RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/14/2021 11:52:58

RE: W258
Lot 58 W2

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

Site Information:

Customer: Project Name: W258
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: ASCE 7 - 16[Low Rise] Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 60 individual, dated Truss Design Drawings and 0 Additional Drawings.

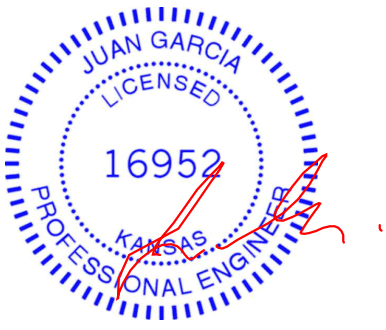
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I49010941	A1	11/30/2021	21	I49010961	E1	11/30/2021
2	I49010942	A2	11/30/2021	22	I49010962	E2	11/30/2021
3	I49010943	A3	11/30/2021	23	I49010963	G1	11/30/2021
4	I49010944	B1	11/30/2021	24	I49010964	G2	11/30/2021
5	I49010945	B2	11/30/2021	25	I49010965	H1	11/30/2021
6	I49010946	B3	11/30/2021	26	I49010966	H2	11/30/2021
7	I49010947	B4	11/30/2021	27	I49010967	H3	11/30/2021
8	I49010948	B5	11/30/2021	28	I49010968	J1	11/30/2021
9	I49010949	C1	11/30/2021	29	I49010969	J2	11/30/2021
10	I49010950	C2	11/30/2021	30	I49010970	J3	11/30/2021
11	I49010951	C3	11/30/2021	31	I49010971	J4	11/30/2021
12	I49010952	C4	11/30/2021	32	I49010972	J5	11/30/2021
13	I49010953	C5	11/30/2021	33	I49010973	LAY1	11/30/2021
14	I49010954	D1	11/30/2021	34	I49010974	LAY2	11/30/2021
15	I49010955	D2	11/30/2021	35	I49010975	P1	11/30/2021
16	I49010956	D2A	11/30/2021	36	I49010976	P2	11/30/2021
17	I49010957	D3	11/30/2021	37	I49010977	R1	11/30/2021
18	I49010958	D4	11/30/2021	38	I49010978	V1	11/30/2021
19	I49010959	D5	11/30/2021	39	I49010979	V2	11/30/2021
20	I49010960	D6	11/30/2021	40	I49010980	V3	11/30/2021

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.

November 30, 2021

Garcia, Juan

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

RE: W258 - Lot 58 W2

Site Information:

Project Customer: Project Name: W258
Lot/Block: Subdivision:
Address:
City, County: State:

No.	Seal#	Truss Name	Date
41	I49010981	V4	11/30/2021
42	I49010982	V5	11/30/2021
43	I49010983	V6	11/30/2021
44	I49010984	V7	11/30/2021
45	I49010985	V8	11/30/2021
46	I49010986	V9	11/30/2021
47	I49010987	V10	11/30/2021
48	I49010988	V11	11/30/2021
49	I49010989	V12	11/30/2021
50	I49010990	V13	11/30/2021
51	I49010991	V14	11/30/2021
52	I49010992	V15	11/30/2021
53	I49010993	V16	11/30/2021
54	I49010994	V17	11/30/2021
55	I49010995	V18	11/30/2021
56	I49010996	V19	11/30/2021
57	I49010997	V20	11/30/2021
58	I49010998	V21	11/30/2021
59	I49010999	V22	11/30/2021
60	I49011000	V23	11/30/2021

RE: W258
Lot 58 W2

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

Site Information:

Customer: Project Name: W258
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: ASCE 7 - 16[Low Rise] Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 60 individual, dated Truss Design Drawings and 0 Additional Drawings.

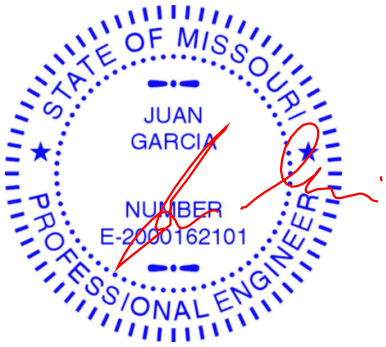
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I49010941	A1	11/30/2021	21	I49010961	E1	11/30/2021
2	I49010942	A2	11/30/2021	22	I49010962	E2	11/30/2021
3	I49010943	A3	11/30/2021	23	I49010963	G1	11/30/2021
4	I49010944	B1	11/30/2021	24	I49010964	G2	11/30/2021
5	I49010945	B2	11/30/2021	25	I49010965	H1	11/30/2021
6	I49010946	B3	11/30/2021	26	I49010966	H2	11/30/2021
7	I49010947	B4	11/30/2021	27	I49010967	H3	11/30/2021
8	I49010948	B5	11/30/2021	28	I49010968	J1	11/30/2021
9	I49010949	C1	11/30/2021	29	I49010969	J2	11/30/2021
10	I49010950	C2	11/30/2021	30	I49010970	J3	11/30/2021
11	I49010951	C3	11/30/2021	31	I49010971	J4	11/30/2021
12	I49010952	C4	11/30/2021	32	I49010972	J5	11/30/2021
13	I49010953	C5	11/30/2021	33	I49010973	LAY1	11/30/2021
14	I49010954	D1	11/30/2021	34	I49010974	LAY2	11/30/2021
15	I49010955	D2	11/30/2021	35	I49010975	P1	11/30/2021
16	I49010956	D2A	11/30/2021	36	I49010976	P2	11/30/2021
17	I49010957	D3	11/30/2021	37	I49010977	R1	11/30/2021
18	I49010958	D4	11/30/2021	38	I49010978	V1	11/30/2021
19	I49010959	D5	11/30/2021	39	I49010979	V2	11/30/2021
20	I49010960	D6	11/30/2021	40	I49010980	V3	11/30/2021

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.

November 30, 2021

Garcia, Juan

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

RE: W258 - Lot 58 W2

Site Information:

Project Customer: Project Name: W258
Lot/Block: Subdivision:
Address:
City, County: State:

No.	Seal#	Truss Name	Date
41	I49010981	V4	11/30/2021
42	I49010982	V5	11/30/2021
43	I49010983	V6	11/30/2021
44	I49010984	V7	11/30/2021
45	I49010985	V8	11/30/2021
46	I49010986	V9	11/30/2021
47	I49010987	V10	11/30/2021
48	I49010988	V11	11/30/2021
49	I49010989	V12	11/30/2021
50	I49010990	V13	11/30/2021
51	I49010991	V14	11/30/2021
52	I49010992	V15	11/30/2021
53	I49010993	V16	11/30/2021
54	I49010994	V17	11/30/2021
55	I49010995	V18	11/30/2021
56	I49010996	V19	11/30/2021
57	I49010997	V20	11/30/2021
58	I49010998	V21	11/30/2021
59	I49010999	V22	11/30/2021
60	I49011000	V23	11/30/2021

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010941
W258	A1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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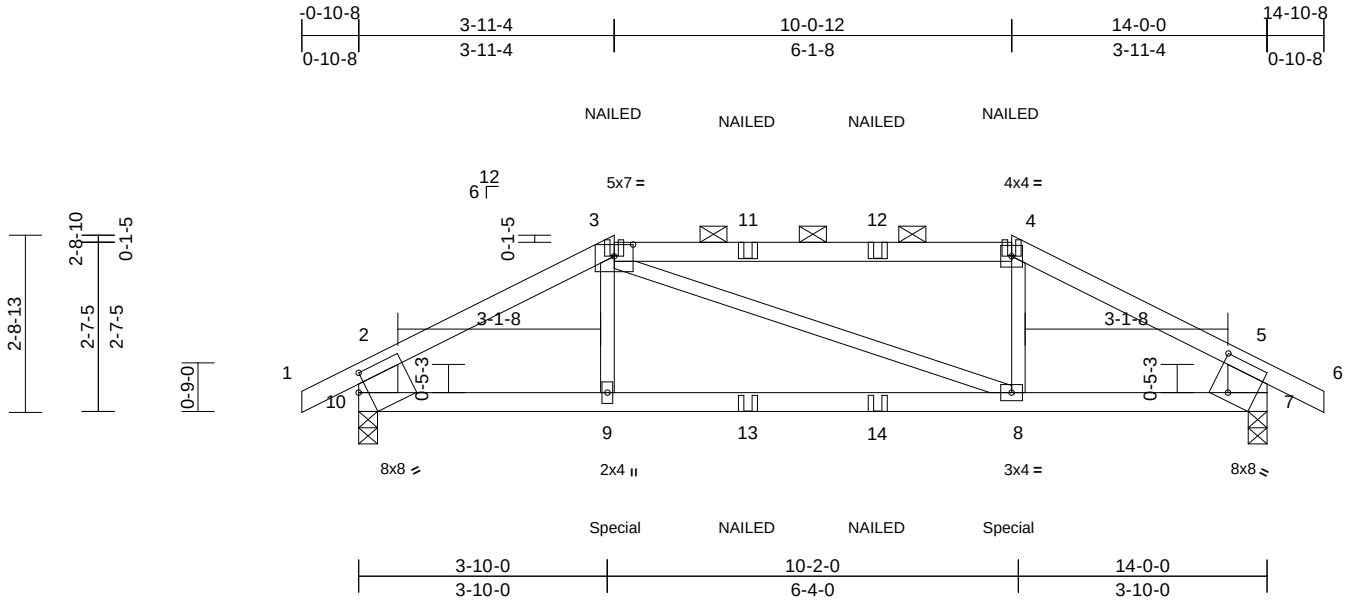

Scale = 1:35.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.14	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.30	8-9	>535	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.12	8-9	>999	240	Weight: 47 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 3-4:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 10-2,7-5:2x8 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-11-14 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-4 max.): 3-4.

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

REACTIONS (lb/size) 7=1012/0-3-8, 10=1012/0-3-8
Max Horiz 10=53 (LC 7)
Max Uplift 7=-225 (LC 9), 10=-225 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/37, 2-3=-1418/311, 3-4=-1170/292, 4-5=-1420/311, 5-6=0/37, 2-10=-899/218, 5-7=-899/218

BOT CHORD 9-10=-262/1180, 8-9=-264/1168, 7-8=-236/1181

WEBS 3-9=0/328, 3-8=-49/53, 4-8=0/329

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) exterior 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 3-06-00 tall by 2-00-00 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 225 lb uplift at joint 10 and 225 lb uplift at joint 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 215 lb down and 57 lb up at 3-11-4, and 215 lb down and 57 lb up at 10-0-0 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).

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 7-10=-20
   Concentrated Loads (lb)
   Vert: 3=-44 (F), 4=-44 (F), 9=-215 (F), 8=-215 (F), 11=-44 (F), 12=-44 (F), 13=-24 (F), 14=-24 (F)

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	A2	Hip	1	1	I49010942
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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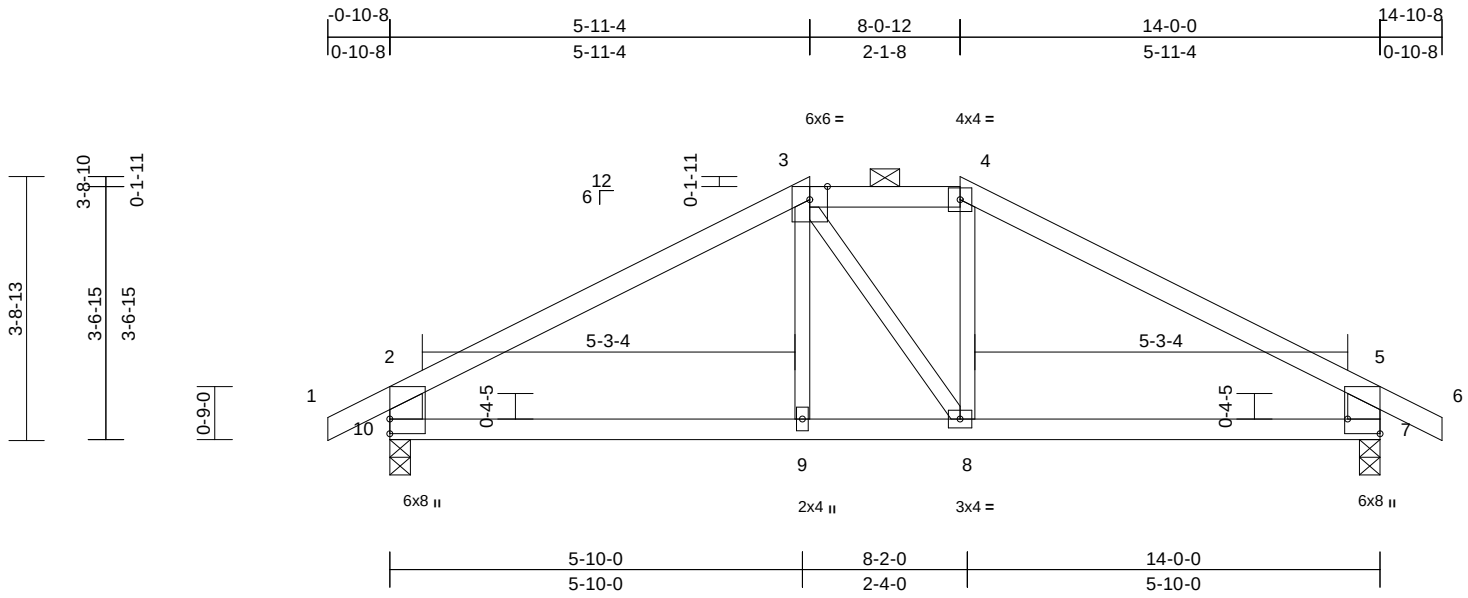

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Plate Offsets (X, Y): [7:Edge,0-5-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.03	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.07	9-10	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.01	8-9	>999	240	Weight: 45 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-2,7-5:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-10-10 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 (lb/size) 7=687/0-3-8, 10=687/0-3-8
Max Horiz 10=64 (LC 7)
Max Uplift 7=-93 (LC 9), 10=-93 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-785/77, 3-4=-607/114, 4-5=-786/77, 5-6=0/35, 2-10=-619/137, 5-7=-620/137
BOT CHORD 9-10=-26/609, 8-9=-27/607, 7-8=0/609
WEBS 3-9=0/149, 3-8=-121/122, 4-8=-17/154

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) exterior 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 3-06-00 tall by 2-00-00 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 93 lb uplift at joint 10 and 93 lb uplift at joint 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	A3	Common	2	1	I49010943
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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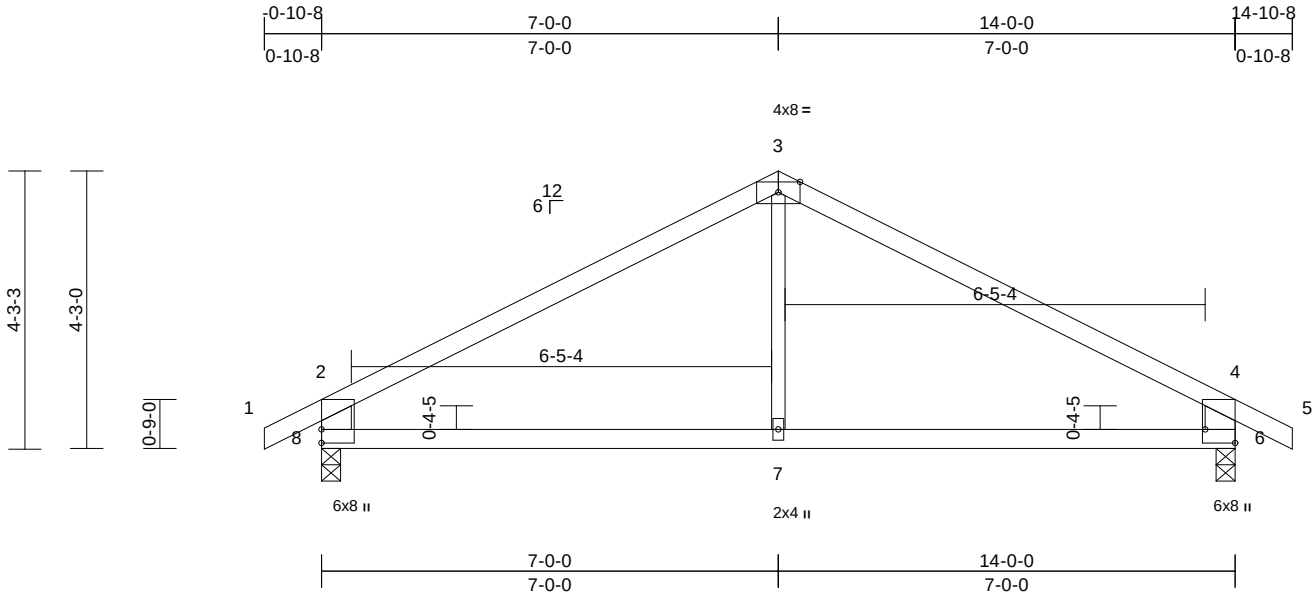

Scale = 1:35.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.05	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.09	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.02	7-8	>999	240	Weight: 41 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 6=687/0-3-8, 8=687/0-3-8
Max Horiz 8=-72 (LC 6)
Max Uplift 6=-100 (LC 9), 8=-100 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-755/105, 3-4=-755/105, 4-5=0/35, 2-8=-626/149, 4-6=-626/149
BOT CHORD 7-8=-19/569, 6-7=-19/569
WEBS 3-7=0/290

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) exterior 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 3-06-00 tall by 2-00-00 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 8 and 100 lb uplift at joint 6.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	B1	Hip Girder	1	1	I49010944
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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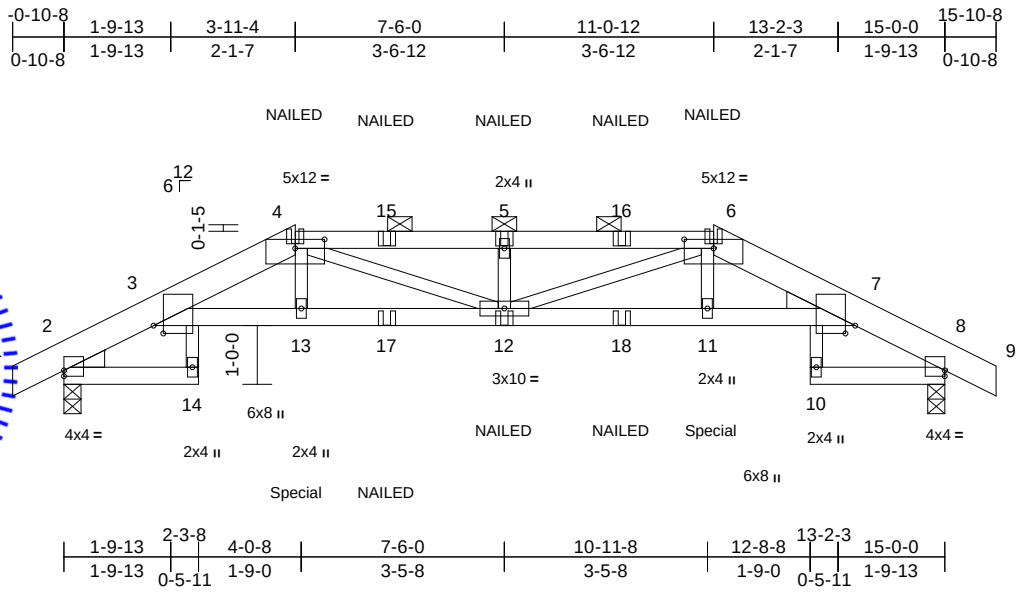

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Plate Offsets (X, Y): [2:Edge,0-1-3], [3:0-1-10,0-2-0], [4:0-6-0,0-1-13], [6:0-6-0,0-1-13], [7:0-1-10,0-2-0], [8:Edge,0-1-3]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.19	12	>945	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.34	12	>525	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.33	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.17	12	>999	240	Weight: 58 lb	FT = 10%

LUMBER

TOP CHORD 2x6 SPF 1650F 1.4E *Except* 4-6:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-11-15 oc purlins, except 2-0-0 oc purlins (3-1-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 2=1110/0-3-8, 8=1110/0-3-8
Max Horiz 2=-42 (LC 13)
Max Uplift 2=-274 (LC 8), 8=-274 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-641/193, 3-4=-2666/731, 4-5=-3073/867, 5-6=-3073/867, 6-7=-2666/711, 7-8=-641/188, 8-9=0/6
BOT CHORD 2-14=-41/0, 3-13=-678/2529, 12-13=-684/2557, 11-12=-642/2557, 7-11=-637/2529, 8-10=-41/0
WEBS 3-14=0/70, 7-10=0/70, 4-13=-78/350, 6-11=-77/350, 4-12=-208/607, 5-12=-284/138, 6-12=-207/607

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) exterior 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 3-06-00 tall by 2-00-00 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 274 lb uplift at joint 2 and 274 lb uplift at joint 8.
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) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 228 lb down and 92 lb up at 3-11-4, and 228 lb down and 92 lb up at 11-0-0 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).

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-6=-70, 6-9=-70, 2-14=-20, 3-7=-20, 8-10=-20
Concentrated Loads (lb)
Vert: 4=-31 (B), 6=-31 (B), 13=-228 (B), 11=-228 (B), 12=-37 (B), 5=-31 (B), 15=-31 (B), 16=-31 (B), 17=-37 (B), 18=-37 (B)

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010945
W258	B2	Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:19
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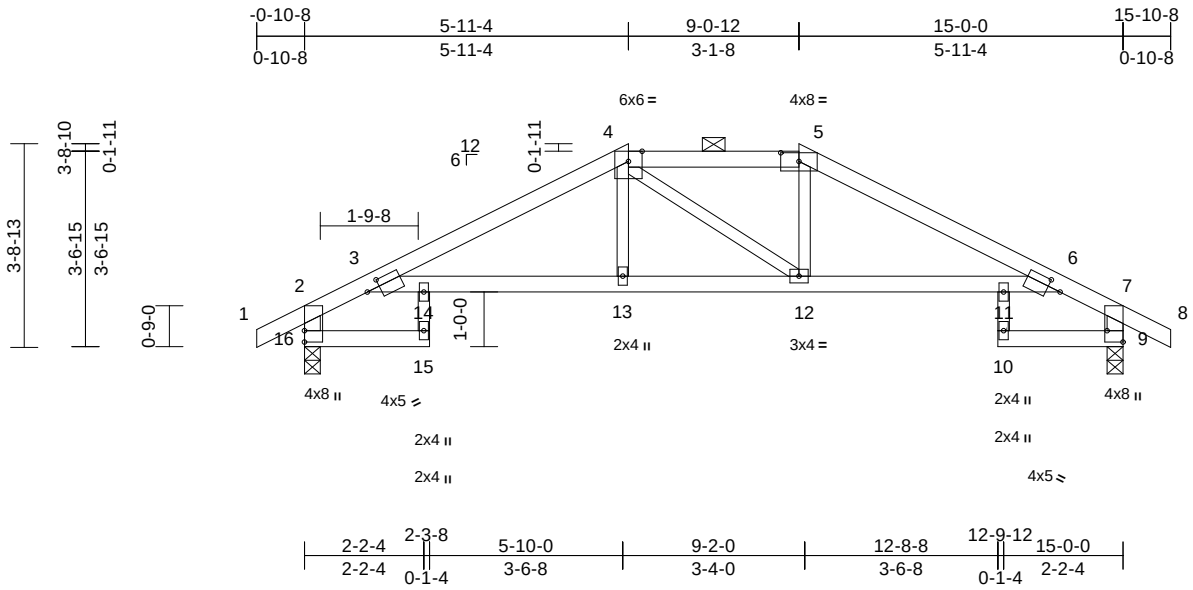


Scale = 1:42.2

Plate Offsets (X, Y): [3:0-2-15,0-1-9], [5:0-4-0,0-1-15], [6:0-2-15,0-1-9], [9:Edge,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.16	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.29	13-14	>601	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.36	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.12	13-14	>999	240	Weight: 49 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 4-5:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 16-2,9-7:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-4 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
10-0-0 oc bracing: 11-12

REACTIONS (lb/size) 9=733/0-3-8, 16=733/0-3-8
Max Horiz 16=-63 (LC 6)
Max Uplift 9=-94 (LC 9), 16=-94 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-301/72, 3-4=-1215/96, 4-5=-1061/106, 5-6=-1216/74, 6-7=-301/54, 7-8=0/32, 2-16=-763/120, 7-9=-763/113
BOT CHORD 15-16=0/0, 3-14=-39/1068, 13-14=-39/1068, 12-13=-40/1060, 11-12=0/1069, 6-11=0/1069, 9-10=0/0
WEBS 14-15=-2/71, 10-11=0/71, 4-13=0/219, 4-12=-141/143, 5-12=0/219

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) exterior 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 3-06-00 tall by 2-00-00 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 94 lb uplift at joint 16 and 94 lb uplift at joint 9.
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.

