B) 37=-115(B) 38=-14 39=-14 40=-14 41=-14 42=-14(B) 43=-14(B) 44=-14(B)

17) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=-36, 3-8=-49, 1-16=-20, 2-11=-20, 9-10=-20
Horz: 1-3=-22, 8-9=6
Concentrated Loads (lb)
Vert: 3=32(B) 8=43(B) 9=-22(B) 15=72(B) 21=37(B) 22=38(B) 23=38(B) 24=38(B) 25=38(B) 26=47(B) 27=47(B) 28=47(B) 29=47(B) 30=47(B) 31=47(B) 32=47(B) 33=-18(B) 34=-18(B) 35=-18(B) 36=-18(B) 37=-115(B) 38=-14 39=-14 40=-14 41=-14 42=-14(B) 43=-14(B) 44=-14(B)

18) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=-49, 3-8=-49, 1-16=-20, 2-11=-20, 9-10=-20
Horz: 1-3=-9, 8-9=-19
Concentrated Loads (lb)
Vert: 3=38(B) 8=43(B) 9=-22(B) 15=72(B) 21=38(B) 22=38(B) 23=38(B) 24=38(B) 25=38(B) 26=47(B) 27=47(B) 28=47(B) 29=47(B) 30=47(B) 31=47(B) 32=47(B) 33=-18(B) 34=-18(B) 35=-18(B) 36=-18(B) 37=-115(B) 38=-14 39=-14 40=-14 41=-14 42=-14(B) 43=-14(B) 44=-14(B)

19) Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=-16, 3-8=-12, 1-16=-12, 2-11=-12, 9-10=-12
Horz: 1-3=4

Continued on page 4

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

LOAD CASE(S) Standard

Concentrated Loads (lb)
Vert: 3=44(B) 8=47(B) 9=-27(B) 15=77(B) 21=42(B) 22=42(B) 23=42(B) 24=42(B) 25=42(B) 26=51(B) 27=51(B) 28=51(B) 29=51(B) 30=51(B) 31=51(B) 32=51(B) 33=-26(B) 34=-26(B) 35=-26(B) 36=-26(B) 37=-115(B) 38=-22 39=-22 40=-22 41=-22 42=-22(B) 43=-22(B) 44=-22(B)

20) Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=-12, 3-8=-12, 1-16=-12, 2-11=-12, 9-10=-12
Horz: 8-9=-16
Concentrated Loads (lb)
Vert: 3=42(B) 8=47(B) 9=-27(B) 15=77(B) 21=42(B) 22=42(B) 23=42(B) 24=42(B) 25=42(B) 26=51(B) 27=51(B) 28=51(B) 29=51(B) 30=51(B) 31=51(B) 32=51(B) 33=-26(B) 34=-26(B) 35=-26(B) 36=-26(B) 37=-115(B) 38=-22 39=-22 40=-22 41=-22 42=-22(B) 43=-22(B) 44=-22(B)

21) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-8=-70, 1-16=-20, 2-11=-20, 9-10=-20
Concentrated Loads (lb)
Vert: 3=-94(B) 8=-135(B) 9=-59(B) 15=-447(B) 21=-94(B) 22=-94(B) 23=-94(B) 24=-94(B) 25=-94(B) 26=-110(B) 27=-110(B) 28=-110(B) 29=-110(B) 30=-109(B) 31=-109(B) 32=-109(B) 33=-73(B) 34=-73(B) 35=-73(B) 36=-73(B) 37=-115(B) 38=-51 39=-51 40=-51 41=-51 42=-52(B) 43=-52(B) 44=-52(B)

22) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 3-8=-70, 1-16=-20, 2-11=-20, 9-10=-20
Concentrated Loads (lb)
Vert: 3=-117(B) 8=-135(B) 9=-59(B) 15=-447(B) 21=-98(B) 22=-94(B) 23=-94(B) 24=-94(B) 25=-94(B) 26=-110(B) 27=-110(B) 28=-110(B) 29=-110(B) 30=-109(B) 31=-109(B) 32=-109(B) 33=-73(B) 34=-73(B) 35=-73(B) 36=-73(B) 37=-115(B) 38=-51 39=-51 40=-51 41=-51 42=-52(B) 43=-52(B) 44=-52(B)

23) 3rd Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-58, 3-8=-58, 1-16=-20, 2-11=-20, 9-10=-20
Concentrated Loads (lb)
Vert: 3=-79(B) 8=-112(B) 9=-56(B) 15=-383(B) 21=-79(B) 22=-79(B) 23=-79(B) 24=-79(B) 25=-79(B) 26=-92(B) 27=-92(B) 28=-92(B) 29=-92(B) 30=-91(B) 31=-91(B) 32=-91(B) 33=-65(B) 34=-65(B) 35=-65(B) 36=-65(B) 37=-115(B) 38=-48 39=-48 40=-48 41=-48 42=-48(B) 43=-48(B) 44=-48(B)

24) 4th Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 3-8=-58, 1-16=-20, 2-11=-20, 9-10=-20
Concentrated Loads (lb)
Vert: 3=-97(B) 8=-112(B) 9=-56(B) 15=-383(B) 21=-83(B) 22=-79(B) 23=-79(B) 24=-79(B) 25=-79(B) 26=-92(B) 27=-92(B) 28=-92(B) 29=-92(B) 30=-91(B) 31=-91(B) 32=-91(B) 33=-65(B) 34=-65(B) 35=-65(B) 36=-65(B) 37=-115(B) 38=-48 39=-48 40=-48 41=-48 42=-48(B) 43=-48(B) 44=-48(B)

25) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=0, 3-8=29, 1-16=-12, 2-11=-12, 9-10=-12
Horz: 1-3=-12, 8-9=22
Concentrated Loads (lb)
Vert: 3=-98(B) 8=-105(B) 9=-55(B) 15=-277(B) 21=-108(B) 22=-111(B) 23=-111(B) 24=-111(B) 25=-111(B) 26=-116(B) 27=-116(B) 28=-116(B) 29=-116(B) 30=-116(B) 31=-116(B) 32=-116(B) 33=-60(B) 34=-60(B) 35=-60(B) 36=-60(B) 37=-115(B) 38=-50 39=-50 40=-50 41=-50 42=-50(B) 43=-50(B) 44=-50(B)

26) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=13, 3-8=29, 1-16=-12, 2-11=-12, 9-10=-12
Horz: 1-3=-25, 8-9=-17
Concentrated Loads (lb)
Vert: 3=-104(B) 8=-105(B) 9=-55(B) 15=-277(B) 21=-109(B) 22=-111(B) 23=-111(B) 24=-111(B) 25=-111(B) 26=-116(B) 27=-116(B) 28=-116(B) 29=-116(B) 30=-116(B) 31=-116(B) 32=-116(B) 33=-60(B) 34=-60(B) 35=-60(B) 36=-60(B) 37=-115(B) 38=-50 39=-50 40=-50 41=-50 42=-50(B) 43=-50(B) 44=-50(B)

27) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=-20, 3-8=9, 1-16=-20, 2-11=-20, 9-10=-20
Horz: 1-3=-0, 8-9=10
Concentrated Loads (lb)
Vert: 3=-78(B) 8=-93(B) 9=-50(B) 15=-258(B) 21=-89(B) 22=-91(B) 23=-91(B) 24=-91(B) 25=-91(B) 26=-96(B) 27=-96(B) 28=-96(B) 29=-96(B) 30=-96(B) 31=-96(B) 32=-96(B) 33=-52(B) 34=-52(B) 35=-52(B) 36=-52(B) 37=-115(B) 38=-42 39=-42 40=-42 41=-42 42=-42(B) 43=-42(B) 44=-42(B)

28) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=-7, 3-8=9, 1-16=-20, 2-11=-20, 9-10=-20
Horz: 1-3=-13, 8-9=-28
Concentrated Loads (lb)
Vert: 3=-84(B) 8=-93(B) 9=-50(B) 15=-258(B) 21=-90(B) 22=-91(B) 23=-91(B) 24=-91(B) 25=-91(B) 26=-96(B) 27=-96(B) 28=-96(B) 29=-96(B) 30=-96(B) 31=-96(B) 32=-96(B) 33=-52(B) 34=-52(B) 35=-52(B) 36=-52(B) 37=-115(B) 38=-42 39=-42 40=-42 41=-42 42=-42(B) 43=-42(B) 44=-42(B)

29) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=29, 3-8=11, 1-16=-12, 2-11=-12, 9-10=-12
Horz: 1-3=-41, 8-9=20
Concentrated Loads (lb)
Vert: 3=-102(B) 8=-94(B) 9=-55(B) 15=-277(B) 21=-95(B) 22=-93(B) 23=-93(B) 24=-93(B) 25=-93(B) 26=-99(B) 27=-99(B) 28=-99(B) 29=-99(B) 30=-98(B) 31=-98(B) 32=-98(B) 33=-60(B) 34=-60(B) 35=-60(B) 36=-60(B) 37=-115(B) 38=-50 39=-50 40=-50 41=-50 42=-50(B) 43=-50(B) 44=-50(B)

30) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 5

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

LOAD CASE(S) Standard

Uniform Loads (plf)
Vert: 1-3=11, 3-8=11, 1-16=-12, 2-11=-12, 9-10=-12
Horz: 1-3=-23, 8-9=-14
Concentrated Loads (lb)
Vert: 3=-93(B) 8=-94(B) 9=-55(B) 15=-277(B) 21=-93(B) 22=-93(B) 23=-93(B) 24=-93(B) 25=-93(B) 26=-99(B) 27=-99(B) 28=-99(B) 29=-99(B) 30=-98(B) 31=-98(B) 32=-98(B) 33=-60(B) 34=-60(B) 35=-60(B) 36=-60(B) 37=-115(B) 38=-50 39=-50 40=-50 41=-50 42=-50(B) 43=-50(B) 44=-50(B)

31) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=29, 3-8=11, 1-16=-12, 2-11=-12, 9-10=-12
Horz: 1-3=-41, 8-9=20
Concentrated Loads (lb)
Vert: 3=-102(B) 8=-94(B) 9=-55(B) 15=-277(B) 21=-95(B) 22=-93(B) 23=-93(B) 24=-93(B) 25=-93(B) 26=-99(B) 27=-99(B) 28=-99(B) 29=-99(B) 30=-98(B) 31=-98(B) 32=-98(B) 33=-60(B) 34=-60(B) 35=-60(B) 36=-60(B) 37=-115(B) 38=-50 39=-50 40=-50 41=-50 42=-50(B) 43=-50(B) 44=-50(B)

32) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=11, 3-8=11, 1-16=-12, 2-11=-12, 9-10=-12
Horz: 1-3=-23, 8-9=-14
Concentrated Loads (lb)
Vert: 3=-93(B) 8=-94(B) 9=-55(B) 15=-277(B) 21=-93(B) 22=-93(B) 23=-93(B) 24=-93(B) 25=-93(B) 26=-99(B) 27=-99(B) 28=-99(B) 29=-99(B) 30=-98(B) 31=-98(B) 32=-98(B) 33=-60(B) 34=-60(B) 35=-60(B) 36=-60(B) 37=-115(B) 38=-50 39=-50 40=-50 41=-50 42=-50(B) 43=-50(B) 44=-50(B)

33) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=9, 3-8=-9, 1-16=-20, 2-11=-20, 9-10=-20
Horz: 1-3=-29, 8-9=8
Concentrated Loads (lb)
Vert: 3=-82(B) 8=-81(B) 9=-50(B) 15=-258(B) 21=-75(B) 22=-74(B) 23=-74(B) 24=-74(B) 25=-74(B) 26=-79(B) 27=-79(B) 28=-79(B) 29=-79(B) 30=-78(B) 31=-78(B) 32=-78(B) 33=-52(B) 34=-52(B) 35=-52(B) 36=-52(B) 37=-115(B) 38=-42 39=-42 40=-42 41=-42 42=-42(B) 43=-42(B) 44=-42(B)

34) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=-9, 3-8=-9, 1-16=-20, 2-11=-20, 9-10=-20
Horz: 1-3=-11, 8-9=-26
Concentrated Loads (lb)
Vert: 3=-74(B) 8=-81(B) 9=-50(B) 15=-258(B) 21=-74(B) 22=-74(B) 23=-74(B) 24=-74(B) 25=-74(B) 26=-79(B) 27=-79(B) 28=-79(B) 29=-79(B) 30=-78(B) 31=-78(B) 32=-78(B) 33=-52(B) 34=-52(B) 35=-52(B) 36=-52(B) 37=-115(B) 38=-42 39=-42 40=-42 41=-42 42=-42(B) 43=-42(B) 44=-42(B)

35) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=-57, 3-8=-36, 1-16=-20, 2-11=-20, 9-10=-20
Horz: 1-3=-0, 8-9=7
Concentrated Loads (lb)
Vert: 3=-91(B) 8=-126(B) 9=-57(B) 15=-380(B) 21=-99(B) 22=-101(B) 23=-101(B) 24=-101(B) 25=-101(B) 26=-114(B) 27=-114(B) 28=-114(B) 29=-114(B) 30=-113(B) 31=-113(B) 32=-113(B) 33=-67(B) 34=-67(B) 35=-67(B) 36=-67(B) 37=-115(B) 38=-49 39=-49 40=-49 41=-49 42=-50(B) 43=-50(B) 44=-50(B)

36) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=-48, 3-8=-36, 1-16=-20, 2-11=-20, 9-10=-20
Horz: 1-3=-10, 8-9=-21
Concentrated Loads (lb)
Vert: 3=-95(B) 8=-126(B) 9=-57(B) 15=-380(B) 21=-100(B) 22=-101(B) 23=-101(B) 24=-101(B) 25=-101(B) 26=-114(B) 27=-114(B) 28=-114(B) 29=-114(B) 30=-113(B) 31=-113(B) 32=-113(B) 33=-67(B) 34=-67(B) 35=-67(B) 36=-67(B) 37=-115(B) 38=-49 39=-49 40=-49 41=-49 42=-50(B) 43=-50(B) 44=-50(B)

37) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=-36, 3-8=-49, 1-16=-20, 2-11=-20, 9-10=-20
Horz: 1-3=-22, 8-9=6
Concentrated Loads (lb)
Vert: 3=-94(B) 8=-118(B) 9=-57(B) 15=-380(B) 21=-89(B) 22=-88(B) 23=-88(B) 24=-88(B) 25=-88(B) 26=-101(B) 27=-101(B) 28=-101(B) 29=-101(B) 30=-100(B) 31=-100(B) 32=-100(B) 33=-67(B) 34=-67(B) 35=-67(B) 36=-67(B) 37=-115(B) 38=-49 39=-49 40=-49 41=-49 42=-50(B) 43=-50(B) 44=-50(B)

38) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=-49, 3-8=-49, 1-16=-20, 2-11=-20, 9-10=-20
Horz: 1-3=-9, 8-9=-19
Concentrated Loads (lb)
Vert: 3=-88(B) 8=-118(B) 9=-57(B) 15=-380(B) 21=-88(B) 22=-88(B) 23=-88(B) 24=-88(B) 25=-88(B) 26=-101(B) 27=-101(B) 28=-101(B) 29=-101(B) 30=-100(B) 31=-100(B) 32=-100(B) 33=-67(B) 34=-67(B) 35=-67(B) 36=-67(B) 37=-115(B) 38=-49 39=-49 40=-49 41=-49 42=-50(B) 43=-50(B) 44=-50(B)

39) Reversal: Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=-16, 3-8=-12, 1-16=-12, 2-11=-12, 9-10=-12
Horz: 1-3=4

Continued on page 6

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

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 3=-52(B) 8=-60(B) 9=-52(B) 15=-238(B) 21=-53(B) 22=-53(B) 23=-53(B) 24=-53(B) 25=-53(B) 26=-56(B) 27=-56(B) 28=-56(B) 29=-56(B) 30=-56(B) 31=-56(B) 32=-56(B) 33=-54(B) 34=-54(B) 35=-54(B) 36=-54(B) 37=-115(B) 38=-47 39=-47 40=-47 41=-47 42=-47(B) 43=-47(B) 44=-47(B)

40) Reversal: Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-3=-12, 3-8=-12, 1-16=-12, 2-11=-12, 9-10=-12

Horz: 8-9=-16

Concentrated Loads (lb)

Vert: 3=-53(B) 8=-60(B) 9=-52(B) 15=-238(B) 21=-53(B) 22=-53(B) 23=-53(B) 24=-53(B) 25=-53(B) 26=-56(B) 27=-56(B) 28=-56(B) 29=-56(B) 30=-56(B) 31=-56(B) 32=-56(B) 33=-54(B) 34=-54(B) 35=-54(B) 36=-54(B) 37=-115(B) 38=-47 39=-47 40=-47 41=-47 42=-47(B) 43=-47(B) 44=-47(B)

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

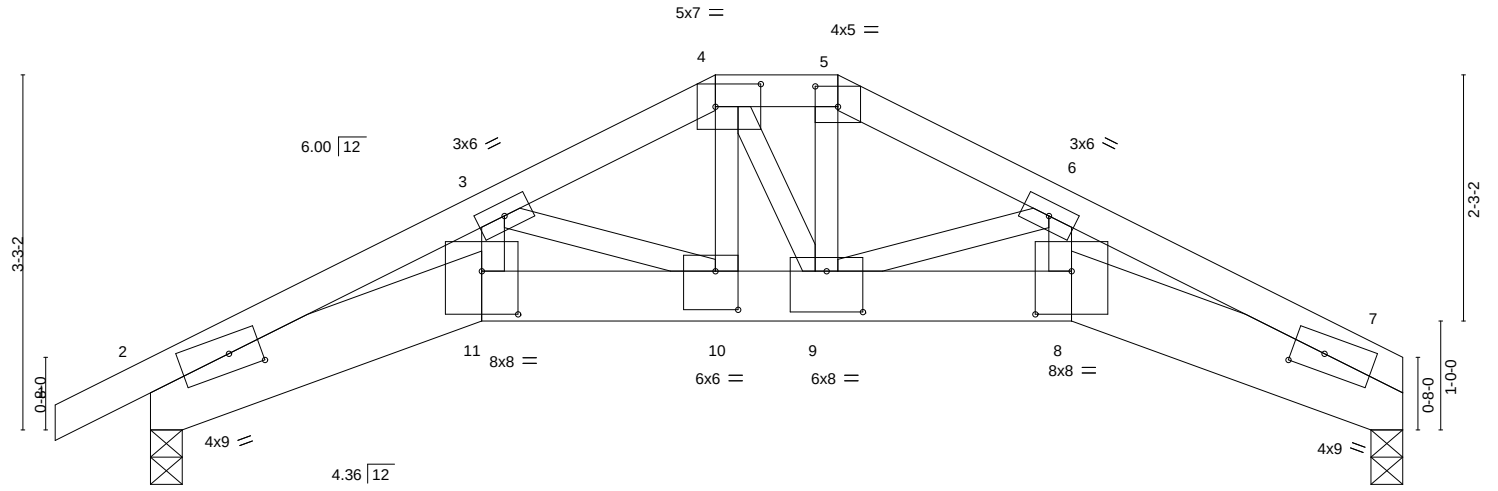
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	E1	Hip Girder	1	1	I45442762
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:43 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-lCA9Ulx_7mXN3lBdw7xy0efNDlb0j6iu_TW_wpzVRzM

-0-10-8	3-0-8	5-2-4	6-3-12	8-5-8	11-6-0
0-10-8	3-0-8	2-1-12	1-1-8	2-1-12	3-0-8

Scale = 1:21.2



3-0-8	5-2-4	6-3-12	8-5-8	11-6-0
3-0-8	2-1-12	1-1-8	2-1-12	3-0-8

Plate Offsets (X,Y)-- [2:0-3-8,0-2-0], [4:0-5-0,0-2-8], [5:0-2-8,0-2-4], [7:0-3-8,0-2-0], [8:0-4-0,0-4-12], [9:0-4-0,0-4-8], [10:0-2-8,0-4-4], [11:0-4-0,0-4-12]

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	0.62	Vert(LL)	-0.09	10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.17	10-11	>800	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.13	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08	10-11	>999	240	Weight: 55 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP DSS *Except*
8-11: 2x6 SPF No.2
WEBS 2x3 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-0-6 oc purlins, except 2-0-0 oc purlins (4-0-7 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 9-2-7 oc bracing.

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=57(LC 12)
Max Uplift 7=-221(LC 9), 2=-246(LC 8)
Max Grav 7=974(LC 1), 2=1051(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3131/747, 3-4=-2251/573, 4-5=-2097/534, 5-6=-2307/578, 6-7=-3145/700
BOT CHORD 2-11=-674/2734, 10-11=-623/2523, 9-10=-472/2040, 8-9=-541/2546, 7-8=-583/2753
WEBS 3-11=-130/687, 3-10=-563/173, 4-10=-155/678, 5-9=-161/792, 6-9=-534/155, 6-8=-97/649

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 7, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=221, 2=246.
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) 109 lb down and 95 lb up at 5-2-4, and 109 lb down and 95 lb up at 6-3-12 on top chord, and 336 lb down and 119 lb up at 5-2-4, and 355 lb down and 124 lb up at 6-3-12 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

March 31,2021

Continued on page 2

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-70, 4-5=-70, 5-7=-70, 2-11=-20, 8-11=-20, 7-8=-20
   Concentrated Loads (lb)
   Vert: 4=-86(F) 5=-86(F) 10=-377(F=-336) 9=-396(F=-355)

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

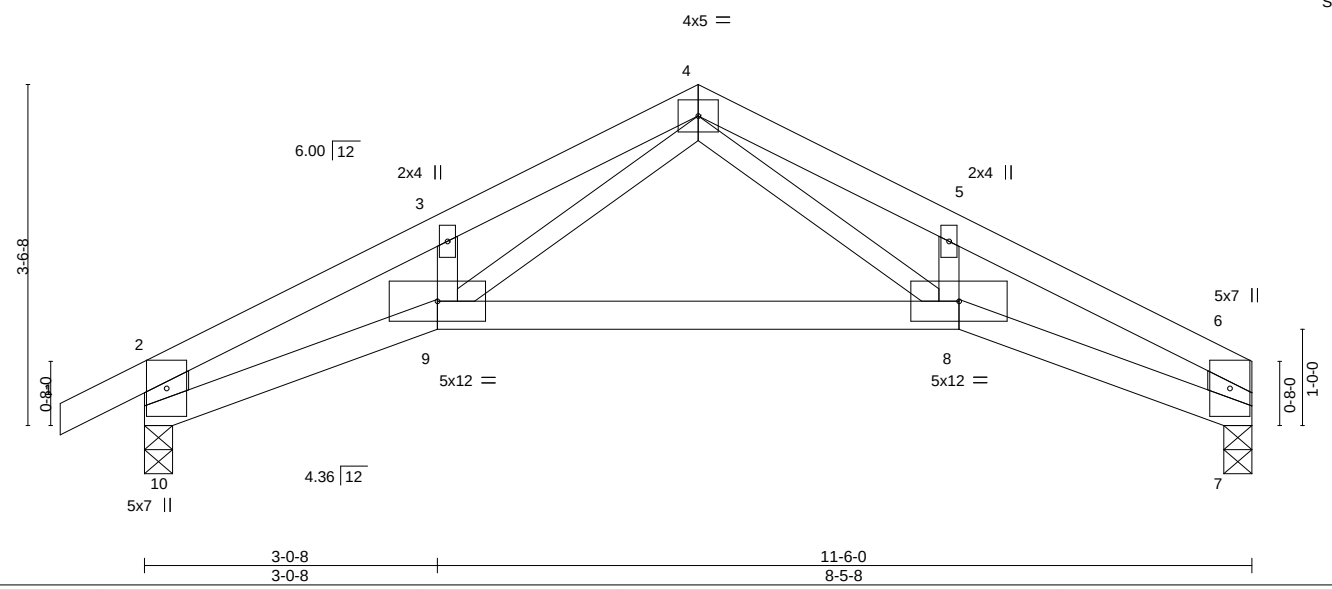
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	E2	Roof Special	1	1	I45442763
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:45 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-iaIvvRzEfNn5IbK02YzQ53kh_ZJoB2wARm?4_izVRzK

-0-10-8 | 3-0-8 | 5-9-0 | 8-5-8 | 11-6-0
0-10-8 | 3-0-8 | 2-8-8 | 2-8-8 | 3-0-8

Scale: 1/2"=1'



3-0-8 | 11-6-0
3-0-8 | 8-5-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.12	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.25	8-9	>523	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.14	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08	8-9	>999	240	Weight: 38 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-10,6-7: 2x6 SP DSS

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 10=0-3-8, 7=0-3-8
Max Horz 10=65(LC 5)
Max Uplift 10=-87(LC 8), 7=-60(LC 9)
Max Grav 10=578(LC 1), 7=493(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1188/145, 3-4=-1053/213, 4-5=-1057/192, 5-6=-1172/116, 2-10=-830/139, 6-7=-718/93
BOT CHORD 9-10=-136/1000, 8-9=-36/595, 7-8=-78/990
WEBS 4-8=-122/471, 4-9=-132/459

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 10, 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) 10, 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.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	E3	Half Hip Girder	1	2	I45442764
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:46 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-AnsH6n_sQhvywlvCbGUfeHHsNziuwNxKgQleW8zVRzJ