LOAD CASE(S) Standard

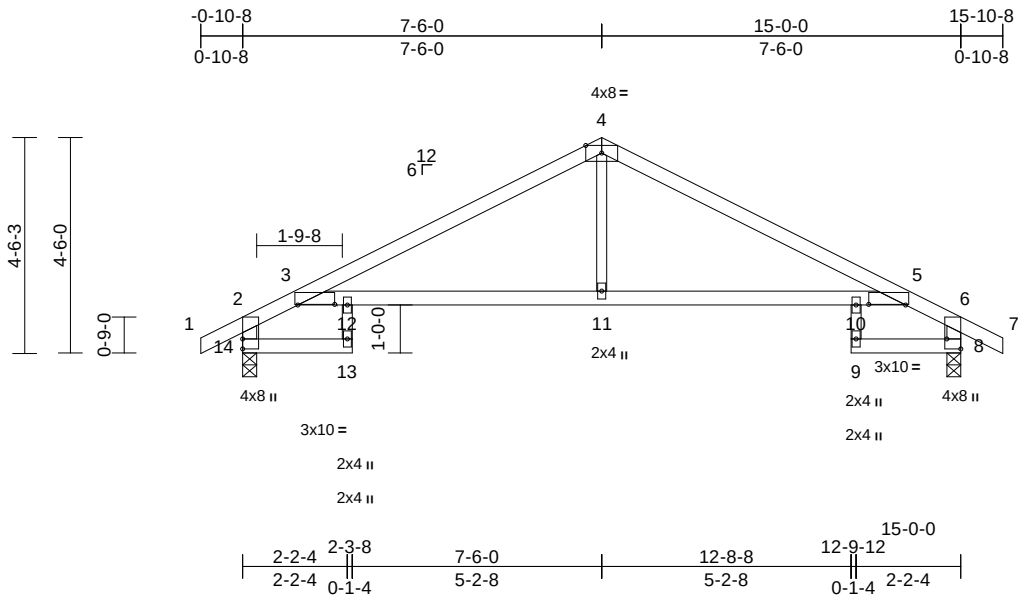
November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010946
W258	B3	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:20 ID:hquPfxpp0CdNHWhMuPizeLzNEki-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:48.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.20	10-11	>902	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.36	10-11	>484	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.40	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.18	11-12	>993	240	Weight: 46 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except* 3-5:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 14-2,8-6:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
10-0-0 oc bracing: 10-11

REACTIONS (lb/size) 8=733/0-3-8, 14=733/0-3-8
Max Horiz 14=-73 (LC 6)
Max Uplift 8=-105 (LC 9), 14=-105 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-302/92, 3-4=-1083/105, 4-5=-1083/130, 5-6=-302/60, 6-7=0/32, 2-14=-765/137, 6-8=-765/128
BOT CHORD 13-14=0/0, 3-12=-35/921, 11-12=-35/921, 10-11=-35/921, 5-10=-35/921, 8-9=0/0
WEBS 12-13=-7/73, 9-10=0/73, 4-11=0/412

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) exterior 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 3-06-00 tall by 2-00-00 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 105 lb uplift at joint 14 and 105 lb uplift at joint 8.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	
W258	B4	Roof Special	2	1	Job Reference (optional)	I49010947

Wheeler Lumber, Waverly, KS - 66871,

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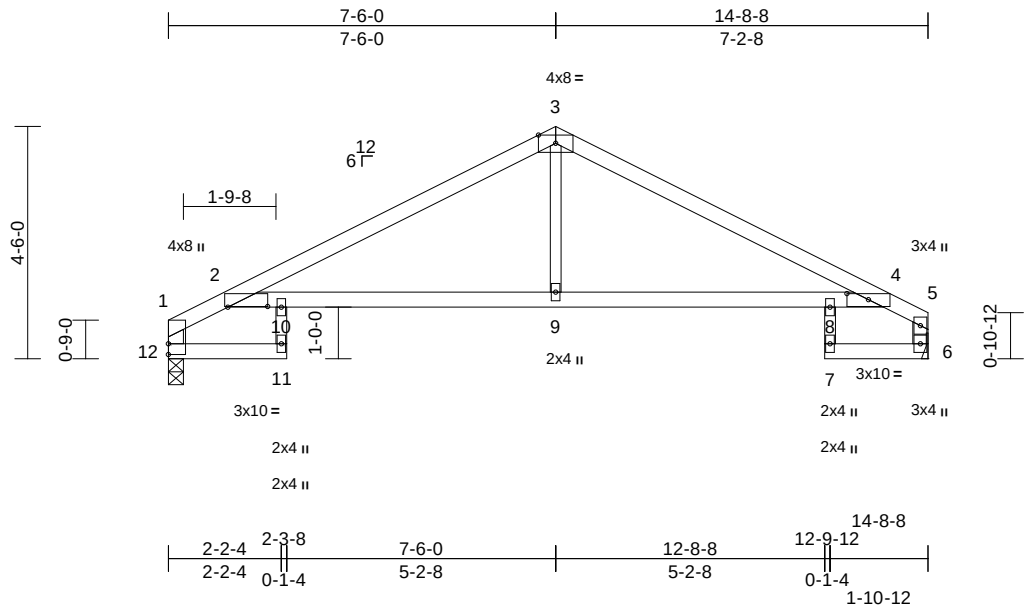


Scale = 1:44.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.20	9-10	>879	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.36	9-10	>478	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.37	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.18	9-10	>953	240	Weight: 43 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except* 2-4:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 12-1,6-5:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
10-0-0 oc bracing: 8-9

REACTIONS (lb/size) 6=649/ Mechanical, 12=649/0-3-8
Max Horiz 12=71 (LC 5)
Max Uplift 6=-78 (LC 9), 12=-80 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-296/69, 2-3=-1054/112, 3-4=-1060/134, 4-5=-291/39, 1-12=-681/113, 5-6=-677/102
BOT CHORD 11-12=0/0, 2-10=-48/894, 9-10=-48/894, 8-9=-48/894, 4-8=-48/894, 6-7=0/0
WEBS 10-11=-8/73, 7-8=-3/63, 3-9=0/398

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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 80 lb uplift at joint 12 and 78 lb uplift at joint 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.

LOAD CASE(S) Standard

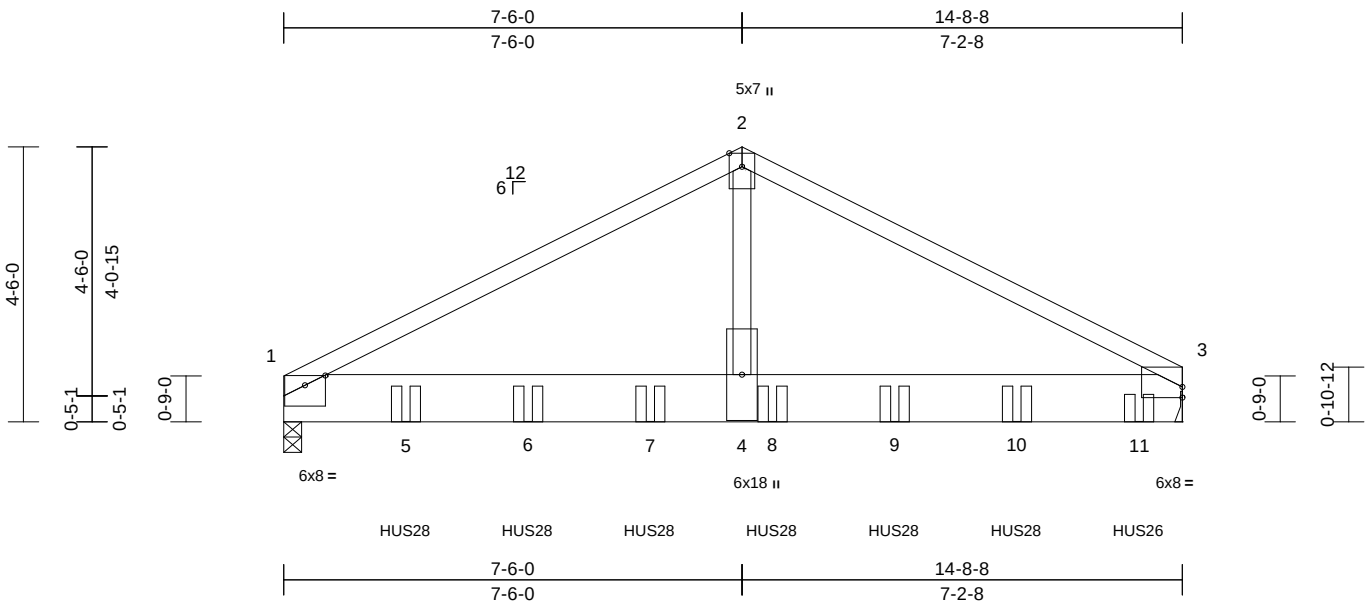
November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	B5	Common Girder	1	3	I49010948
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:21 ID:hquPfxpp0CdNHWhMuPizeLzNEki-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:37.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.08	1-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.13	1-4	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.76	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	1-4	>999	240	Weight: 242 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x10 SP DSS
WEBS 2x4 SPF No.2

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

REACTIONS (lb/size) 1=7084/0-3-8, (req. 0-4-1), 3=7858/ Mechanical
Max Horiz 1=-45 (LC 23)
Max Grav 1=7820 (LC 13), 3=8737 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-10749/0, 2-3=-10819/0
BOT CHORD 1-4=0/9421, 3-4=0/9421
WEBS 2-4=0/9808

NOTES
1) 3-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 - 4 rows staggered at 0-6-0 oc.
Web 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) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) WARNING: Required bearing size at joint(s) 1 greater than input bearing size.
8) Refer to girder(s) for truss to truss connections.
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) Use Simpson Strong-Tie HUS28 (22-16d Girder, 4-16d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-0 from the left end to 12-0-0 to connect truss(es) to front face of bottom chord.
11) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss) or equivalent at 14-0-0 from the left end to connect truss(es) to front face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 1-3=-20
Concentrated Loads (lb)
Vert: 5=-2009 (F), 6=-2009 (F), 7=-2013 (F), 8=-2013 (F), 9=-2011 (F), 10=-2011 (F), 11=-1570 (F)

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	C1	Piggyback Base Supported Gable	1	1	I49010949
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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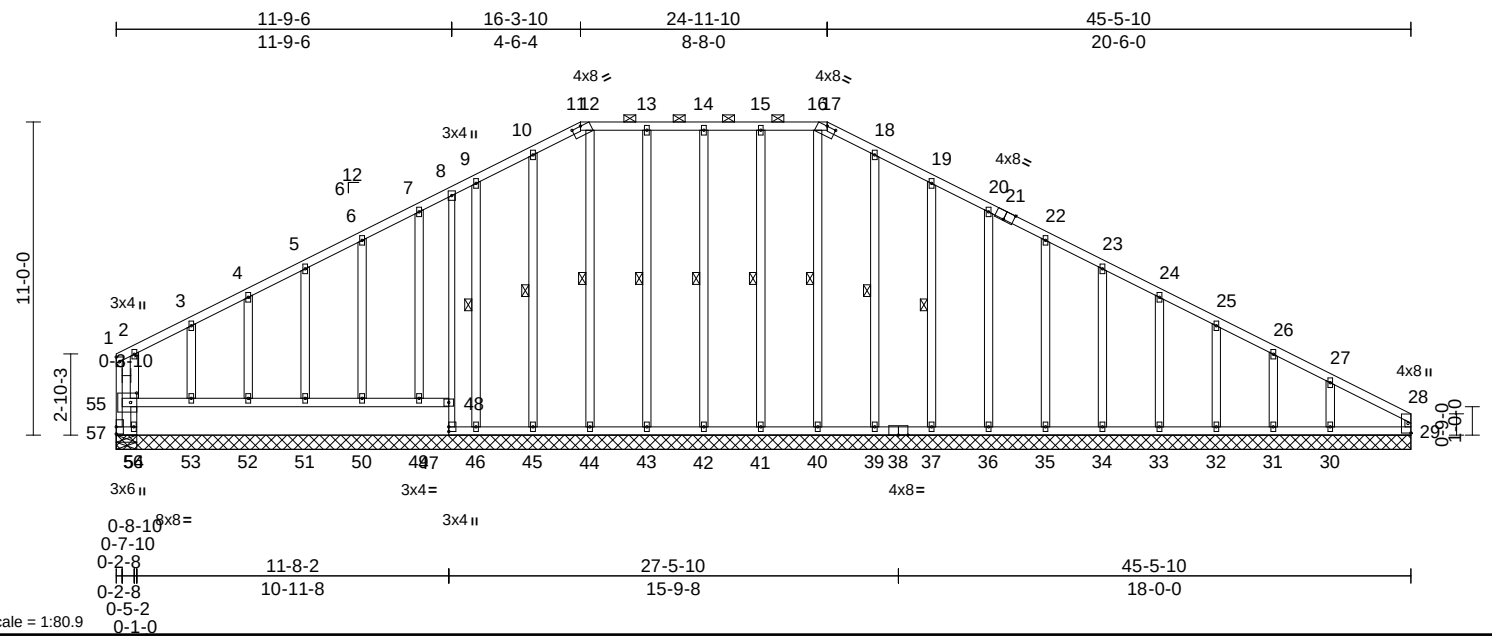


Scale = 1:80.9

Plate Offsets (X, Y): [11:0-4-0,0-0-1], [17:0-4-0,0-0-1], [21:0-4-0,Edge], [55:0-2-10,0-4-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	0.00	29-30	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	0.00	29-30	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.06	29	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 285 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 8-47:2x3 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x4 SPF No.2

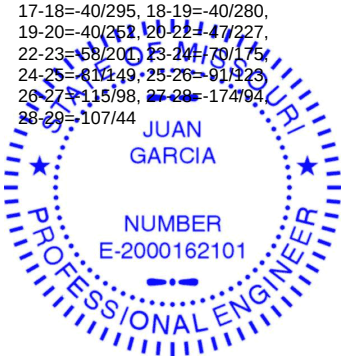
BRACING

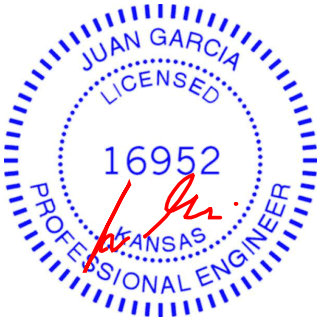
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 11-17.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 56-57.
WEBS 1 Row at midpt 9-46, 10-45, 12-44, 13-43, 14-42, 15-41, 16-40, 18-39, 19-37

REACTIONS (lb/size) 29=106/45-5-10, 30=253/45-5-10, 31=156/45-5-10, 32=186/45-5-10, 33=179/45-5-10, 34=180/45-5-10, 35=180/45-5-10, 36=180/45-5-10, 37=180/45-5-10, 39=180/45-5-10, 40=175/45-5-10, 41=181/45-5-10, 42=180/45-5-10, 43=181/45-5-10, 44=174/45-5-10, 45=186/45-5-10, 46=134/45-5-10, 47=7/45-5-10, 48=55/45-5-10, 49=154/45-5-10, 50=185/45-5-10, 51=180/45-5-10, 52=177/45-5-10, 53=193/45-5-10, 56=113/0-8-10, 57=18/0-8-10
Max Horiz 57=-211 (LC 4)
Max Uplift 29=-33 (LC 8), 30=-130 (LC 9), 31=-28 (LC 9), 32=-60 (LC 9), 33=-52 (LC 9), 34=-54 (LC 9), 35=-54 (LC 9), 36=-53 (LC 9), 37=-61 (LC 9), 39=-33 (LC 9), 41=-42 (LC 5), 42=-34 (LC 4), 43=-40 (LC 5), 45=-34 (LC 8), 46=-112 (LC 9), 47=-44 (LC 7), 48=-92 (LC 9), 49=-55 (LC 8), 50=-54 (LC 8), 51=-56 (LC 8), 52=-48 (LC 8), 53=-73 (LC 8), 56=-348 (LC 5), 57=-488 (LC 4)
Max Grav 29=142 (LC 18), 30=254 (LC 22), 31=156 (LC 1), 32=186 (LC 22), 33=179 (LC 1), 34=180 (LC 22), 35=180 (LC 1), 36=180 (LC 22), 37=180 (LC 1), 39=180 (LC 22), 40=193 (LC 17), 41=186 (LC 21), 42=180 (LC 1), 43=186 (LC 22), 44=181 (LC 18), 45=186 (LC 21), 46=135 (LC 21), 47=96 (LC 9), 48=69 (LC 16), 49=178 (LC 15), 50=185 (LC 21), 51=180 (LC 1), 52=177 (LC 1), 53=193 (LC 21), 56=503 (LC 6), 57=378 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 55-57=-244/306, 1-55=-76/57, 1-2=-91/80, 2-3=-67/95, 3-4=-41/115, 4-5=-40/143, 5-6=-40/168, 6-7=-42/195, 7-8=-30/213, 8-9=-25/227, 9-10=-38/253, 10-11=-41/289, 11-12=-29/275, 12-13=-29/275, 13-14=-29/275, 14-15=-29/275, 15-16=-29/275, 16-17=-29/275, 17-18=-40/295, 18-19=-40/280, 19-20=-40/252, 20-22=-47/227, 22-23=-58/201, 23-24=-70/175, 24-25=-81/149, 25-26=-91/123, 26-27=-115/98, 27-28=-174/94, 28-29=-107/44





November 30,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

BOT CHORD 56-57=-7/5, 54-55=-86/168, 53-54=-82/163, 52-53=-82/163, 51-52=-82/163, 50-51=-82/163, 49-50=-82/163, 48-49=-82/163, 47-48=0/0, 8-48=-53/28, 46-47=-81/161, 45-46=-81/161, 44-45=-81/161, 43-44=-81/161, 42-43=-81/161, 41-42=-81/161, 40-41=-81/161, 39-40=-81/161, 37-39=-81/161, 36-37=-81/161, 35-36=-81/161, 34-35=-81/161, 33-34=-81/161, 32-33=-81/161, 31-32=-81/161, 30-31=-81/161, 29-30=-81/161

WEBS 2-54=-100/92, 3-53=-148/92, 4-52=-138/74, 5-51=-140/78, 6-50=-145/81, 7-49=-114/61, 9-46=-105/68, 10-45=-145/58, 12-44=-143/0, 13-43=-146/64, 14-42=-140/58, 15-41=-146/66, 16-40=-153/0, 18-39=-140/57, 19-37=-140/85, 20-36=-140/77, 22-35=-140/78, 23-34=-140/78, 24-33=-139/77, 25-32=-144/82, 26-31=-123/60, 27-30=-194/132, 54-56=-316/224

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) N/A
5) Provide adequate drainage to prevent water ponding.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Bearing at joint(s) 48 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 488 lb uplift at joint 57, 33 lb uplift at joint 29, 348 lb uplift at joint 56, 92 lb uplift at joint 48, 44 lb uplift at joint 47, 73 lb uplift at joint 53, 48 lb uplift at joint 52, 56 lb uplift at joint 51, 54 lb uplift at joint 50, 55 lb uplift at joint 49, 112 lb uplift at joint 46, 34 lb uplift at joint 45, 40 lb uplift at joint 43, 34 lb uplift at joint 42, 42 lb uplift at joint 41, 33 lb uplift at joint 39, 61 lb uplift at joint 37, 53 lb uplift at joint 36, 54 lb uplift at joint 35, 54 lb uplift at joint 34, 52 lb uplift at joint 33, 60 lb uplift at joint 32, 28 lb uplift at joint 31 and 130 lb uplift at joint 30.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	C2	Piggyback Base	2	1	I49010950 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:23 Page: 1
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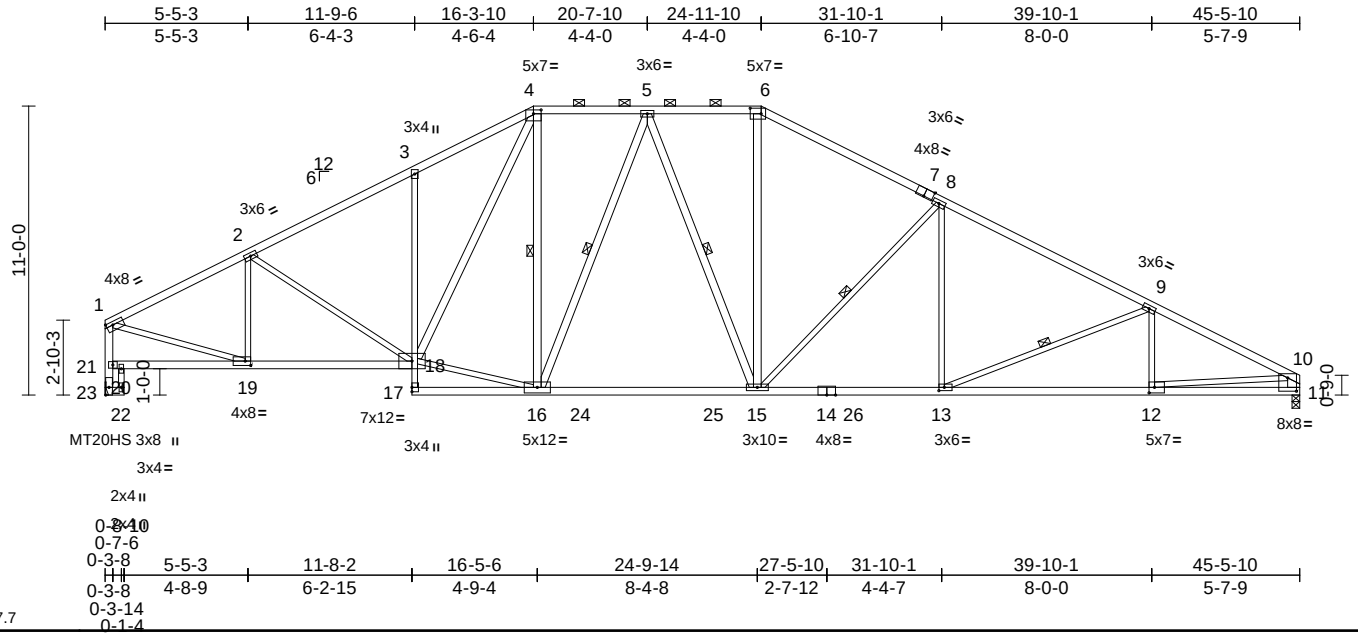

Scale = 1:87.7

Plate Offsets (X, Y): [1:0-3-0,0-1-8], [4:0-3-8,0-1-12], [6:0-5-0,0-2-8], [7:0-4-0,Edge], [11:0-4-0,0-6-1], [12:0-2-8,0-2-8], [13:0-2-8,0-1-8], [19:0-2-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.32	15-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.54	15-16	>999	240	MT20HS	148/108
BCLL	0.0*	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.16	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.13	12-13	>999	240	Weight: 225 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 7-10:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except* 3-17:2x3 SPF No.2, 17-14,14-11:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 18-4,16-4,16-5,15-5,15-6,23-1:2x4 SPF No.2, 11-10:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-9-1 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-17.
WEBS 1 Row at midpt 4-16, 5-16, 5-15, 8-15, 9-13

REACTIONS (lb/size) 11=2029/0-3-8, 23=2029/ Mechanical
Max Horiz 23=-211 (LC 4)
Max Uplift 11=-236 (LC 9), 23=-197 (LC 8)
Max Grav 11=2153 (LC 2), 23=2151 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2769/273, 2-3=-2921/300, 3-4=-2901/427, 4-5=-2141/288, 5-6=-2311/339, 6-8=-2675/330, 8-9=-3339/372, 9-10=-3696/402, 21-23=-2068/234, 1-21=-2051/225, 10-11=-2051/256
BOT CHORD 22-23=0/0, 20-21=-167/293, 19-20=-167/293, 18-19=-268/2423, 17-18=0/56, 3-18=-406/229, 16-17=-23/53, 15-16=-38/2275, 13-15=-132/2901, 12-13=-309/3247, 11-12=-77/513
WEBS 1-19=-162/2416, 2-19=-550/131, 2-18=-79/231, 16-18=-21/2158, 4-18=-281/953, 4-16=-80/369, 5-16=-533/146, 5-15=-225/214, 6-15=-42/861, 8-15=-874/287, 8-13=0/453, 9-13=-409/191, 9-12=-154/117, 10-12=-233/2749, 20-22=-133/138

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) exterior 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 3-06-00 tall by 2-00-00 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 197 lb uplift at joint 23 and 236 lb uplift at joint 11.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	C3	Piggyback Base	2	1	I49010951
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:24 Page: 1
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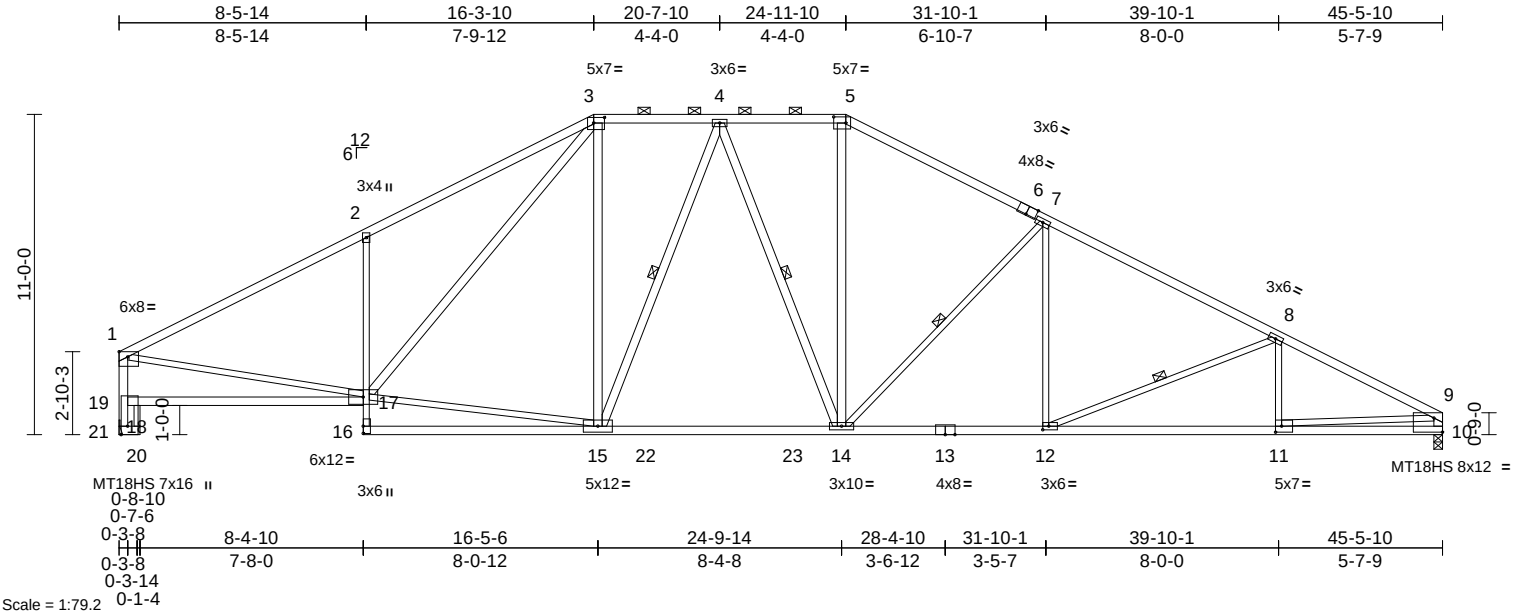

Scale = 1:79.2

Plate Offsets (X, Y): [1:Edge,0-2-3], [3:0-4-8,0-2-4], [5:0-5-0,0-2-8], [6:0-4-0,Edge], [10:Edge,0-5-13], [11:0-2-8,0-2-8], [12:0-2-8,0-1-8], [21:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.31	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.51	14-15	>999	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.16	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	11-12	>999	240	Weight: 222 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 3-5,5-6:2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 2-16:2x3 SPF No.2, 16-13,13-10:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 17-3,15-3,15-4,14-4,14-5,21-1:2x4 SPF No.2, 10-9:2x4 SPF 2100F 1.8E

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-8-11 max.): 3-5.

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

WEBS 1 Row at midpt 4-15, 4-14, 7-14, 8-12

REACTIONS (lb/size) 10=2033/0-3-8, 21=2033/ Mechanical
Max Horiz 21=-176 (LC 4)
Max Uplift 10=-15 (LC 9)
Max Grav 10=2158 (LC 2), 21=2155 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-3019/20, 2-3=-3025/162, 3-4=-2158/69, 4-5=-2320/91, 5-7=-2686/73, 7-8=-3362/52, 8-9=-3753/36, 19-21=-2012/35, 1-19=-1972/47, 9-10=-2053/39

BOT CHORD 20-21=0/0, 18-19=-123/454, 17-18=-123/454, 16-17=0/138, 2-17=-638/221, 15-16=-4/119, 14-15=0/2283, 12-14=0/2921, 11-12=0/3298, 10-11=-17/567

WEBS 1-17=0/2364, 15-17=0/2060, 3-17=-167/787, 3-15=-16/575, 4-15=-526/96, 4-14=-222/213, 5-14=0/861, 7-14=-912/132, 7-12=0/472, 8-12=-439/100, 8-11=-130/111, 9-11=0/2743, 18-20=-195/85

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 3-06-00 tall by 2-00-00 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 15 lb uplift at joint 10.
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.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	C4	Piggyback Base	2	1	I49010952
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:24 Page: 1
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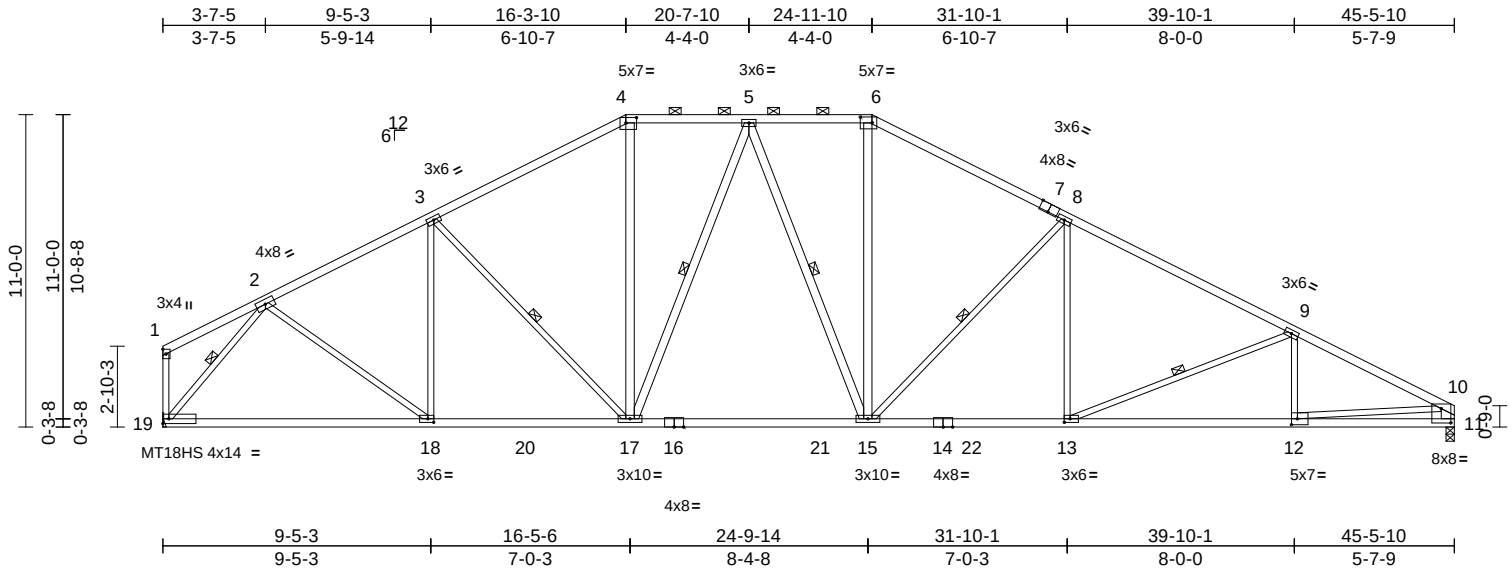

Scale = 1:81.1

Plate Offsets (X, Y): [4:0-4-8,0-2-4], [6:0-5-0,0-2-8], [7:0-4-0,Edge], [11:0-4-0,0-6-1], [12:0-2-8,0-2-8], [13:0-2-8,0-1-8], [18:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.30	15-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.51	15-17	>999	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.13	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	12-13	>999	240	Weight: 211 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 7-10:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 17-4,17-5,15-5,15-6:2x4 SPF No.2, 11-10:2x6 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-8-7 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-17, 5-17, 5-15, 8-15, 9-13, 2-19

REACTIONS (lb/size) 11=2031/0-3-8, 19=2031/ Mechanical
Max Horiz 19=-176 (LC 6)
Max Uplift 11=-14 (LC 9)
Max Grav 11=2168 (LC 2), 19=2184 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-120/40, 2-3=-2657/22, 3-4=-2529/49, 4-5=-2185/71, 5-6=-2339/90, 6-8=-2707/72, 8-9=-3370/51, 9-10=-3723/35, 1-19=-126/23, 10-11=-2065/38
BOT CHORD 18-19=-38/1639, 17-18=0/2320, 15-17=0/2307, 13-15=0/2929, 12-13=0/3272, 11-12=-17/516
WEBS 3-18=-285/69, 3-17=-279/111, 4-17=0/775, 5-17=-528/92, 5-15=-221/201, 6-15=0/870, 8-15=-896/133, 8-13=0/454, 9-13=-409/99, 9-12=-154/95, 10-12=0/2770, 2-18=0/894, 2-19=-2478/30

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 3-06-00 tall by 2-00-00 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 14 lb uplift at joint 11.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	C5	Piggyback Base	1	1	I49010953
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:25 Page: 1
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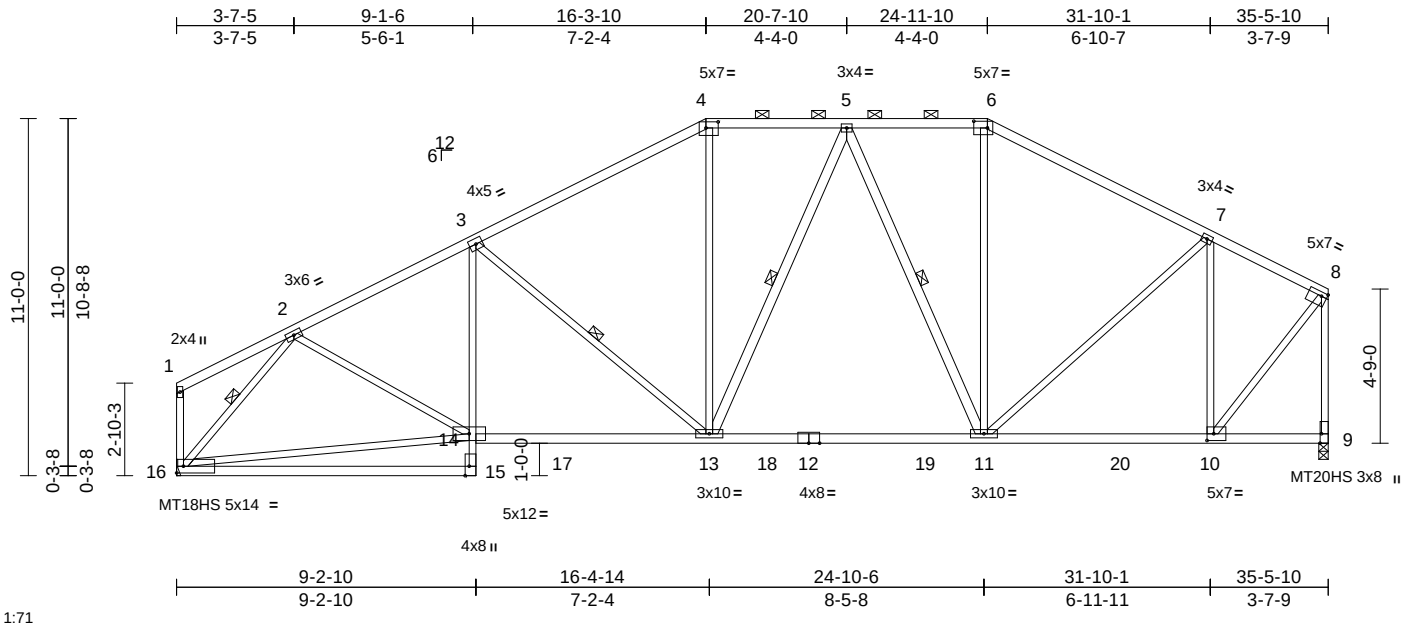

Scale = 1:71

Plate Offsets (X, Y): [4:0-4-8,0-2-4], [6:0-5-0,0-2-8], [8:0-2-0,0-1-8], [9:0-3-8,Edge], [10:0-2-8,0-2-8], [15:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.22	11-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.44	15-16	>961	240	MT20HS	148/108
BCLL	0.0*	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.10	9	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	13-14	>999	240	Weight: 175 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 16-15:2x4 SPF 2100F 1.8E, 15-3:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 13-5,11-5:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-6-5 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 13-14.
WEBS 1 Row at midpt 3-13, 5-13, 5-11, 2-16

REACTIONS (lb/size) 9=1587/0-3-8, 16=1587/ Mechanical
Max Horiz 16=221 (LC 5)
Max Uplift 16=-9 (LC 8)
Max Grav 9=1721 (LC 2), 16=1696 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-124/39, 2-3=-2211/61, 3-4=-1882/67, 4-5=-1597/90, 5-6=-1348/57, 6-7=-1598/49, 7-8=-1047/21, 1-16=-133/24, 8-9=-1685/0
BOT CHORD 15-16=0/170, 14-15=0/186, 3-14=-55/137, 13-14=-93/1949, 11-13=-40/1521, 10-11=-9/927, 9-10=-54/41
WEBS 3-13=-498/128, 4-13=0/474, 5-13=-93/250, 5-11=-548/88, 6-11=0/410, 7-11=-22/587, 8-10=0/1497, 7-10=-976/62, 2-14=0/728, 14-16=-182/1190, 2-16=-1998/70

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 3-06-00 tall by 2-00-00 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 9 lb uplift at joint 16.
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.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	D1	Piggyback Base	2	1	I49010954
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:25 Page: 1
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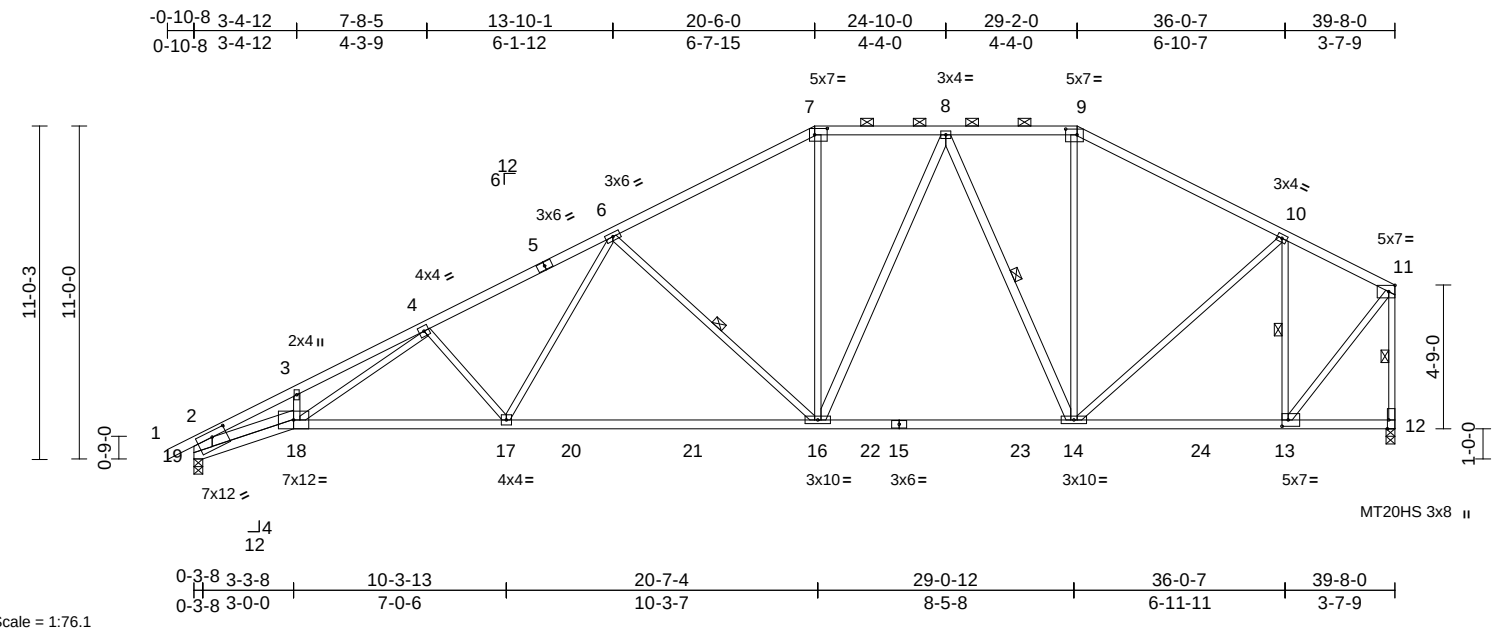

Scale = 1:76.1

Plate Offsets (X, Y): [7:0-5-0,0-2-8], [9:0-4-8,0-2-4], [12:0-3-8,Edge], [13:0-2-8,0-2-8], [19:0-5-12,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.43	16-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.76	16-17	>621	240	MT20HS	148/108
BCLL	0.0*	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.23	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.19	17-18	>999	240	Weight: 181 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 18-15:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 16-8,14-8,18-2:2x4 SPF No.2, 19-2:2x8 SP DSS

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-7-6 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-10 max.): 7-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-16, 8-14, 11-12, 10-13

REACTIONS (lb/size) 12=1765/0-3-8, 19=1850/0-3-8
Max Horiz 19=288 (LC 5)
Max Uplift 12=-138 (LC 9), 19=-249 (LC 8)
Max Grav 12=1919 (LC 2), 19=1956 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-3=-5192/764, 3-4=-5100/845, 4-6=-3593/468, 6-7=-2314/305, 7-8=-1992/319, 8-9=-1560/221, 9-10=-1834/223, 10-11=-1173/127, 2-19=-2017/347, 11-12=-1885/144
BOT CHORD 18-19=-311/628, 17-18=-569/3521, 16-17=-348/2682, 14-16=-182/1825, 13-14=-110/1039, 12-13=-63/49
WEBS 3-18=-63/108, 4-18=-354/1310, 4-17=-627/265, 6-17=-104/956, 6-16=-958/329, 7-16=-10/686, 8-16=-106/479, 8-14=-740/148, 9-14=-26/511, 10-14=-81/715, 2-18=-567/4057, 11-13=-127/1679, 10-13=-1102/175

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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Bearing at joint(s) 19 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 249 lb uplift at joint 19 and 138 lb uplift at joint 12.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	D2	Piggyback Base	1	1	I49010955
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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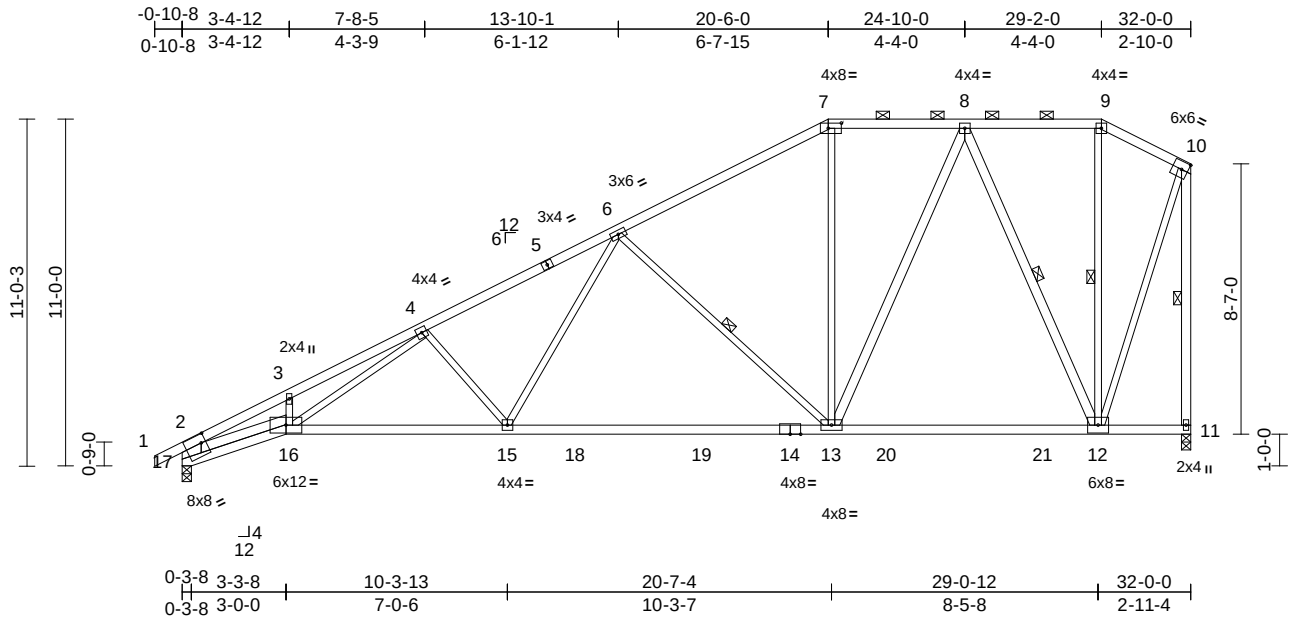

Scale = 1:73.1

Plate Offsets (X, Y): [7:0-5-0,0-2-0], [17:0-1-12,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.34	13-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.60	13-15	>630	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.15	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.16	15-16	>999	240	Weight: 159 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 17-16:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 13-8,12-8,16-2,11-10:2x4 SPF No.2, 17-2:2x8 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-4-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-3-5 max.): 7-9.
BOT CHORD Rigid ceiling directly applied or 8-7-3 oc bracing.
WEBS 1 Row at midpt 6-13, 8-12, 9-12, 10-11

REACTIONS (lb/size) 11=1418/0-3-8, 17=1504/0-3-8
Max Horiz 17=393 (LC 8)
Max Uplift 11=-164 (LC 8), 17=-193 (LC 8)
Max Grav 11=1543 (LC 2), 17=1578 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-3=-4082/771, 3-4=-4012/852, 4-6=-2671/376, 6-7=-1433/195, 7-8=-1200/220, 8-9=-426/73, 9-10=-508/70, 2-17=-1618/346, 10-11=-1549/163
BOT CHORD 16-17=-470/456, 15-16=-676/2669, 13-15=-436/1878, 12-13=-123/870, 11-12=-1/3
WEBS 3-16=-94/108, 4-16=-451/1137, 4-15=-588/283, 6-15=-120/914, 6-13=-936/339, 7-13=0/314, 8-13=-163/833, 8-12=-1118/205, 9-12=-88/84, 2-16=-586/3175, 10-12=-128/1334

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) exterior zone; 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) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearing at joint(s) 17 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 193 lb uplift at joint 17 and 164 lb uplift at joint 11.
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.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	D2A	Piggyback Base	1	1	I49010956
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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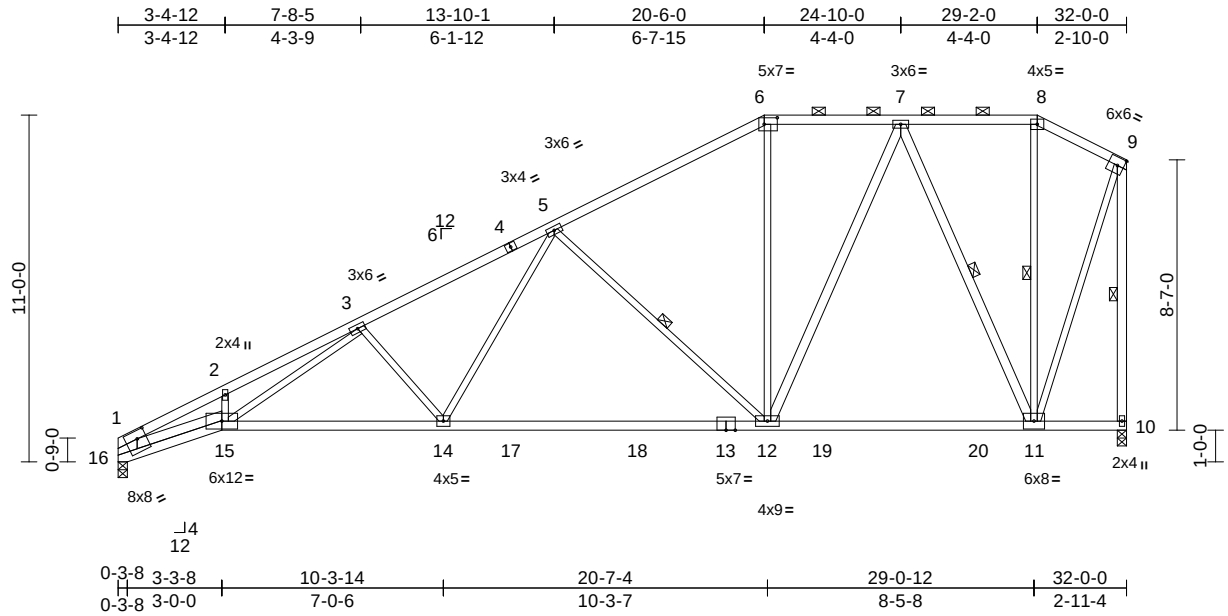

Scale = 1:73.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.34	12-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.60	12-14	>628	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.15	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.16	14-15	>999	240	Weight: 158 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 16-15:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 16-1:2x8 SP DSS, 10-9,12-7,11-7,15-1:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-4-9 oc purlins, except end verticals, and 2-0-0 oc purlins (5-3-4 max.): 6-8.

BOT CHORD Rigid ceiling directly applied or 8-9-0 oc bracing.