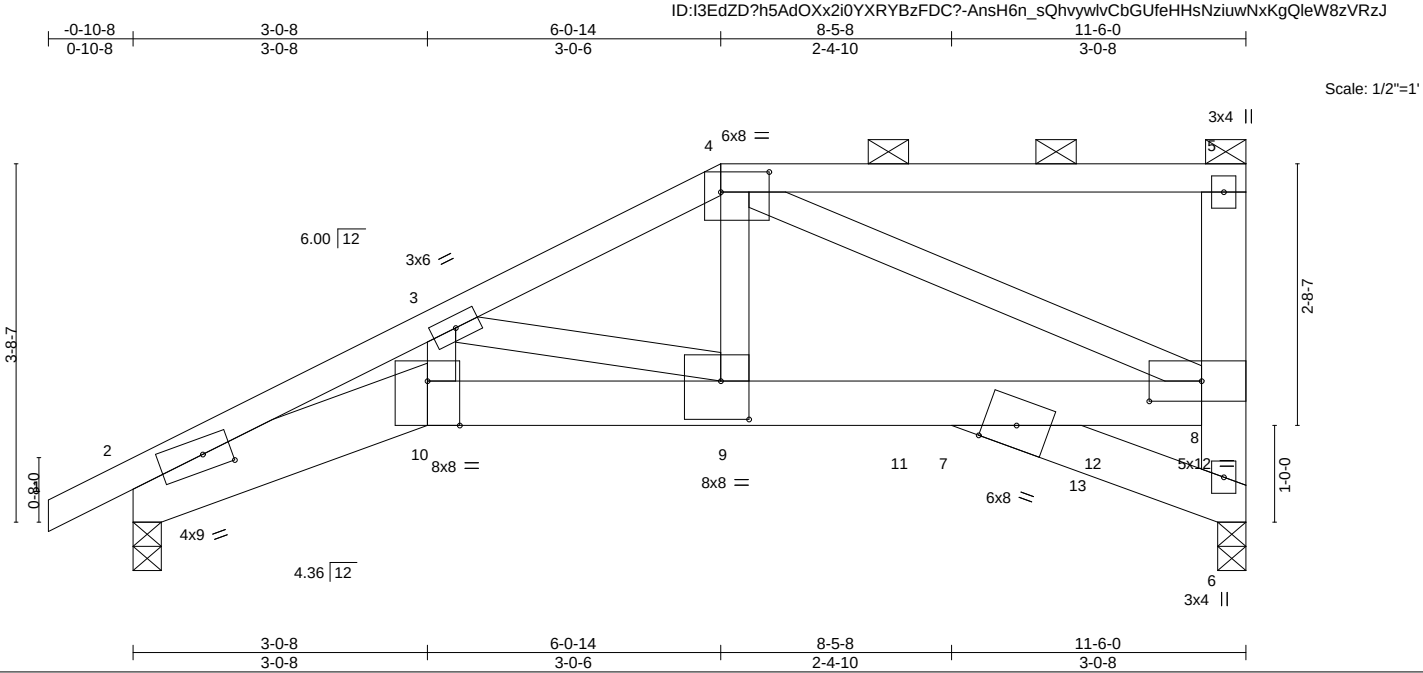


Plate Offsets (X,Y)-- [2:0-3-8,0-2-0], [4:0-6-0,0-2-8], [8:0-6-8,0-2-8], [9:0-3-8,0-4-12], [10:0-4-0,Edge]

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)	-0.09	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.17	9-10	>792	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.69	Horz(CT)	0.12	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06	9-10	>999	240	Weight: 138 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E *Except*
2-10: 2x8 SP DSS
WEBS 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-11-15 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 2=0-3-8
Max Horz 2=142(LC 7)
Max Uplift 6=-486(LC 5), 2=-249(LC 8)
Max Grav 6=4134(LC 1), 2=2382(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7929/779, 3-4=-6105/563, 4-5=-551/87, 6-8=-3809/476
BOT CHORD 2-10=-777/6987, 9-10=-714/6435, 7-9=-598/5750, 7-8=-589/5791
WEBS 3-10=-153/1551, 3-9=-1029/213, 4-9=-393/4732, 4-8=-5693/536

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) 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
4) Provide adequate drainage to prevent water ponding.
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) 6, 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 100 lb uplift at joint(s) except (jt=lb) 6=486, 2=249.
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.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2764 lb down and 271 lb up at 6-0-13, and 1363 lb down and 60 lb up at 8-0-0, and 1370 lb down and 246 lb up at 10-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

March 31,2021

Continued on page 2

LOAD CASE(S) Standard

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

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-70, 4-5=-70, 2-10=-20, 7-10=-20, 6-7=-20
   Concentrated Loads (lb)
   Vert: 9=-2764(B) 11=-1363(B) 12=-1316(B)

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

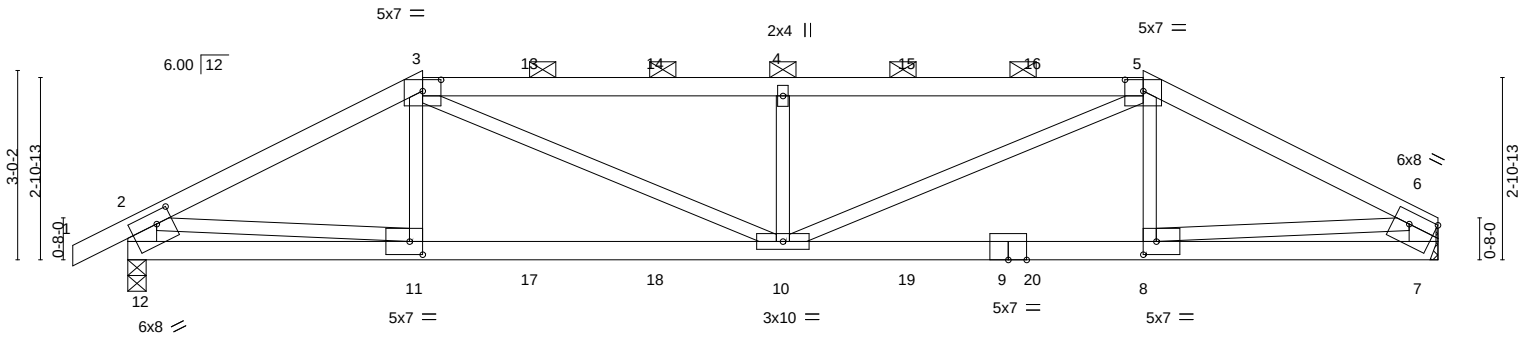
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	G1	Hip Girder	1	1	I45442765
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:47 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-ezPgJ7?VB_1pYvUO9z?uAUp4IMzXfquTv4UB3azVRzI

0-10-8	4-8-4	10-5-0	16-1-12	20-10-0
0-10-8	4-8-4	5-8-12	5-8-12	4-8-4

Scale = 1:36.6



4-8-4	10-5-0	16-1-12	20-10-0
4-8-4	5-8-12	5-8-12	4-8-4

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

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)	-0.13	10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.26	8-10	>953	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.64	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.10	10	>999	240	Weight: 73 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
3-5: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-12,6-7: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-3-4 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-8 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 12=0-3-8, 7=Mechanical
Max Horz 12=57(LC 7)
Max Uplift 12=-227(LC 8), 7=-201(LC 9)
Max Grav 12=1603(LC 1), 7=1521(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2586/358, 3-4=-3301/471, 4-5=-3301/471, 5-6=-2590/357, 2-12=-1554/244, 6-7=-1471/218
BOT CHORD 11-12=-155/477, 10-11=-320/2242, 8-10=-286/2255, 7-8=-96/401
WEBS 3-11=0/294, 3-10=-185/1217, 4-10=-744/259, 5-10=-184/1209, 5-8=0/288, 2-11=-257/1813, 6-8=-261/1873

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=227, 7=201.
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) 92 lb down and 55 lb up at 4-8-4, 97 lb down and 55 lb up at 6-5-0, 97 lb down and 55 lb up at 8-5-0, 97 lb down and 55 lb up at 10-5-0, 97 lb down and 55 lb up at 12-5-0, and 97 lb down and 55 lb up at 14-5-0, and 92 lb down and 55 lb up at 16-1-12 on top chord, and 279 lb down and 82 lb up at 4-8-4, 44 lb down at 6-5-0, 44 lb down at 8-5-0, 44 lb down at 10-5-0, 44 lb down at 12-5-0, and 44 lb down at 14-5-0, and 279 lb down and 82 lb up at 16-1-0 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).

Continued on page 2

March 31,2021

LOAD CASE(S) Standard

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

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, 7-12=-20
   Concentrated Loads (lb)
   Vert: 3=-69(F) 5=-69(F) 11=-279(F) 10=-35(F) 4=-69(F) 8=-279(F) 13=-69(F) 14=-69(F) 15=-69(F) 16=-69(F) 17=-35(F) 18=-35(F) 19=-35(F) 20=-35(F)

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

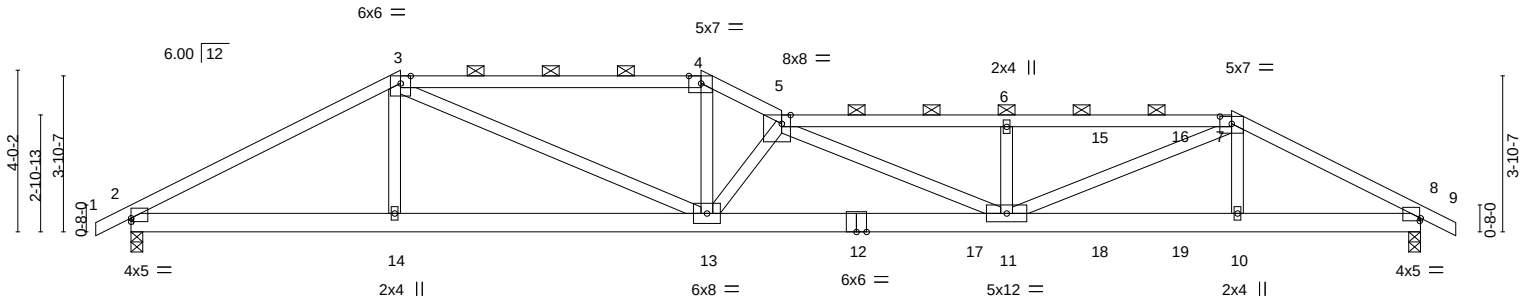
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	G2	ROOF SPECIAL GIRDER	1	2	I45442766
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:49 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-aMXQkp0ljcHWnDenHO2MGvuOHAd07nlmMOzI7TzVRzG

-0-10-8 | 6-8-4 | 14-1-12 | 16-1-12 | 21-8-12 | 27-3-12 | 32-0-0 | 32-10-8
0-10-8 | 6-8-4 | 7-5-8 | 2-0-0 | 5-7-0 | 5-7-0 | 4-8-4 | 0-10-8

Scale = 1:57.2



6-8-4 | 14-1-12 | 16-1-12 | 21-8-12 | 27-3-12 | 32-0-0
6-8-4 | 7-5-8 | 2-0-0 | 5-7-0 | 5-7-0 | 4-8-4

Plate Offsets (X,Y)-- [2:0-0-0,0-1-1], [4:0-3-10,Edge], [5:0-2-10,Edge], [7:0-3-8,0-2-3], [8:0-0-4,0-0-13]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.27	11-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.48	11-13	>793	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.49	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.19	11-13	>999	240	Weight: 273 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except* 3-4,5-7: 2x4 SPF 2100F 1.8E
BOT CHORD 2x6 SPF No.2 *Except* 8-12: 2x6 SPF 1650F 1.4E
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-11-3 oc purlins, except 2-0-0 oc purlins (5-5-4 max.): 3-4, 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=-66(LC 13)
Max Uplift 2=-220(LC 5), 8=-433(LC 9)
Max Grav 2=1998(LC 1), 8=2737(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3601/457, 3-4=-5208/742, 4-5=-5898/824, 5-6=-7979/1190, 6-7=-7979/1190, 7-8=-5074/758
BOT CHORD 2-14=-383/3067, 13-14=-386/3060, 11-13=-1029/7427, 10-11=-589/4330, 8-10=-588/4350
WEBS 3-14=0/307, 3-13=-387/2483, 4-13=-260/2208, 5-13=-3639/613, 5-11=-498/815, 6-11=-700/242, 7-11=-628/4015, 7-10=0/393

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
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) gable end zone; 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=220, 8=433.
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.

March 31,2021

Continued on page 2

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 119 lb down and 55 lb up at 22-0-0, 119 lb down and 55 lb up at 24-0-0, and 119 lb down and 55 lb up at 26-0-0, and 119 lb down and 55 lb up at 27-3-12 on top chord, and 1080 lb down and 200 lb up at 20-10-12, 44 lb down at 22-0-0, 44 lb down at 24-0-0, and 44 lb down at 26-0-0, and 279 lb down and 82 lb up at 27-3-0 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, 3-4=-70, 4-5=-70, 5-7=-70, 7-9=-70, 2-8=-20
   Concentrated Loads (lb)
   Vert: 7=-69(F) 6=-69(F) 11=-35(F) 10=-279(F) 15=-69(F) 16=-69(F) 17=-1080(F) 18=-35(F) 19=-35(F)

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

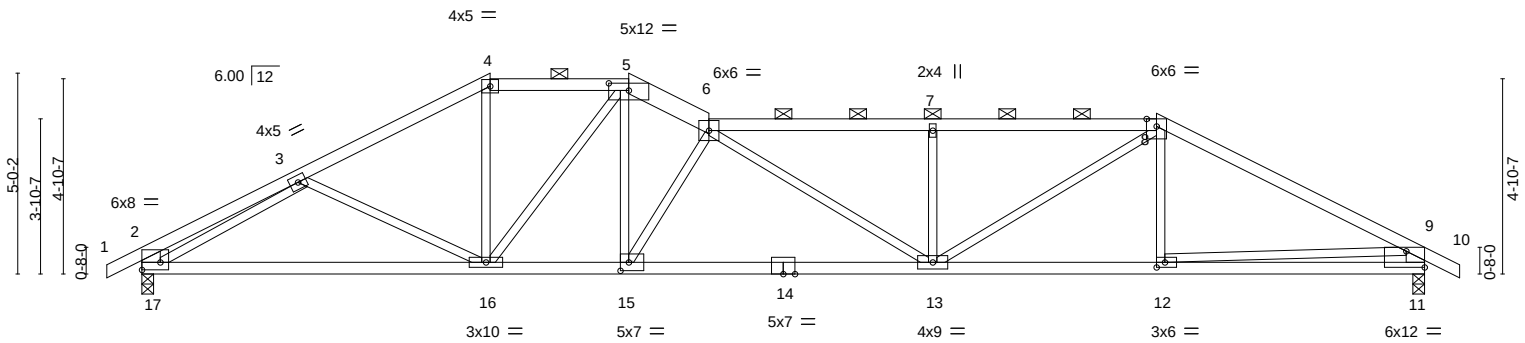
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	G3	Roof Special	1	1	I45442767
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:51 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-WkfA9U2?FDXE0Wo9Op4qLK_kO_IUbbv3qiSPCLzVRzE

-0-10-8	4-0-2	8-8-4	12-1-12	14-1-12	19-8-12	25-3-12	32-0-0	32-10-8
0-10-8	4-0-2	4-8-2	3-5-8	2-0-0	5-7-0	5-7-0	6-8-4	0-10-8

Scale = 1:57.5



8-8-4	12-1-12	14-1-12	19-8-12	25-3-12	32-0-0
8-8-4	3-5-8	2-0-0	5-7-0	5-7-0	6-8-4

Plate Offsets (X,Y)-- [2:Edge,0-2-4], [5:0-6-0,0-2-3], [11:Edge,0-4-13], [12:0-2-8,0-1-8], [15:0-2-8,0-2-8]

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	0.67	Vert(LL)	-0.22	13-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.47	13-15	>809	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.11	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.15	13-15	>999	240	Weight: 123 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-17,9-11: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-9-12 oc purlins, except end verticals, and 2-0-0 oc purlins (2-9-13 max.): 4-5, 6-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 17=0-3-8, 11=0-3-8
Max Horz 17=-80(LC 6)
Max Uplift 17=-136(LC 8), 11=-245(LC 9)
Max Grav 17=1497(LC 1), 11=1497(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-618/25, 3-4=-2211/241, 4-5=-1908/230, 5-6=-2572/337, 6-7=-3019/476, 7-8=-3021/478, 8-9=-2376/362, 2-17=-478/78, 9-11=-1429/283
BOT CHORD 16-17=-208/1970, 15-16=-198/2302, 13-15=-310/3058, 12-13=-228/2028, 11-12=-235/784
WEBS 4-16=-56/659, 5-16=-725/143, 5-15=-223/1446, 6-15=-1560/328, 7-13=-479/192, 8-13=-194/1182, 3-17=-1749/230, 9-12=-168/1248

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=136, 11=245.
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.

March 31,2021

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

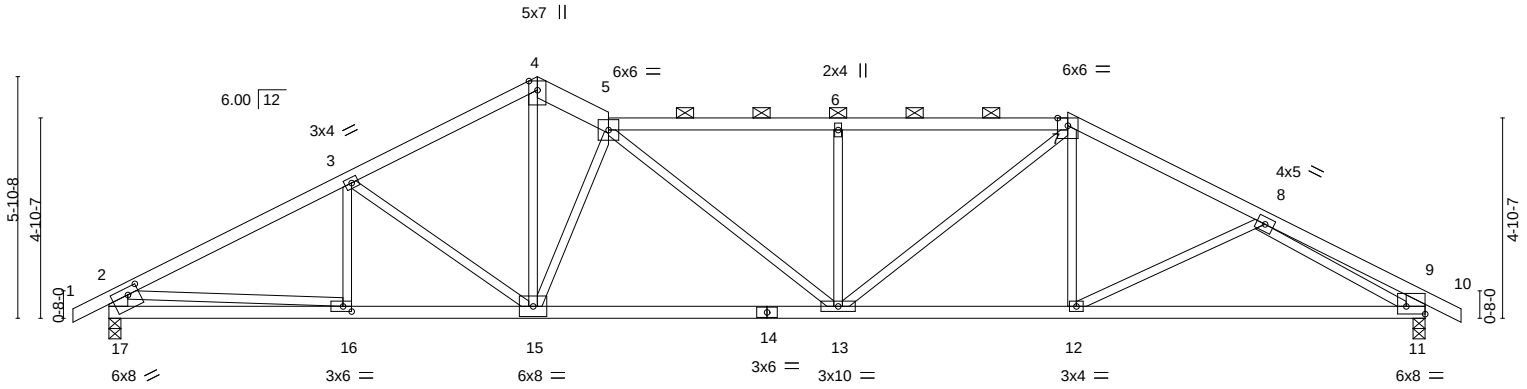
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	G4	Roof Special	1	1	I45442768
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:52 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-_xDZNq2d0Xf5egNMyWb3tYWxRNi3K2AC2MCykozVRzD

-0-10-8	5-9-9	10-5-0	12-1-12	17-8-12	23-3-12	27-11-14	32-0-0	32-10-8
0-10-8	5-9-9	4-7-8	1-8-12	5-7-0	5-7-0	4-8-2	4-0-2	0-10-8

Scale = 1:56.0



5-9-9	10-5-0	17-8-12	23-3-12	32-0-0
5-9-9	4-7-8	7-3-12	5-7-0	8-8-4

Plate Offsets (X,Y)-- [11:Edge,0-2-4], [16:0-2-8,0-1-8], [17:0-3-4,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.17	13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.36	13-15	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.09	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.12	13	>999	240	Weight: 126 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
4-5: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-17,9-11: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-4-9 oc purlins, except end verticals, and 2-0-0 oc purlins (3-3-1 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 17=0-3-8, 11=0-3-8
Max Horz 17=91(LC 7)
Max Uplift 17=-155(LC 8), 11=-253(LC 9)
Max Grav 17=1497(LC 1), 11=1497(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2358/263, 3-4=-2078/310, 4-5=-2026/313, 5-6=-2466/438, 6-7=-2468/439, 7-8=-2213/375, 8-9=-620/71, 2-17=-1427/188, 9-11=-480/103
BOT CHORD 16-17=-191/622, 15-16=-181/2021, 13-15=-189/2286, 12-13=-191/1921, 11-12=-317/1969
WEBS 3-15=-347/157, 4-15=-234/1590, 5-15=-1391/323, 5-13=-88/357, 6-13=-476/189, 7-13=-141/707, 7-12=0/267, 2-16=-104/1404, 8-11=-1747/368

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=155, 11=253.
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.

March 31,2021

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

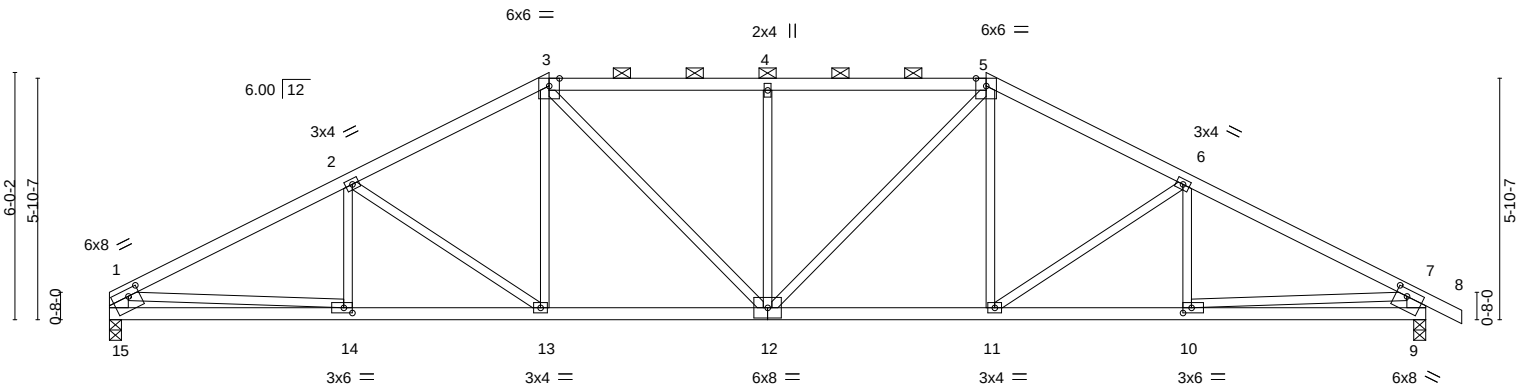
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	G5	Hip	1	1	I45442769
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:54 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-xJLJoW4uY8vpt_Wk3xdXzzcH5BQjo0GVWgh3pgzVRzB

5-9-9	10-8-4	16-0-0	21-3-12	26-2-7	32-0-0	32-10-8
5-9-9	4-10-10	5-3-12	5-3-12	4-10-10	5-9-9	0-10-8

Scale = 1:56.0



5-9-9	10-8-4	16-0-0	21-3-12	26-2-7	32-0-0
5-9-9	4-10-10	5-3-12	5-3-12	4-10-10	5-9-9

Plate Offsets (X,Y)-- [1:0-3-4,0-2-0], [9:0-3-4,0-2-0], [10:0-2-8,0-1-8], [14:0-2-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.13	12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.23	12-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.07	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08	12	>999	240	Weight: 126 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 1-15,7-9: 2x6 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-4-9 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-1 max.): 3-5.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 15=0-3-8, 9=0-3-8
Max Horz 15=-95(LC 4)
Max Uplift 15=-132(LC 8), 9=-158(LC 9)
Max Grav 15=1418(LC 1), 9=1498(LC 1)

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

TOP CHORD	1-2=-2376/209, 2-3=-2067/195, 3-4=-2046/217, 4-5=-2046/217, 5-6=-2061/195, 6-7=-2369/207, 1-15=-1348/163, 7-9=-1431/189
BOT CHORD	14-15=-140/486, 13-14=-193/2048, 12-13=-124/1778, 11-12=-68/1776, 10-11=-103/2032, 9-10=-115/606
WEBS	2-13=-338/163, 3-13=-34/318, 3-12=-118/511, 4-12=-463/183, 5-12=-119/513, 5-11=-31/314, 6-11=-321/158, 1-14=-65/1568, 7-10=-39/1431

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=132, 9=158.
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.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

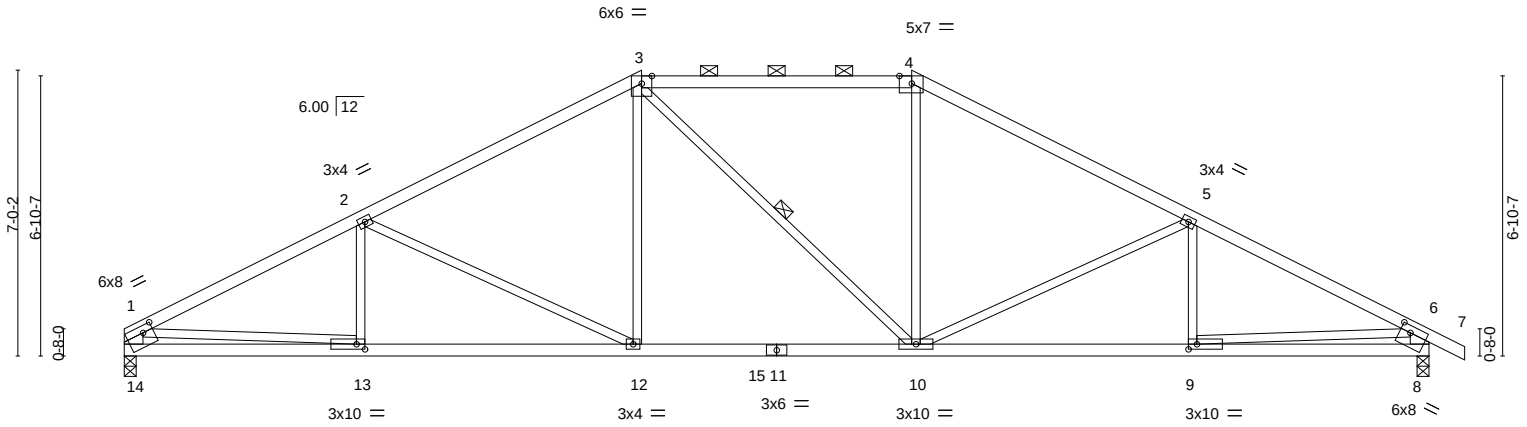
Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	G6	Hip	1	1	I45442770
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:55 2021 Page 1

ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-PWuh?s5WJS1gV85xdf9mVA8MMbiLXQvfkKQcL6zVRzA

5-9-9	12-8-4	19-3-12	26-2-7	32-0-0	32-10-8
5-9-9	6-10-11	6-7-8	6-10-11	5-9-9	0-10-8

Scale = 1:56.5



5-9-9	12-8-4	19-3-12	26-2-7	32-0-0
5-9-9	6-10-11	6-7-8	6-10-11	5-9-9

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

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.16	10-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.27	10-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08	12-13	>999	240	Weight: 122 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 1-14,6-8: 2x6 SPF No.2

BRACING-

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

REACTIONS. (size) 14=0-3-8, 8=0-3-8
Max Horz 14=-112(LC 13)
Max Uplift 14=-151(LC 8), 8=-177(LC 9)
Max Grav 14=1482(LC 2), 8=1542(LC 2)

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

TOP CHORD	1-2=-2501/254, 2-3=-2040/198, 3-4=-1730/224, 4-5=-2026/196, 5-6=-2486/252, 1-14=-1380/178, 6-8=-1442/204
BOT CHORD	13-14=-142/499, 12-13=-256/2179, 10-12=-62/1741, 9-10=-149/2158, 8-9=-83/543
WEBS	2-12=-504/215, 3-12=-11/502, 4-10=0/473, 5-10=-494/211, 1-13=-115/1728, 6-9=-67/1622

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=151, 8=177.
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.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

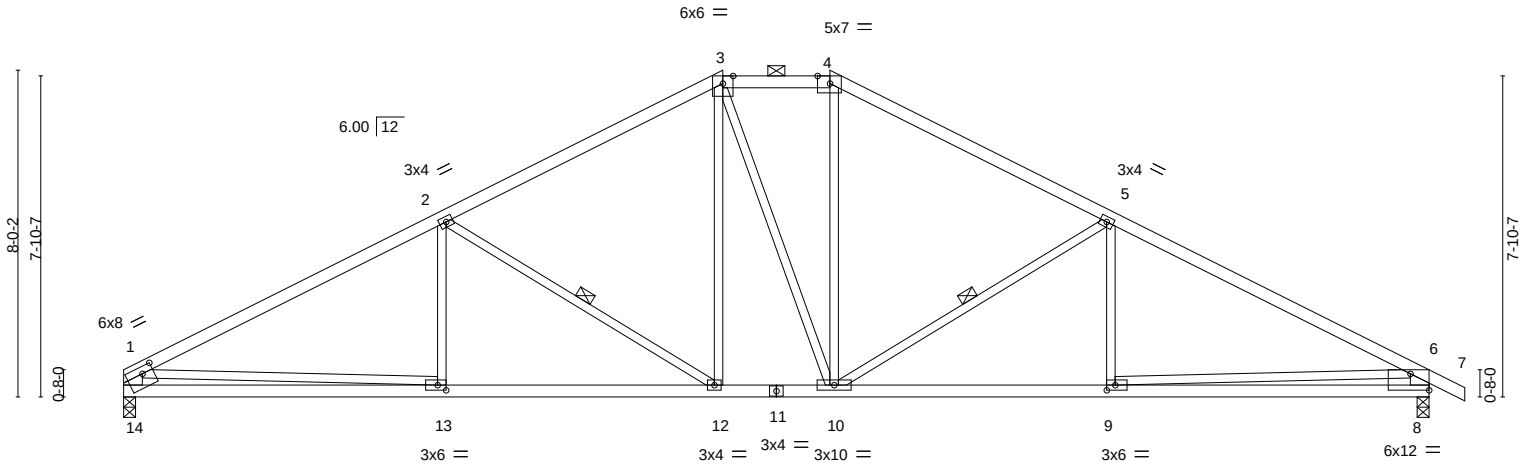
Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	G7	Hip	1	1	I45442771
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:57 2021 Page 1

ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-Lu0SQY6mq3IOkRFJl4BEabEh6ORb?O?yCevjP?zVRz8

7-9-9	14-8-4	17-3-12	24-2-7	32-0-0	32-10-8
7-9-9	6-10-10	2-7-8	6-10-10	7-9-9	0-10-8

Scale = 1:56.5



7-9-9	14-8-4	17-3-12	24-2-7	32-0-0
7-9-9	6-10-10	2-7-8	6-10-10	7-9-9

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.12	12-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.25	12-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08	12-13	>999	240	Weight: 129 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 1-14,6-8: 2x6 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-7-11 max.): 3-4.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 2-12, 5-10

REACTIONS. (size) 14=0-3-8, 8=0-3-8
Max Horz 14=-130(LC 9)
Max Uplift 14=-167(LC 8), 8=-193(LC 9)
Max Grav 14=1418(LC 1), 8=1498(LC 1)

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

TOP CHORD	1-2=-2366/268, 2-3=-1768/226, 3-4=-1473/246, 4-5=-1767/224, 5-6=-2361/267, 1-14=-1340/209, 6-8=-1422/235
BOT CHORD	13-14=-226/639, 12-13=-258/2018, 10-12=-60/1471, 9-10=-133/2004, 8-9=-223/846
WEBS	2-13=0/253, 2-12=-664/233, 3-12=-71/441, 4-10=-53/418, 5-10=-646/227, 5-9=0/258, 1-13=-37/1382, 6-9=0/1160

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) The Fabrication Tolerance at joint 6 = 6%
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=167, 8=193.
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.

March 31,2021

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

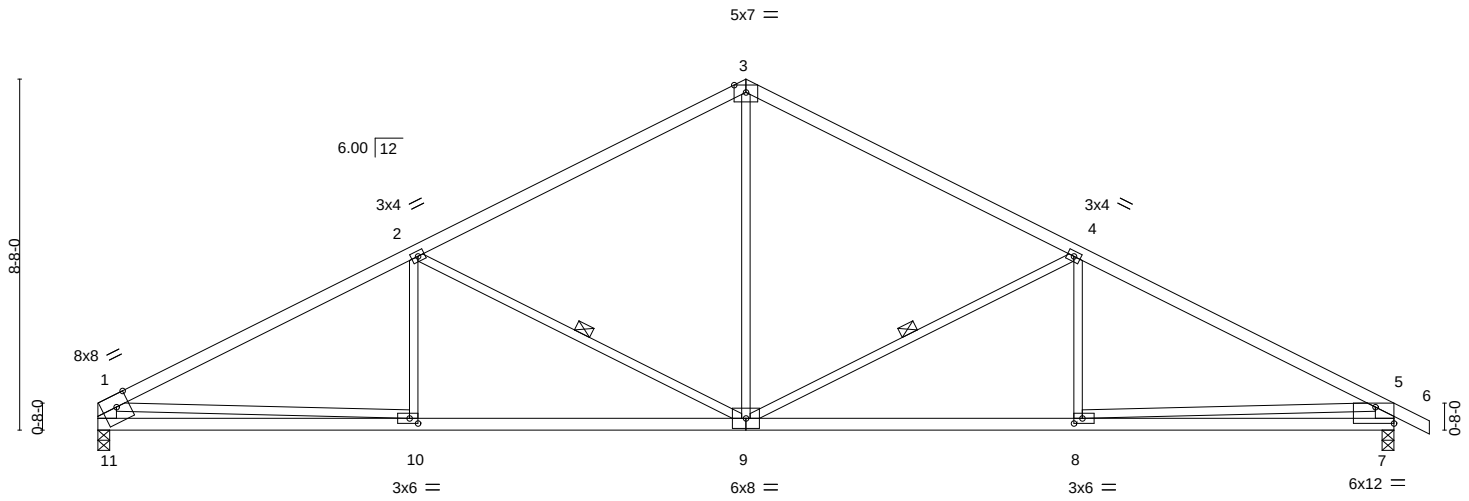
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	G8	Common	2	1	I45442772
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:13:58 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-p4aqdt7ObNQFMbqWIniT7pmrwolTkp_5RIfGyRzVRz7

7-9-9	16-0-0	24-2-7	32-0-0	32-10-8
7-9-9	8-2-7	8-2-7	7-9-9	0-10-8

Scale = 1:56.9



7-9-9	16-0-0	24-2-7	32-0-0
7-9-9	8-2-7	8-2-7	7-9-9

Plate Offsets (X,Y)-- [1:0-3-12,Edge], [7:Edge,0-4-13], [8:0-2-8,0-1-8], [10:0-2-8,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.12	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.27	9-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08	9-10	>999	240	Weight: 119 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
3-6: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-11,5-7: 2x6 SPF No.2

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

REACTIONS. (size) 11=0-3-8, 7=0-3-8
Max Horz 11=-142(LC 9)
Max Uplift 11=-176(LC 8), 7=-202(LC 9)
Max Grav 11=1418(LC 1), 7=1498(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2379/292, 2-3=-1680/253, 3-4=-1678/254, 4-5=-2376/291, 1-11=-1341/216, 5-7=-1423/242
BOT CHORD 10-11=-224/609, 9-10=-295/2034, 8-9=-158/2021, 7-8=-187/808
WEBS 3-9=-47/848, 4-9=-771/269, 4-8=0/272, 2-9=-782/273, 2-10=0/265, 1-10=-72/1428, 5-8=-17/1216

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) except (jt=lb) 11=176, 7=202.
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.

March 31,2021

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

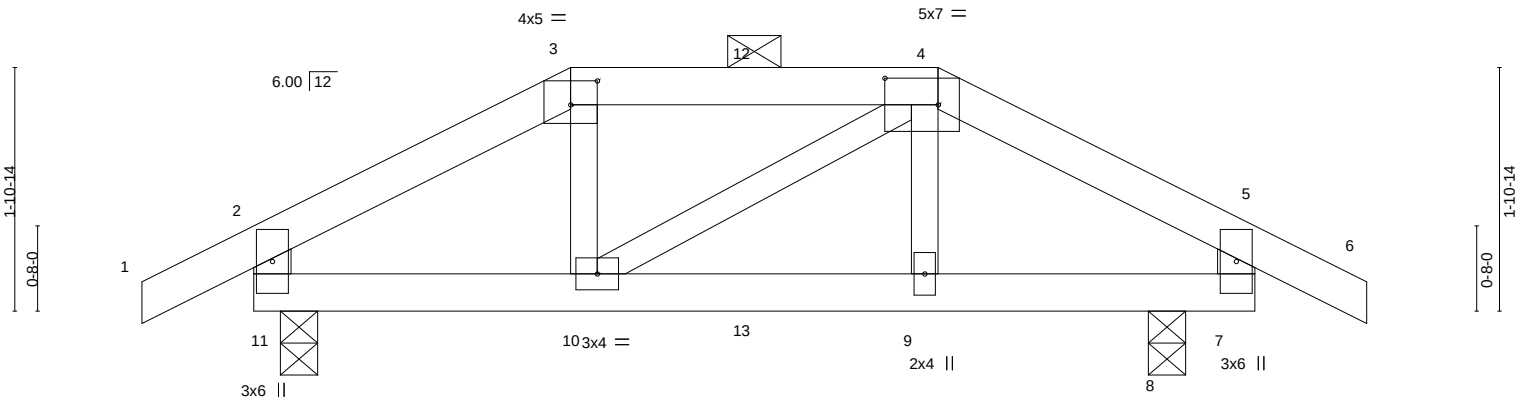
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	H1	Hip Girder	1	1	I45442773
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:00 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-lTia2Z9e7_gybv_uQCkxCEsNfcVRCsROuc8N0KzVRz5

-0-10-8 | 2-5-12 | 5-4-4 | 7-10-0 | 8-8-8
0-10-8 | 2-5-12 | 2-10-8 | 2-5-12 | 0-10-8

Scale = 1:18.0



0-2-8 | 2-5-12 | 5-4-4 | 7-3-8 | 7-10-0
0-2-8 | 2-3-4 | 2-10-8 | 1-11-4 | 0-6-8

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

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	0.25	Vert(LL)	-0.02	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.03	9-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.02	9-10	>999	240	Weight: 26 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-11,5-7: 2x4 SPF No.2

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

REACTIONS. (size) 11=0-3-8, 8=0-3-8
Max Horz 11=-38(LC 6)
Max Uplift 11=-138(LC 8), 8=-168(LC 9)
Max Grav 11=383(LC 21), 8=445(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-380/166, 3-4=-296/157, 4-5=-309/155, 2-11=-335/142, 5-7=-302/134
BOT CHORD 10-11=-129/318

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=138, 8=168.
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) 111 lb down and 126 lb up at 2-5-12, and 62 lb down and 43 lb up at 3-11-0, and 103 lb down and 141 lb up at 5-4-4 on top chord, and 17 lb down and 5 lb up at 2-5-12, and 12 lb down at 3-11-0, and 37 lb down and 53 lb up at 5-3-8 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, 4-5=-70, 5-6=-70, 7-11=-20

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

March 31,2021

Continued on page 2

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 10=-0(F) 9=-2(F) 13=-2(F)

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

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	H2	Common	3	1	I45442774
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:01 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-EfGyGv9HuIopD3Z4_vGAlROXw0s4xJtX7GtwYmzVRz4

-0-10-8 | 3-11-0 | 7-10-0 | 8-8-8
0-10-8 | 3-11-0 | 3-11-0 | 0-10-8

Scale = 1:18.4

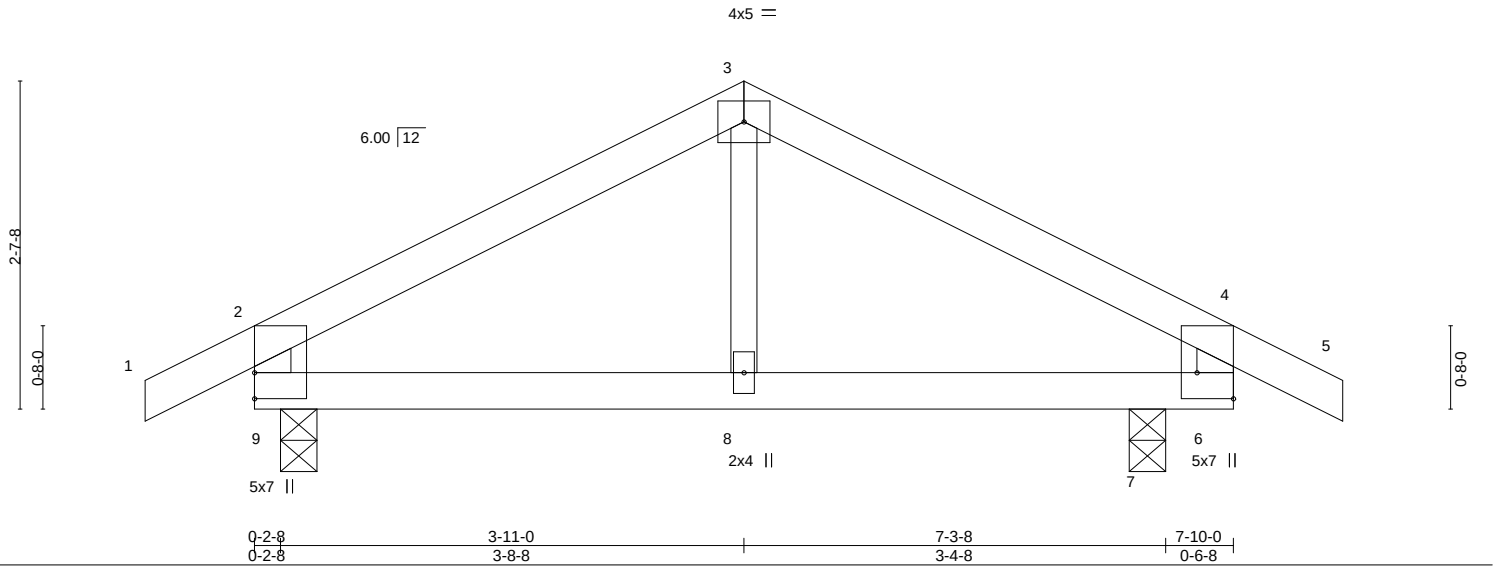


Plate Offsets (X,Y)-- [6:Edge,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.01	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.03	8-9	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	8-9	>999	240	Weight: 24 lb	FT = 10%

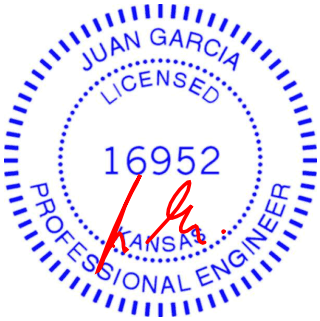
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-8: 2x3 SPF No.2

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) 9=0-3-8, 7=0-3-8
Max Horz 9=-47(LC 6)
Max Uplift 9=-64(LC 8), 7=-71(LC 9)
Max Grav 9=379(LC 1), 7=443(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-298/43, 3-4=-306/52, 2-9=-325/89, 4-6=-342/90

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) 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) 9, 7.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 31,2021

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

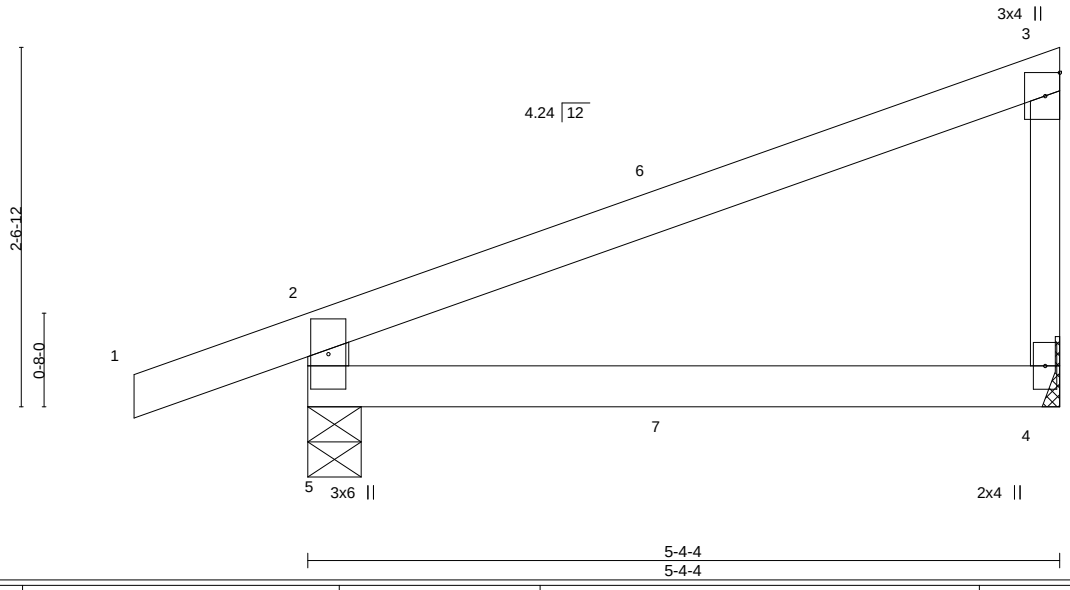
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J1	Diagonal Hip Girder	3	1	I45442775
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:03 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-A2NjgbBXQv2XSMjT5KIeqsUsypafPDvqaaM1dfzVRz2

-1-2-14 / 1-2-14 — 5-4-4 / 5-4-4

Scale = 1:16.4



5-4-4 / 5-4-4

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	0.37	Vert(LL)	-0.03	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.06	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 16 lb	FT = 10%

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

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

REACTIONS. (size) 5=0-4-9, 4=Mechanical
Max Horz 5=108(LC 22)
Max Uplift 5=-100(LC 4), 4=-48(LC 8)
Max Grav 5=338(LC 1), 4=215(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-300/138

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=100.
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) 68 lb down and 33 lb up at 2-7-6, and 68 lb down and 33 lb up at 2-7-6 on top chord, and 3 lb down and 2 lb up at 2-7-6, and 3 lb down and 2 lb up at 2-7-6 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: 7=3(F=2, B=2)

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

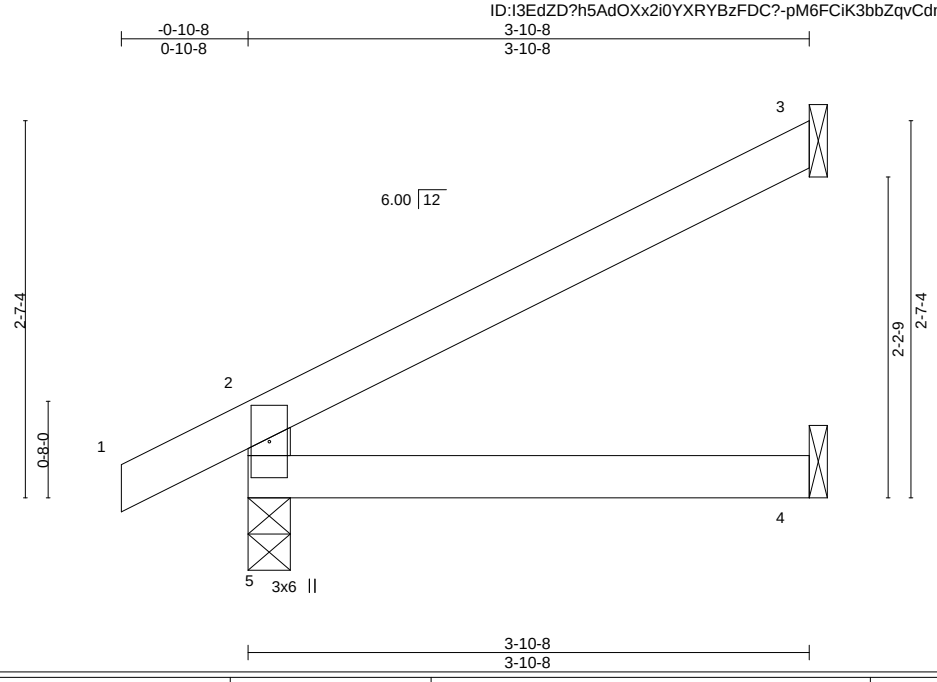
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J2	Jack-Open	10	1	I45442776
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:15 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-pM6FCiK3bbZqvCdnorWSJOzyqfiGDetbLRGg1yzVRys



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 11 lb	FT = 10%

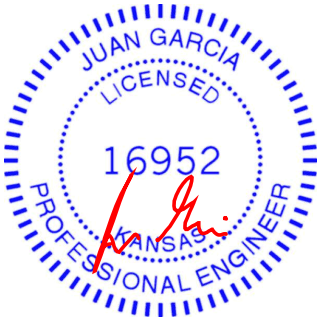
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=87(LC 8)
Max Uplift 5=-29(LC 8), 3=-64(LC 8)
Max Grav 5=246(LC 1), 3=112(LC 1), 4=69(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.