WEBS 1 Row at midpt 9-10, 8-11, 7-11, 5-12

REACTIONS (lb/size) 10=1420/0-3-8, 16=1420/0-3-8
Max Horiz 16=373 (LC 8)
Max Uplift 10=-165 (LC 8), 16=-165 (LC 8)
Max Grav 10=1544 (LC 2), 16=1509 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-4115/779, 2-3=-4066/865, 3-5=-2677/377, 5-6=-1435/196, 6-7=-1201/220, 7-8=-427/73, 8-9=-508/70, 1-16=-1524/313, 9-10=-1550/163

BOT CHORD 15-16=-454/384, 14-15=-678/2678, 12-14=-437/1882, 11-12=-123/871, 10-11=-1/3

WEBS 2-15=-133/118, 3-14=-593/284, 5-14=-121/918, 6-12=0/315, 7-12=-164/834, 8-11=-88/84, 7-11=-1119/205, 3-15=-462/1184, 5-12=-939/340, 9-11=-129/1335, 1-15=-613/3288

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) exterior zone; 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) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearing at joint(s) 16 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 165 lb uplift at joint 16 and 165 lb uplift at joint 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.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	D3	Piggyback Base	2	1	I49010957
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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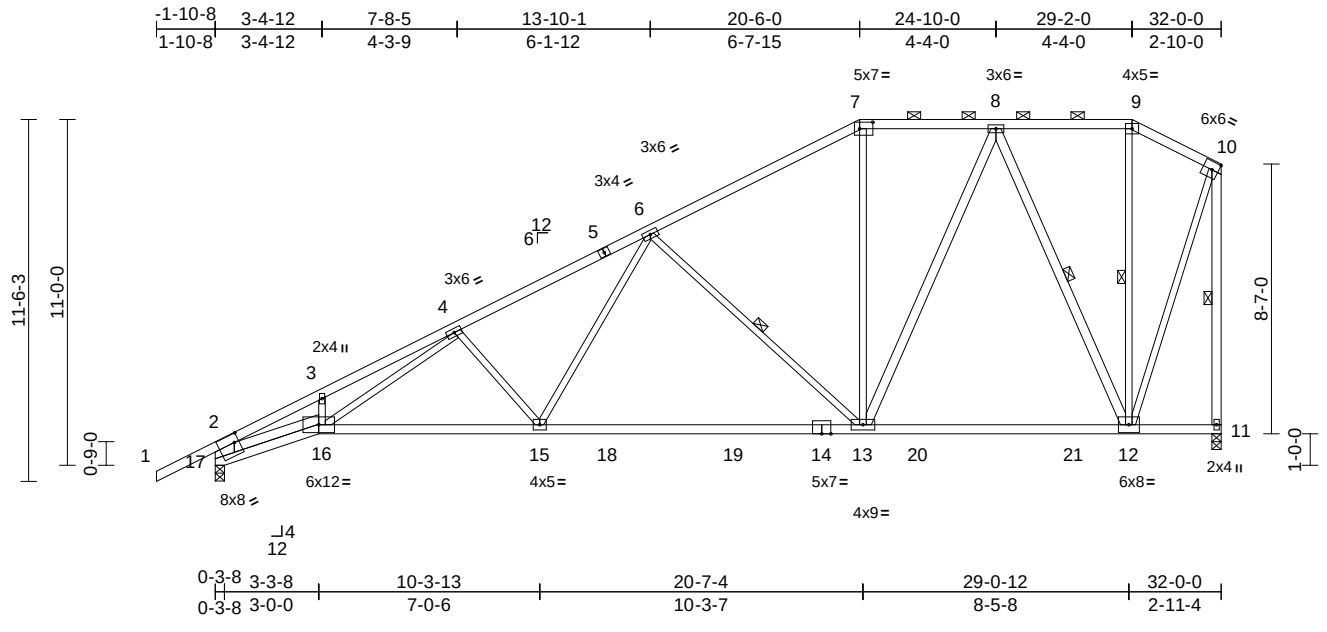

Scale = 1:73.3

Plate Offsets (X, Y): [7:0-5-0,0-2-8], [17:0-1-12,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.34	13-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.60	13-15	>632	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.15	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.16	15-16	>999	240	Weight: 160 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 17-16:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 17-2:2x8 SP DSS, 11-10,13-8,12-8,16-2:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-4-11 oc purlins, except end verticals, and 2-0-0 oc purlins (5-3-6 max.): 7-9.

BOT CHORD Rigid ceiling directly applied or 9-3-6 oc bracing.

WEBS 1 Row at midpt 10-11, 9-12, 8-12, 6-13

REACTIONS (lb/size) 11=1415/0-3-8, 17=1577/0-3-8
Max Horiz 17=411 (LC 8)
Max Uplift 11=-163 (LC 8), 17=-217 (LC 8)
Max Grav 11=1540 (LC 2), 17=1638 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/68, 2-3=-3996/732, 3-4=-3925/813, 4-6=-2655/369, 6-7=-1430/194, 7-8=-1196/218, 8-9=-426/72, 9-10=-507/70, 2-17=-1630/349, 10-11=-1546/161

BOT CHORD 16-17=-403/318, 15-16=-666/2646, 13-15=-432/1870, 12-13=-122/868, 11-12=-1/3

WEBS 3-16=-92/107, 4-15=-572/277, 6-15=-115/902, 7-13=0/314, 8-13=-162/830, 9-12=-89/84, 8-12=-1114/203, 4-16=-420/1068, 6-13=-929/336, 10-12=-127/1331, 2-16=-616/3242

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) exterior zone; 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) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearing at joint(s) 17 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 217 lb uplift at joint 17 and 163 lb uplift at joint 11.
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.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	D4	Piggyback Base	5	1	I49010958
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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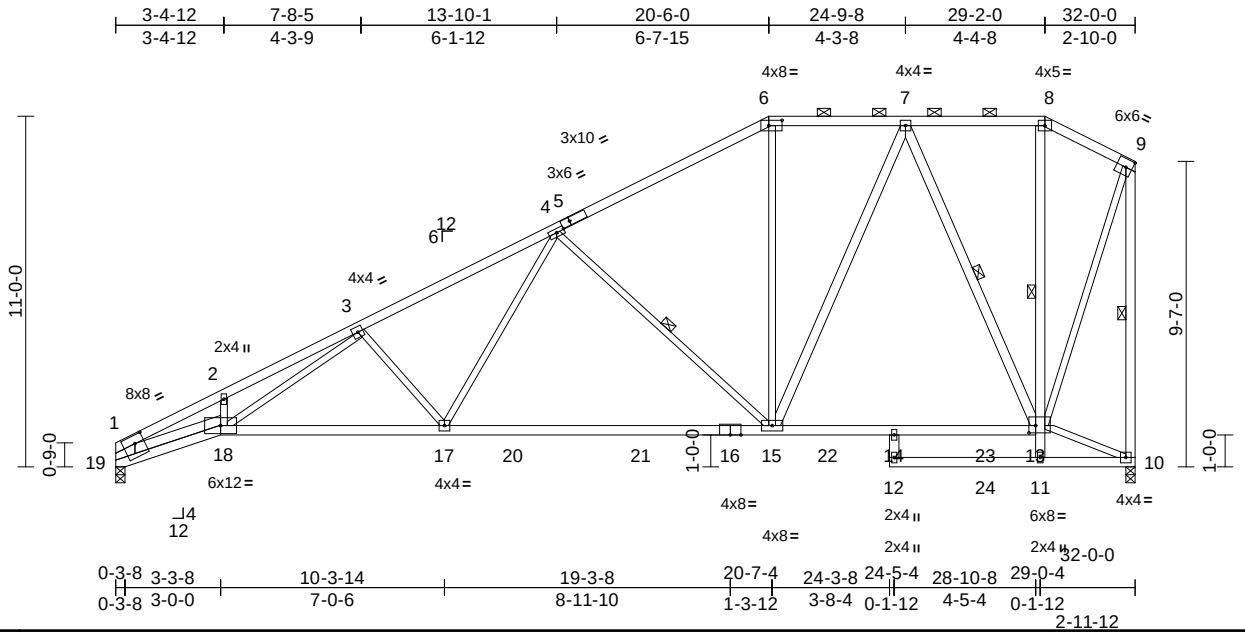


Scale = 1:72.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.31	15-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.57	15-17	>663	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.19	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.16	17-18	>999	240	Weight: 171 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 18-16,16-13:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 14-12,15-7,13-7,11-8,18-1,10-9:2x4 SPF No.2, 19-1:2x8 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-4-1 oc purlins, except end verticals, and 2-0-0 oc purlins (5-2-0 max.): 6-8.

BOT CHORD Rigid ceiling directly applied or 8-9-0 oc bracing.

WEBS 1 Row at midpt 4-15, 7-13, 8-11, 9-10

REACTIONS (lb/size) 10=1420/0-3-8, 19=1420/0-3-8
Max Horiz 19=373 (LC 8)
Max Uplift 10=-165 (LC 8), 19=-165 (LC 8)
Max Grav 10=1635 (LC 2), 19=1528 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-4174/779, 2-3=-4124/865, 3-4=-2720/377, 4-6=-1485/196, 6-7=-1247/220, 7-8=-474/78, 8-9=-557/75, 1-19=-1544/313, 9-10=-1618/171

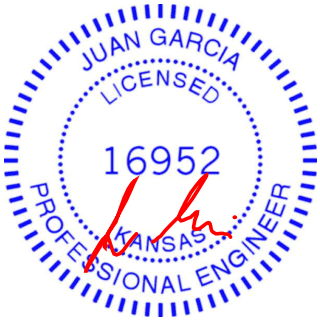
BOT CHORD 18-19=-453/387, 17-18=-678/2718, 15-17=-437/1924, 14-15=-125/911, 13-14=-125/911, 11-12=0/0, 10-11=0/55

WEBS 12-14=0/89, 2-18=-133/118, 3-18=-462/1199, 3-17=-593/284, 4-17=-121/911, 4-15=-935/340, 6-15=0/345, 7-15=-162/855, 7-13=-1134/203, 11-13=0/280, 8-13=-86/106, 9-13=-136/1394, 1-18=-613/3338, 10-13=-57/0

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) exterior zone; 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) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearing at joint(s) 19 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 165 lb uplift at joint 10 and 165 lb uplift at joint 19.
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.

LOAD CASE(S) Standard



November 30,2021

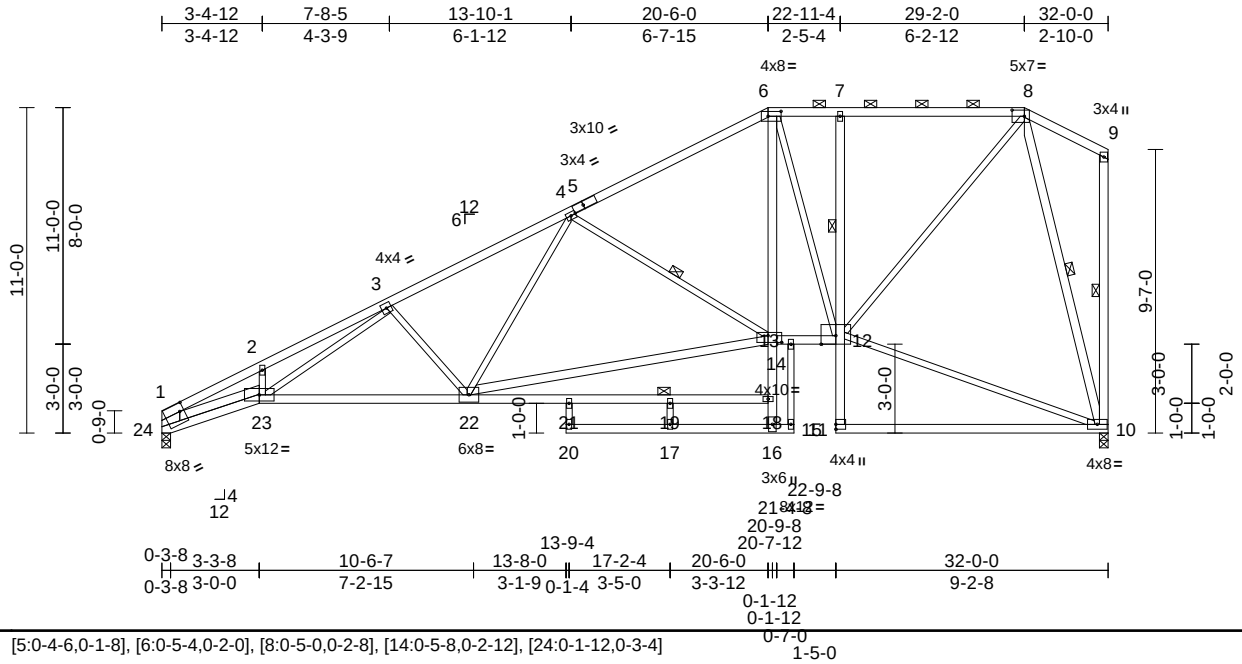
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	D5	Piggyback Base	1	1	I49010959
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:29 ID:hquPfxpp0CdNHWhMuPizeLzNEki-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:77.9

Plate Offsets (X, Y): [5:0-4-6,0-1-8], [6:0-5-4,0-2-0], [8:0-5-0,0-2-8], [14:0-5-8,0-2-12], [24:0-1-12,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.21	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.49	19-21	>780	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.22	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.16	22-23	>999	240	Weight: 193 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 15-13:2x3 SPF No.2, 11-10:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 16-6,10-8,23-1,10-9,14-22:2x4 SPF No.2, 24-1:2x8 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-6-6 oc purlins, except end verticals, and 2-0-0 oc purlins (4-5-2 max.): 6-8.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
9-0-8 oc bracing: 23-24
8-2-9 oc bracing: 22-23
6-0-0 oc bracing: 13-15.

1 Row at midpt 7-12

WEBS 1 Row at midpt 8-10, 9-10, 4-14

JOINTS 1 Brace at Jt(s): 19

REACTIONS (lb/size) 10=1420/0-3-8, 24=1420/0-3-8
Max Horiz 24=404 (LC 7)
Max Uplift 10=-152 (LC 5), 24=-193 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-3890/684, 2-3=-3849/770, 3-4=-2449/397, 4-6=-1595/251, 6-7=-1199/237, 7-8=-1202/238, 8-9=-195/146, 1-24=-1458/281, 9-10=-153/95

BOT CHORD 23-24=-428/376, 22-23=-499/2503, 21-22=0/80, 19-21=0/80, 18-19=0/80, 17-20=0/0, 16-17=0/0, 15-16=-1/22, 13-15=-346/0, 13-14=-297/1338, 12-13=-298/1360, 11-12=0/185, 7-12=-386/166, 10-11=0/68

WEBS 20-21=0/105, 2-23=-132/121, 16-18=0/549, 14-18=0/574, 6-14=-114/909, 6-12=-537/127, 10-12=-190/334, 8-12=-224/1354, 8-10=-1415/348, 1-23=-523/3107, 4-22=-25/427, 3-22=-599/263, 3-23=-347/1151, 4-14=-745/309, 14-22=-387/1921, 17-19=-8/0

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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 24 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 193 lb uplift at joint 24 and 152 lb uplift at joint 10.
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.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010960
W258	D6	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:30 Page: 1
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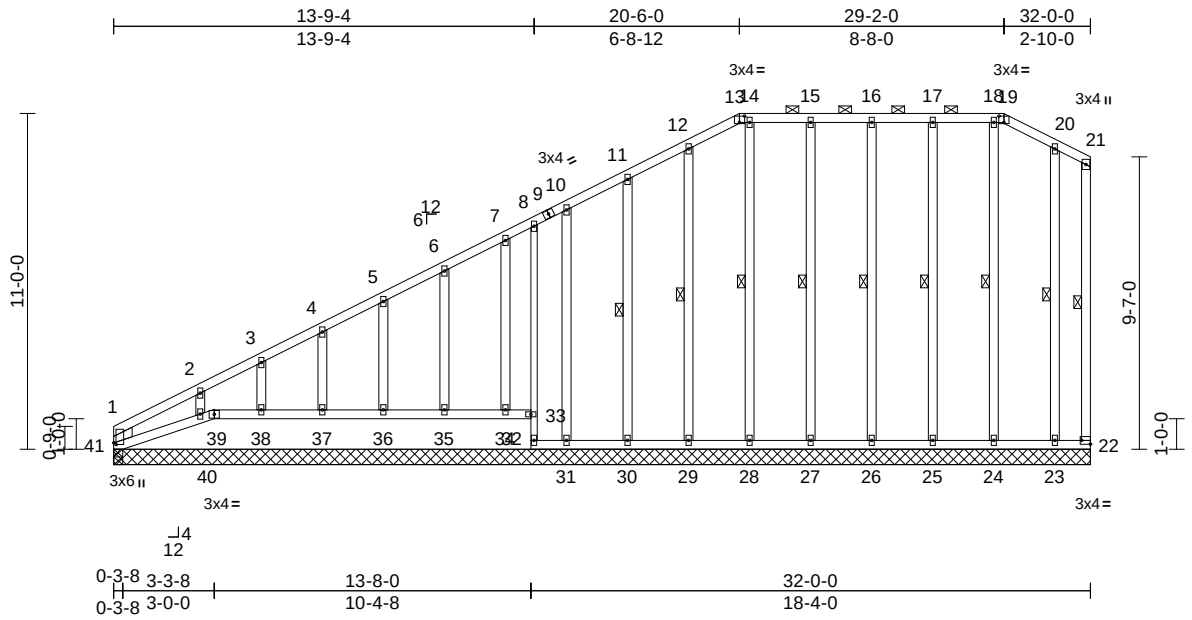

Scale = 1:75.5

Plate Offsets (X, Y): [13:0-2-0,0-2-8], [19:0-2-0,0-2-8], [22:Edge,0-1-8], [41:0-0-10,0-0-14]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	0.01	40-41	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	0.01	40-41	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	-0.03	22	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 216 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 8-32:2x3 SPF No.2
WEBS 2x8 SP DSS *Except* 21-22:2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 13-19.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 39-40.
WEBS 1 Row at midpt 21-22, 11-30, 12-29, 14-28, 15-27, 16-26, 17-25, 18-24, 20-23

REACTIONS (lb/size) 22=30/32-0-0, 23=146/32-0-0, 24=187/32-0-0, 25=179/32-0-0, 26=180/32-0-0, 27=181/32-0-0, 28=179/32-0-0, 29=179/32-0-0, 30=186/32-0-0, 31=146/32-0-0, 32=6/32-0-0, 33=56/32-0-0, 34=142/32-0-0, 35=187/32-0-0, 36=178/32-0-0, 37=184/32-0-0, 38=166/32-0-0, 39=-21/32-0-0, 40=258/32-0-0, 41=91/0-3-8
Max Horiz 41=404 (LC 7)
Max Uplift 22=-40 (LC 8), 23=-31 (LC 4), 24=-56 (LC 5), 25=-44 (LC 4), 26=-34 (LC 5), 27=-41 (LC 4), 28=-55 (LC 5), 29=-46 (LC 8), 30=-54 (LC 8), 31=-89 (LC 8), 32=-55 (LC 7), 33=-93 (LC 8), 34=-60 (LC 5), 35=-64 (LC 8), 36=-50 (LC 8), 37=-60 (LC 8), 38=-33 (LC 8), 39=-24 (LC 15), 40=-260 (LC 8), 41=-35 (LC 4)
Max Grav 22=54 (LC 16), 23=153 (LC 16), 24=187 (LC 1), 25=185 (LC 21), 26=180 (LC 1), 27=186 (LC 22), 28=179 (LC 21), 29=179 (LC 21), 30=186 (LC 1), 31=155 (LC 16), 32=50 (LC 4), 33=102 (LC 16), 34=146 (LC 15), 35=187 (LC 21), 36=178 (LC 1), 37=184 (LC 21), 38=166 (LC 1), 39=118 (LC 8), 40=259 (LC 21), 41=283 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-41=-178/19, 1-2=-358/90, 2-3=-296/73, 3-4=-277/77, 4-5=-248/76, 5-6=-232/82, 6-7=-218/95, 7-8=-203/103, 8-10=-198/111, 10-11=-190/123, 11-12=-177/138, 12-13=-157/145, 13-14=-131/134, 14-15=-131/134, 15-16=-131/134, 16-17=-131/134, 17-18=-131/134, 18-19=-131/134, 19-20=-151/140, 20-21=-205/163, 21-22=-196/152
BOT CHORD 40-41=-164/114, 39-40=-127/121, 38-39=-136/102, 37-38=-136/102, 36-37=-136/102, 35-36=-136/102, 34-35=-136/102, 33-34=-136/102, 32-33=0/0, 8-33=-51/29, 31-32=-134/101, 30-31=-134/101, 29-30=-134/101, 28-29=-134/101, 27-28=-134/101, 26-27=-134/101, 25-26=-134/101, 24-25=-134/101, 23-24=-134/101, 22-23=-134/101
WEBS 2-40=-181/153, 3-38=-127/54, 4-37=-143/84, 5-36=-138/76, 6-35=-145/81, 7-34=-108/60, 10-31=-112/62, 11-30=-145/84, 12-29=-140/68, 14-28=-139/79, 15-27=-146/64, 16-26=-140/57, 17-25=-146/64, 18-24=-145/69, 20-23=-113/141

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) exterior zone; cantilever left and right exposed ; and vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) N/A
5) Provide adequate drainage to prevent water ponding.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

STATE OF MISSOURI JUAN GARCIA NUMBER E-2000162101 PROFESSIONAL ENGINEER

JUAN GARCIA LICENSED 16952 KANSAS PROFESSIONAL ENGINEER

November 30,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Bearing at joint(s) 41, 33 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 41, 40 lb uplift at joint 22, 24 lb uplift at joint 39, 93 lb uplift at joint 33, 55 lb uplift at joint 32, 260 lb uplift at joint 40, 33 lb uplift at joint 38, 60 lb uplift at joint 37, 50 lb uplift at joint 36, 64 lb uplift at joint 35, 60 lb uplift at joint 34, 89 lb uplift at joint 31, 54 lb uplift at joint 30, 46 lb uplift at joint 29, 55 lb uplift at joint 28, 41 lb uplift at joint 27, 34 lb uplift at joint 26, 44 lb uplift at joint 25, 56 lb uplift at joint 24 and 31 lb uplift at joint 23.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010961
W258	E1	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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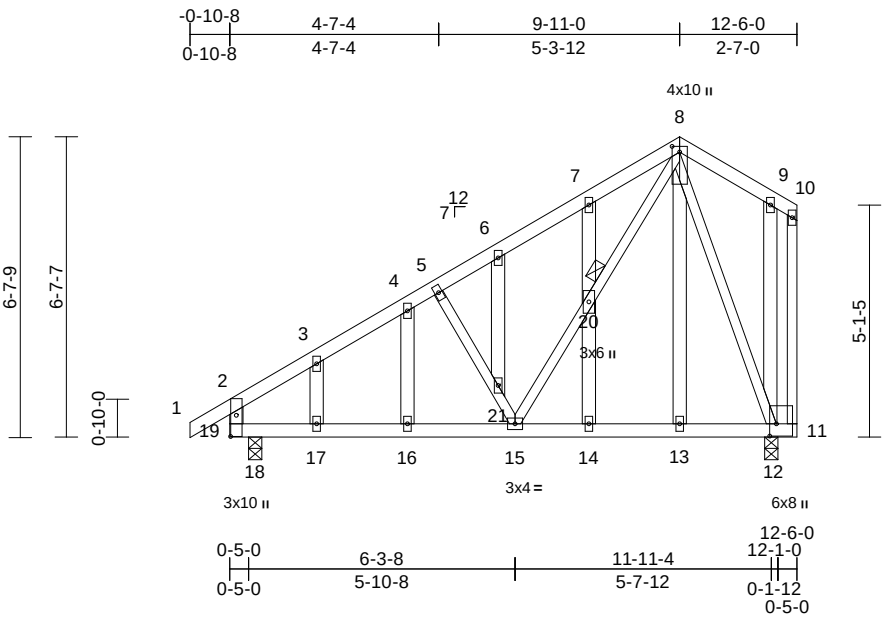

Scale = 1:50.8

Plate Offsets (X, Y): [8:0-1-8,0-2-0], [11:0-3-4,0-1-12], [19:0-5-10,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.03	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.05	15-16	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.01	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.02	14-15	>999	240	Weight: 76 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 19-2:2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 20

REACTIONS (lb/size) 12=545/0-3-8, 18=629/0-3-8
Max Horiz 18=237 (LC 5)
Max Uplift 12=-90 (LC 8), 18=-92 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/36, 2-3=-512/33, 3-4=-502/80, 4-5=-448/92, 5-6=-410/97, 6-7=-432/134, 7-8=-416/184, 8-9=-100/84, 9-10=-105/80, 2-19=-429/71, 10-11=-90/64
BOT CHORD 18-19=0/384, 17-18=-123/442, 16-17=-123/442, 15-16=-123/442, 14-15=-61/183, 13-14=-61/183, 12-13=-60/187, 11-12=-69/53
WEBS 5-21=-91/91, 15-21=-213/138, 15-20=-150/400, 8-20=-163/436, 8-12=-476/68, 8-13=0/117, 7-20=-110/75, 14-20=-71/60, 6-21=-145/53, 4-16=-37/43, 3-17=-106/67, 9-12=-119/96

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 90 lb uplift at joint 12 and 92 lb uplift at joint 18.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010962
W258	E2	Common	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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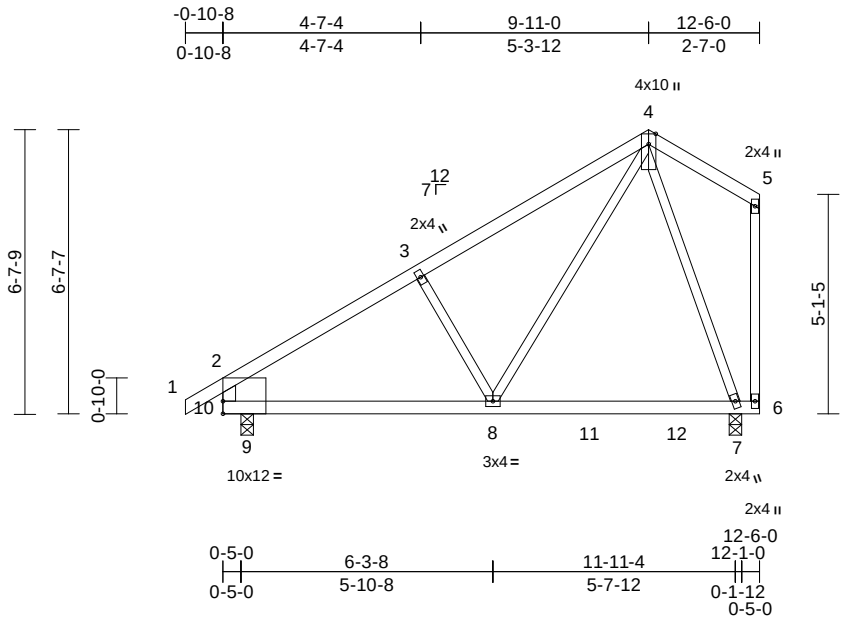

Scale = 1:53.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.08	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.12	7-8	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	7-8	>999	240	Weight: 50 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-2:2x4 SPF No.2