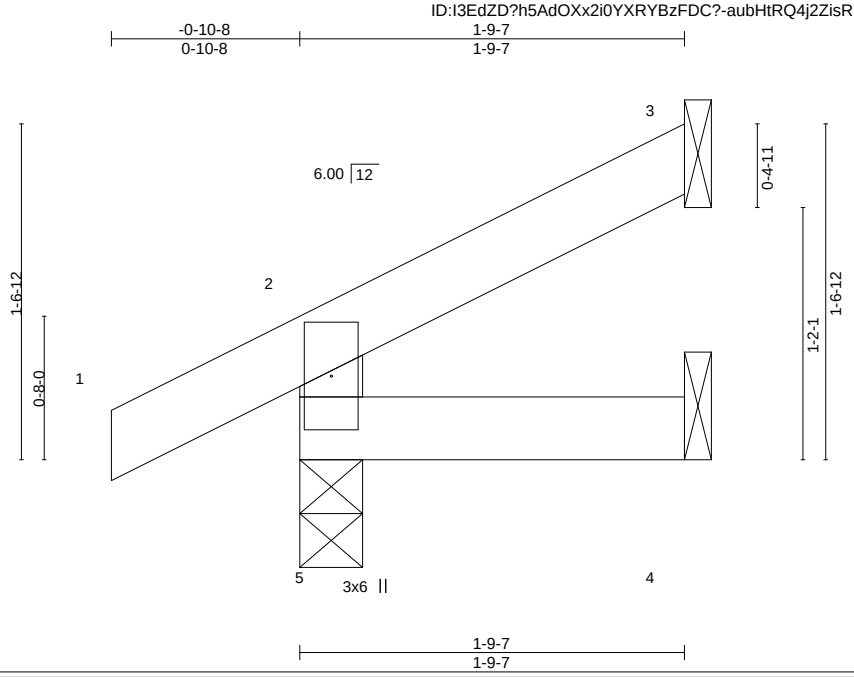
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J3	Jack-Open	6	1	I45442777
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:23 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-aubHtRQ4j2ZisREJGXfKe4JLftRh5GrmBhC5JVzVRyk



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.00	5	>999	240	Weight: 6 lb	FT = 10%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-9-7 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=45(LC 8)
Max Uplift 5=-26(LC 8), 3=-28(LC 8)
Max Grav 5=167(LC 1), 3=39(LC 1), 4=29(LC 3)

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

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

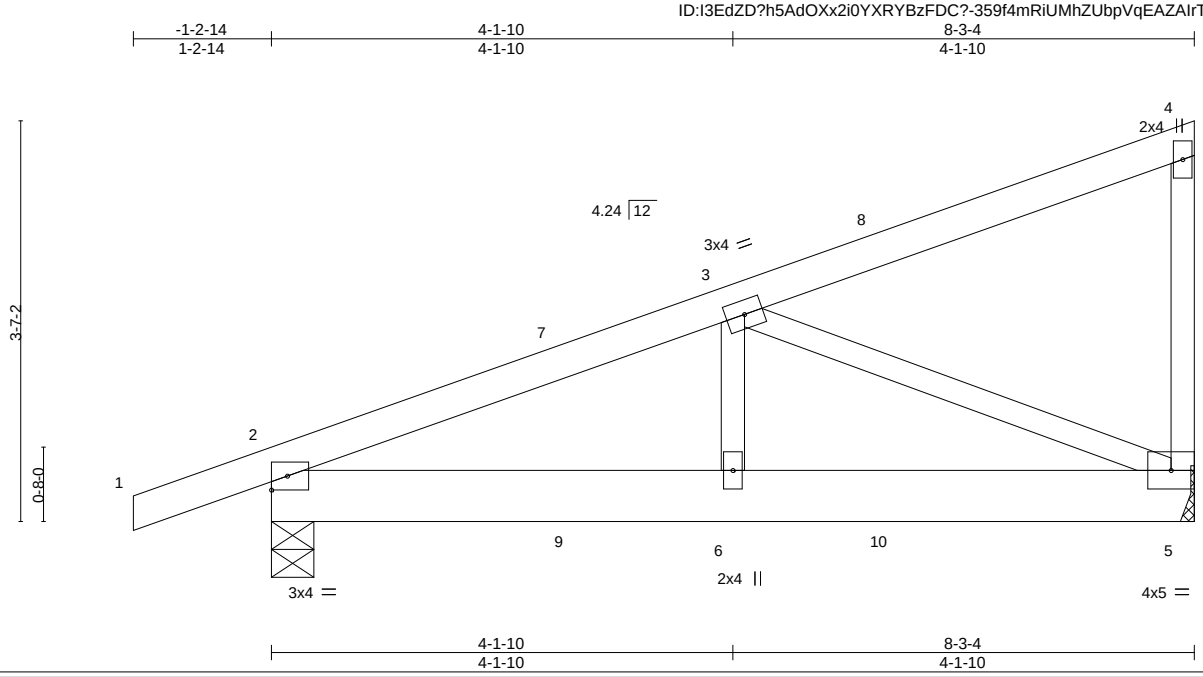
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J4	Diagonal Hip Girder	1	1	I45442778
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:24 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-359f4mRiUMhZUbpVqEAZAIrTuHlOqf3wPLyerxzVRyj



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	0.29	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.01	6	>999	240	Weight: 33 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS. (size) 5=Mechanical, 2=0-4-9
Max Horz 2=146(LC 22)
Max Uplift 5=-102(LC 8), 2=-133(LC 4)
Max Grav 5=385(LC 1), 2=483(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-614/102
BOT CHORD 2-6=-141/494, 5-6=-141/494
WEBS 3-5=-538/166

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=102, 2=133.
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) 68 lb down and 34 lb up at 2-8-7, 68 lb down and 34 lb up at 2-8-7, and 96 lb down and 72 lb up at 5-6-6, and 96 lb down and 72 lb up at 5-6-6 on top chord, and 3 lb down and 1 lb up at 2-8-7, 3 lb down and 1 lb up at 2-8-7, and 22 lb down at 5-6-6, and 22 lb down at 5-6-6 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: 1-4=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 8=-24(F=-12, B=-12) 9=3(F=1, B=1) 10=-29(F=-14, B=-14)

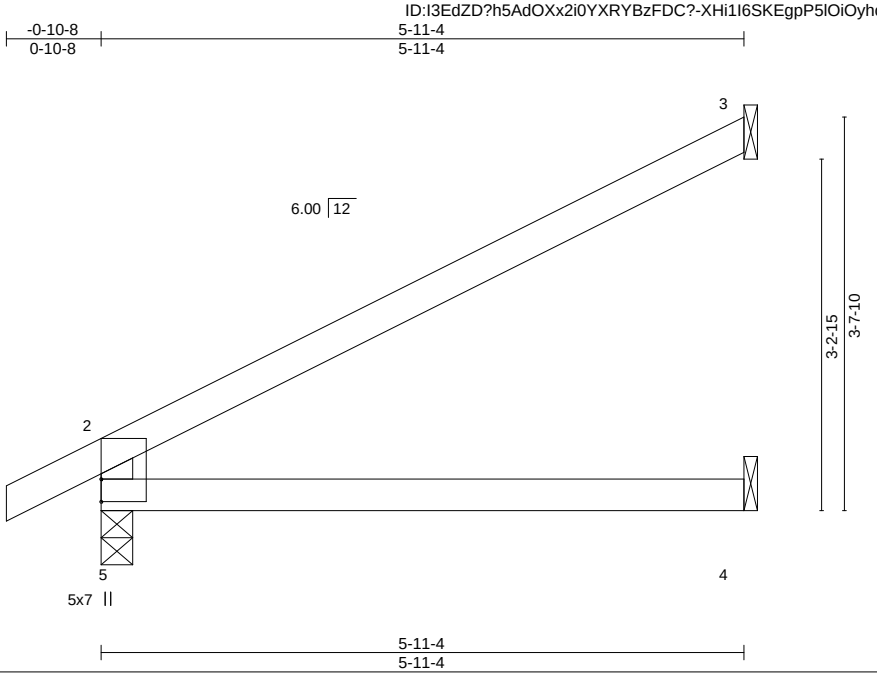
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J5	Jack-Open	16	1	I45442779
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:25 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-XHi1I6SKEgpP5lOiOyhojVOZ6h3YZAL3e?hCONzVRyi



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.11	4-5	>612	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.04	4-5	>999	240	Weight: 16 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 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) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=90(LC 8)
Max Uplift 3=-58(LC 8)
Max Grav 5=336(LC 1), 3=179(LC 1), 4=108(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-293/47

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.

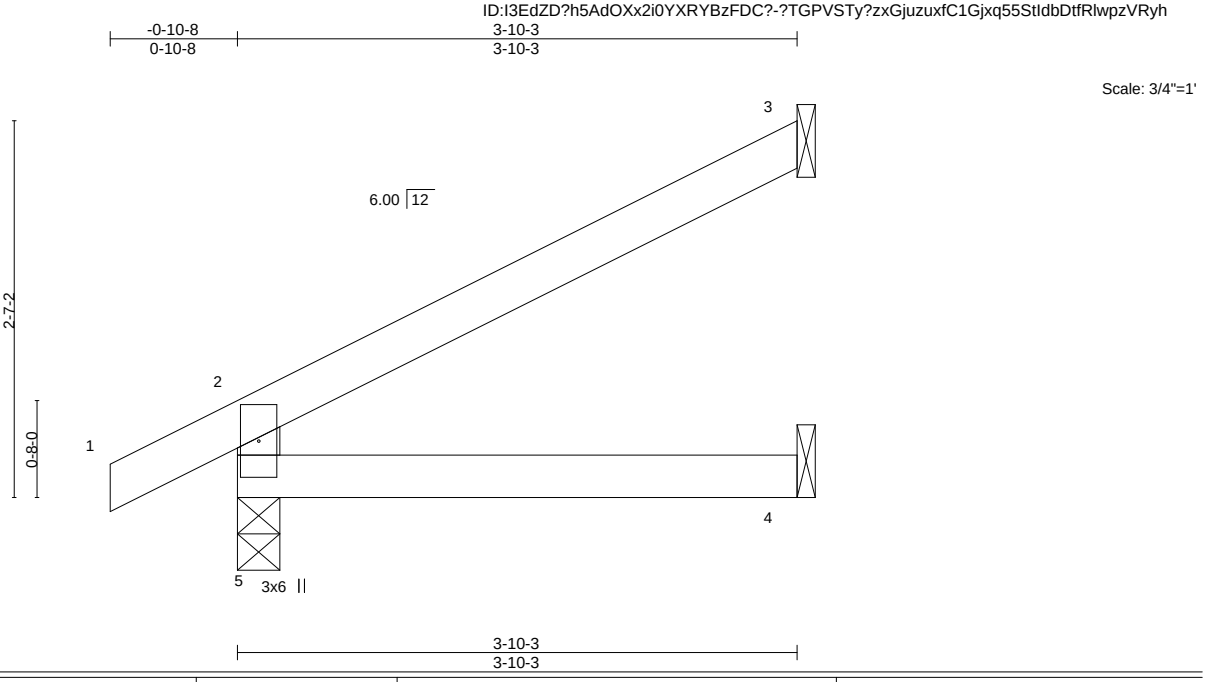
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J6	Jack-Open	2	1	I45442780
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:26 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-?TGPVSTy?zxGjuzuxfC1Gjxq55StIdbDtfRlwpzVRyh



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 11 lb	FT = 10%

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

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=86(LC 8)
Max Uplift 5=-29(LC 8), 3=-63(LC 8)
Max Grav 5=245(LC 1), 3=111(LC 1), 4=68(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.

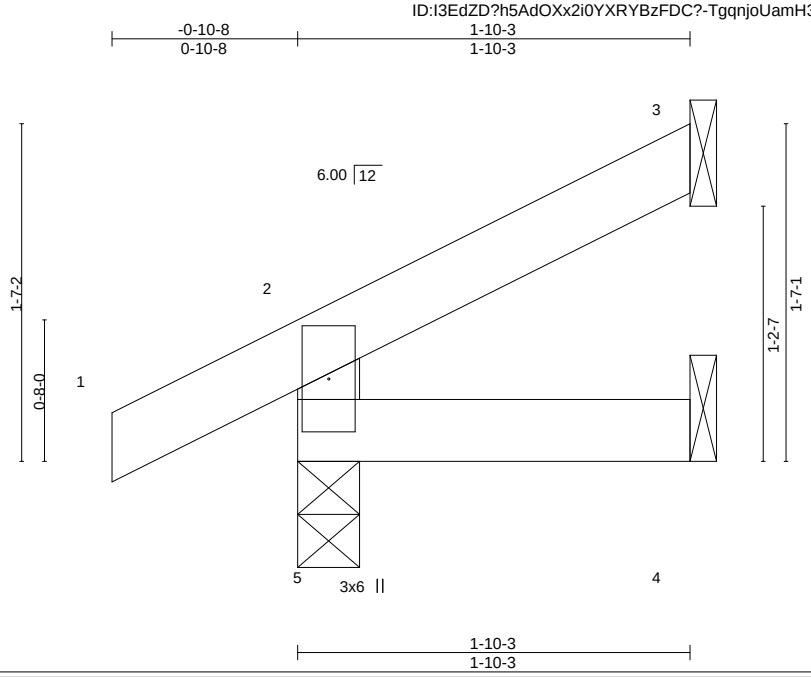
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J7	Jack-Open	4	1	I45442781
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:27 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-TgqnjoUamH37L2Y4VNjGowT0eUpc14rM5JAJSGzVRyg



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.00	5	>999	240	Weight: 6 lb	FT = 10%

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

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=46(LC 8)
Max Uplift 5=-26(LC 8), 3=-29(LC 8)
Max Grav 5=169(LC 1), 3=42(LC 1), 4=30(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.

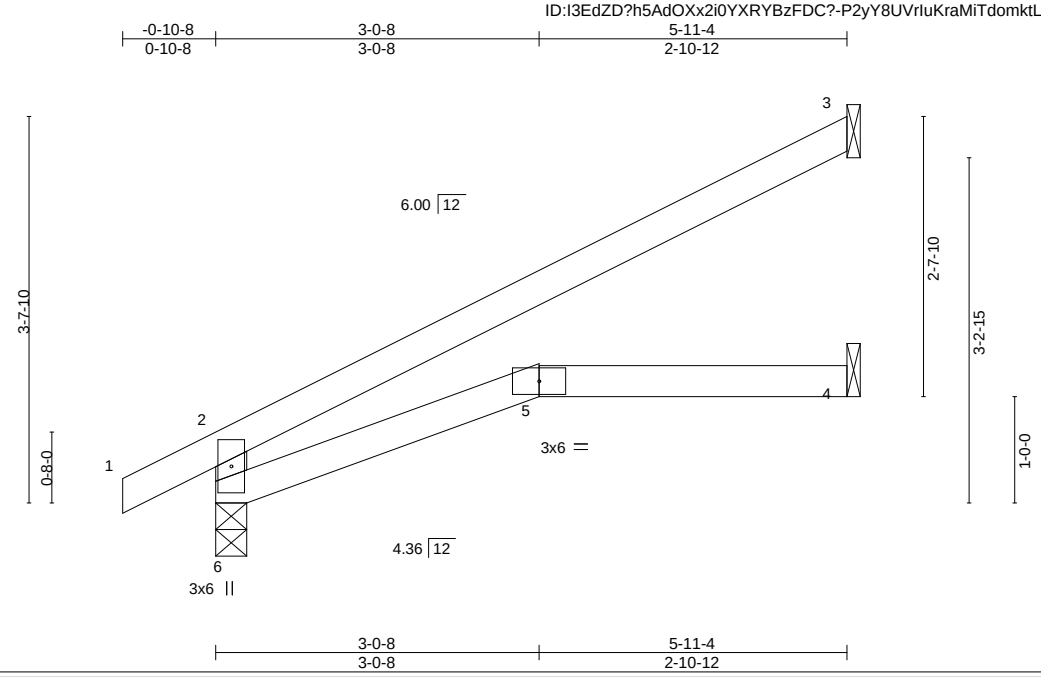
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J8	Jack-Open	2	1	I45442782
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:29 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-P2yY8UVrIuKraMiTdomktLYF2IRlVzKfZdfPX8zVRye



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.05	5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.11	5	>598	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.04	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.04	5-6	>999	240	Weight: 16 lb	FT = 10%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 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=-59(LC 8)
Max Grav 6=336(LC 1), 3=180(LC 1), 4=108(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-292/46

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.

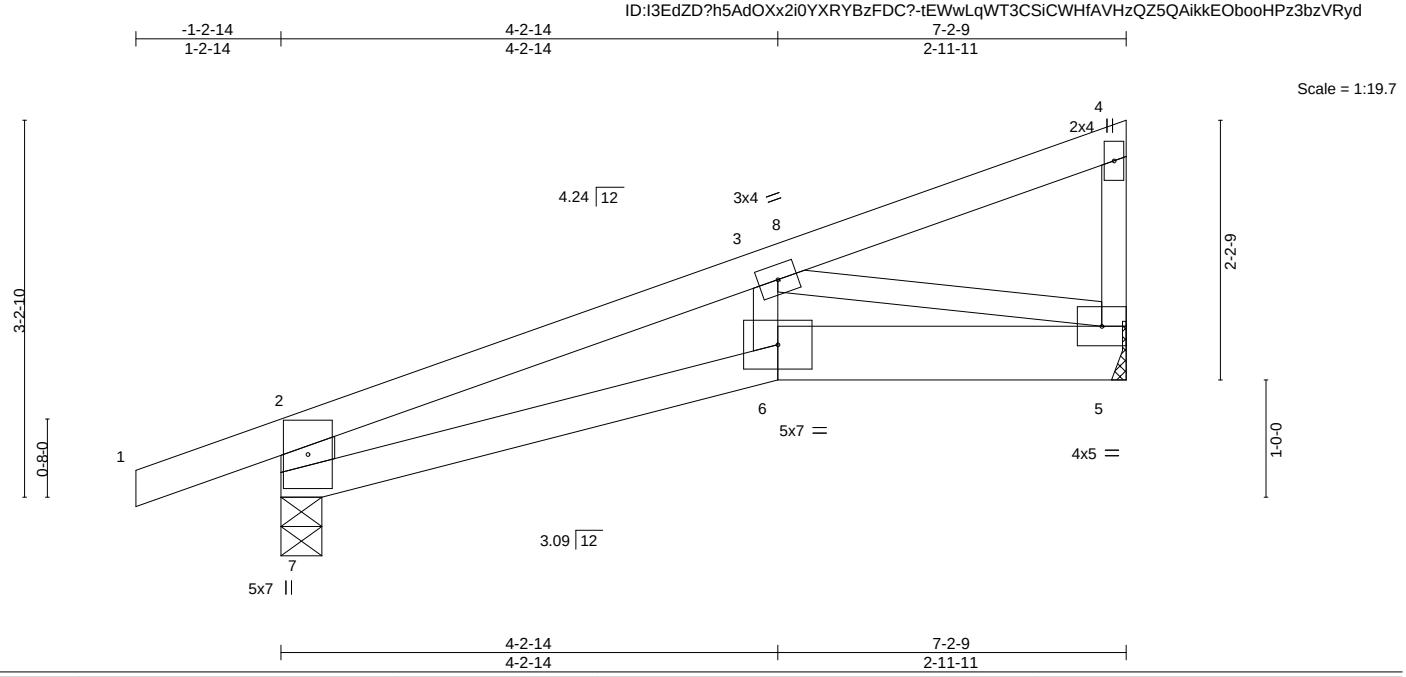
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J9	Diagonal Hip Girder	1	1	I45442783
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:30 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-tEWwLqWT3CSiCWHfAVHzQZ5QAikkEObooHPz3bzVRyd



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.04	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.08	6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.19	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	6	>999	240	Weight: 25 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except*
6-7: 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-7: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-9-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=0-4-3, 5=Mechanical
Max Horz 7=120(LC 5)
Max Uplift 7=-129(LC 4), 5=-91(LC 8)
Max Grav 7=470(LC 1), 5=364(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-561/190, 2-3=-783/184
BOT CHORD 6-7=-205/690, 5-6=-200/705
WEBS 3-6=-27/329, 3-5=-700/218

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=129.
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) 69 lb down and 38 lb up at 4-5-10, and 69 lb down and 38 lb up at 4-5-10 on top chord, and 56 lb down and 31 lb up at 4-2-14, and 56 lb down and 31 lb up at 4-2-14 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

March 31,2021

Continued on page 2

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J9	Diagonal Hip Girder	1	1	I45442783 Job Reference (optional)

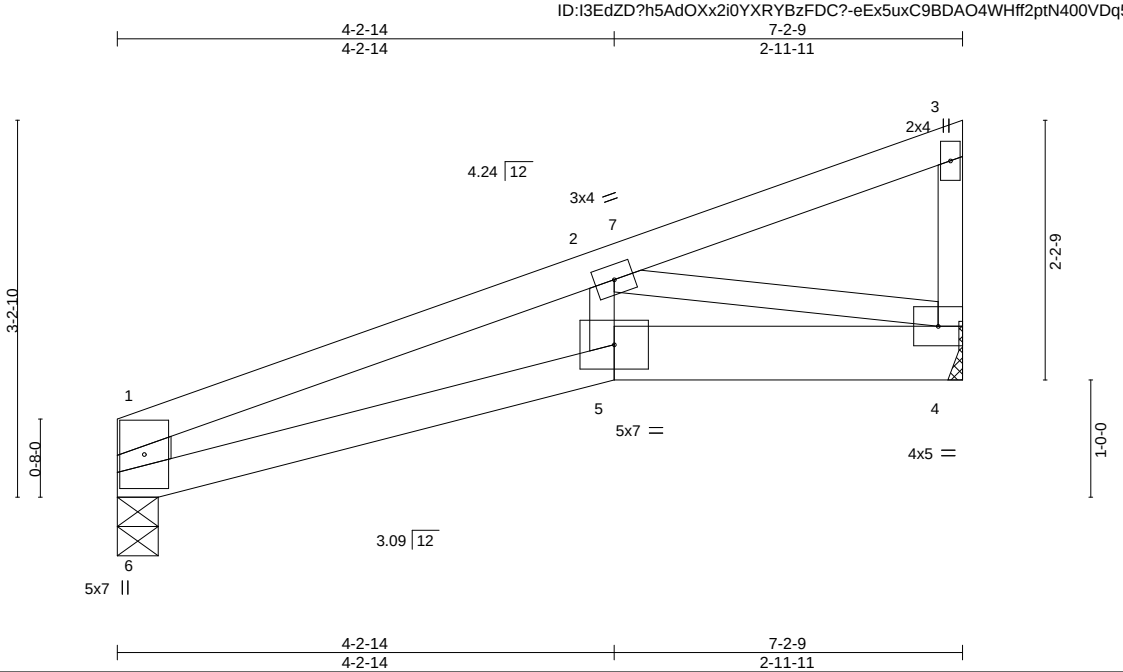
LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 6=-112(F=-56, B=-56)

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

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J10	Diagonal Hip Girder	1	1	I45442784
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:04 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-eEx5uxC9BDAO4WHff2ptN400VDq58dyzpE6b95zVRz1



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.05	5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.09	5	>882	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.20	Horz(CT)	0.03	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.05	5	>999	240	Weight: 24 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except*
5-6: 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-6: 2x6 SPF No.2

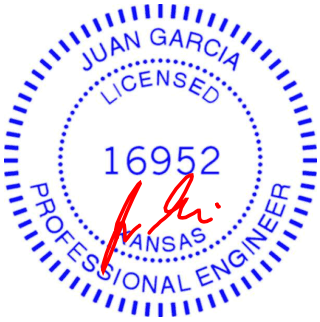
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-4-3, 4=Mechanical
Max Horz 6=109(LC 5)
Max Uplift 6=-62(LC 4), 4=-96(LC 8)
Max Grav 6=363(LC 1), 4=384(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-6=-451/128, 1-2=-825/194
BOT CHORD 5-6=-217/735, 4-5=-212/753
WEBS 2-5=-27/318, 2-4=-749/230

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, 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 37 lb up at 4-5-10, and 69 lb down and 38 lb up at 4-5-10 on top chord, and 71 lb down and 34 lb up at 4-2-14, and 56 lb down and 31 lb up at 4-2-14 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: 1-3=-70, 5-6=-20, 4-5=-20
Concentrated Loads (lb)
Vert: 5=-127(F=-71, B=-56)



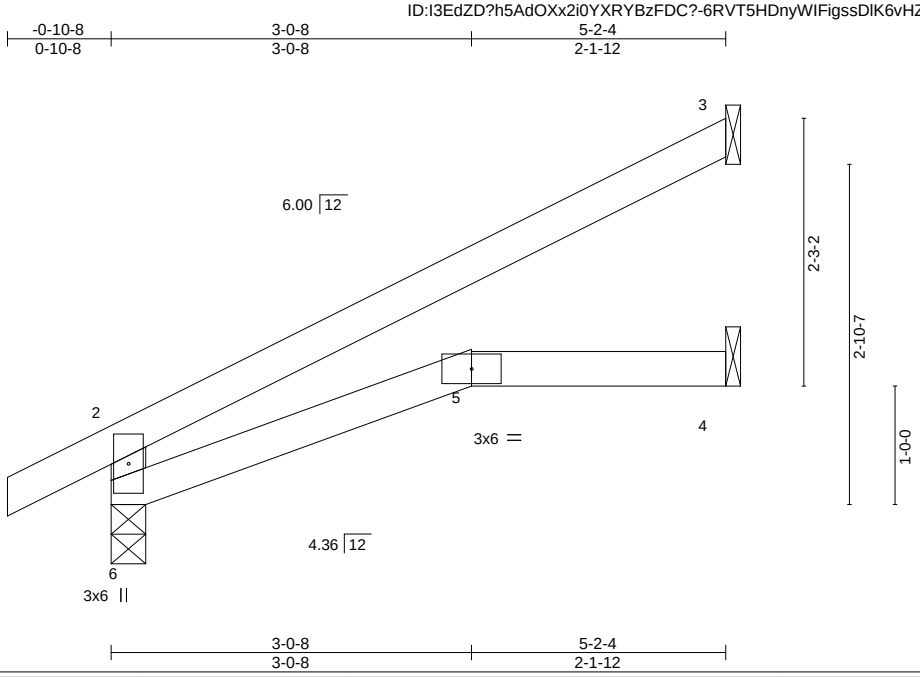
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J11	Jack-Open	2	1	I45442785
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:05 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-6RVT5HDnyWIFigssDlK6vHZCIdFPt7O72ur8hXzVRz0



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.03	5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.07	5-6	>907	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)	0.03	5-6	>999	240	Weight: 14 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 5-2-4 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=113(LC 8)
Max Uplift 6=-32(LC 8), 3=-86(LC 8)
Max Grav 6=303(LC 1), 3=156(LC 1), 4=94(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-264/80

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.

March 31,2021

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

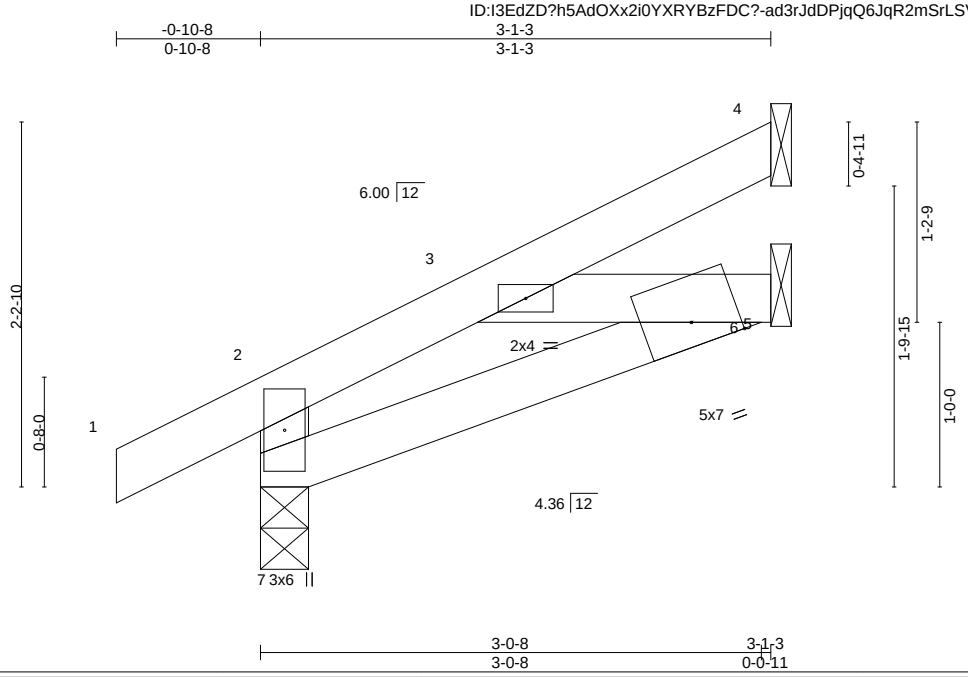
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J12	Jack-Open	3	1	I45442786

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:06 2021 Page 1

ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-ad3rJdDPjqQ6JqR2mSrLSV6Rd1dycaeGGYbhE_zVRz?