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

REACTIONS (lb/size) 7=545/0-3-8, 9=629/0-3-8
Max Horiz 9=241 (LC 7)
Max Uplift 7=-94 (LC 8), 9=-91 (LC 8)
Max Grav 7=641 (LC 15), 9=669 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-626/94, 3-4=-505/130, 4-5=-113/90, 2-10=-524/120, 5-6=-116/66
BOT CHORD 9-10=-9/484, 8-9=-130/568, 7-8=-68/187, 6-7=-66/55
WEBS 3-8=-282/198, 4-8=-100/489, 4-7=-513/93

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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 7 and 91 lb uplift at joint 9.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	G1	Common Supported Gable	1	1	I49010963
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:32 Page: 1
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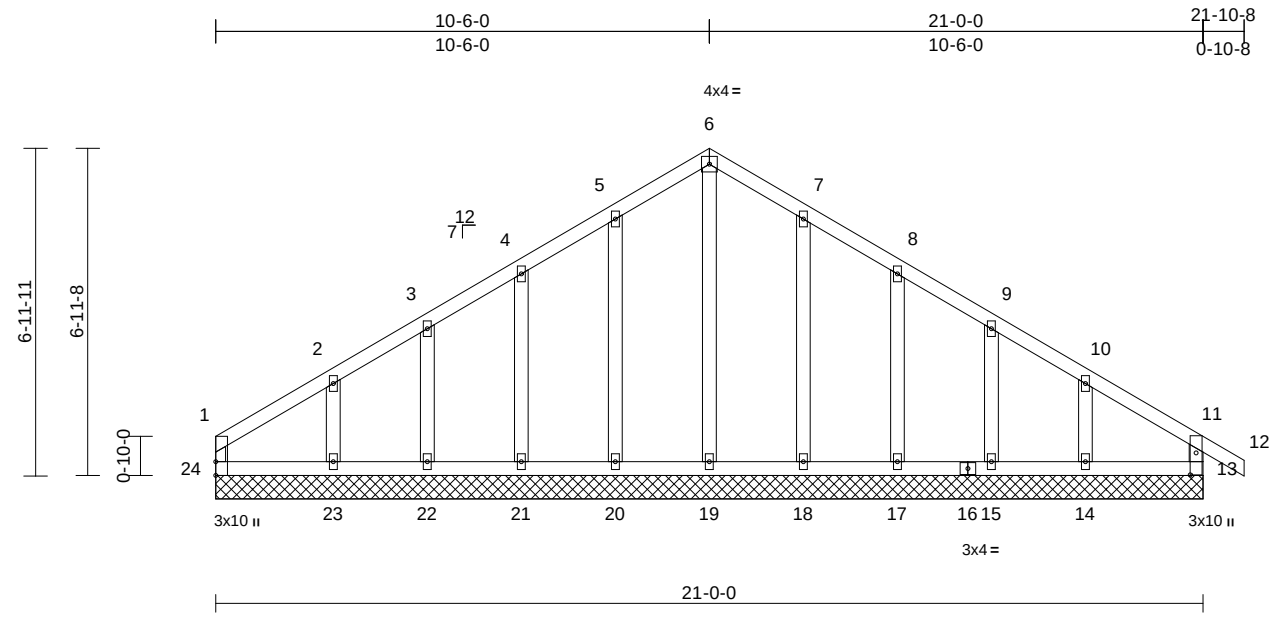

Scale = 1:49

Plate Offsets (X, Y): [13:0-5-10,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	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	0.11	Horz(CT)	0.00	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 93 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 13-11:2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING

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

REACTIONS (lb/size) 13=193/21-0-0, 14=194/21-0-0, 15=176/21-0-0, 17=180/21-0-0, 18=187/21-0-0, 19=147/21-0-0, 20=187/21-0-0, 21=182/21-0-0, 22=167/21-0-0, 23=223/21-0-0, 24=103/21-0-0
Max Horiz 24=-191 (LC 4)
Max Uplift 13=-38 (LC 8), 14=-104 (LC 9), 15=-48 (LC 9), 17=-66 (LC 9), 18=-60 (LC 9), 20=-60 (LC 8), 21=-67 (LC 8), 22=-47 (LC 8), 23=-108 (LC 8), 24=-40 (LC 4)
Max Grav 13=193 (LC 1), 14=230 (LC 16), 15=176 (LC 1), 17=186 (LC 16), 18=192 (LC 16), 19=182 (LC 18), 20=192 (LC 15), 21=188 (LC 15), 22=167 (LC 1), 23=258 (LC 15), 24=135 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-24=-104/43, 1-2=-120/97, 2-3=-101/97, 3-4=-89/127, 4-5=-77/160, 5-6=-67/188, 6-7=-60/186, 7-8=-70/158, 8-9=-82/125, 9-10=-92/94, 10-11=-119/89, 11-12=0/36, 11-13=-170/49
BOT CHORD 23-24=-88/108, 22-23=-88/108, 21-22=-88/108, 20-21=-88/108, 19-20=-88/108, 18-19=-88/108, 17-18=-88/108, 15-17=-88/108, 14-15=-88/108, 13-14=-88/108
WEBS 6-19=-142/0, 5-20=-153/84, 4-21=-146/90, 3-22=-131/75, 2-23=-192/120, 7-18=-153/84, 8-17=-145/89, 9-15=-138/76, 10-14=-171/116

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 24, 38 lb uplift at joint 13, 60 lb uplift at joint 20, 67 lb uplift at joint 21, 47 lb uplift at joint 22, 108 lb uplift at joint 23, 60 lb uplift at joint 18, 66 lb uplift at joint 17, 48 lb uplift at joint 15 and 104 lb uplift at joint 14.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010964
W258	G2	Common	10	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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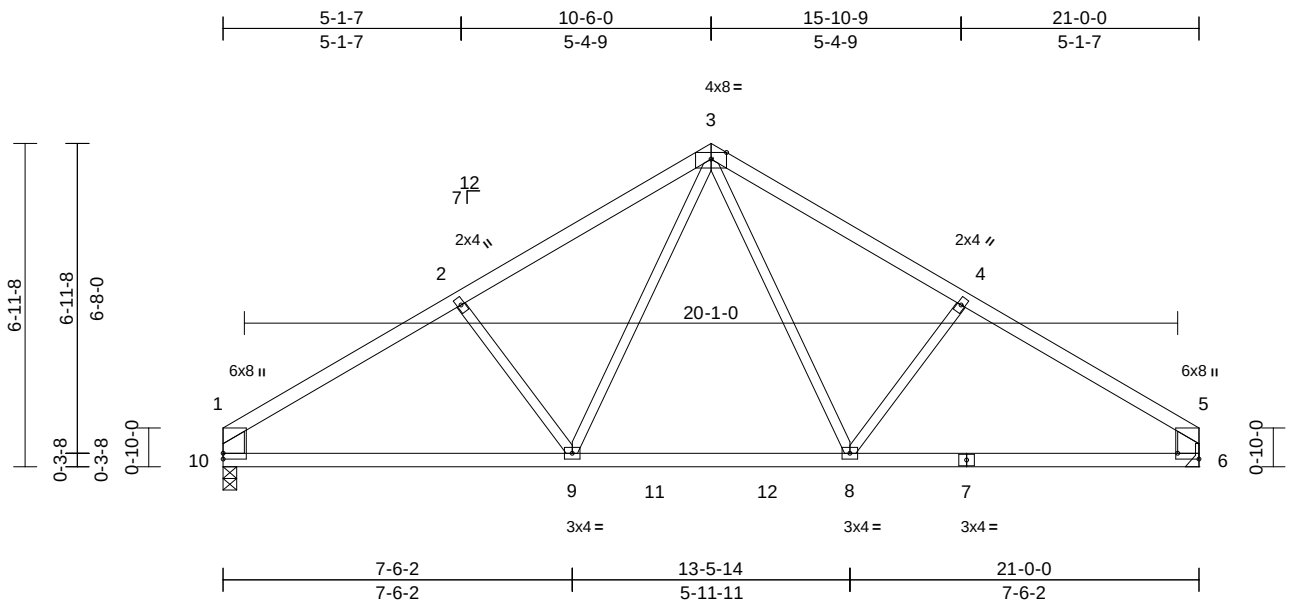

Scale = 1:49.6

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 (roof)	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.22	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.34	8-9	>717	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.12	8-9	>999	240	Weight: 72 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-1,6-5:2x6 SP DSS

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

REACTIONS (lb/size) 6=924/ Mechanical, 10=924/0-3-8
Max Horiz 10=181 (LC 5)
Max Uplift 6=-109 (LC 9), 10=-109 (LC 8)
Max Grav 6=1010 (LC 16), 10=1010 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1337/179, 2-3=-1173/192, 3-4=-1174/192, 4-5=-1337/179, 1-10=-851/146, 5-6=-851/146
BOT CHORD 9-10=-181/1173, 8-9=-23/831, 6-8=-97/1037
WEBS 3-8=-89/469, 4-8=-274/207, 3-9=-89/469, 2-9=-274/207

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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 10 and 109 lb uplift at joint 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.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	H1	Common Supported Gable	1	1	I49010965
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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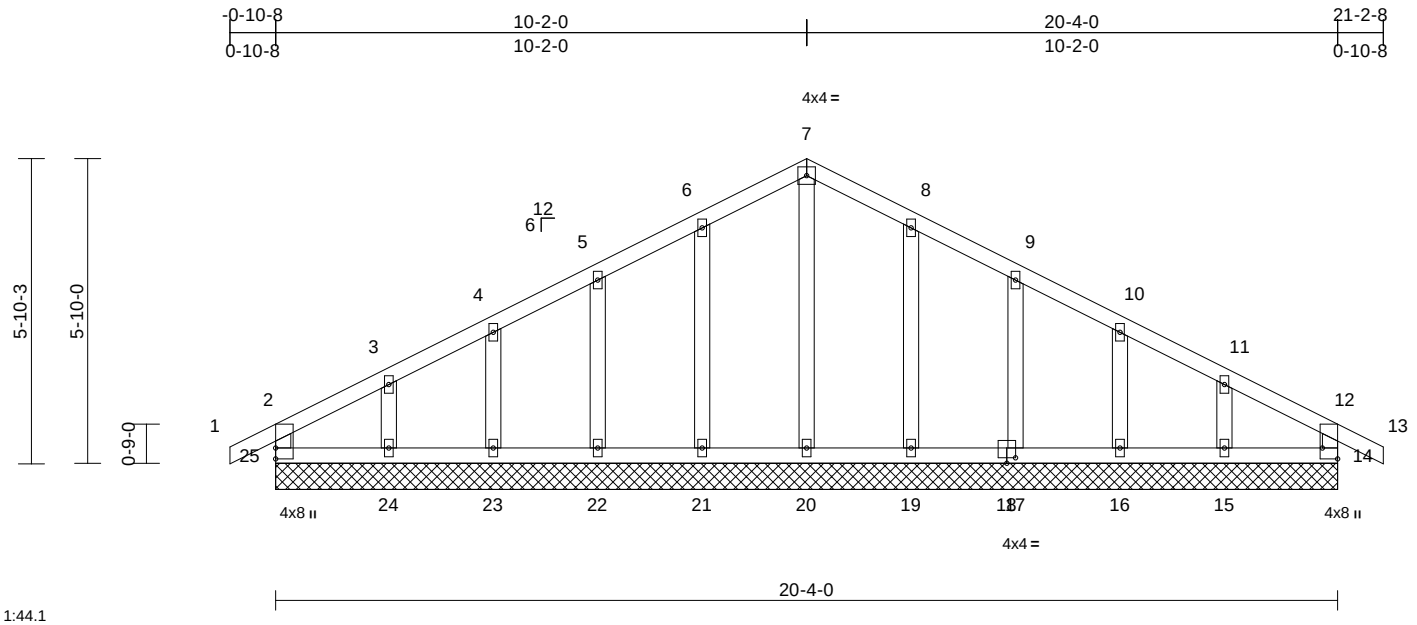

Scale = 1:44.1

Plate Offsets (X, Y): [14:Edge,0-3-8], [18:0-2-0,0-1-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	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	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 84 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 14=168/20-4-0, 15=176/20-4-0, 16=181/20-4-0, 17=178/20-4-0, 19=188/20-4-0, 20=165/20-4-0, 21=188/20-4-0, 22=178/20-4-0, 23=181/20-4-0, 24=176/20-4-0, 25=168/20-4-0
Max Horiz 25=91 (LC 7)
Max Uplift 14=-18 (LC 8), 15=-78 (LC 9), 16=-48 (LC 9), 17=-56 (LC 9), 19=-55 (LC 9), 21=-55 (LC 8), 22=-57 (LC 8), 23=-46 (LC 8), 24=-85 (LC 8), 25=-32 (LC 9)
Max Grav 14=168 (LC 22), 15=176 (LC 1), 16=182 (LC 22), 17=178 (LC 1), 19=191 (LC 22), 20=175 (LC 18), 21=191 (LC 21), 22=178 (LC 1), 23=182 (LC 21), 24=176 (LC 1), 25=168 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-25=-149/41, 1-2=0/32, 2-3=-80/59, 3-4=-51/77, 4-5=-42/103, 5-6=-33/130, 6-7=-38/154, 7-8=-38/146, 8-9=-33/111, 9-10=-34/84, 10-11=-35/58, 11-12=-64/44, 12-13=0/32, 12-14=-149/29
BOT CHORD 24-25=-24/69, 23-24=-24/69, 22-23=-24/69, 21-22=-24/69, 20-21=-24/69, 19-20=-24/69, 17-19=-24/69, 16-17=-24/69, 15-16=-24/69, 14-15=-24/69
WEBS 7-20=-135/0, 6-21=-151/79, 5-22=-138/80, 4-23=-142/73, 3-24=-134/97, 8-19=-151/79, 9-17=-138/80, 10-16=-142/74, 11-15=-134/93

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 25, 18 lb uplift at joint 14, 55 lb uplift at joint 21, 57 lb uplift at joint 22, 46 lb uplift at joint 23, 85 lb uplift at joint 24, 55 lb uplift at joint 19, 56 lb uplift at joint 17, 48 lb uplift at joint 16 and 78 lb uplift at joint 15.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010966
W258	H2	Common	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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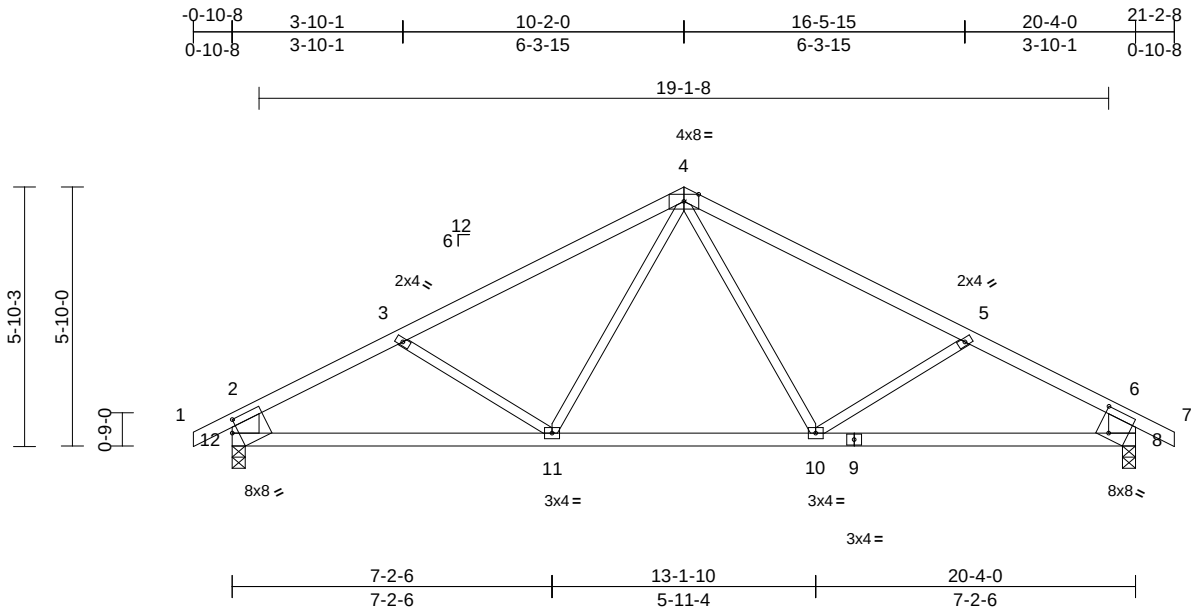

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Plate Offsets (X, Y): [8:0-3-2,0-6-8], [12:0-1-10,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.12	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.19	10-11	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	10-11	>999	240	Weight: 71 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 12-2,8-6:2x8 SP DSS

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

REACTIONS (lb/size) 8=970/0-3-8, 12=970/0-3-8
Max Horiz 12=94 (LC 7)
Max Uplift 8=-137 (LC 9), 12=-137 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-3=-1329/218, 3-4=-1126/150, 4-5=-1126/150, 5-6=-1329/218, 6-7=0/37, 2-12=-883/171, 6-8=-883/171
BOT CHORD 11-12=-217/1085, 10-11=-33/808, 8-10=-140/1085
WEBS 4-10=-29/290, 5-10=-248/203, 4-11=-29/290, 3-11=-248/203

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) exterior 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 3-06-00 tall by 2-00-00 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 137 lb uplift at joint 12 and 137 lb uplift at joint 8.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	H3	Common Girder	1	**3**	I49010967
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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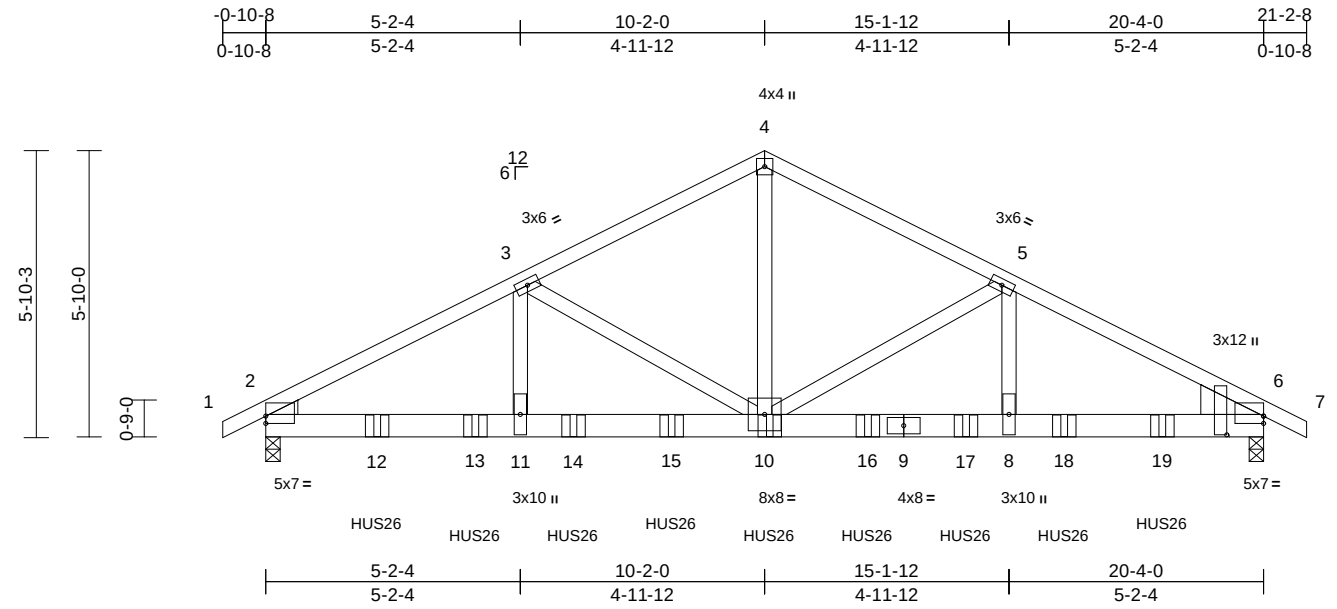

Scale = 1:47

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.08	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.14	10-11	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.41	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	10-11	>999	240	Weight: 314 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x6 SP 2400F 2.0E
WEBS	2x4 SPF No.2
WEDGE	Left: 2x4 SP No.3 Right: 2x8 SP DSS

BRACING

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

REACTIONS (lb/size) 2=5005/0-3-8, 6=5081/0-3-8
Max Horiz 2=63 (LC 7)
Max Uplift 2=-560 (LC 8), 6=-570 (LC 9)
Max Grav 2=5346 (LC 13), 6=5430 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/6, 2-3=-8980/950, 3-4=-6271/694, 4-5=-6271/694, 5-6=-8980/950, 6-7=0/6
BOT CHORD	2-11=-823/7755, 10-11=-823/7755, 8-10=-766/7709, 6-8=-766/7709
WEBS	4-10=-554/5276, 5-10=-2529/339, 5-8=-254/2701, 3-10=-2528/338, 3-11=-253/2704

NOTES

1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-8-0 oc.
Web 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) 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 3-06-00 tall by 2-00-00 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 560 lb uplift at joint 2 and 570 lb uplift at joint 6.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-3-4 from the left end to 18-3-4 to connect truss(es) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-7=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 10=-904 (F), 12=-904 (F), 13=-904 (F), 14=-904 (F), 15=-904 (F), 16=-904 (F), 17=-904 (F), 18=-904 (F), 19=-904 (F)

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	J1	Diagonal Hip Girder	2	1	I49010968
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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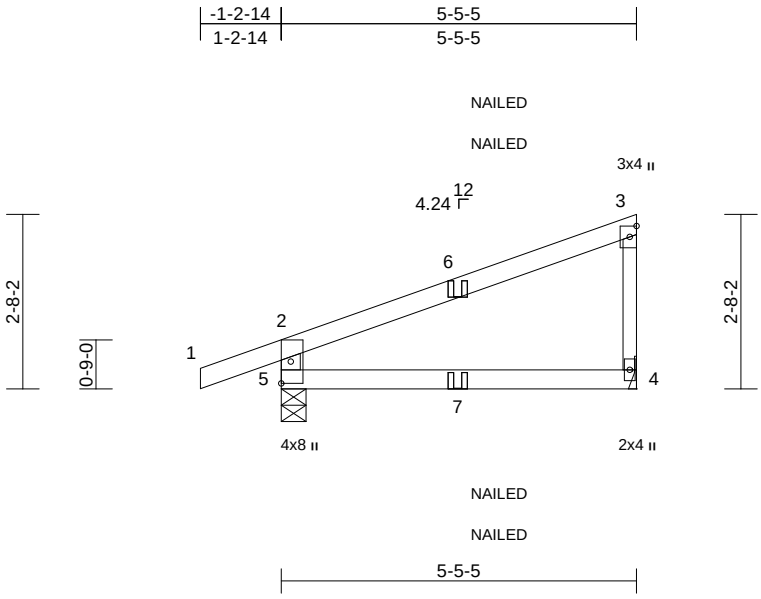

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.03	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.06	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	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 5-5-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=219/ Mechanical, 5=342/0-4-9
Max Horiz 5=112 (LC 5)
Max Uplift 4=-50 (LC 8), 5=-100 (LC 4)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-302/139, 1-2=0/32, 2-3=-136/16, 3-4=-158/72
BOT CHORD 4-5=-27/43

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior 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 3-06-00 tall by 2-00-00 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 5 and 50 lb uplift at joint 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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 (lb/ft)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 7=3 (F=1, B=1)

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	J2	Jack-Open	4	1	I49010969
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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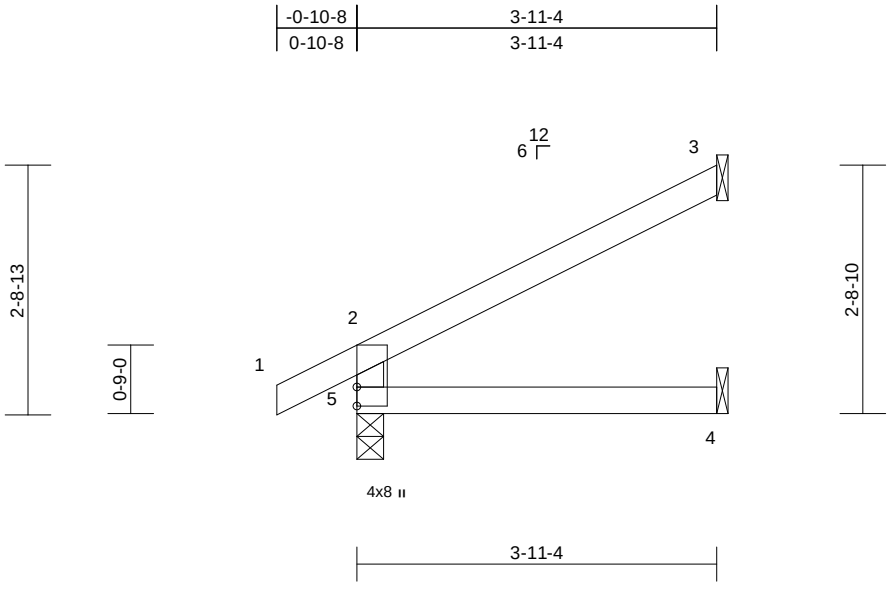

Scale = 1:25.2

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

LUMBER

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

BRACING

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

REACTIONS (lb/size) 3=114/ Mechanical, 4=44/ Mechanical, 5=249/0-3-8
Max Horiz 5=87 (LC 8)
Max Uplift 3=-66 (LC 8), 5=-28 (LC 8)
Max Grav 3=114 (LC 1), 4=70 (LC 3), 5=249 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-218/65, 1-2=0/32, 2-3=-74/39
BOT CHORD 4-5=0/0