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	3	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	6-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.00	3	>999	240	Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 7=0-3-8, 4=Mechanical, 6=Mechanical
Max Horz 7=70(LC 8)
Max Uplift 7=-20(LC 8), 4=-28(LC 8), 6=-2(LC 8)
Max Grav 7=224(LC 1), 4=59(LC 1), 6=112(LC 3)

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

NOTES-

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

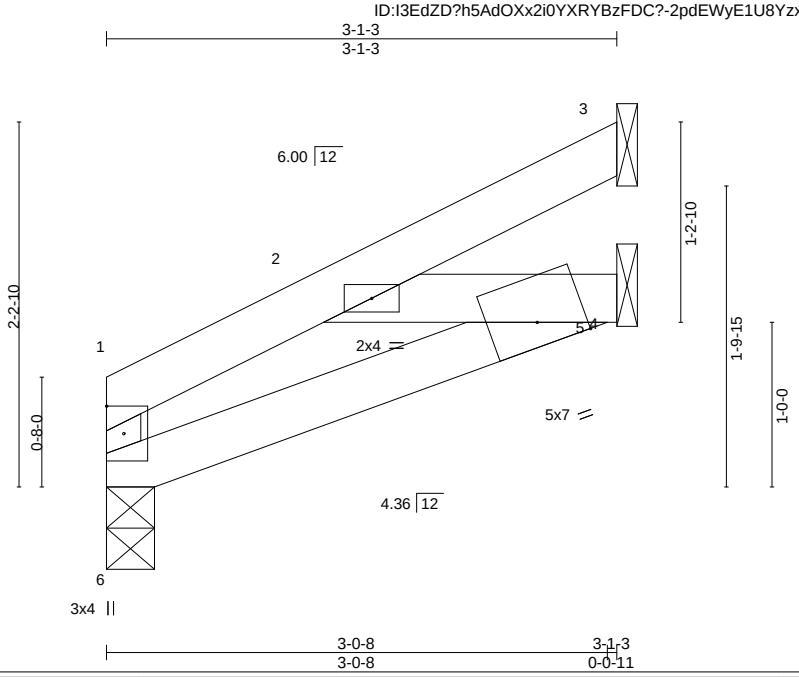
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J13	Jack-Open	1	1	I45442787
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:07 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-2pdEWyE1U8Yzx_0EKAMa_iectQz7L1uQVBKFmQzVRz_



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.00	2	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	5-6	>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	2	>999	240	Weight: 10 lb	FT = 10%

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

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

REACTIONS. (size) 6=0-3-8, 3=Mechanical, 5=Mechanical
Max Horz 6=53(LC 8)
Max Uplift 3=-28(LC 8), 5=-6(LC 8)
Max Grav 6=141(LC 1), 3=58(LC 1), 5=117(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) 3, 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.

March 31,2021

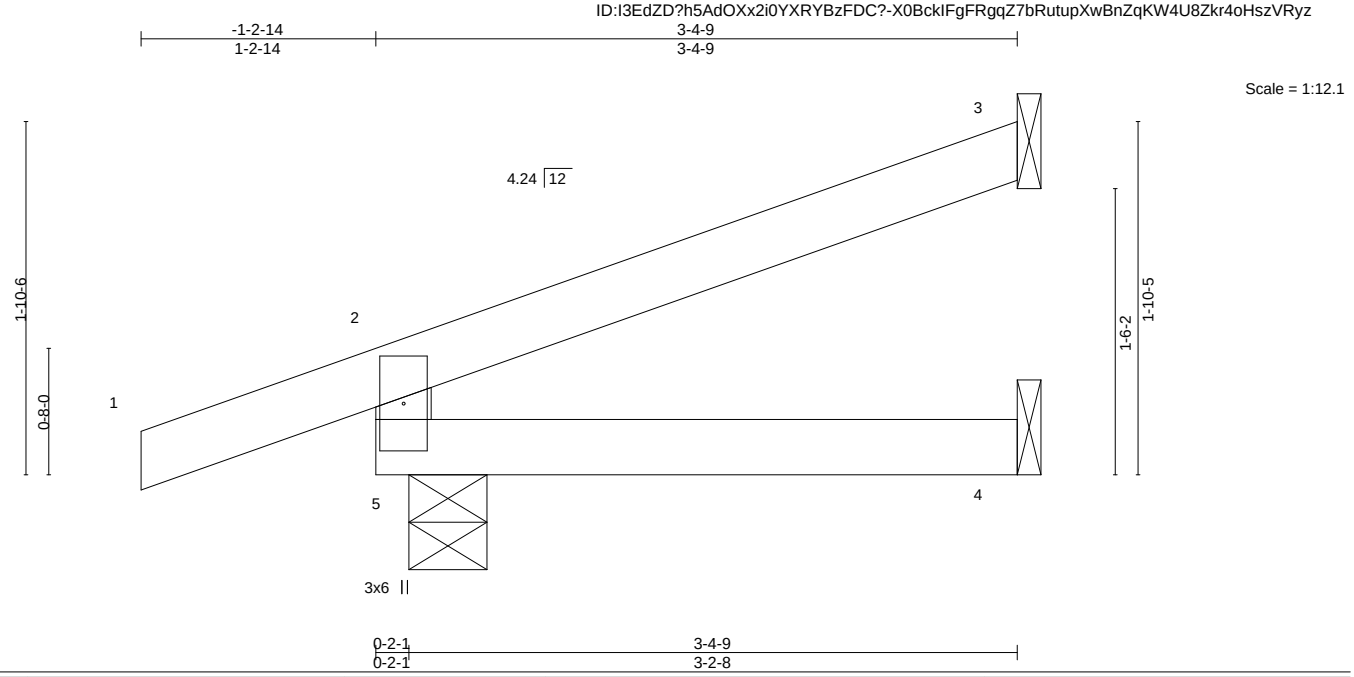
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use,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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J14	Diagonal Hip Girder	1	1	I45442788

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:08 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-X0BckIFgFRgqZ7bRutupXwBnZqKW4U8Zkr4oHszVRyz



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	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	NO	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 10 lb	FT = 10%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-4-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-15, 3=Mechanical, 4=Mechanical
Max Horz 5=73(LC 12)
Max Uplift 5=-95(LC 6), 3=-51(LC 12), 4=-1(LC 19)
Max Grav 5=116(LC 1), 3=50(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, 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 25 lb down and 9 lb up at -1-2-14, and 25 lb down and 9 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-38(F=-19, B=-19)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-2=-24(F=23, B=23), 2=-3(F=34, B=34)-to-3=-59(F=5, B=5), 5=0(F=10, B=10)-to-4=-17(F=2, B=2)

March 31,2021

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

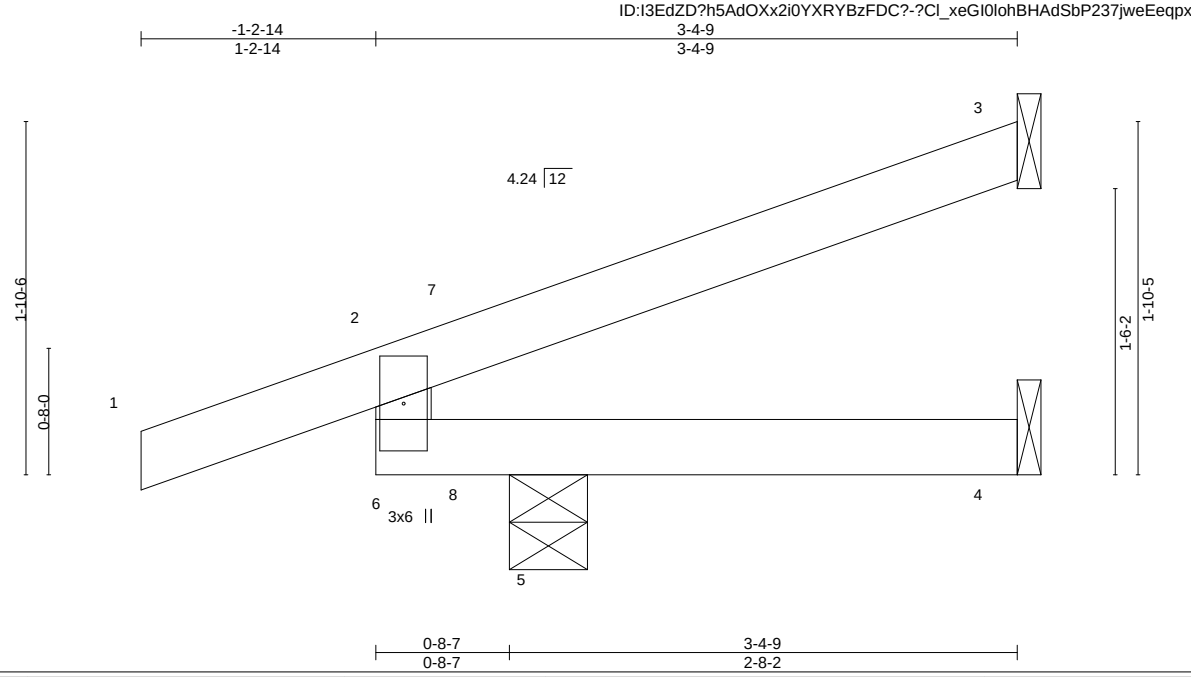
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J15	Diagonal Hip Girder	1	1	I45442789

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:09 2021 Page 1

ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-?Cl_xeGI0lohBHAdSbP237jweEeqpxOjzVpMpIzVRyy



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	0.01	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	-0.01	4-5	>999	240	Weight: 10 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-4-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-4-15
Max Horz 5=76(LC 12)
Max Uplift 3=-57(LC 12), 4=-22(LC 1), 5=-130(LC 6)
Max Grav 3=23(LC 1), 4=26(LC 4), 5=165(LC 1)

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

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=130.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 31 lb down and 12 lb up at -1-2-14, and 31 lb down and 12 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Concentrated Loads (lb)
   Vert: 1=-48(F=-24, B=-24)
   Trapezoidal Loads (plf)
   Vert: 1=0(F=35, B=35)-to-2=-24(F=23, B=23), 2=-24(F=23, B=23)-to-7=-31(F=19, B=19), 7=0(F=35, B=35)-to-3=-49(F=10, B=10), 6=0(F=10, B=10)-to-8=-6(F=7, B=7), 8=0(F=10, B=10)-to-4=-14(F=3, B=3)

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

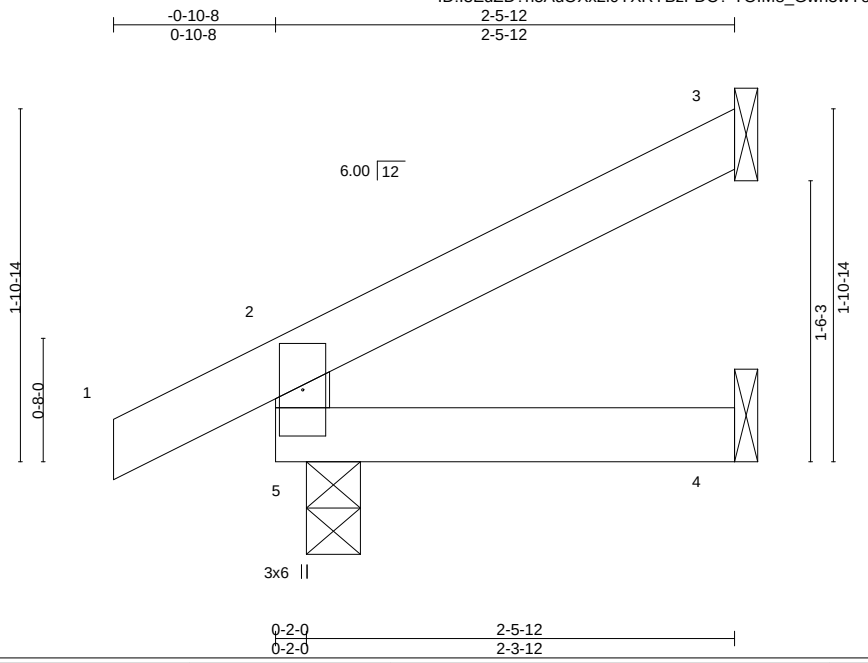
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J16	Jack-Open	3	1	I45442790
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:10 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-TOIM8_Gwn3wYoRlp?lwHcLG6we?JYOdsB9ZvMlzVRyx



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	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-
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 2-5-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=58(LC 8)
Max Uplift 5=-27(LC 8), 3=-40(LC 8)
Max Grav 5=190(LC 1), 3=64(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) 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.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J17	Diagonal Hip Girder	3	1	I45442791
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:11 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-xbskMKHYXM2PQbK?Z0RW9Yp9H2GWHqt?QpISuBzVRyw

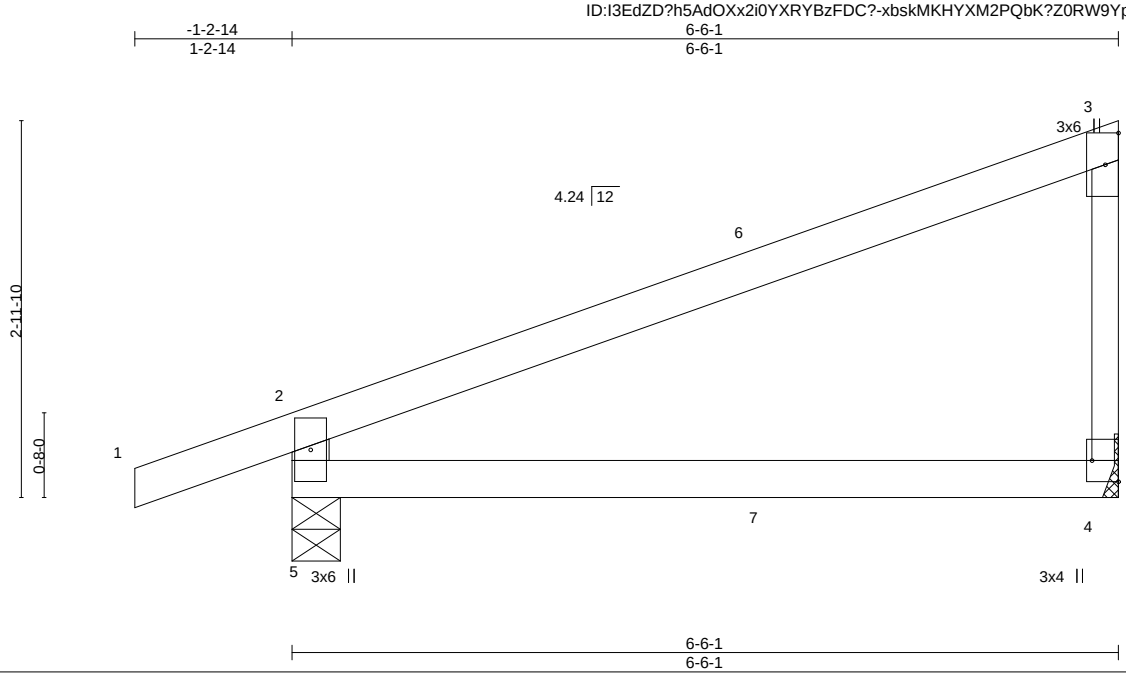


Plate Offsets (X,Y)-- [4:Edge,0-2-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.06	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.13	4-5	>578	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.03	4-5	>999	240	Weight: 19 lb	FT = 10%

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

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

REACTIONS. (size) 5=0-4-9, 4=Mechanical
Max Horz 5=126(LC 22)
Max Uplift 5=-107(LC 4), 4=-61(LC 8)
Max Grav 5=390(LC 1), 4=273(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-342/154

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=107.
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) 76 lb down and 50 lb up at 3-9-3, and 76 lb down and 50 lb up at 3-9-3 on top chord, and 8 lb down at 3-9-3, and 8 lb down at 3-9-3 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: 7=-3(F=-2, B=-2)

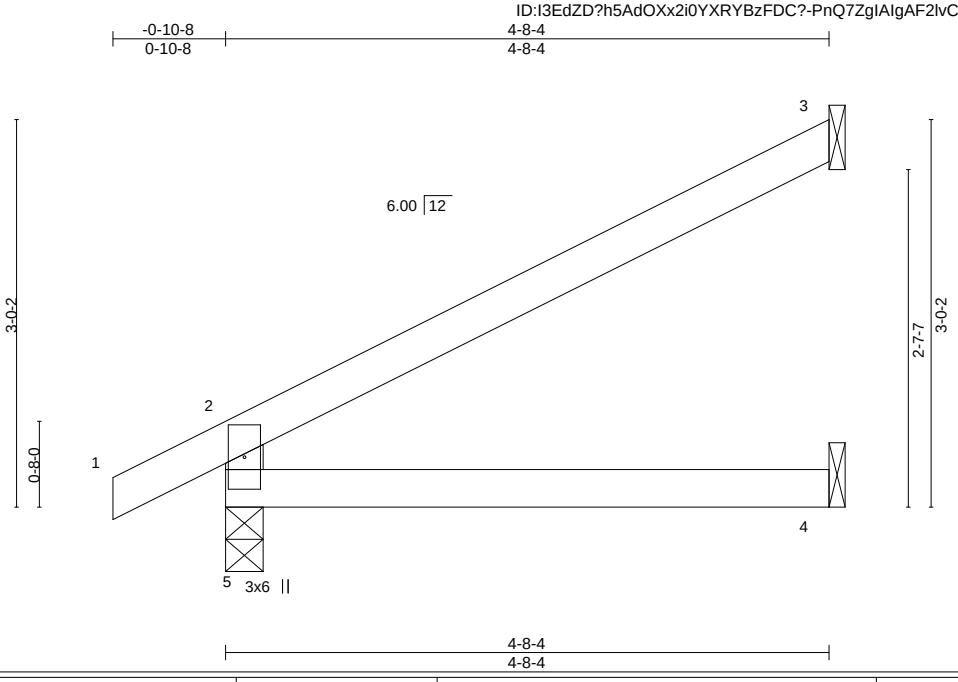
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J18	Jack-Open	11	1	I45442792
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:12 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-PnQ7ZgIAIgAF2lvC7jylhmLPrRfY0H79fT20QdzVRyv



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	0.30	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.04	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)	0.02	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 4-8-4 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=72(LC 8)
Max Uplift 3=-46(LC 8)
Max Grav 5=281(LC 1), 3=139(LC 1), 4=84(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); 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.

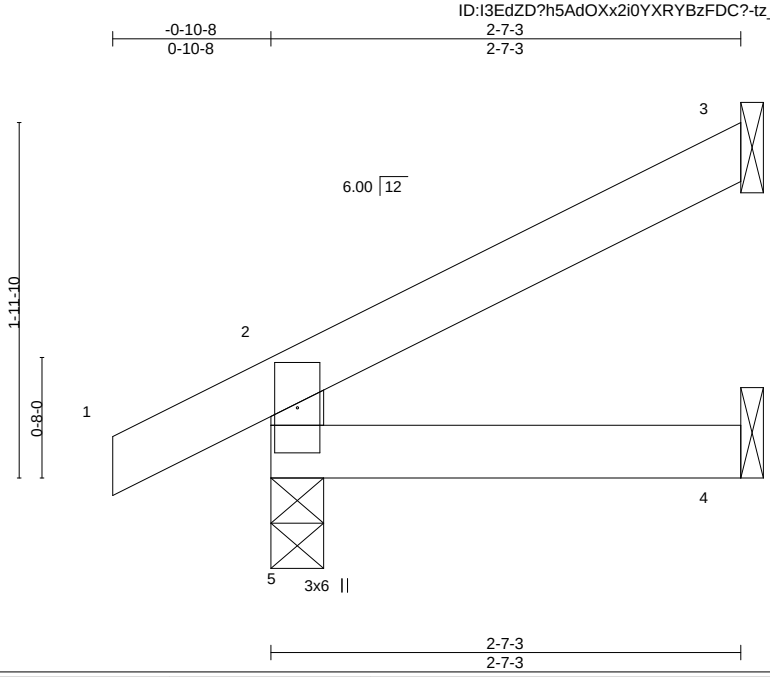
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J19	Jack-Open	5	1	I45442793
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:13 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-tz_Vn0Jo3_J6fvTOhRT_EzudAr1xlkNIt7nZy4zVRyu



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	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-
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 2-7-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=61(LC 8)
Max Uplift 5=-27(LC 8), 3=-42(LC 8)
Max Grav 5=194(LC 1), 3=68(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.

March 31,2021

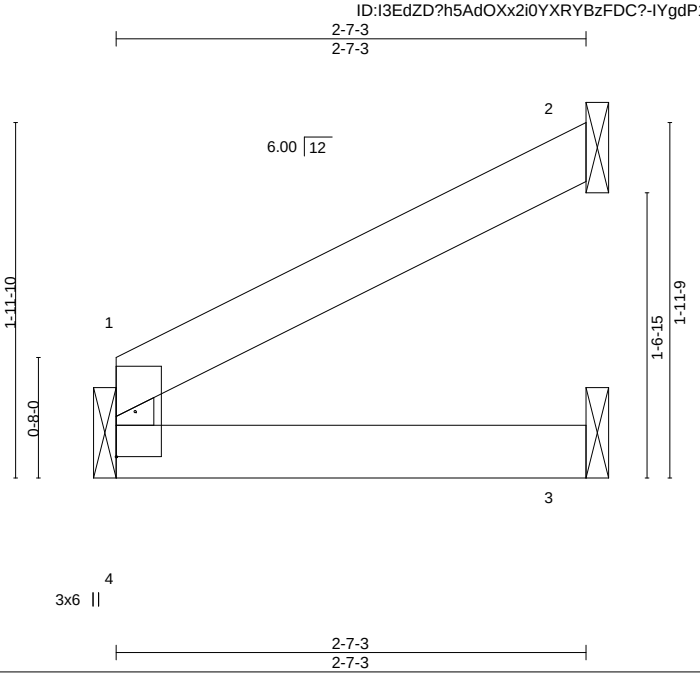
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use,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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J20	Jack-Open	1	1	I45442794
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:16 2021 Page 1

ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-IYgdP1LhMvhhWMCzMZ1hscW8733Xy56ka50DZPzVRyr



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	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: 7 lb	FT = 10%

LUMBER-

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

BRACING-

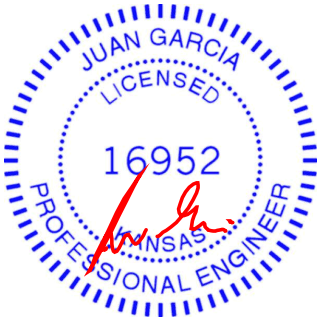
TOP CHORD	Structural wood sheathing directly applied or 2-7-3 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=Mechanical, 3=Mechanical
Max Horz 4=44(LC 8)
Max Uplift 2=-46(LC 8)
Max Grav 4=109(LC 1), 2=80(LC 1), 3=47(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) 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 31,2021

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

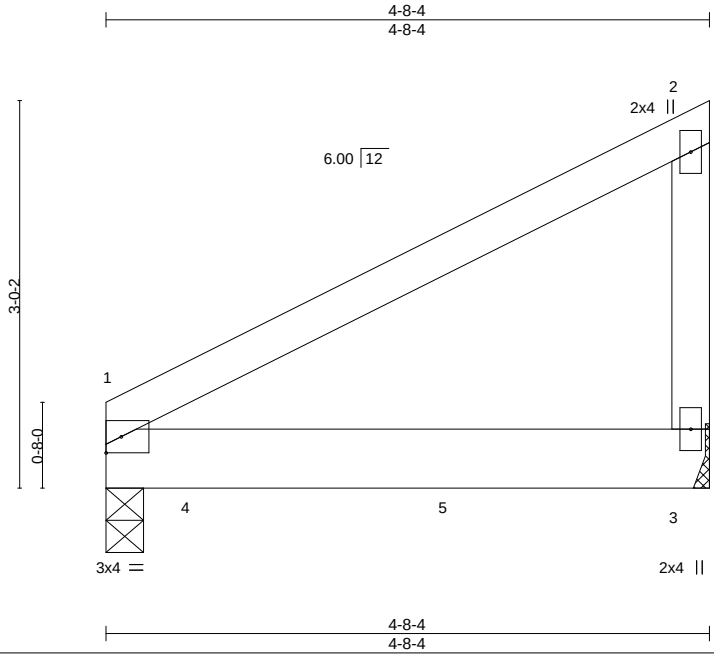
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J21	Jack-Closed Girder	1	1	I45442795

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:17 2021 Page 1

ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-mkD?cNMJ7CpY8Wn9wGYwOp3DtSBXhYMuolln6rzVRyq



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.07	1-3	>810	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.12	1-3	>447	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.05	1-3	>999	240	Weight: 20 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-8-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 5-2-6 oc bracing.