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior 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 3-06-00 tall by 2-00-00 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 28 lb uplift at joint 5 and 66 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	J3	Jack-Open	8	1	I49010970 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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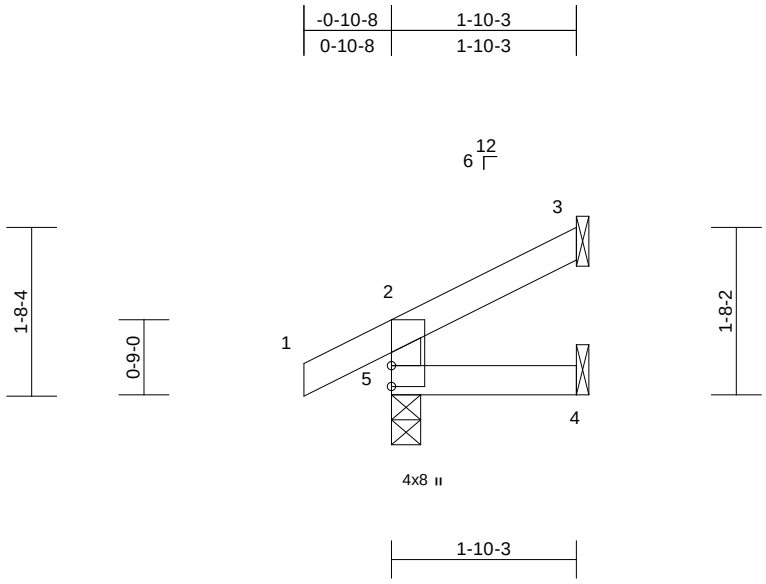

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>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

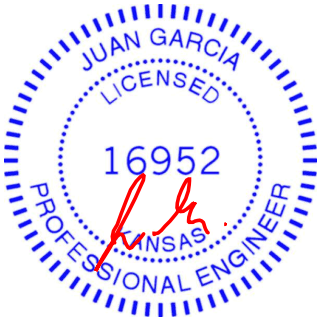
BRACING
TOP CHORD Structural wood sheathing directly applied or 1-10-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=42/ Mechanical, 4=13/ Mechanical, 5=169/0-3-8
Max Horiz 5=45 (LC 8)
Max Uplift 3=-30 (LC 8), 5=-24 (LC 8)
Max Grav 3=42 (LC 1), 4=30 (LC 3), 5=169 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-148/42, 1-2=0/32, 2-3=-36/13
BOT CHORD 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior 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 3-06-00 tall by 2-00-00 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 24 lb uplift at joint 5 and 30 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	J4	Diagonal Hip Girder	2	1	I49010971
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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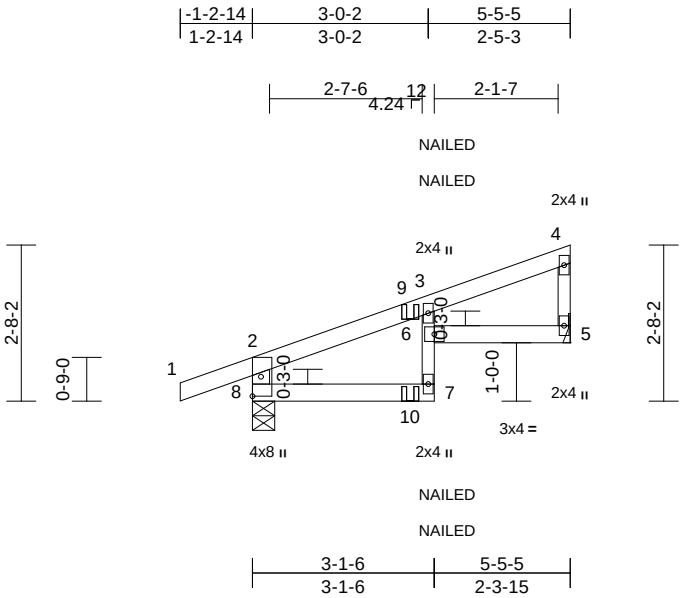

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.04	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.06	7	>961	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.04	6	>999	240	Weight: 17 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 7-3:2x3 SPF No.2
WEBS 2x4 SPF No.2 *Except* 4-5:2x3 SPF No.2

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

REACTIONS (lb/size) 5=219/ Mechanical, 8=342/0-4-9
Max Horiz 8=96 (LC 22)
Max Uplift 5=-52 (LC 8), 8=-98 (LC 4)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-317/120, 1-2=0/32, 2-3=-220/24, 3-4=-79/14, 4-5=-130/45
BOT CHORD 7-8=-42/136, 6-7=0/60, 3-6=-13/62, 5-6=-21/64

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) exterior 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 3-06-00 tall by 2-00-00 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 98 lb uplift at joint 8 and 52 lb uplift at joint 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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 (lb/ft)
Vert: 1-2=-70, 2-4=-70, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 10=3 (F=1, B=1)

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	J5	Jack-Open	5	1	I49010972
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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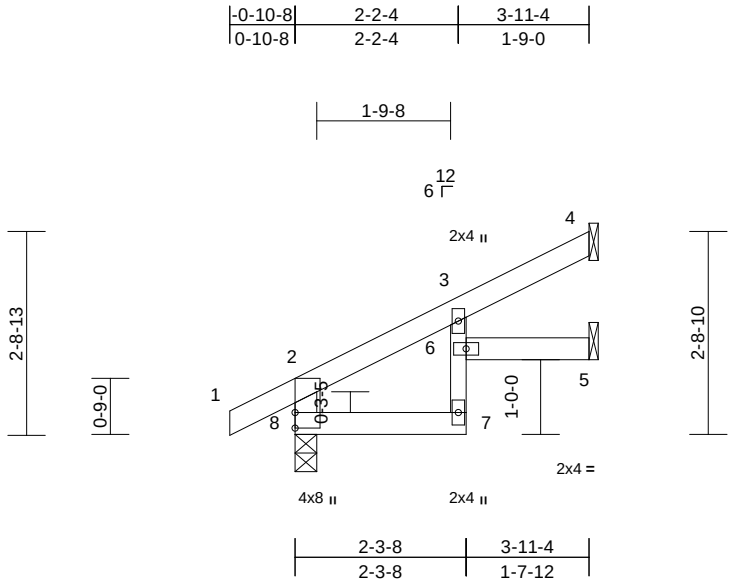

Scale = 1:30.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	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)	0.02	7	>999	240	Weight: 12 lb	FT = 10%

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

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

REACTIONS (lb/size) 4=101/ Mechanical, 5=57/ Mechanical, 8=249/0-3-8
Max Horiz 8=87 (LC 8)
Max Uplift 4=-47 (LC 8), 5=-12 (LC 8), 8=-28 (LC 8)
Max Grav 4=101 (LC 1), 5=59 (LC 3), 8=249 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-231/53, 1-2=0/32, 2-3=-130/0, 3-4=-29/40
BOT CHORD 7-8=-40/66, 6-7=0/43, 3-6=-1/51, 5-6=0/0

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) exterior 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 3-06-00 tall by 2-00-00 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 28 lb uplift at joint 8, 47 lb uplift at joint 4 and 12 lb uplift at joint 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.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	LAY1	Lay-In Gable	1	1	I49010973
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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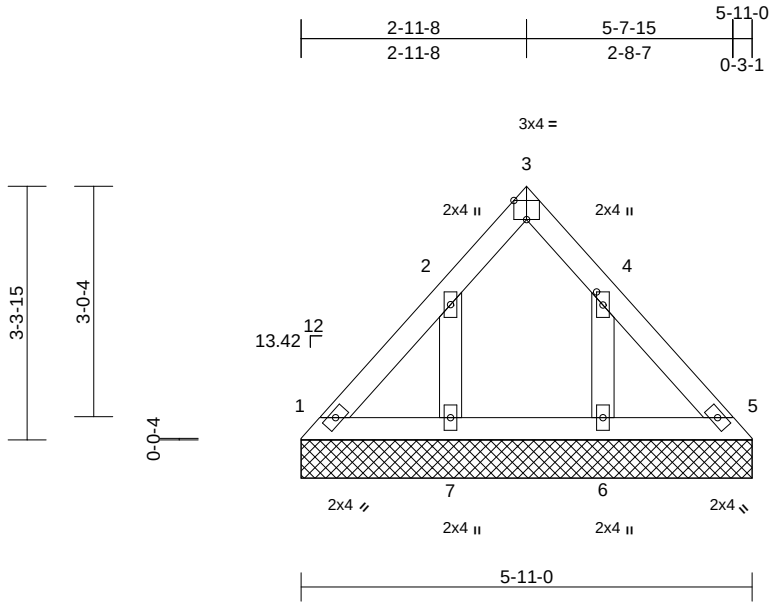

Scale = 1:30.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	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(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	5	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 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=78/5-11-0, 5=78/5-11-0, 6=161/5-11-0, 7=161/5-11-0
Max Horiz 1=-80 (LC 4)
Max Uplift 6=-106 (LC 9), 7=-107 (LC 8)
Max Grav 1=94 (LC 17), 5=93 (LC 18), 6=183 (LC 16), 7=184 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-113/60, 2-3=-63/15, 3-4=-63/14, 4-5=-112/58
BOT CHORD 1-7=-40/104, 6-7=-40/104, 5-6=-40/104
WEBS 2-7=-144/131, 4-6=-142/130

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 107 lb uplift at joint 7 and 106 lb uplift at joint 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.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010974
W258	LAY2	Lay-In Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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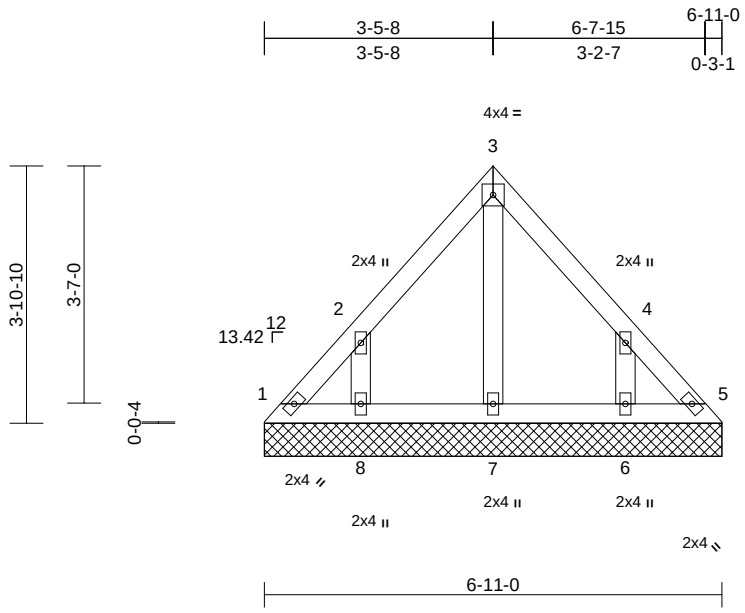

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 25 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
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 (lb/size) 1=47/6-11-0, 5=47/6-11-0, 6=180/6-11-0, 7=112/6-11-0, 8=180/6-11-0
Max Horiz 1=-95 (LC 4)
Max Uplift 1=-36 (LC 6), 5=-21 (LC 7), 6=-143 (LC 9), 8=-143 (LC 8)
Max Grav 1=83 (LC 17), 5=76 (LC 18), 6=209 (LC 16), 7=117 (LC 18), 8=209 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-116/84, 2-3=-99/69, 3-4=-92/56, 4-5=-103/64
BOT CHORD 1-8=-39/80, 7-8=-39/80, 6-7=-39/80, 5-6=-39/80
WEBS 3-7=-75/0, 2-8=-174/164, 4-6=-174/164

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 36 lb uplift at joint 1, 21 lb uplift at joint 5, 143 lb uplift at joint 8 and 143 lb uplift at joint 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.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010975
W258	P1	Piggyback	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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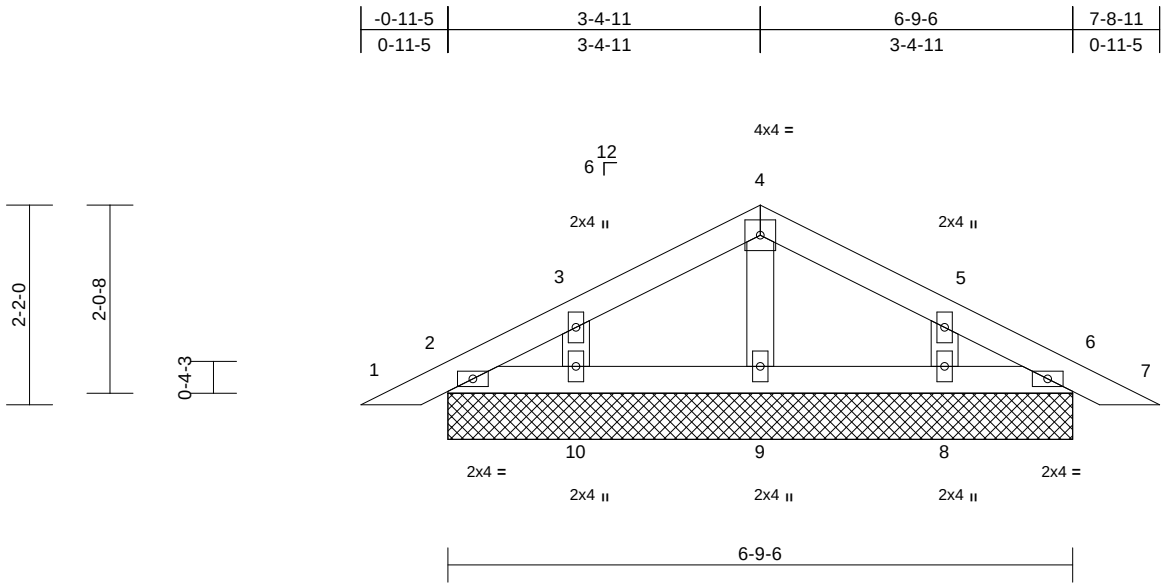

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 22 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 (lb/size) 2=99/6-9-6, 6=99/6-9-6, 8=176/6-9-6, 9=146/6-9-6, 10=176/6-9-6
Max Horiz 2=-35 (LC 13)
Max Uplift 2=-12 (LC 8), 6=-19 (LC 9), 8=-57 (LC 9), 10=-57 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-41/28, 3-4=-49/47, 4-5=-49/39, 5-6=-31/19, 6-7=0/17
BOT CHORD 2-10=-1/31, 9-10=-1/31, 8-9=-1/31, 6-8=-1/31
WEBS 4-9=-105/10, 3-10=-139/80, 5-8=-139/79

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 12 lb uplift at joint 2, 19 lb uplift at joint 6, 57 lb uplift at joint 10 and 57 lb uplift at joint 8.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010976
W258	P2	Piggyback	19	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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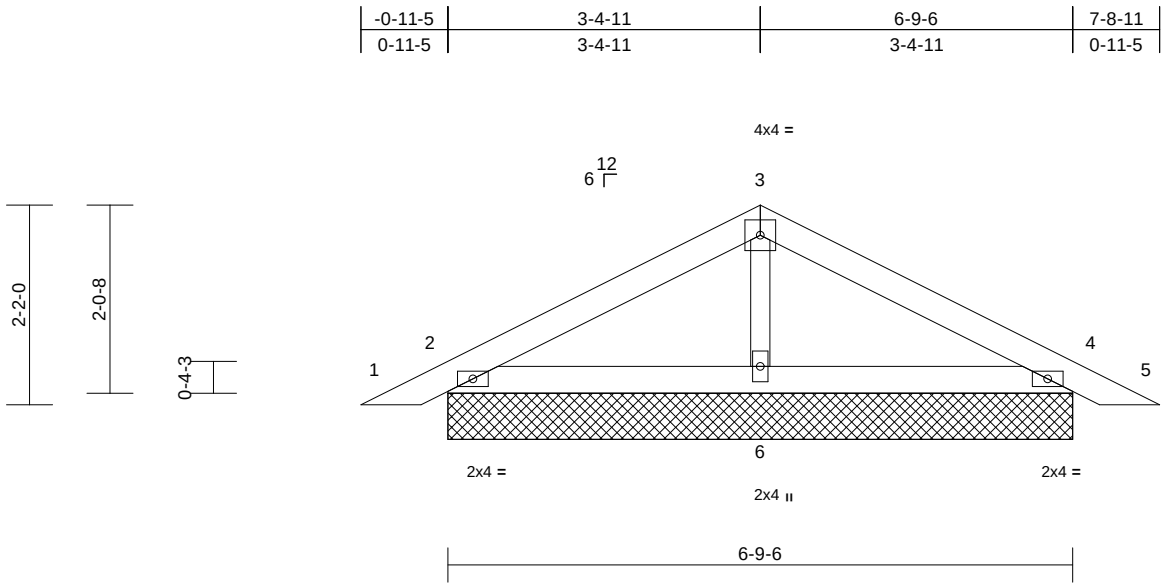

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	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
OTHERS 2x3 SPF No.2

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

REACTIONS (lb/size) 2=206/6-9-6, 4=206/6-9-6, 6=284/6-9-6
Max Horiz 2=35 (LC 12)
Max Uplift 2=-53 (LC 8), 4=-59 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-78/47, 3-4=-78/33, 4-5=0/17
BOT CHORD 2-6=0/38, 4-6=0/38
WEBS 3-6=-199/51

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 53 lb uplift at joint 2 and 59 lb uplift at joint 4.
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	R1	Piggyback Base Girder	1	2	I49010977
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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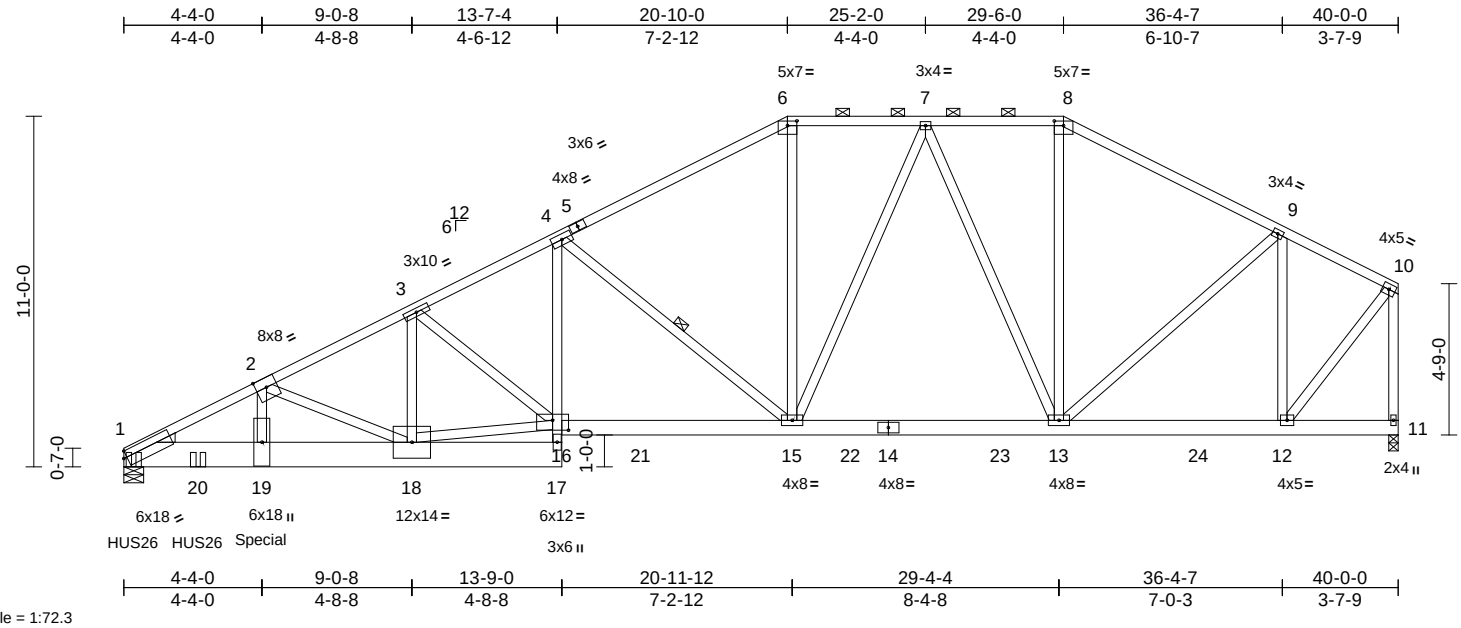

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Plate Offsets (X, Y): [1:Edge,0-2-9], [6:0-3-8,0-1-12], [8:0-3-8,0-1-12], [16:0-6-0,0-3-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.21	16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.36	16	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.81	Horz(CT)	0.09	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	16	>999	240	Weight: 557 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x4 SPF 2100F 1.8E

BOT CHORD 2x6 SP 2400F 2.0E *Except* 1-17:2x10 SP 2400F 2.0E

WEBS 2x4 SPF No.2 *Except* 18-16:2x4 SPF 2100F 1.8E

WEDGE Left: 2x4 SP No.3

BRACING

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

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

WEBS 1 Row at midpt 4-15

REACTIONS (lb/size) 1=10050/0-7-8, 11=2608/0-3-8
Max Horiz 1=272 (LC 26)
Max Grav 1=10786 (LC 15), 11=2785 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-17839/0, 2-3=-10049/0, 3-4=-7378/0, 4-6=-4214/0, 6-7=-3701/0, 7-8=-2519/0, 8-9=-2896/0, 9-10=-1724/0, 10-11=-2734/0

BOT CHORD 1-19=0/15686, 18-19=0/15686, 17-18=0/150, 15-16=0/6753, 13-15=0/3155, 12-13=0/1524, 11-12=-63/52

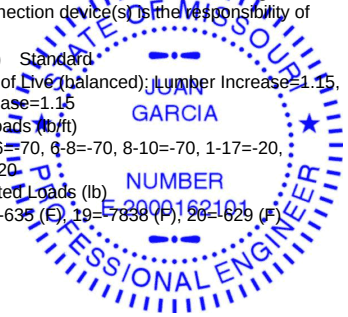
WEBS 16-17=-25/55, 4-16=0/3603, 2-19=0/6995, 4-15=-3977/0, 6-15=0/1506, 8-13=0/982, 9-13=0/1329, 9-12=-1723/28, 10-12=0/2452, 3-16=-3049/0, 3-18=0/2870, 2-18=-7338/0, 16-18=0/9030, 7-15=0/1486, 7-13=-1668/0

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 0-3-0 oc.
Bottom chords connected as follows: 2x10 - 3 rows staggered at 0-2-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Web 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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
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) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-4 oc max. starting at 0-3-12 from the left end to 2-4-0 to connect truss(es) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 8753 lb down at 4-4-0 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 (lb/ft)
Vert: 1-6=-70, 6-8=-70, 8-10=-70, 1-17=-20, 11-16=-20
Concentrated Loads (lb)
Vert: 1=-635 (F), 19=-7838 (F), 20=-629 (F)



November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010978
W258	V1	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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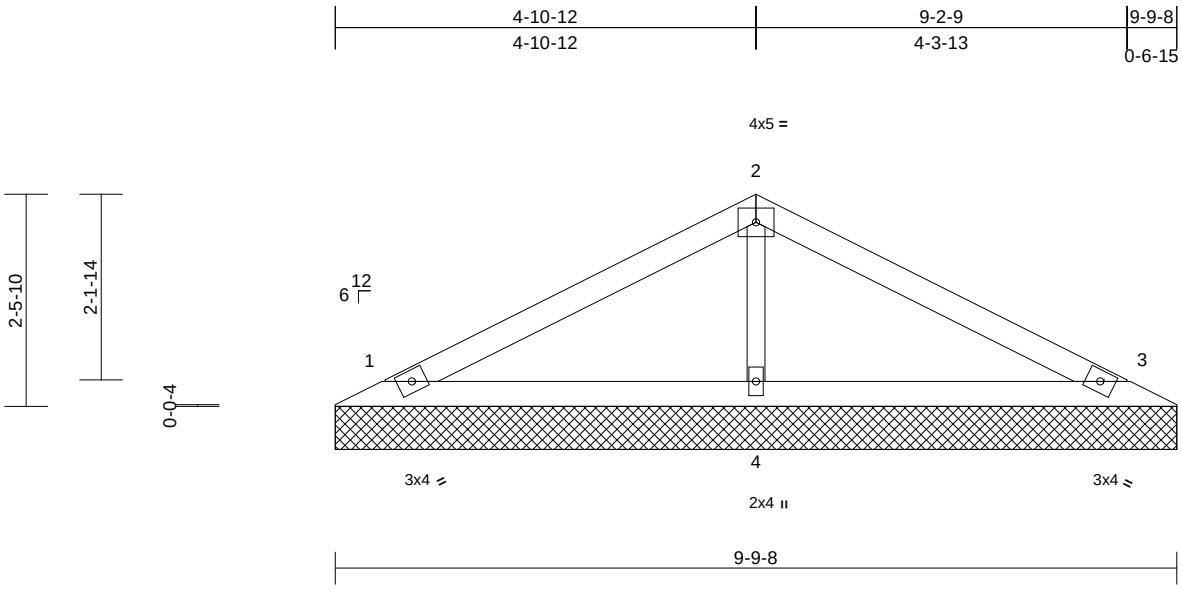

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 24 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=182/9-9-8, 3=182/9-9-8, 4=411/9-9-8
Max Horiz 1=38 (LC 12)
Max Uplift 1=-37 (LC 8), 3=-44 (LC 9), 4=-23 (LC 8)
Max Grav 1=183 (LC 21), 3=183 (LC 22), 4=411 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-111/56, 2-3=-111/40
BOT CHORD 1-4=-2/46, 3-4=-2/46
WEBS 2-4=-281/73