REACTIONS. (size) 1=0-3-8, 3=Mechanical
Max Horz 1=106(LC 5)
Max Uplift 1=-117(LC 8), 3=-180(LC 8)
Max Grav 1=890(LC 1), 3=1100(LC 1)

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

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=117, 3=180.
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) 93 lb down and 16 lb up at 0-9-0, and 1501 lb down and 221 lb up at 2-9-0 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).

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-70, 1-3=-20
   Concentrated Loads (lb)
   Vert: 4=-93(B) 5=-1501(B)

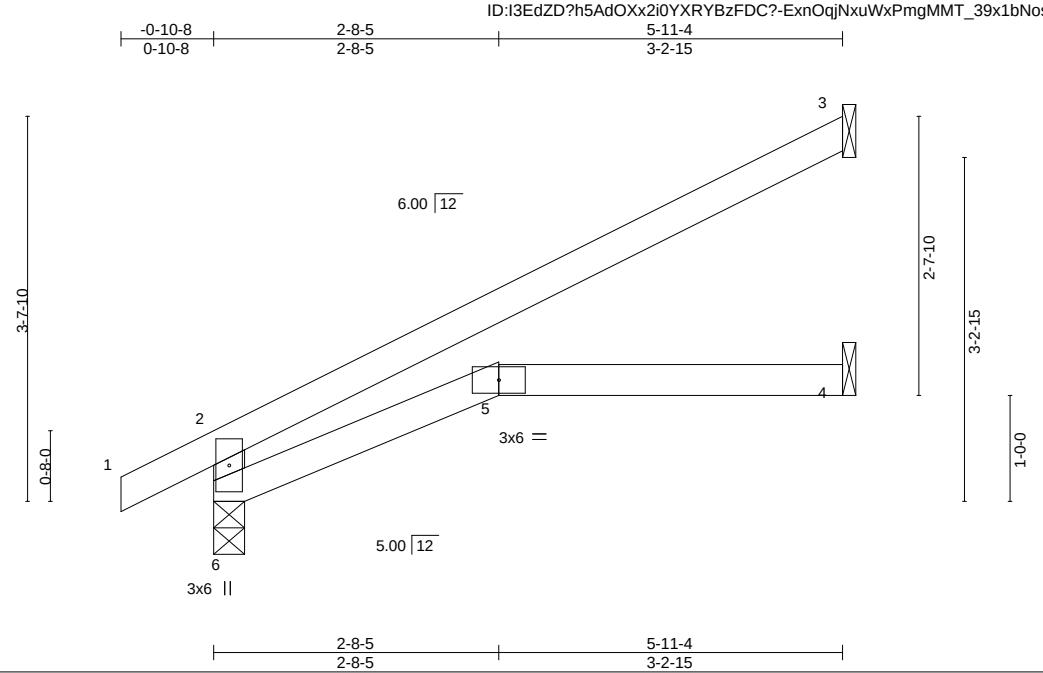
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J22	Jack-Open	4	1	I45442796
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:18 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-ExnOqjNxuWxPmgMMT_39x1bNosgHQ?c11PVKeHzVRyp



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.11	4-5	>600	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 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 6-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 6=89(LC 8)
Max Uplift 3=-59(LC 8)
Max Grav 6=336(LC 1), 3=180(LC 1), 4=108(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-292/46

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.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J23	Jack-Open	6	1	I45442797
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:19 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-i7Lm13NZfq3GNqxY1haOTE8aFG_69SsBG3EtAjzVRyo

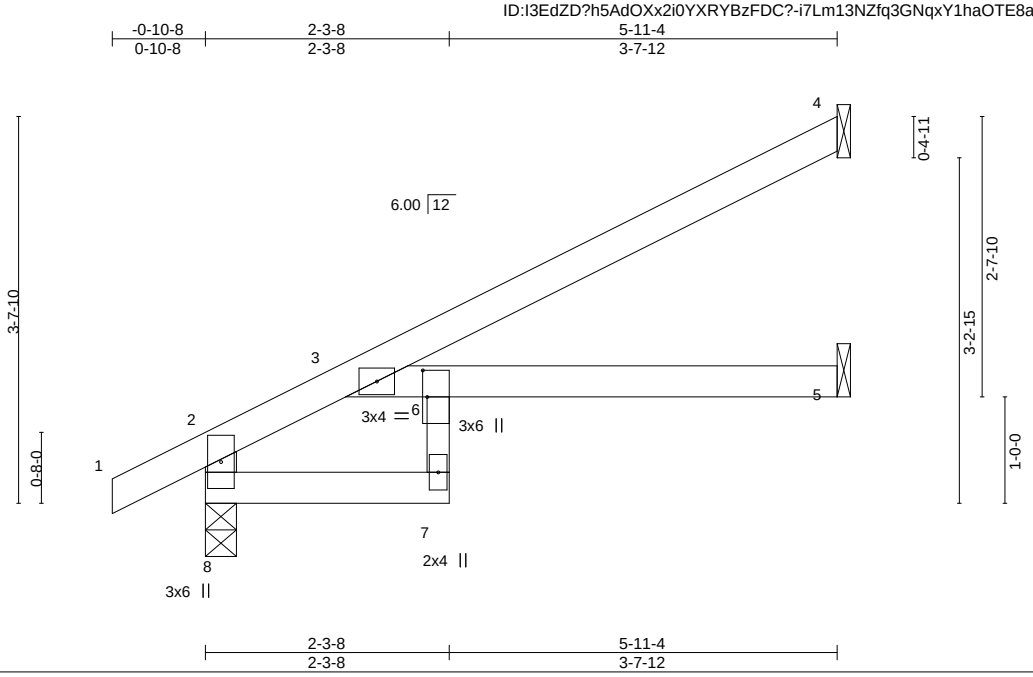


Plate Offsets (X,Y)-- [6:0-3-0,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.07	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.13	5-6	>512	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.07	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.06	5-6	>999	240	Weight: 18 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
6-7: 2x3 SPF No.2
WEBS 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) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=90(LC 8)
Max Uplift 4=-47(LC 8)
Max Grav 8=348(LC 1), 4=164(LC 1), 5=113(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-345/16

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) 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.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J24	Diagonal Hip Girder	1	1	I45442798
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:20 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-AJv8FPOBQ7B7?zWkbP5d0ShjzgLuuvtKUj_RiAzVRyn

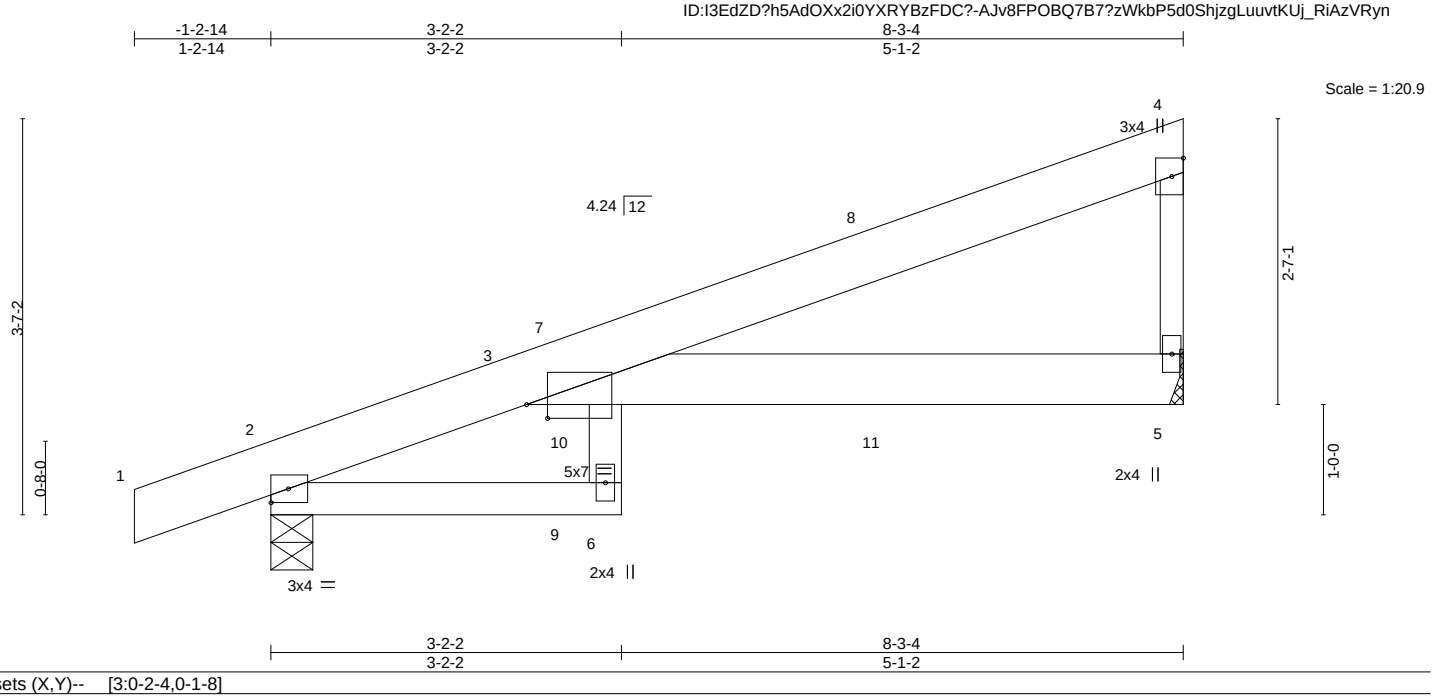


Plate Offsets (X,Y)-- [3:0-2-4,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.11	6	>860	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.21	6	>466	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.08	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.12	6	>802	240	Weight: 35 lb	FT = 10%

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except*
2-6: 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-6: 2x4 SPF No.2

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

REACTIONS. (size) 5=Mechanical, 2=0-4-9
Max Horz 2=128(LC 5)
Max Uplift 5=-118(LC 8), 2=-134(LC 4)
Max Grav 5=402(LC 1), 2=500(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-256/102

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=118, 2=134.
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) 68 lb down and 34 lb up at 2-8-7, 68 lb down and 34 lb up at 2-8-7, and 93 lb down and 55 lb up at 5-6-6, and 93 lb down and 55 lb up at 5-6-6 on top chord, and 3 lb down and 1 lb up at 2-8-7, 3 lb down and 1 lb up at 2-8-7, and 28 lb down and 31 lb up at 5-6-6, and 28 lb down and 31 lb up at 5-6-6 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: 1-4=-70, 2-6=-20, 3-5=-20
Concentrated Loads (lb)
Vert: 8=-17(F=-8, B=-8) 9=3(F=1, B=1) 11=-56(F=-28, B=-28)

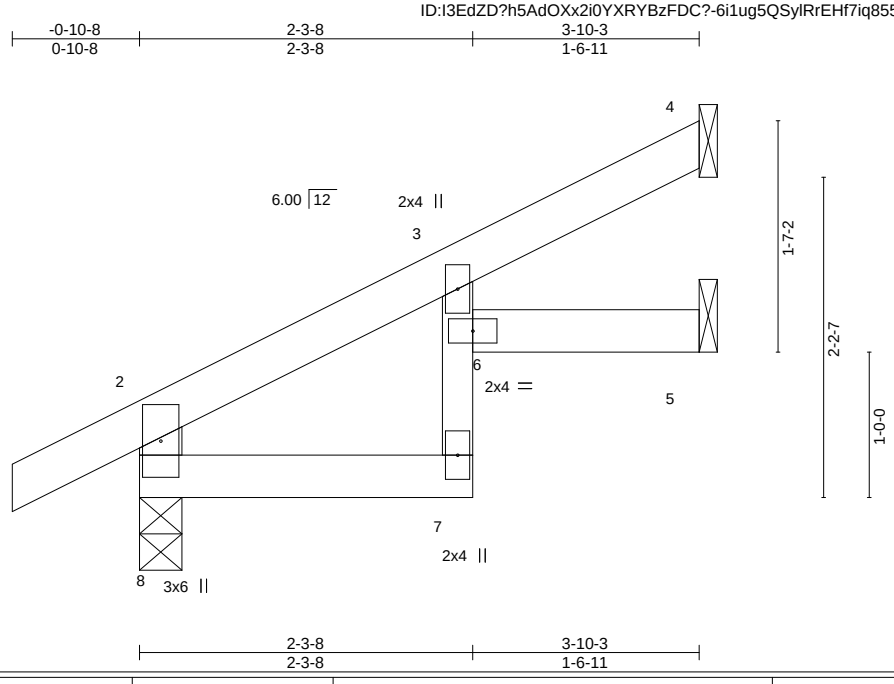
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	J25	Jack-Open	2	1	I45442799
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:22 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-6i1ug5QSylRrEHf7iq855tmA3T3fMpcdy1TYn2zVRyl



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.02	7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	7	>999	240	Weight: 12 lb	FT = 10%

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

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

REACTIONS. (size) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=86(LC 8)
Max Uplift 8=-29(LC 8), 4=-44(LC 8), 5=-11(LC 8)
Max Grav 8=245(LC 1), 4=98(LC 1), 5=58(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, 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.

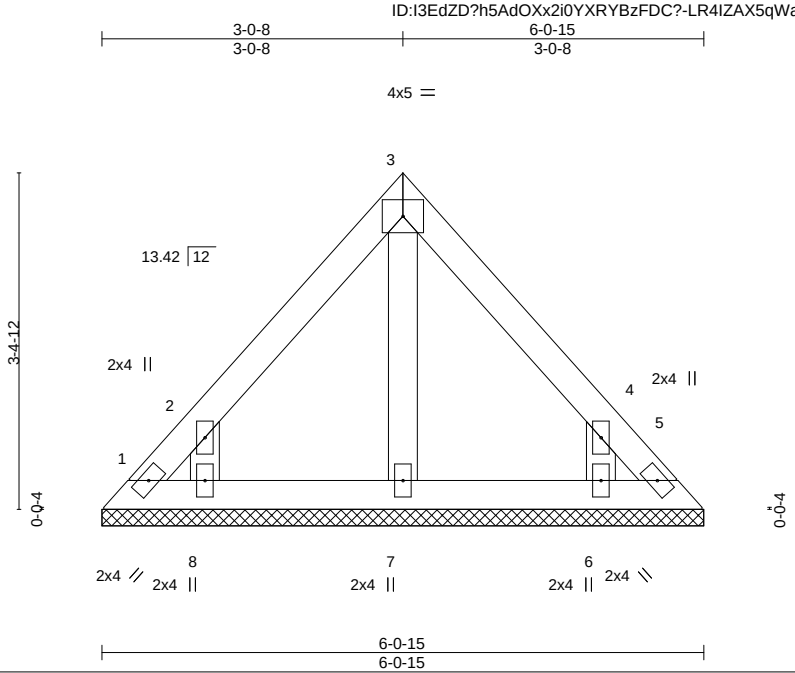
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	LAY1B	GABLE	1	1	I45442800
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:31 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-LR4IZAX5qWaZpgsrkDoCzmejw6ARztOy0w8Wb1zVRyc



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 lb	FT = 10%

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

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

REACTIONS. All bearings 6-0-15.
(lb) - Max Horz 1=-82(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-143(LC 8), 6=-143(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=143, 6=143.
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.

March 31,2021

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

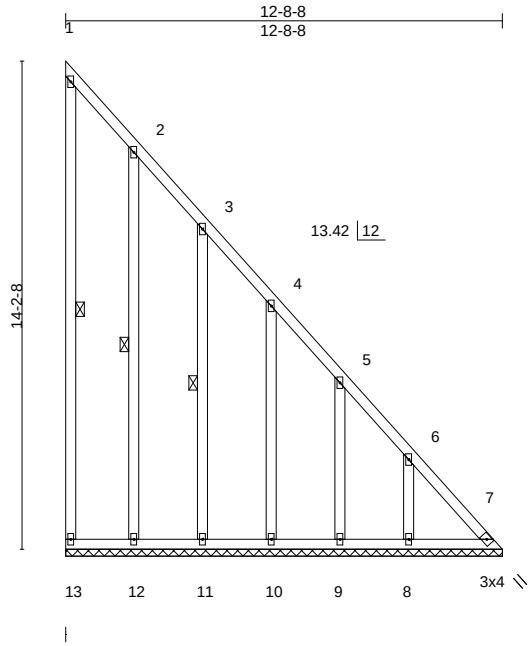
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	LAY3	GABLE	2	1	I45442801

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:31 2021 Page 1

ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-LR4IZAX5qWaZpgsrkDoCzmeiC696zrVy0w8Wb1zVRyc



Scale = 1:67.0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 91 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 1-13, 2-12, 3-11

REACTIONS. All bearings 12-8-8.

(lb) - Max Horz 13=-558(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 13 except 7=-166(LC 7), 12=-137(LC 9), 11=-137(LC 9), 10=-138(LC 9), 9=-125(LC 9), 8=-174(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 13, 12, 11, 10, 9 except 7=557(LC 9), 8=267(LC 16)

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

TOP CHORD 3-4=-339/141, 4-5=-477/195, 5-6=-607/242, 6-7=-772/313

BOT CHORD 12-13=-214/558, 11-12=-214/558, 10-11=-214/558, 9-10=-214/558, 8-9=-214/558, 7-8=-214/558

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 right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are 2x4 MT20 unless otherwise indicated.
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 7=166, 12=137, 11=137, 10=138, 9=125, 8=174.
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.

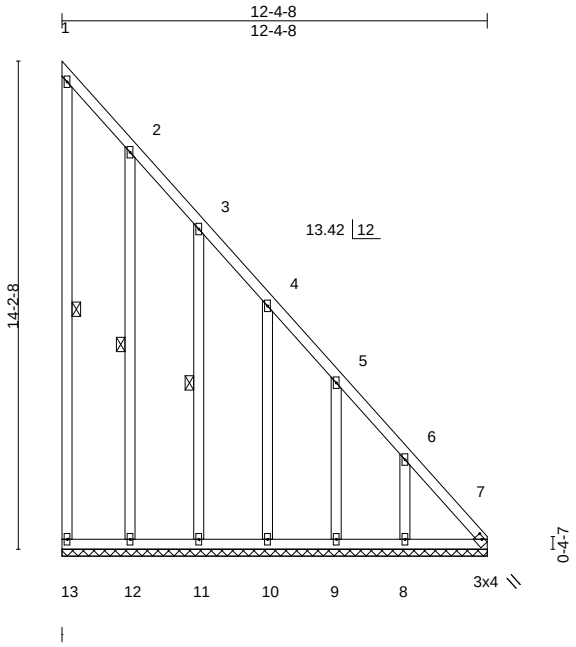
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	LAY4	GABLE	2	1	I45442802
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:32 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-qddgmWXjbpiQRpQ2IwJRV_At0VVKiIm5Fau37TzVRyb



Scale = 1:67.0

Plate Offsets (X,Y)-- [7:0-2-0,0-0-13]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 90 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 1-13, 2-12, 3-11

REACTIONS. All bearings 12-4-8.
(lb) - Max Horz 13=-558(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 13 except 7=-184(LC 7), 12=-137(LC 9), 11=-137(LC 9), 10=-137(LC 9), 9=-126(LC 9), 8=-209(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 13, 12, 11, 10, 9 except 7=597(LC 9), 8=267(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-339/141, 4-5=-477/195, 5-6=-608/243, 6-7=-800/324
BOT CHORD 12-13=-214/558, 11-12=-214/558, 10-11=-214/558, 9-10=-214/558, 8-9=-214/558, 7-8=-214/558

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 right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are 2x4 MT20 unless otherwise indicated.
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 7=184, 12=137, 11=137, 10=137, 9=126, 8=209.
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.

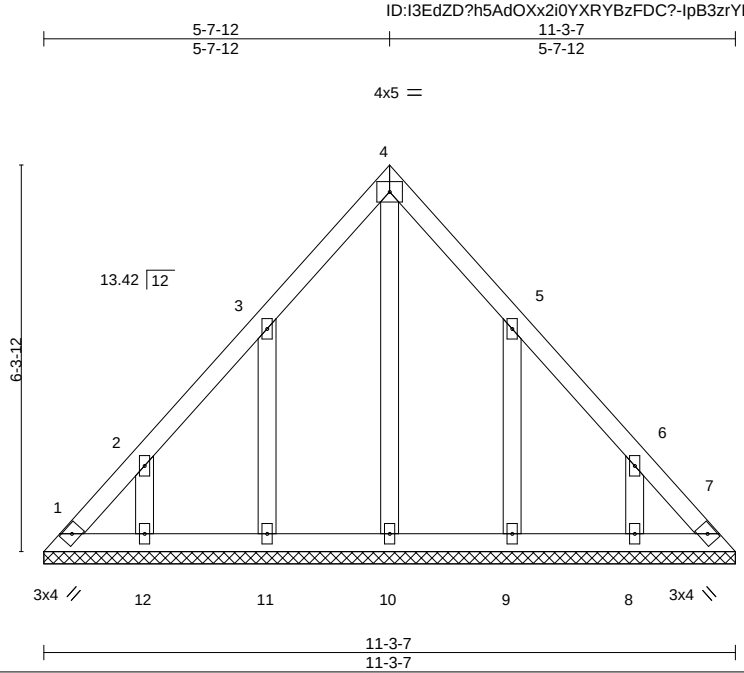
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	LAY5	GABLE	1	1	I45442803
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:33 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-IpB3zrYLM7qH3z?Esdqg2Bj3OvssRmIFUEddgvzVRya



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 49 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 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 11-3-7.
(lb) - Max Horz 1=-160(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=-145(LC 8), 12=-124(LC 8), 9=-144(LC 9), 8=-125(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 11=145, 12=124, 9=144, 8=125.
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.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	LAY6	GABLE	1	1	I45442804
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:34 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-m0lRBBZz7Ry8g7aQPLLvaPGDxJCzACvOiuNACMzVRyZ

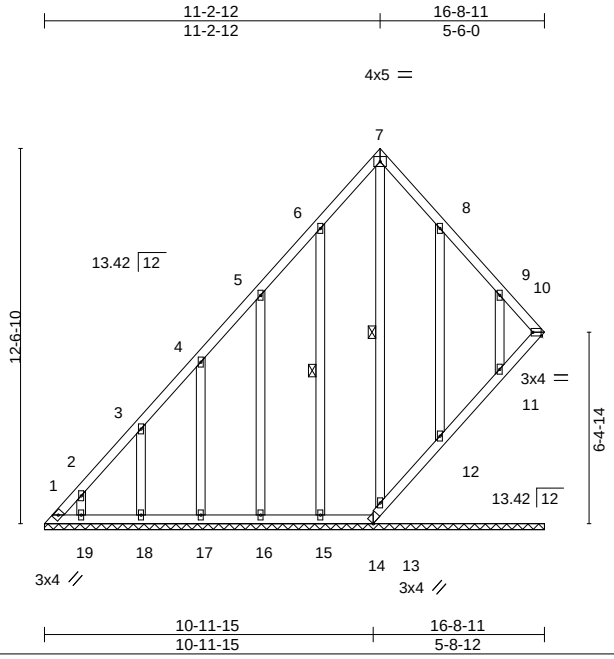


Plate Offsets (X,Y)-- [10:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 105 lb	FT = 10%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-13, 6-15

REACTIONS. All bearings 16-8-11.
(lb) - Max Horz 1=360(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-184(LC 6), 10=-139(LC 7), 14=-155(LC 9), 15=-133(LC 8), 16=-140(LC 8), 17=-134(LC 8), 18=-140(LC 8), 19=-114(LC 8), 12=-134(LC 9), 11=-129(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 10, 14, 13, 15, 16, 17, 18, 19, 12, 11 except 1=406(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-546/268, 2-3=-442/230, 3-4=-301/175

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 184 lb uplift at joint 1, 139 lb uplift at joint 10, 155 lb uplift at joint 14, 133 lb uplift at joint 15, 140 lb uplift at joint 16, 134 lb uplift at joint 17, 140 lb uplift at joint 18, 114 lb uplift at joint 19, 134 lb uplift at joint 12 and 129 lb uplift at joint 11.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 10, 13, 12, 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.

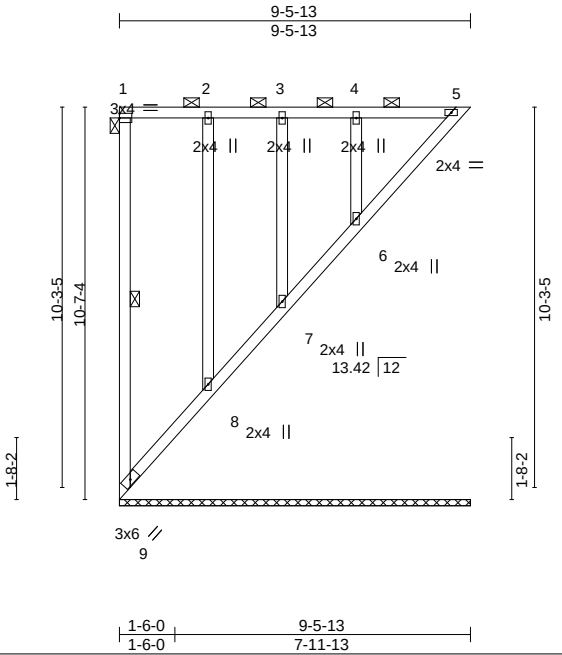
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	LAY7	GABLE	1	1	I45442805
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:35 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-ECJpOXabuk4?IH9dz2t87coI1jV6vfDXxY6kkozVRyY



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 55 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	2-0-0 oc purlins (6-0-0 max.): 1-5, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 1-9

REACTIONS. All bearings 9-5-13.
(lb) - Max Horz 9=-286(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 8, 7, 6 except 9=-147(LC 6), 5=-141(LC 5)
Max Grav All reactions 250 lb or less at joint(s) 9, 5, 8, 7 except 6=259(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 8-9=-213/290

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 7, 6 except (jt=lb) 9=147, 5=141.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 5, 8, 7, 6.
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.
11) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	LAY8	GABLE	1	1	I45442806
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:36 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-iOtBctbEf2CswRkpXmONgqLZS7tTe6yhACsHHEzVRyX

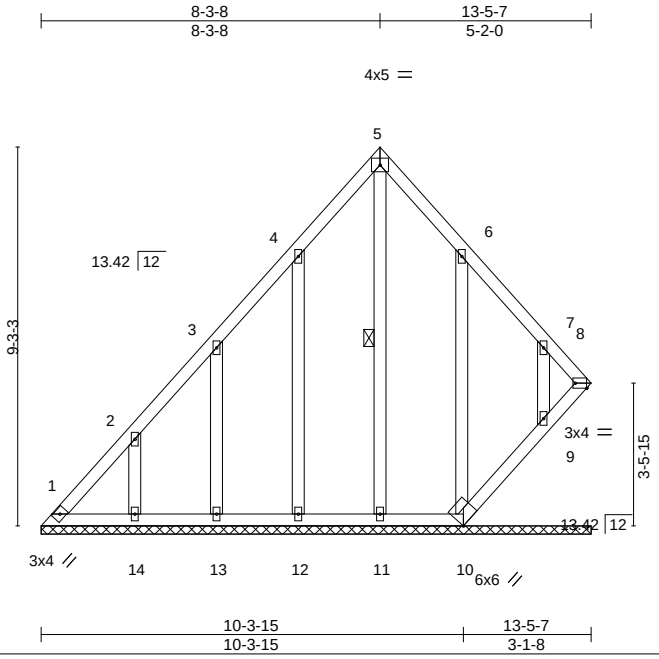


Plate Offsets (X,Y)-- [8:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 74 lb	FT = 10%

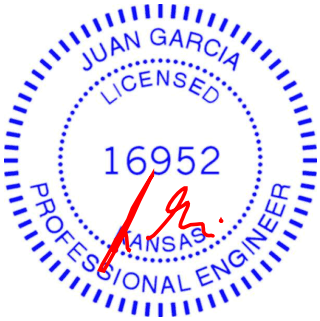
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-11

REACTIONS. All bearings 13-5-7.
(lb) - Max Horz 1=235(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-137(LC 7), 12=-140(LC 8), 13=-133(LC 8), 14=-151(LC 8), 10=-277(LC 9), 9=-116(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 11, 12, 13, 14, 9 except 8=254(LC 9), 10=260(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-342/190

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=137, 12=140, 13=133, 14=151, 10=277, 9=116.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8, 9.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 31,2021

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

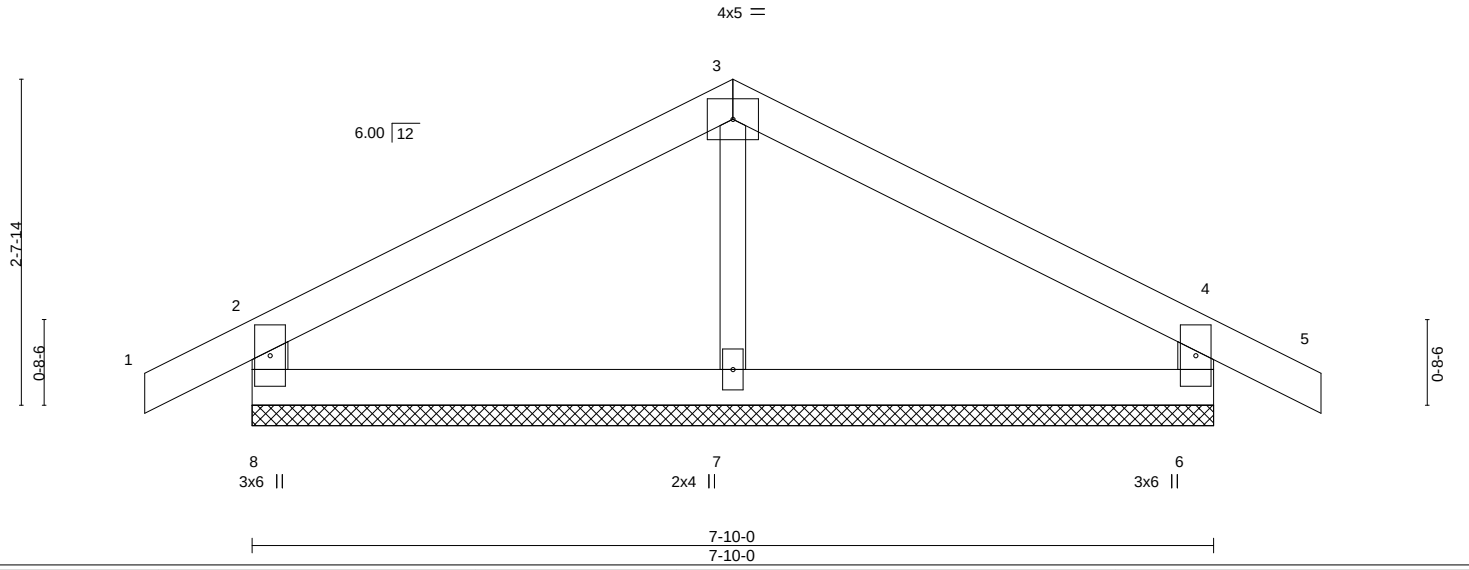
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V6	Valley	1	1	I45442807
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:46 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-PJUziIiVI7TR7zVk6sZj3xmFa9HX_g69TmHpdfzVRyN

-0-10-8 3-11-0 7-10-0 8-8-8
0-10-8 3-11-0 3-11-0 0-10-8

Scale = 1:18.8



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	0.01	5	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	0.01	5	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 24 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 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) 8=7-10-0, 6=7-10-0, 7=7-10-0
Max Horz 8=-48(LC 6)
Max Uplift 8=-88(LC 8), 6=-90(LC 9)
Max Grav 8=300(LC 1), 6=300(LC 1), 7=223(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-269/111, 4-6=-269/112

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

March 31,2021

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

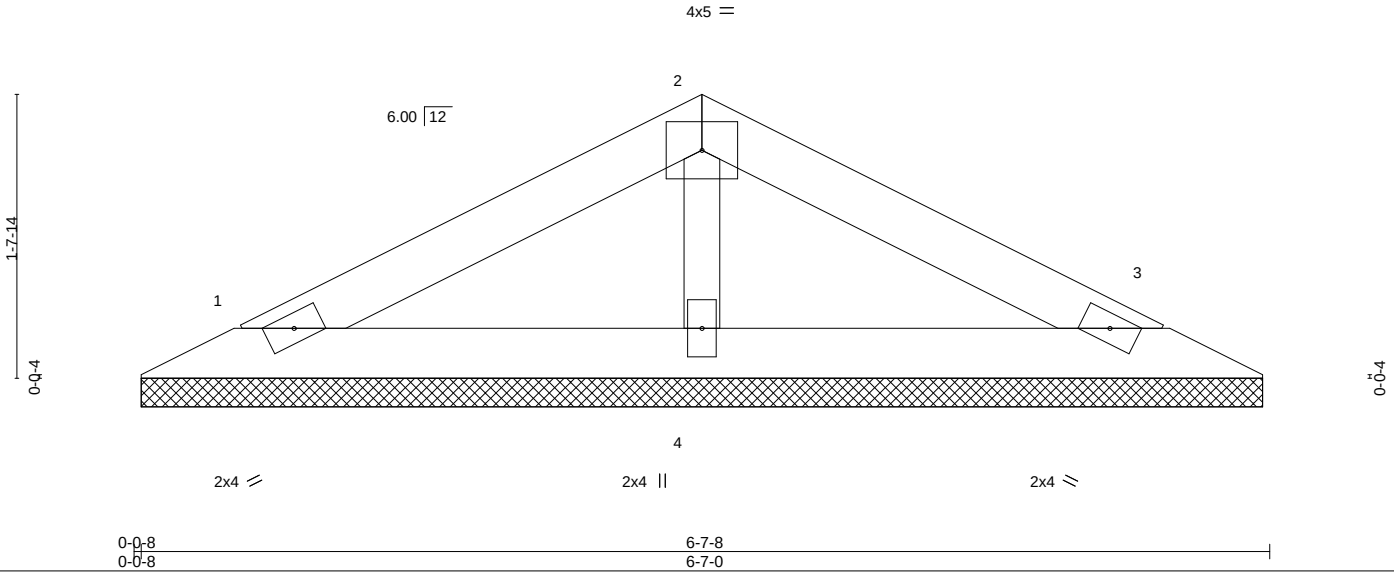
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V7	Valley	1	1	I45442808
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:47 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-tW1Lvej73QbIk74wga4yc8IRkYedj7LJiQ0M96zVRyM

3-3-12 6-7-8
3-3-12 3-3-12

Scale = 1:13.4



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 15 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
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=6-6-8, 3=6-6-8, 4=6-6-8
Max Horz 1=-24(LC 9)
Max Uplift 1=-29(LC 8), 3=-33(LC 9), 4=-3(LC 8)
Max Grav 1=126(LC 1), 3=126(LC 1), 4=231(LC 1)

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

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

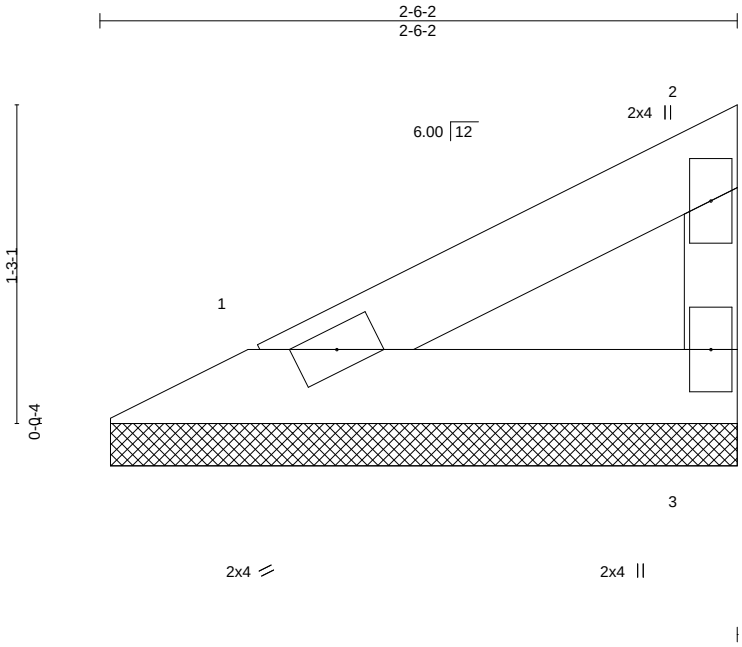
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V8	Valley	1	1	I45442809
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:48 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-Mibk7_klqkj9MHf7EHbC9Mrdey_OSZ1Sw4mwiYzVRyL



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 6 lb	FT = 10%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=2-5-10, 3=2-5-10
Max Horz 1=37(LC 5)
Max Uplift 1=-10(LC 8), 3=-20(LC 8)
Max Grav 1=80(LC 1), 3=80(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.

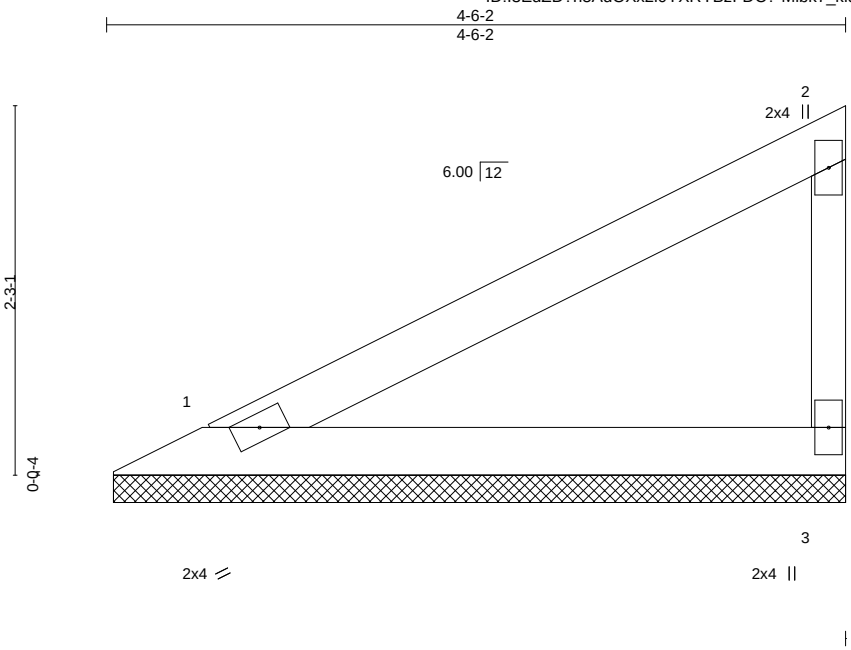
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V9	Valley	1	1	I45442810
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:48 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-Mibk7_klqkj9MHf7EHbC9MrZKyybSZ1Sw4mwiYzVRyL



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	0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 11 lb	FT = 10%

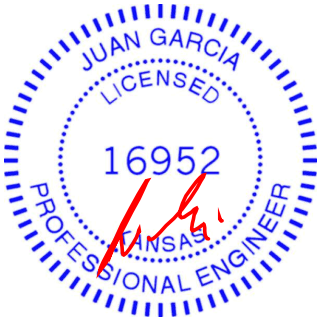
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS. (size) 1=4-5-10, 3=4-5-10
Max Horz 1=79(LC 5)
Max Uplift 1=-22(LC 8), 3=-42(LC 8)
Max Grav 1=170(LC 1), 3=170(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.



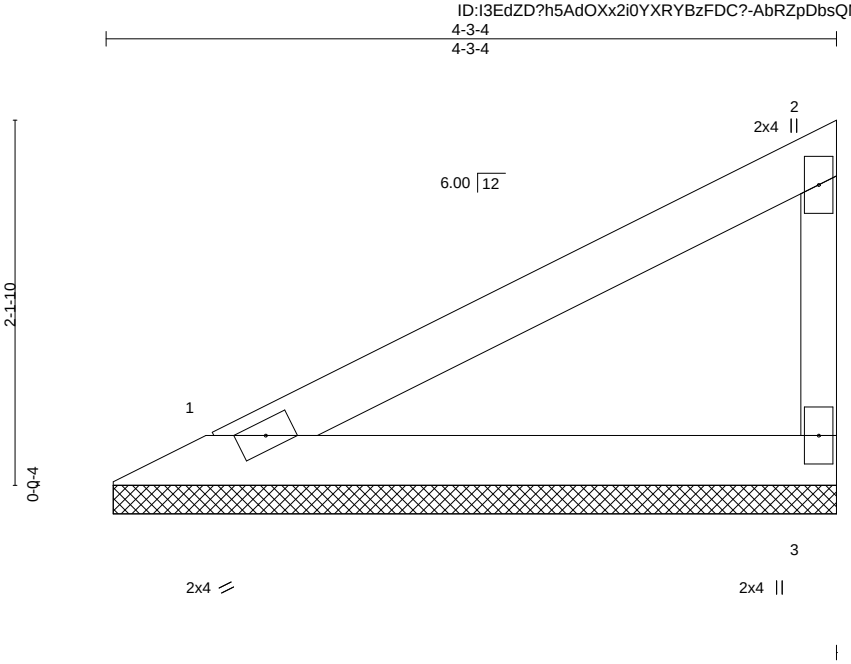
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V10	Valley	1	1	I45442811
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:37 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-AbRZpDbsQMKiYbJ?5TvcC1uieWCJNbJqPsbqphzVRyW



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	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	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 11 lb	FT = 10%

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

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

REACTIONS. (size) 1=4-2-12, 3=4-2-12
Max Horz 1=74(LC 5)
Max Uplift 1=-20(LC 8), 3=-39(LC 8)
Max Grav 1=159(LC 1), 3=159(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.

March 31,2021

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

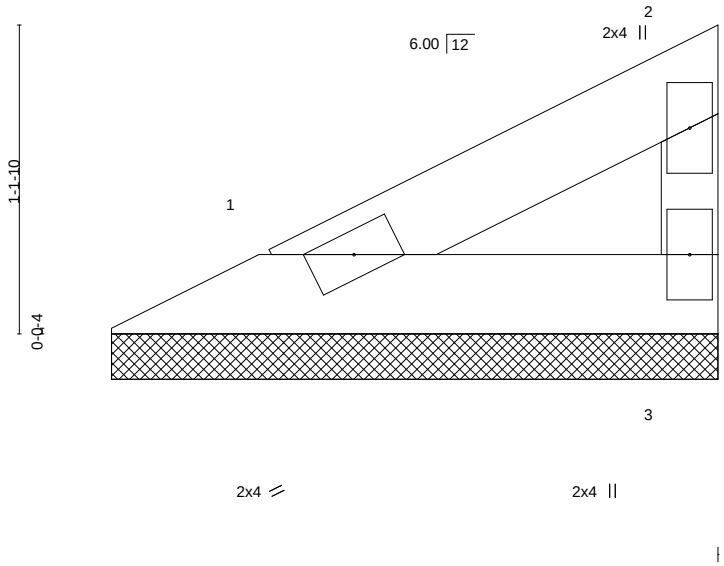
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V11	Valley	1	1	I45442812
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:37 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-AbRZpDbsQMKiYbJ?5TvcC1uldWDwNbJqPsbqphzVRyW

2-3-4
2-3-4

Scale = 1:8.5



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 5 lb	FT = 10%

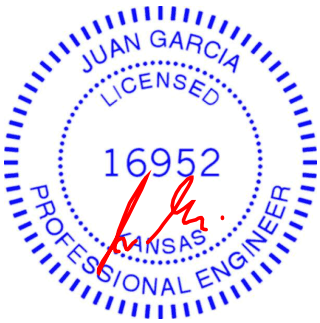
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS. (size) 1=2-2-12, 3=2-2-12
Max Horz 1=32(LC 5)
Max Uplift 1=-9(LC 8), 3=-17(LC 8)
Max Grav 1=69(LC 1), 3=69(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.



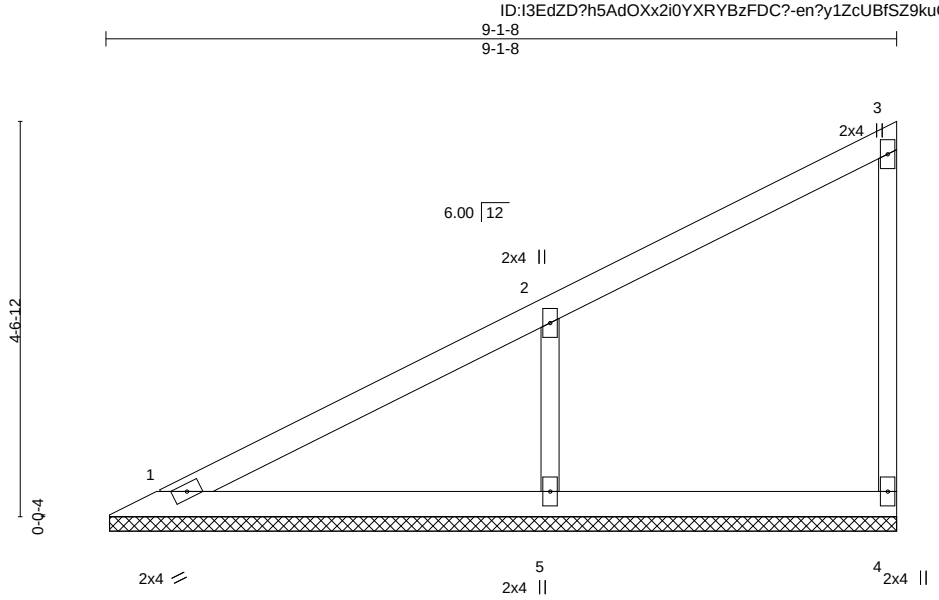
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V12	Valley	1	1	I45442813
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:38 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-en?y1ZcUBfSZ9kuCeBQrlFQsjwXD61Q_dWLOL7zVRyV



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	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 26 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-

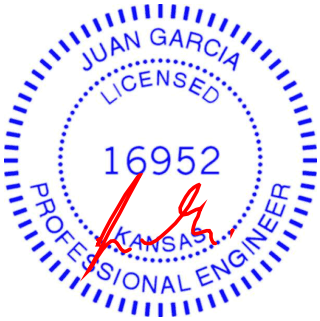
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=9-1-0, 4=9-1-0, 5=9-1-0
Max Horz 1=175(LC 7)
Max Uplift 4=-28(LC 5), 5=-140(LC 8)
Max Grav 1=160(LC 1), 4=127(LC 1), 5=468(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-356/189

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=140.
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.



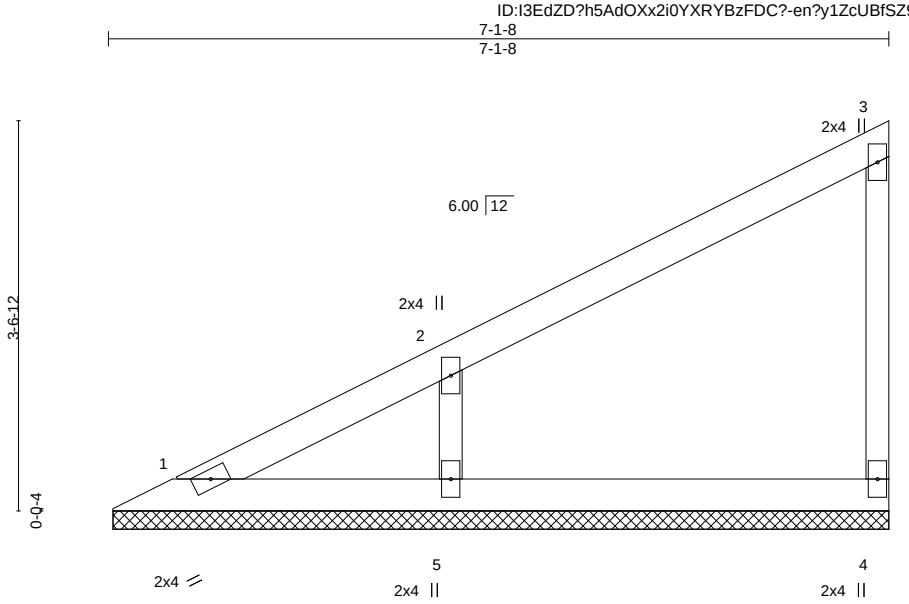
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V13	Valley	1	1	I45442814
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:38 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-en?y1ZcUBfSZ9kuCeBQrlFQu?wYv62l_dWLOL7zVRyV



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 20 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=7-1-0, 4=7-1-0, 5=7-1-0
Max Horz 1=133(LC 5)
Max Uplift 4=-27(LC 8), 5=-112(LC 8)
Max Grav 1=76(LC 16), 4=142(LC 1), 5=374(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-290/162

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=112.
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.

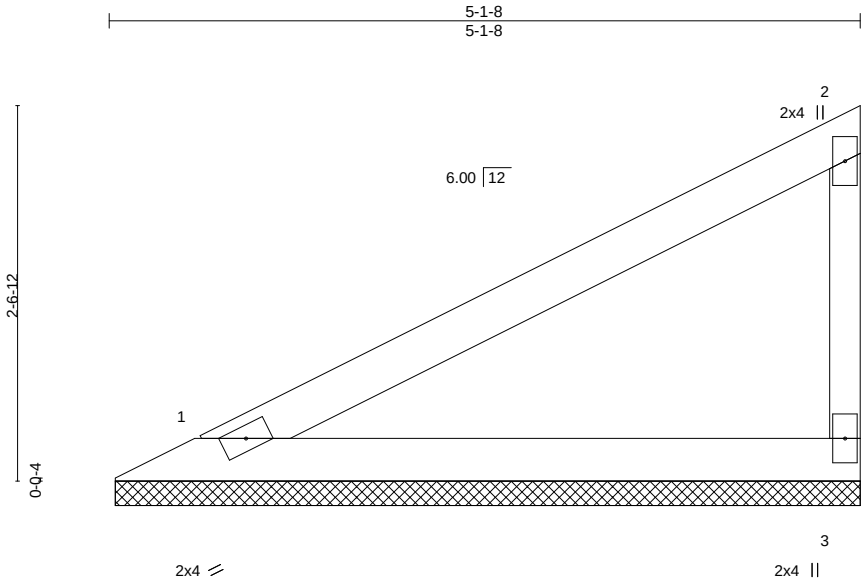
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V14	Valley	1	1	I45442815
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:39 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-6zZKEvd6xzaQnuTOCux4HSz0?KsdrVp7sA4xtZzVRyU



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 lb	FT = 10%

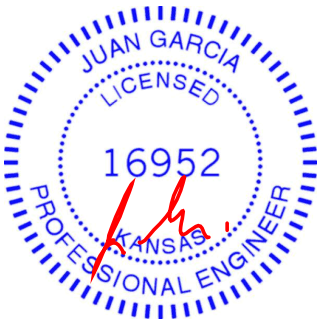
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-1-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-1-0, 3=5-1-0
Max Horz 1=92(LC 5)
Max Uplift 1=-25(LC 8), 3=-48(LC 8)
Max Grav 1=198(LC 1), 3=198(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.