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 37 lb uplift at joint 1, 44 lb uplift at joint 3 and 23 lb uplift at joint 4.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	V2	Valley	1	1	I49010979
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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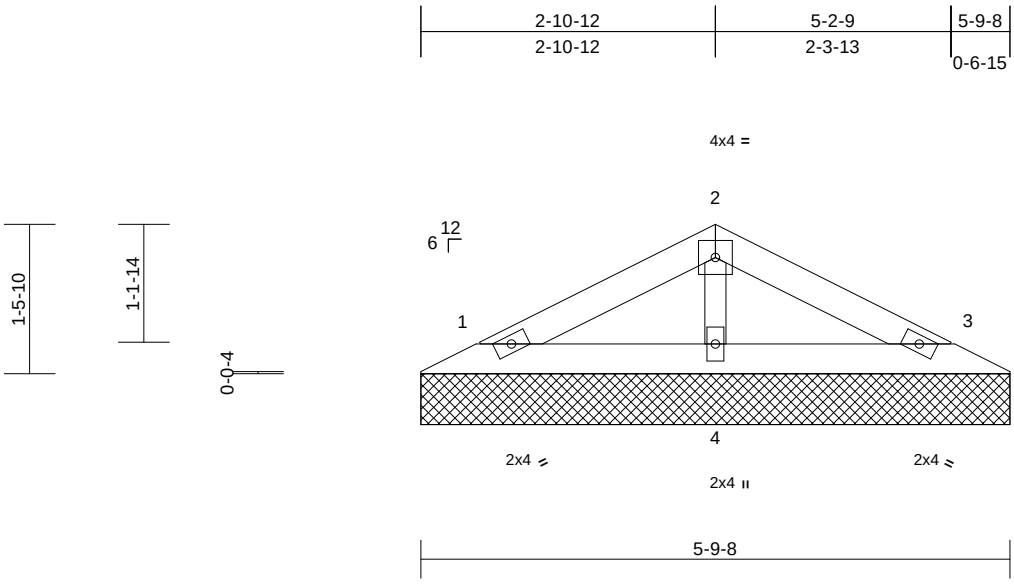

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	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
OTHERS 2x3 SPF No.2

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

REACTIONS (lb/size) 1=108/5-9-8, 3=108/5-9-8, 4=198/5-9-8
Max Horiz 1=-20 (LC 9)
Max Uplift 1=-25 (LC 8), 3=-28 (LC 9), 4=-3 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-52/29, 2-3=-52/21
BOT CHORD 1-4=-1/23, 3-4=-1/23
WEBS 2-4=-141/37

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 25 lb uplift at joint 1, 28 lb uplift at joint 3 and 3 lb uplift at joint 4.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010980
W258	V3	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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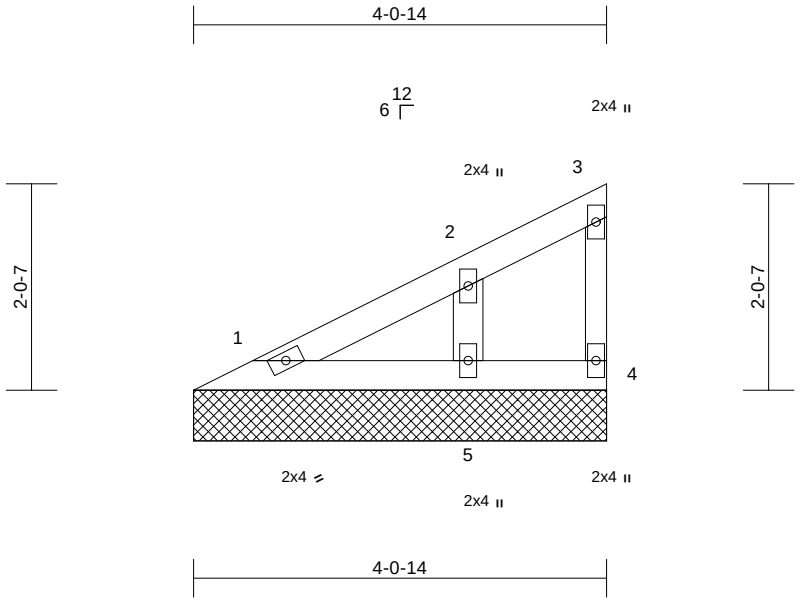

Scale = 1:22.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	4	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
OTHERS	2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-0-14 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=77/4-0-14, 4=28/4-0-14, 5=197/4-0-14
Max Horiz 1=70 (LC 5)
Max Uplift 4=-9 (LC 5), 5=-59 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-54/39, 2-3=-46/19, 3-4=-22/13
BOT CHORD	1-5=-24/18, 4-5=-24/18
WEBS	2-5=-153/85

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 9 lb uplift at joint 4 and 59 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	
W258	V4	Valley	1	1	Job Reference (optional)	I49010981

Wheeler Lumber, Waverly, KS - 66871,

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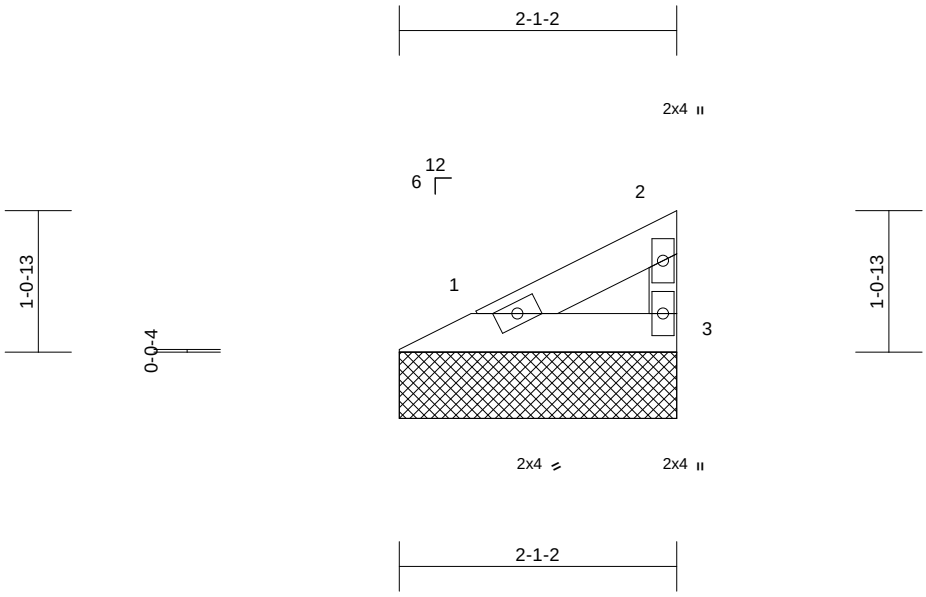

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 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 2-1-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=63/2-1-2, 3=63/2-1-2
Max Horiz 1=29 (LC 5)
Max Uplift 1=-8 (LC 8), 3=-15 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-27/18, 2-3=-49/24
BOT CHORD 1-3=-10/8

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 8 lb uplift at joint 1 and 15 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

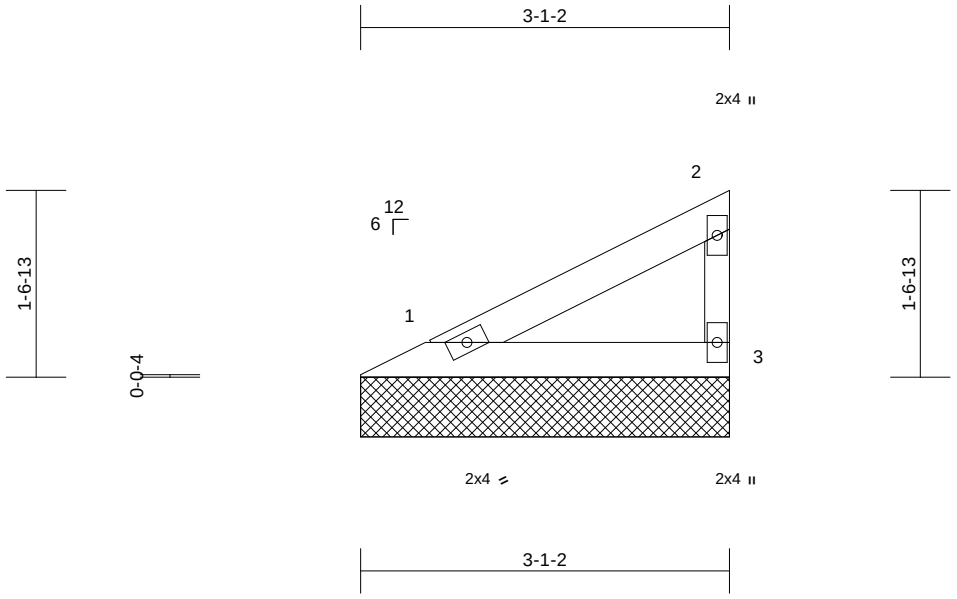
November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	
W258	V5	Valley	1	1	Job Reference (optional)	I49010982

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:41 ID:hquPfxpp0CdNHWhMuPizeLzNEki-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:19.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 8 lb	FT = 10%

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

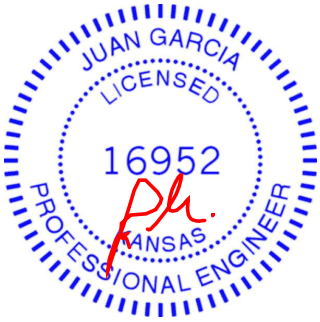
BRACING
TOP CHORD Structural wood sheathing directly applied or 3-1-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=108/3-1-2, 3=108/3-1-2
Max Horiz 1=50 (LC 5)
Max Uplift 1=-14 (LC 8), 3=-27 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-46/30, 2-3=-84/41
BOT CHORD 1-3=-17/13

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 14 lb uplift at joint 1 and 27 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	V6	Valley	1	1	I49010983
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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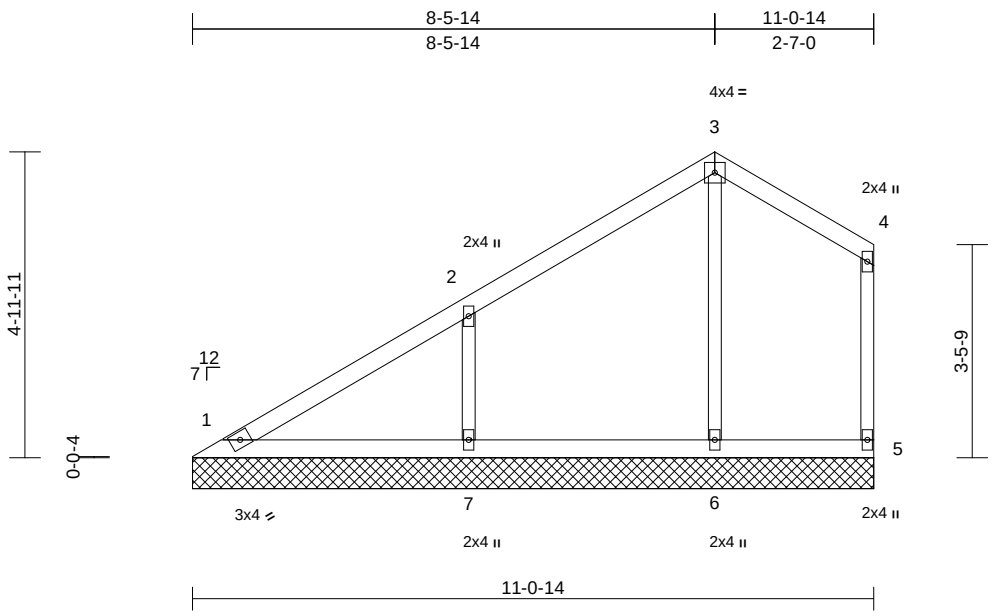

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 34 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 (lb/size) 1=139/11-0-14, 5=95/11-0-14, 6=280/11-0-14, 7=428/11-0-14
Max Horiz 1=166 (LC 5)
Max Uplift 1=-5 (LC 4), 5=-34 (LC 4), 6=-7 (LC 5), 7=-150 (LC 8)
Max Grav 1=156 (LC 16), 5=119 (LC 16), 6=280 (LC 15), 7=441 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-145/142, 2-3=-137/89, 3-4=-85/68, 4-5=-106/49
BOT CHORD	1-7=-45/35, 6-7=-45/35, 5-6=-45/35
WEBS	3-6=-217/54, 2-7=-340/198

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 5 lb uplift at joint 1, 34 lb uplift at joint 5, 7 lb uplift at joint 6 and 150 lb uplift at joint 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.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	V7	Valley	1	1	I49010984
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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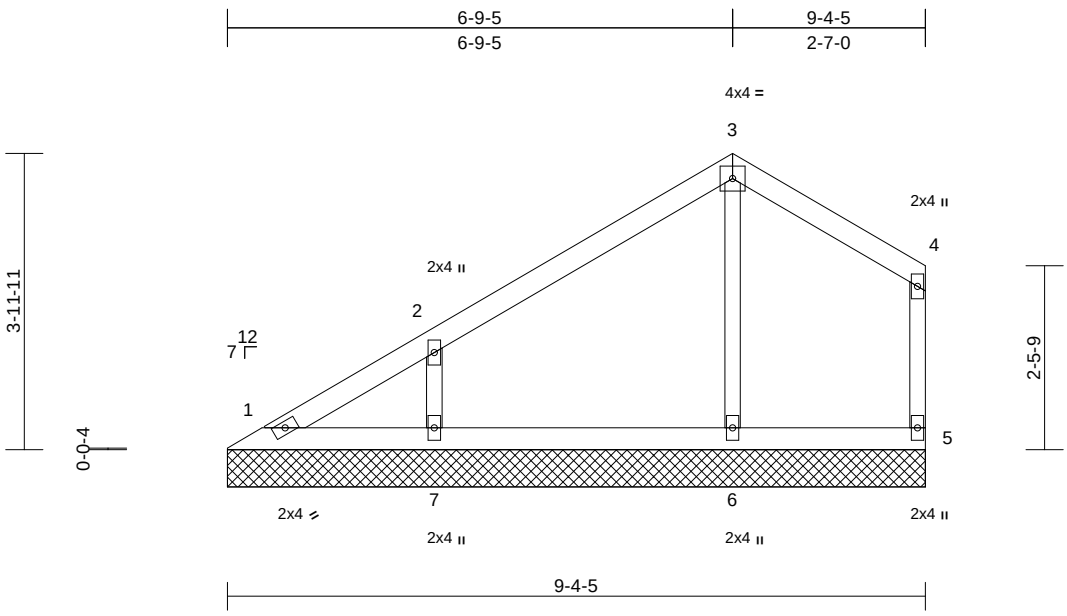

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 28 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 (lb/size) 1=54/9-4-5, 5=92/9-4-5, 6=296/9-4-5, 7=345/9-4-5
Max Horiz 1=126 (LC 5)
Max Uplift 1=-24 (LC 4), 5=-32 (LC 9), 7=-123 (LC 8)
Max Grav 1=83 (LC 16), 5=112 (LC 16), 6=296 (LC 1), 7=355 (LC 15)

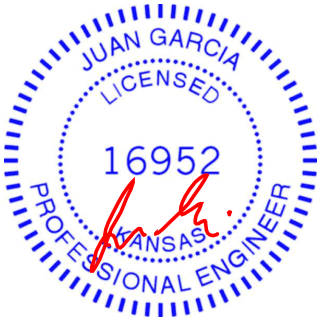
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-119/112, 2-3=-124/86, 3-4=-73/56, 4-5=-98/42
BOT CHORD	1-7=-30/23, 6-7=-30/23, 5-6=-30/23
WEBS	3-6=-223/46, 2-7=-283/167

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 24 lb uplift at joint 1, 32 lb uplift at joint 5 and 123 lb uplift at joint 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.

LOAD CASE(S) Standard



November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	V8	Valley	1	1	I49010985
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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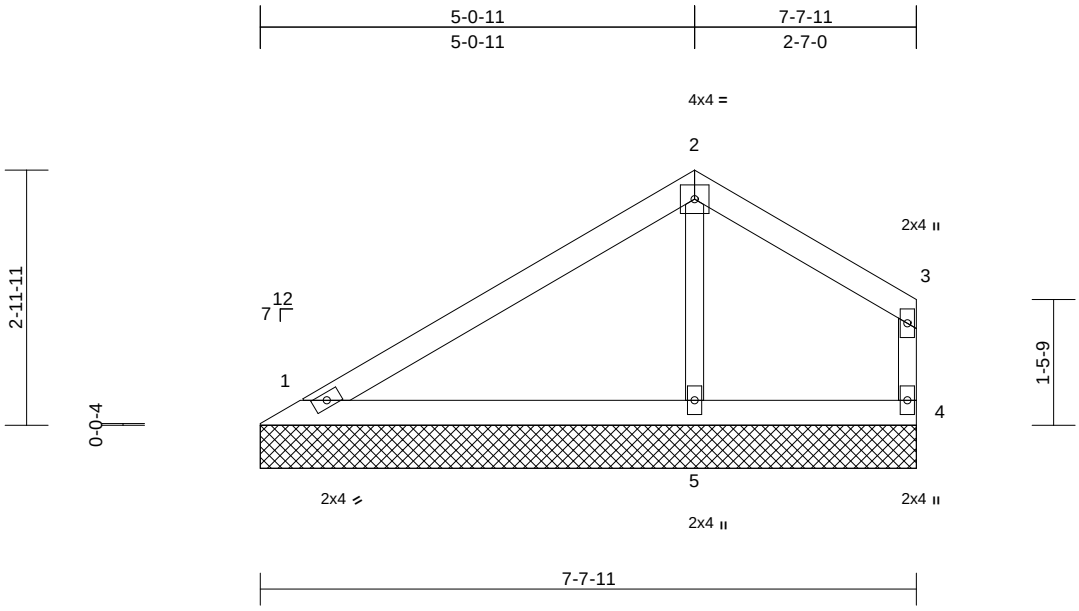

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	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
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 7-8-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=196/7-7-11, 4=96/7-7-11, 5=341/7-7-11
Max Horiz 1=86 (LC 5)
Max Uplift 1=-38 (LC 8), 4=-43 (LC 9), 5=-11 (LC 8)
Max Grav 1=196 (LC 1), 4=106 (LC 16), 5=341 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-99/89, 2-3=-53/41, 3-4=-97/48
BOT CHORD 1-5=-17/13, 4-5=-17/13
WEBS 2-5=-246/68

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 38 lb uplift at joint 1, 43 lb uplift at joint 4 and 11 lb uplift at joint 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010986
W258	V9	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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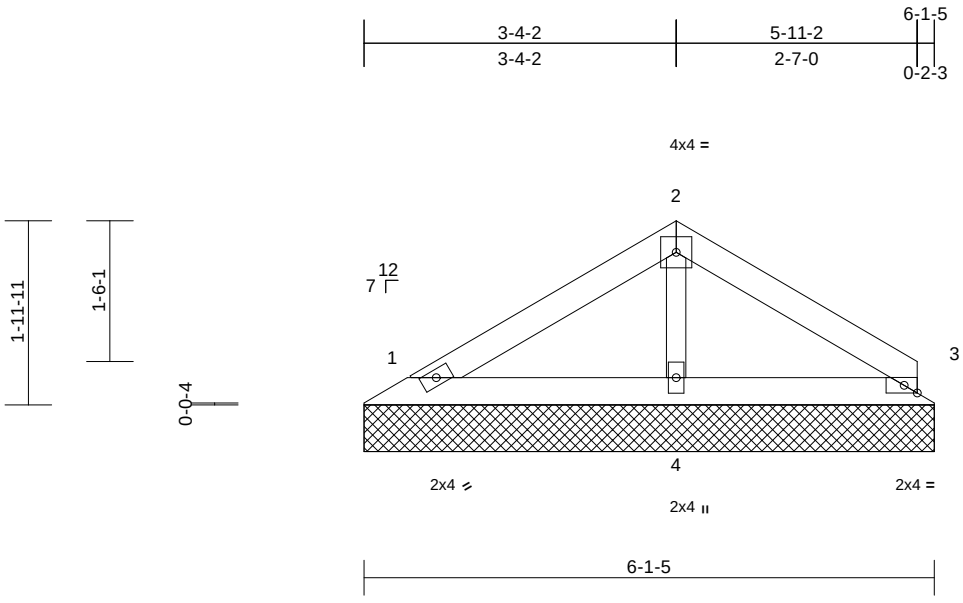

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Plate Offsets (X, Y): [3:0-1-11,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	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 5-11-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=139/6-1-5, 3=136/6-1-5, 4=230/6-1-5
Max Horiz 1=43 (LC 5)
Max Uplift 1=-31 (LC 8), 3=-36 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-78/40, 2-3=-75/30
BOT CHORD 1-4=-8/36, 3-4=-8/36
WEBS 2-4=-160/41

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 31 lb uplift at joint 1 and 36 lb uplift at joint 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	
W258	V10	Valley	1	1	Job Reference (optional)	I49010987

Wheeler Lumber, Waverly, KS - 66871,

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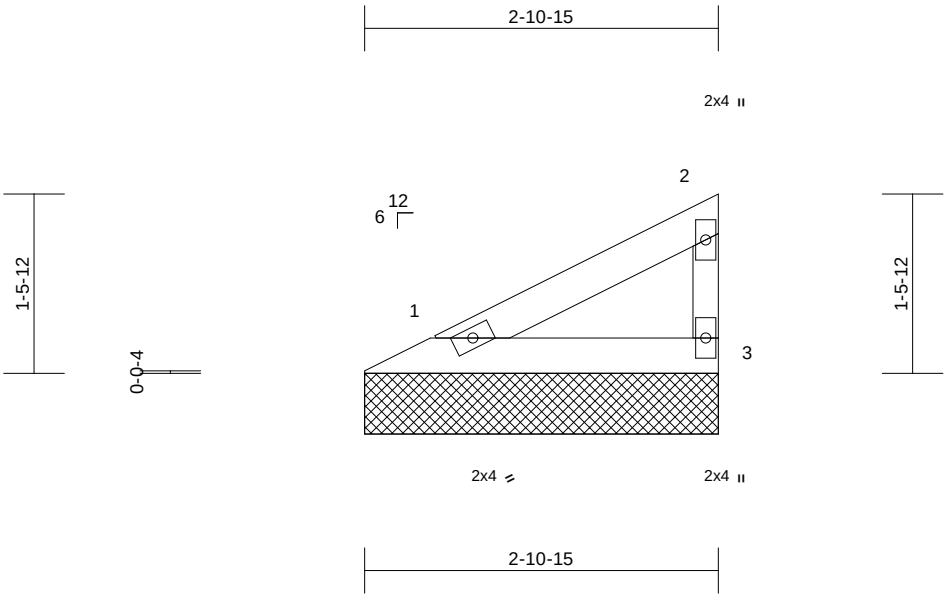

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 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 2-11-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=100/2-10-15, 3=100/2-10-15
Max Horiz 1=46 (LC 5)
Max Uplift 1=-13 (LC 8), 3=-25 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-42/28, 2-3=-78/38
BOT CHORD 1-3=-16/12

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 13 lb uplift at joint 1 and 25 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010988
W258	V11	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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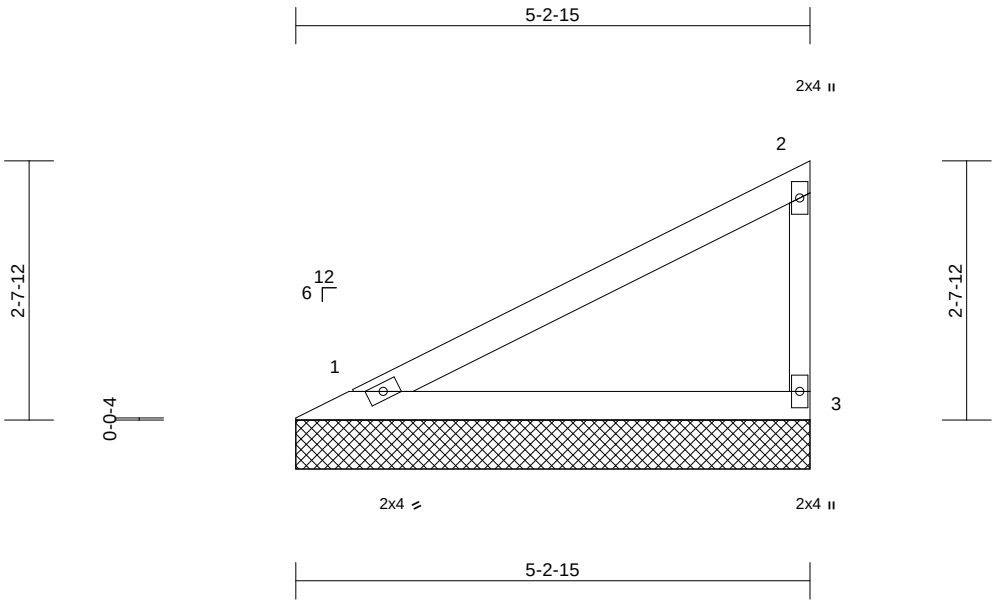

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 14 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-3-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=205/5-2-15, 3=205/5-2-15
Max Horiz 1=95 (LC 5)
Max Uplift 1=-26 (LC 8), 3=-50 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-87/57, 2-3=-159/78
BOT CHORD 1-3=-32/25

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 26 lb uplift at joint 1 and 50 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