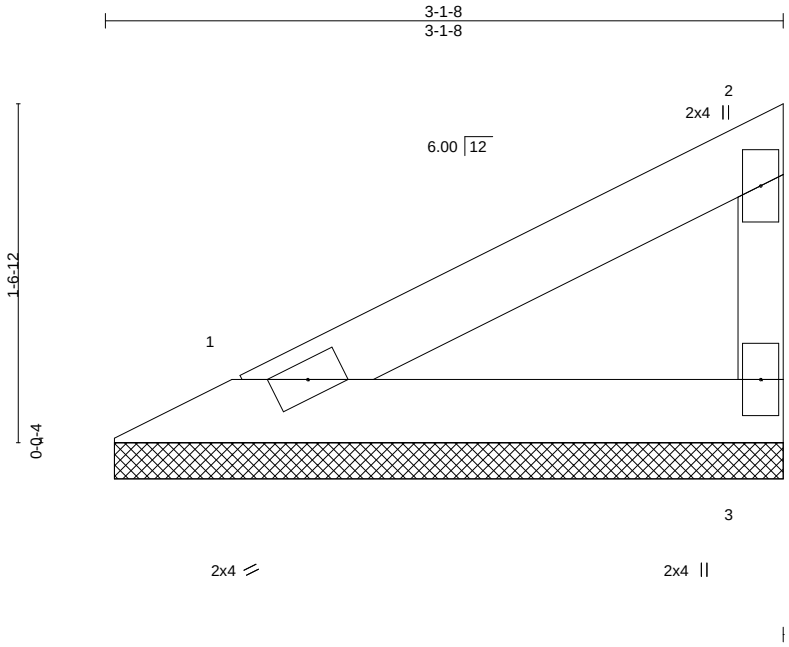
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V15	Valley	1	1	I45442816
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:39 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-6zZKEvd6xzaQnuTOCux4HSz4BKvurVp7sA4xtZzVRyU



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 7 lb	FT = 10%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-1-0, 3=3-1-0
Max Horz 1=50(LC 5)
Max Uplift 1=-14(LC 8), 3=-26(LC 8)
Max Grav 1=108(LC 1), 3=108(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.

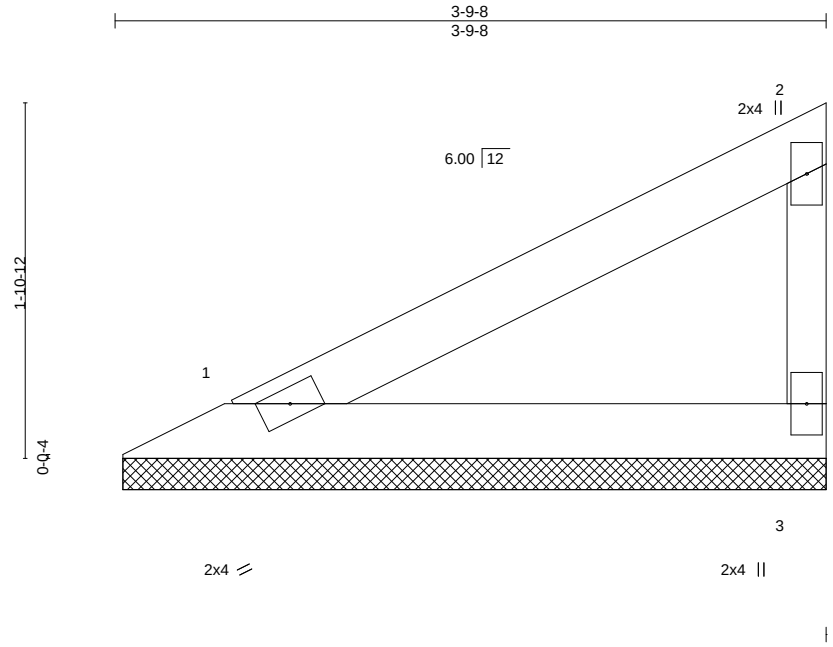
March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V16	Valley	1	1	I45442817
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:40 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-bA6iRFekiHiHP22ambSJqgWEskEYay3H5qqVQ?zVRyT



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 9 lb	FT = 10%

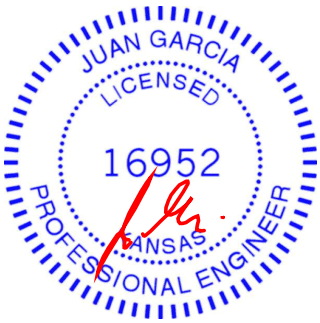
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS. (size) 1=3-9-0, 3=3-9-0
Max Horz 1=64(LC 5)
Max Uplift 1=-18(LC 8), 3=-34(LC 8)
Max Grav 1=138(LC 1), 3=138(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.



March 31,2021

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

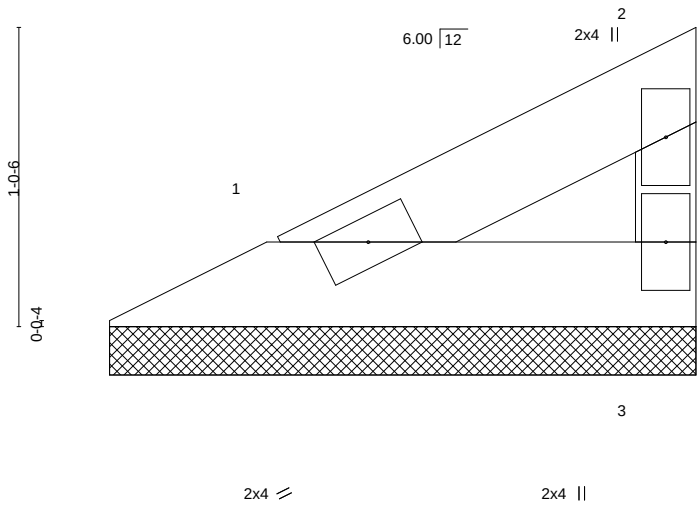
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V19	Valley	1	1	I45442818
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:40 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-bA6iRFekiHiHP22ambSJqgWG1kFjay3H5qqVQ?zVRyT

2-0-12
2-0-12

Scale: 1.5"=1'



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

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

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

REACTIONS. (size) 1=2-0-4, 3=2-0-4
Max Horz 1=28(LC 5)
Max Uplift 1=-8(LC 8), 3=-15(LC 8)
Max Grav 1=60(LC 1), 3=60(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.

March 31,2021

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

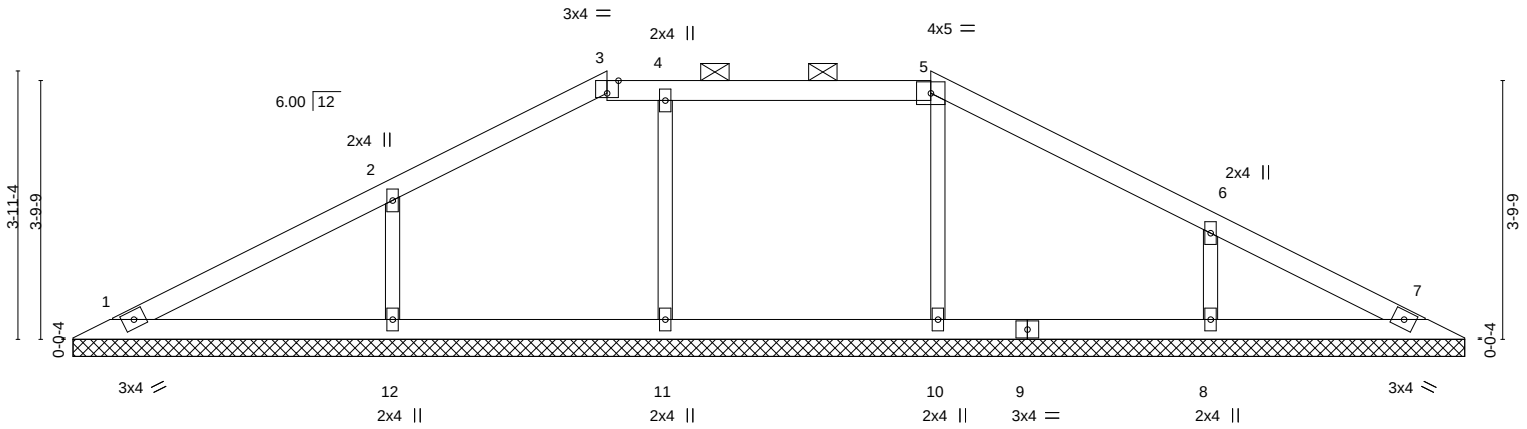
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V20	Valley	1	1	I45442819
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:41 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-3Mg4fbeMTaq80CcmKJzYMt2N68aNJOtQJUZ2ySzVRyS

7-10-8 12-7-8 20-6-0
7-10-8 4-9-0 7-10-8

Scale = 1:33.8



0-0-8 20-6-0
0-0-8 20-5-8

Plate Offsets (X,Y)-- [3:0-2-0,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	0.20	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	0.09	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 55 lb	FT = 10%

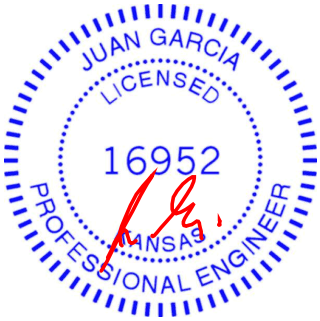
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

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

REACTIONS. All bearings 20-5-0.
(lb) - Max Horz 1=-63(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 10, 11 except 12=-119(LC 8), 8=-122(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=354(LC 22), 11=354(LC 21), 12=408(LC 1), 8=379(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 5-10=-274/81, 4-11=-280/99, 2-12=-308/166, 6-8=-296/165

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 10, 11 except (jt=lb) 12=119, 8=122.
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.



March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V21	Valley	1	1	I45442820

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:44 2021 Page 1

ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-TxMDHchFmVCjtfLL?RXF_Wgu9Lb2Wl_s0SoiZnzVRyP

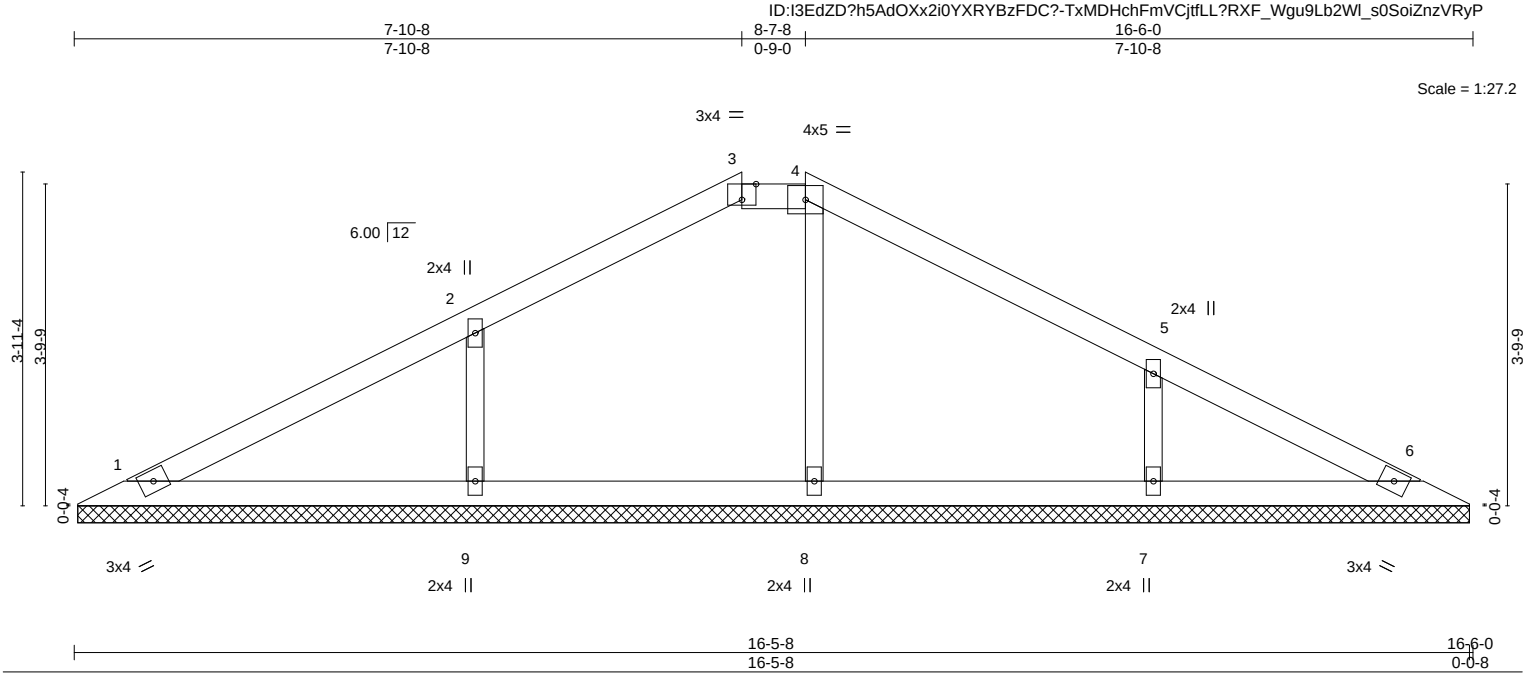


Plate Offsets (X,Y)-- [3:0-2-0,Edge]

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	0.21	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	0.07	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 43 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, except 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 16-5-0.

(lb) - Max Horz 1=-63(LC 13)

Max Uplift All uplift 100 lb or less at joint(s) 1, 6 except 9=-120(LC 8), 7=-124(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 8=276(LC 1), 9=419(LC 21), 7=385(LC 22)

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

WEBS 2-9=-319/167, 5-7=-301/168

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 6 except (jt=lb) 9=120, 7=124.
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.

March 31,2021

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

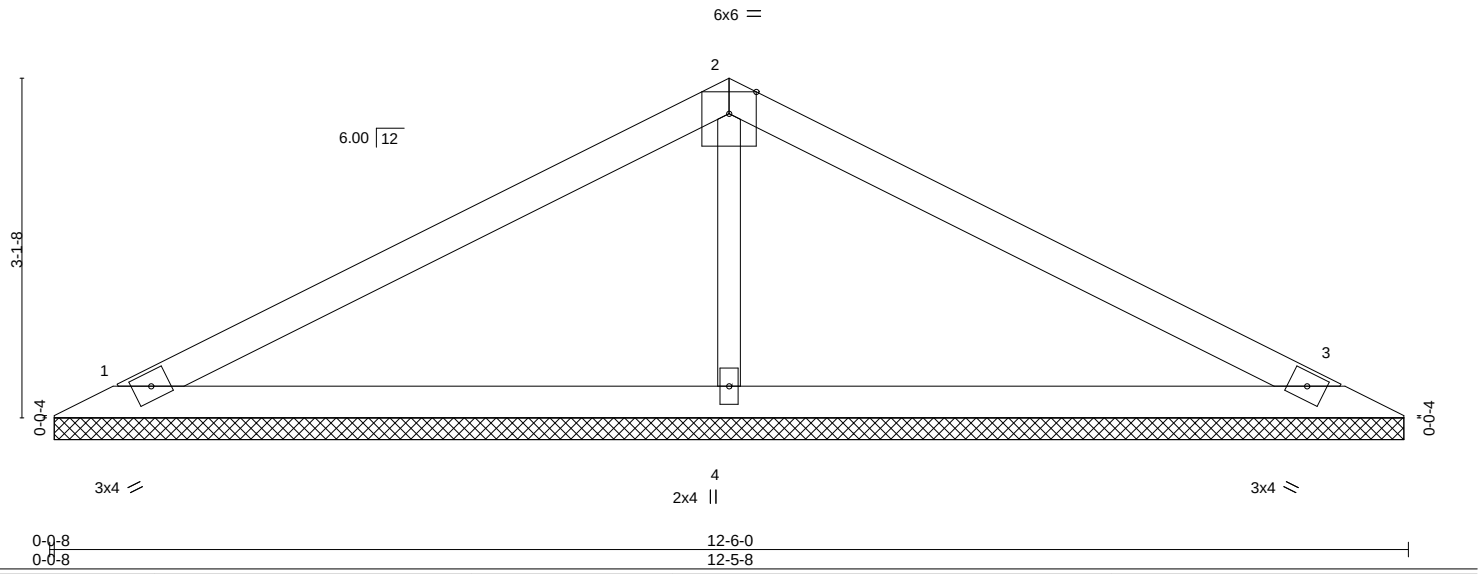
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V22	Valley	1	1	I45442821
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:44 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-TxMDHchFmVCjtfLL?RXF_WgqOLYmWles0SoiZnzVRyP

6-3-0 12-6-0
6-3-0 6-3-0

Scale = 1:21.2



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	0.45	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 31 lb	FT = 10%

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

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

REACTIONS. (size) 1=12-5-0, 3=12-5-0, 4=12-5-0
Max Horz 1=-50(LC 13)
Max Uplift 1=-49(LC 8), 3=-58(LC 9), 4=-30(LC 8)
Max Grav 1=238(LC 21), 3=238(LC 22), 4=537(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-367/96

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

March 31,2021

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

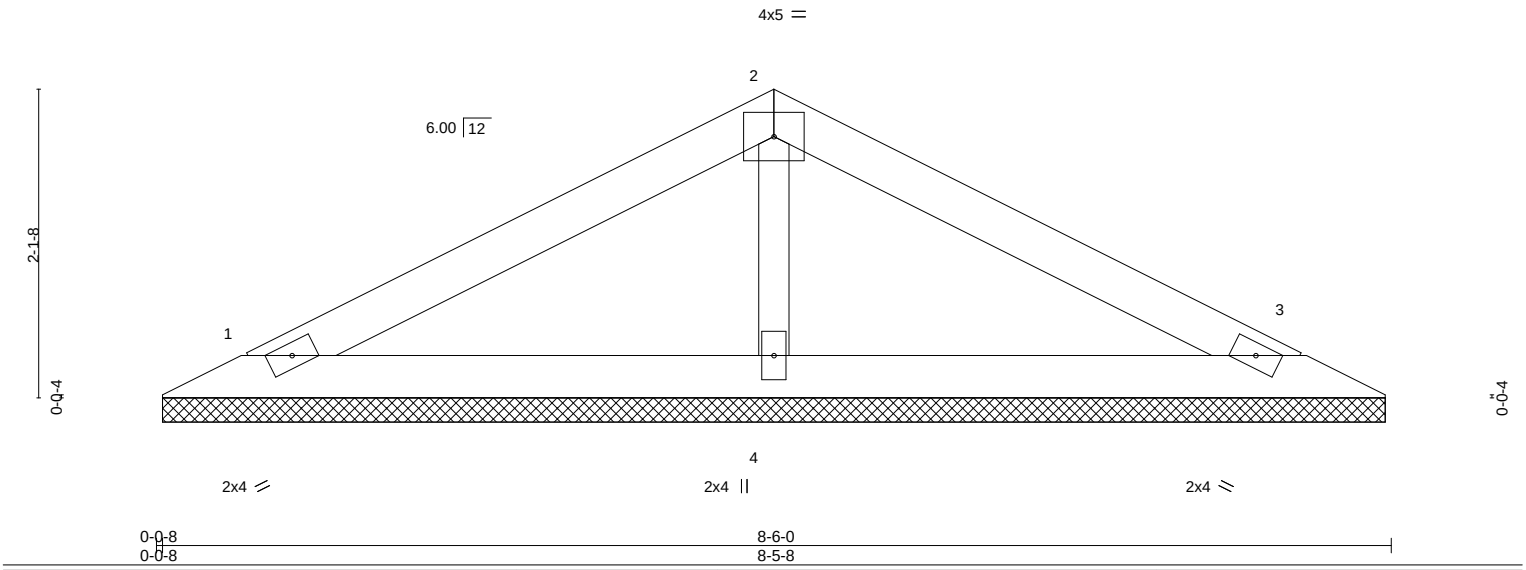
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V23	Valley	1	1	I45442822
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:45 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-x7wbVyhtXpLaVpwYZ92UXjD3RlxNFDe0E6XG5DzVRyO

4-3-0 8-6-0
4-3-0 4-3-0

Scale: 3/4"=1'



0-0-8 8-6-0
0-0-8 8-5-8

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	0.24	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 20 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 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=8-5-0, 3=8-5-0, 4=8-5-0
Max Horz 1=32(LC 12)
Max Uplift 1=-39(LC 8), 3=-45(LC 9), 4=-4(LC 8)
Max Grav 1=170(LC 1), 3=170(LC 1), 4=311(LC 1)

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

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

March 31,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 87 W0
210361	V24	Valley	1	1	I45442823
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Mar 31 10:14:46 2021 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-PJUziIiVI7TR7zVk6sZj3xmHH9Hf_gY9TmHpdfzVRyN

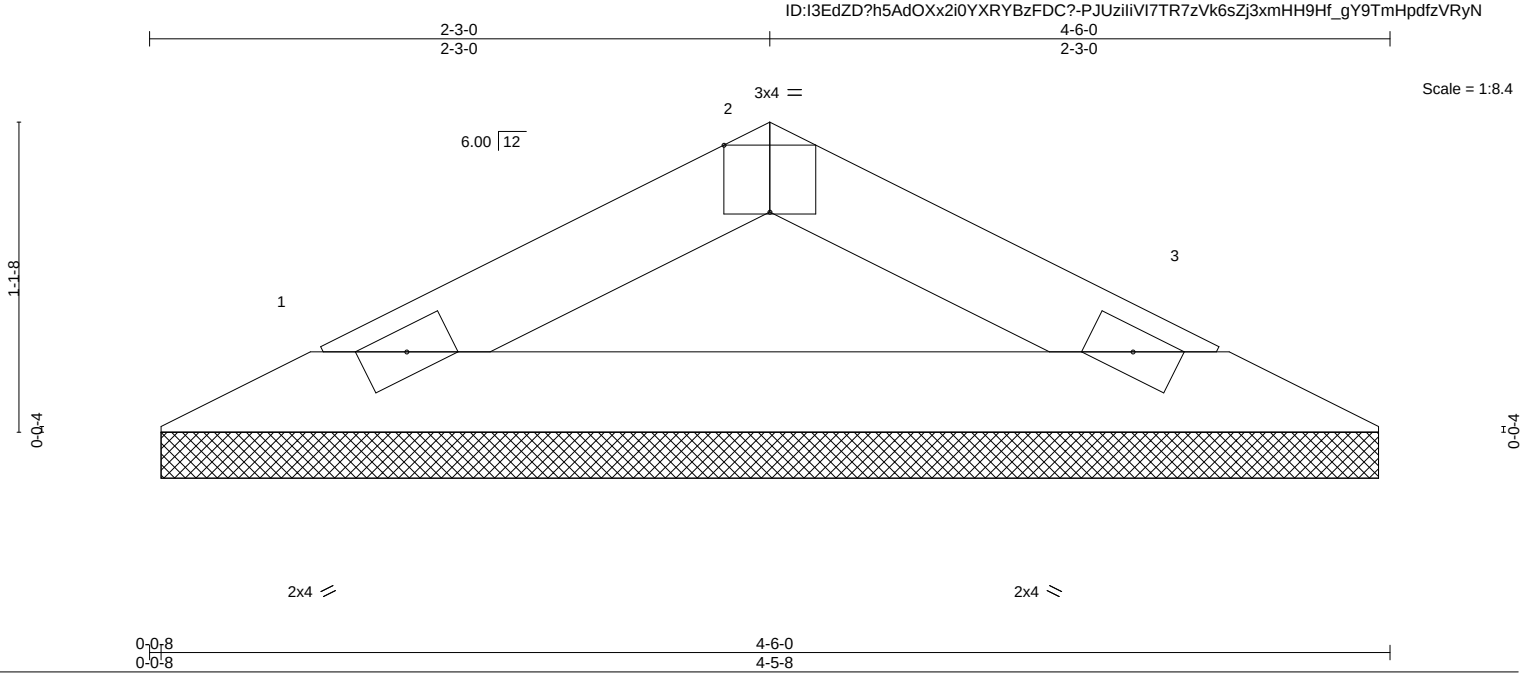


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 lb	FT = 10%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-6-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-5-0, 3=4-5-0
Max Horz 1=14(LC 8)
Max Uplift 1=-18(LC 8), 3=-18(LC 9)
Max Grav 1=146(LC 1), 3=146(LC 1)

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

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

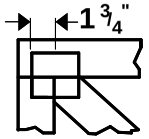
March 31,2021

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

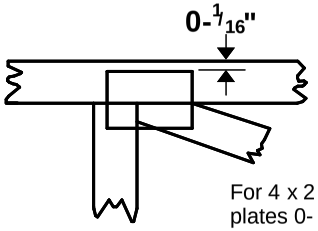
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

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

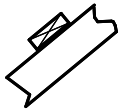
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

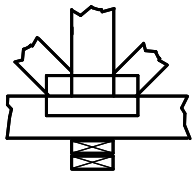
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

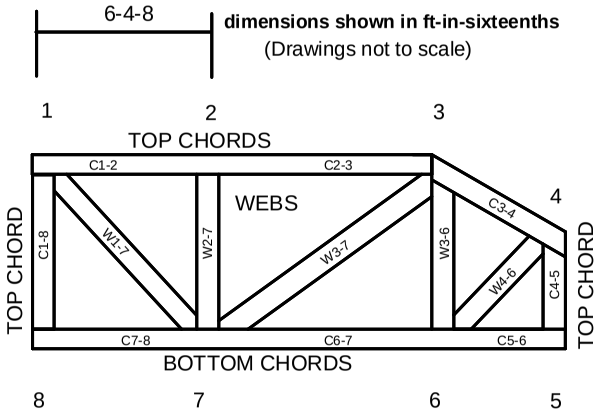


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: 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



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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

© 2012 MiTek® All Rights Reserved

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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.

21.The design does not take into account any dynamic or other loads other than those expressly stated.