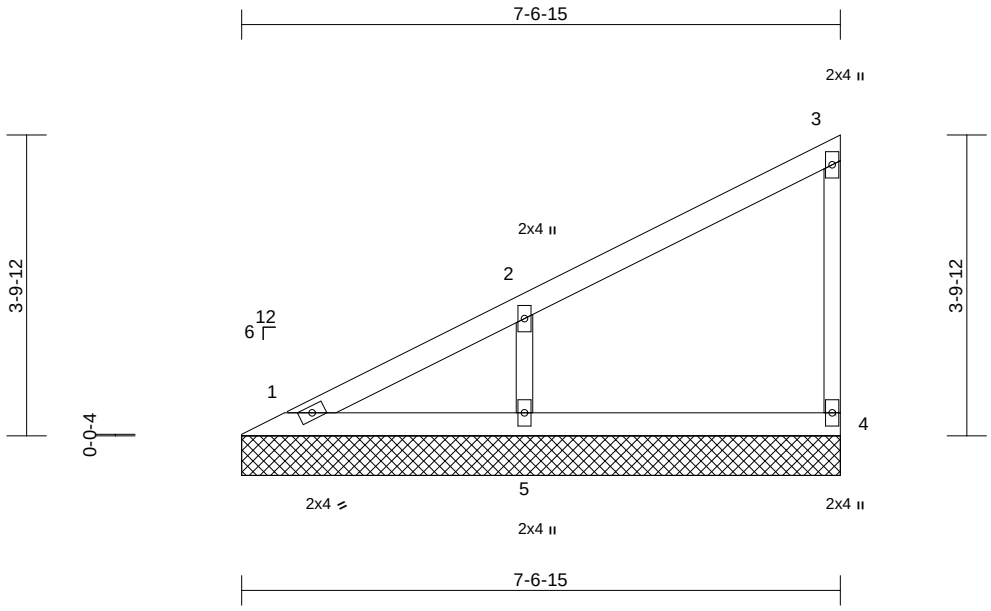
November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010989
W258	V12	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:44 ID:hquPfxpp0CdNHWhMuPizeLzNEki-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:29.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	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
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 (lb/size) 1=88/7-6-15, 4=139/7-6-15, 5=392/7-6-15
Max Horiz 1=144 (LC 5)
Max Uplift 4=-26 (LC 5), 5=-118 (LC 8)
Max Grav 1=99 (LC 16), 4=139 (LC 1), 5=392 (LC 1)

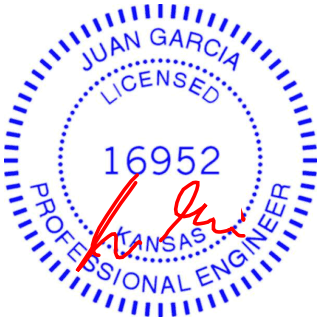
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-118/65, 2-3=-110/44, 3-4=-109/44
BOT CHORD	1-5=-49/37, 4-5=-49/37
WEBS	2-5=-305/170

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 26 lb uplift at joint 4 and 118 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



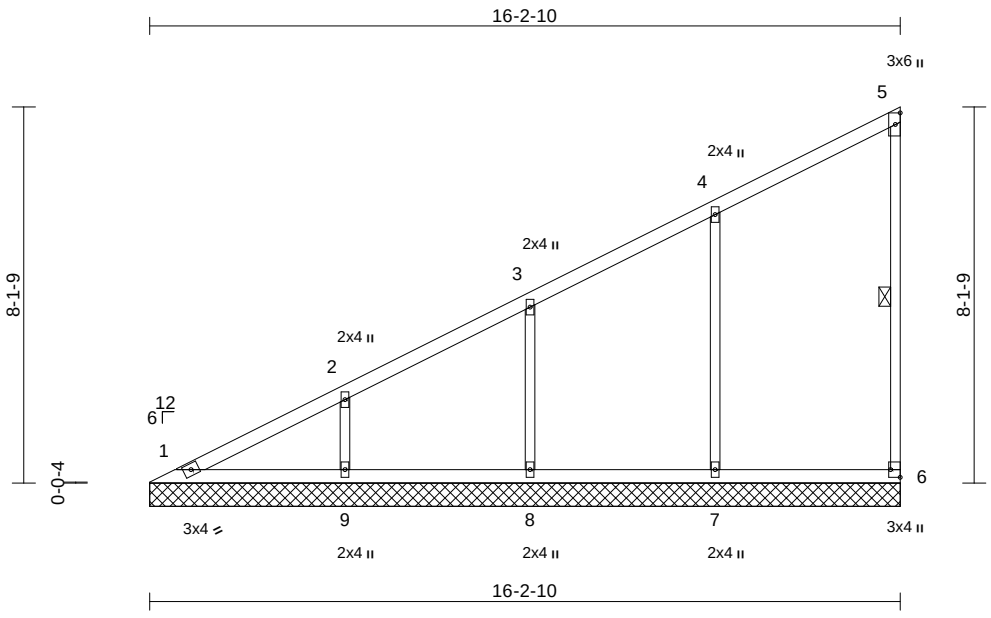
November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	V13	Valley	1	1	I49010990
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:44 ID:hquPfxpp0CdNHWhMuPizeLzNEki-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:49.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.26	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 53 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.
WEBS	1 Row at midpt 5-6

REACTIONS (lb/size) 1=127/16-2-10, 6=141/16-2-10, 7=397/16-2-10, 8=346/16-2-10, 9=387/16-2-10

Max Horiz 1=323 (LC 5)

Max Uplift 6=-44 (LC 5), 7=-119 (LC 8), 8=-104 (LC 8), 9=-117 (LC 8)

Max Grav 1=194 (LC 16), 6=181 (LC 15), 7=478 (LC 2), 8=383 (LC 2), 9=394 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-276/84, 2-3=-220/78, 3-4=-188/83, 4-5=-153/82, 5-6=-109/47
BOT CHORD	1-9=-110/84, 8-9=-110/84, 7-8=-110/84, 6-7=-110/84
WEBS	4-7=-308/148, 3-8=-270/157, 2-9=-294/160

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 6, 119 lb uplift at joint 7, 104 lb uplift at joint 8 and 117 lb uplift at joint 9.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

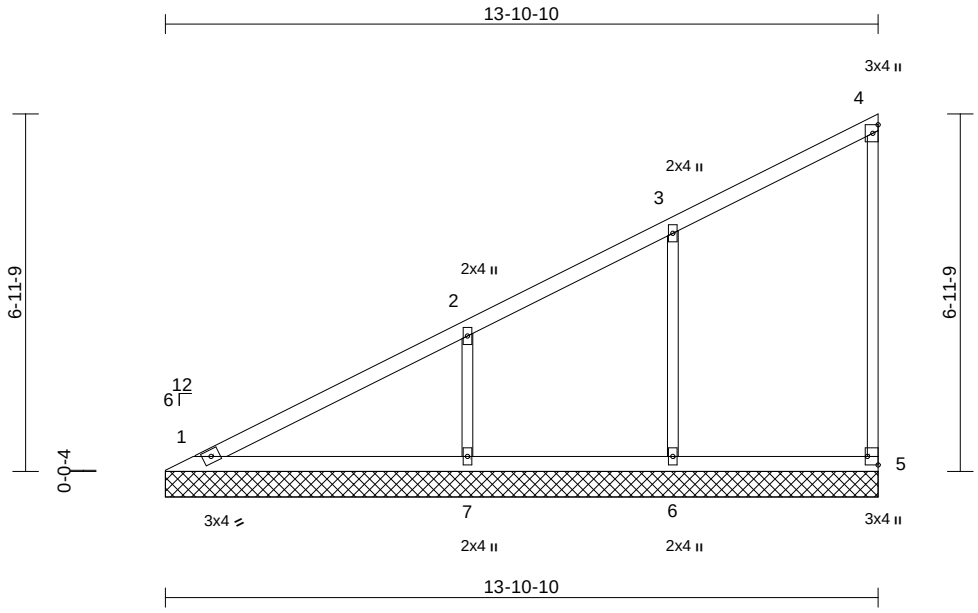
November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	V14	Valley	1	1	I49010991
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:44 ID:hquPfxpp0CdNHWhMuPizeLzNEki-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:44.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 44 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 (lb/size) 1=196/13-10-10, 5=150/13-10-10, 6=349/13-10-10, 7=493/13-10-10
Max Horiz 1=275 (LC 5)
Max Uplift 5=-40 (LC 5), 6=-105 (LC 8), 7=-148 (LC 8)
Max Grav 1=243 (LC 16), 5=191 (LC 15), 6=396 (LC 2), 7=501 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-224/101, 2-3=-173/67, 3-4=-141/70, 4-5=-115/48
BOT CHORD	1-7=-93/71, 6-7=-93/71, 5-6=-93/71
WEBS	3-6=-277/140, 2-7=-370/205

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 5, 105 lb uplift at joint 6 and 148 lb uplift at joint 7.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010992
W258	V15	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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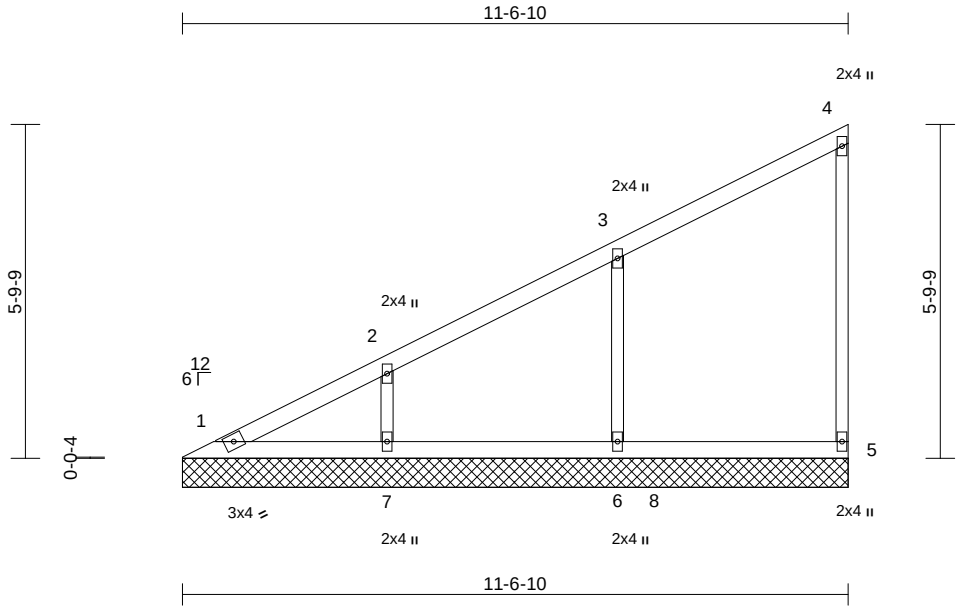

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 35 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 (lb/size) 1=100/11-6-10, 5=141/11-6-10, 6=398/11-6-10, 7=339/11-6-10
Max Horiz 1=226 (LC 5)
Max Uplift 5=-34 (LC 5), 6=-119 (LC 8), 7=-102 (LC 8)
Max Grav 1=146 (LC 16), 5=180 (LC 15), 6=436 (LC 2), 7=342 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-191/64, 2-3=-151/72, 3-4=-132/59, 4-5=-109/45
BOT CHORD	1-7=-77/59, 6-7=-77/59, 5-6=-77/59
WEBS	3-6=-311/163, 2-7=-259/146

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 5, 119 lb uplift at joint 6 and 102 lb uplift at joint 7.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	
W258	V16	Valley	1	1	Job Reference (optional)	I49010993

Wheeler Lumber, Waverly, KS - 66871,

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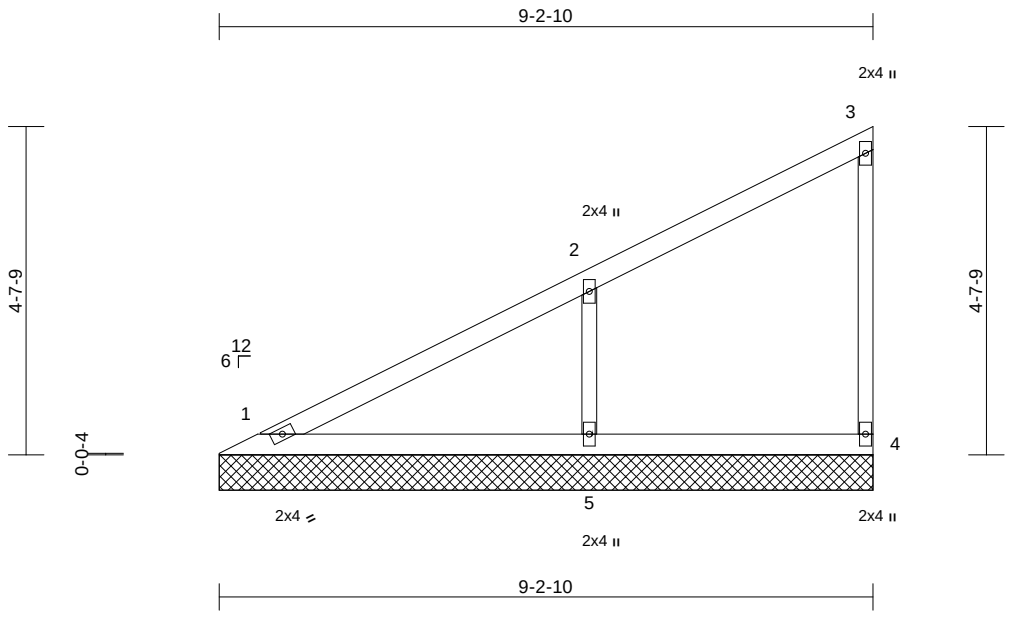

Scale = 1:32.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	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 (lb/size) 1=166/9-2-10, 4=125/9-2-10, 5=477/9-2-10
Max Horiz 1=178 (LC 5)
Max Uplift 4=-28 (LC 5), 5=-143 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-141/83, 2-3=-122/46, 3-4=-98/41
BOT CHORD	1-5=-60/46, 4-5=-60/46
WEBS	2-5=-362/192

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 28 lb uplift at joint 4 and 143 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	V17	Valley	1	1	I49010994
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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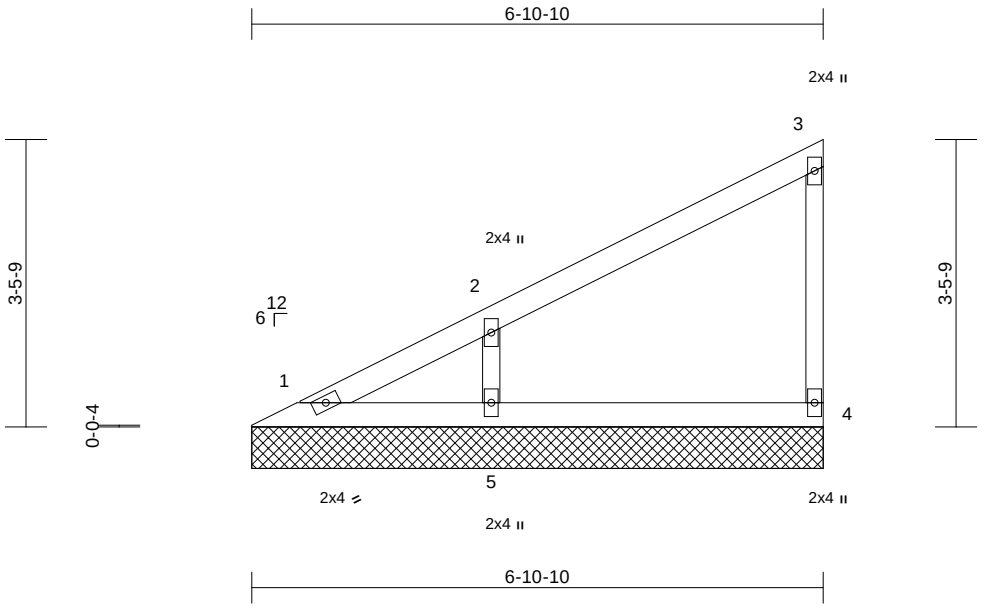


Scale = 1:27.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 1=47/6-10-10, 4=142/6-10-10, 5=368/6-10-10
Max Horiz 1=129 (LC 5)
Max Uplift 4=-27 (LC 8), 5=-110 (LC 8)
Max Grav 1=66 (LC 16), 4=142 (LC 1), 5=368 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-110/58, 2-3=-105/43, 3-4=-111/46
BOT CHORD	1-5=-44/33, 4-5=-44/33
WEBS	2-5=-286/159

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 27 lb uplift at joint 4 and 110 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

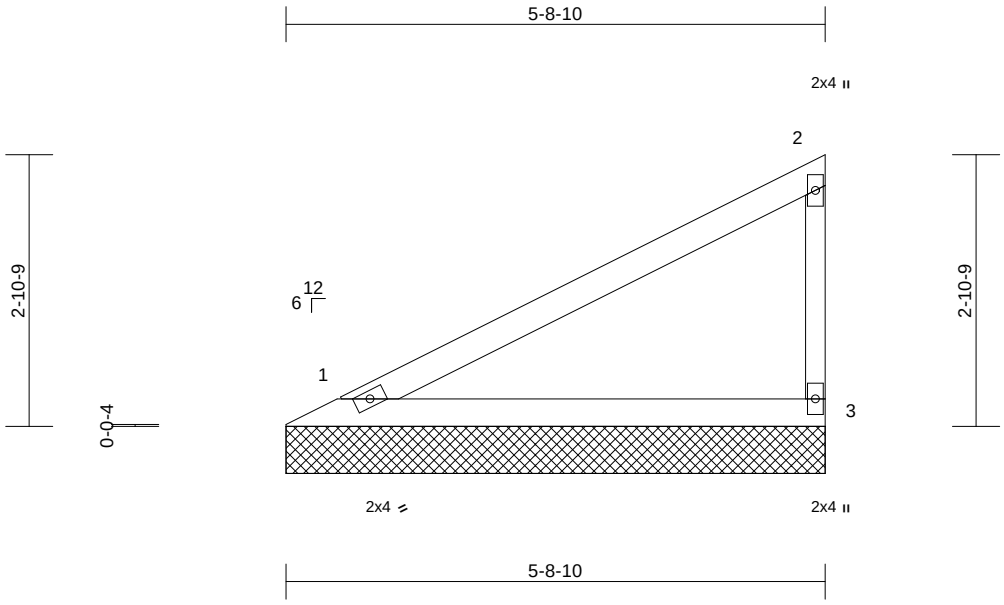
November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	V18	Valley	1	1	I49010995
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Nov 30 10:20:46 ID:hquPfxpp0CdNHWhMuPizeLzNEki-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:24.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-9-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=226/5-8-10, 3=226/5-8-10
Max Horiz 1=105 (LC 7)
Max Uplift 1=-29 (LC 8), 3=-55 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-96/63, 2-3=-176/86
BOT CHORD 1-3=-36/27

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 29 lb uplift at joint 1 and 55 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	V19	Valley	1	1	I49010996
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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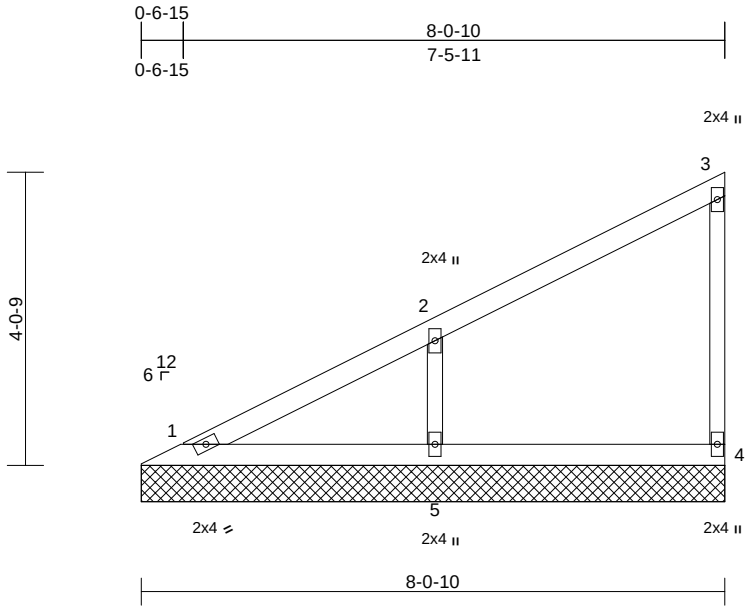

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 23 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
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 (lb/size) 1=112/8-0-10, 4=136/8-0-10, 5=415/8-0-10
Max Horiz 1=153 (LC 5)
Max Uplift 4=-26 (LC 5), 5=-124 (LC 8)
Max Grav 1=119 (LC 16), 4=136 (LC 1), 5=415 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-125/72, 2-3=-114/44, 3-4=-106/44
BOT CHORD	1-5=-52/40, 4-5=-52/40
WEBS	2-5=-322/180

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 26 lb uplift at joint 4 and 124 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2
W258	V20	Valley	1	1	I49010997
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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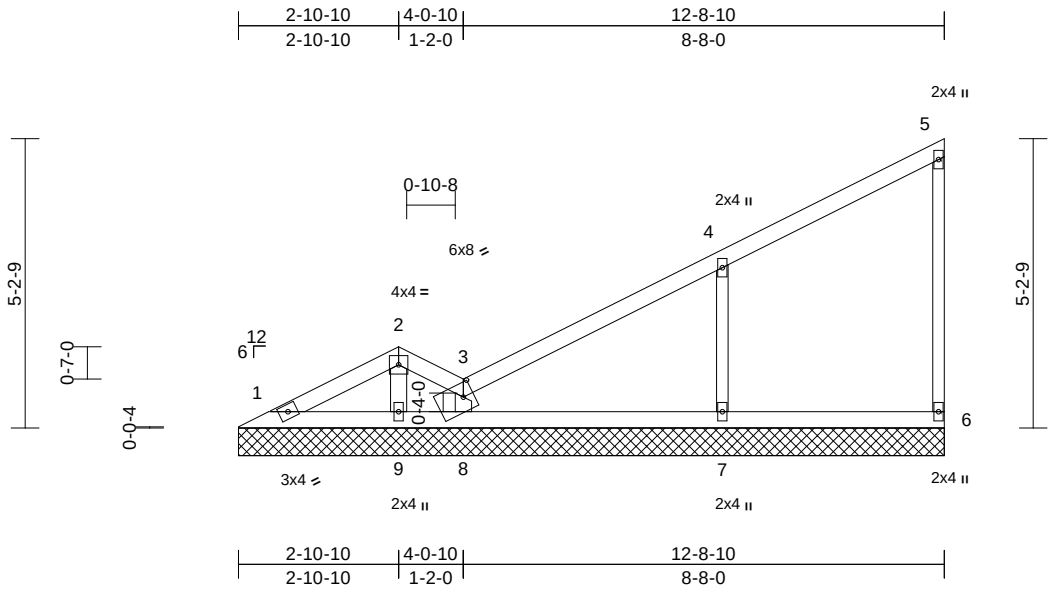

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Plate Offsets (X, Y): [3:0-2-4,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 38 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2 *Except* 5-6:2x3 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 (lb/size) 1=96/12-8-10, 6=130/12-8-10, 7=451/12-8-10, 8=297/12-8-10, 9=109/12-8-10
Max Horiz 1=202 (LC 5)
Max Uplift 6=-30 (LC 5), 7=-139 (LC 8), 9=-146 (LC 5)
Max Grav 1=119 (LC 16), 6=130 (LC 1), 7=451 (LC 1), 8=310 (LC 16), 9=109 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-169/46, 2-3=-154/24, 3-4=-149/83, 4-5=-128/53, 5-6=-100/42
BOT CHORD	1-9=-68/53, 8-9=-68/53, 7-8=-68/53, 6-7=-68/53
WEBS	4-7=-354/189, 2-9=-85/153, 3-8=-239/13

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Provide adequate drainage to prevent water ponding.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 30 lb uplift at joint 6, 139 lb uplift at joint 7 and 146 lb uplift at joint 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.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010998
W258	V21	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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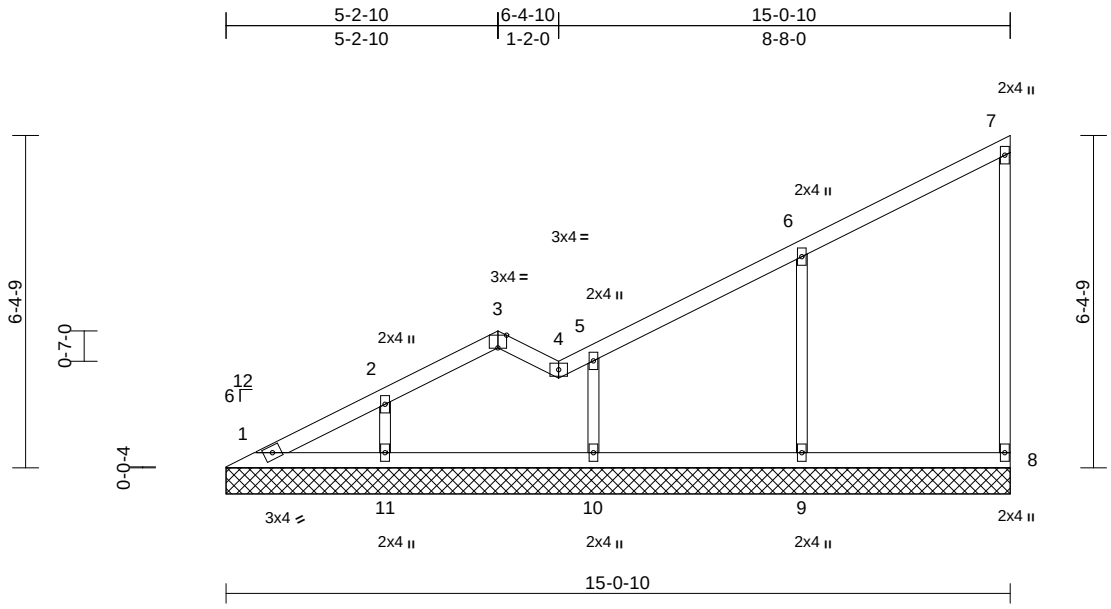

Scale = 1:44.2

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 (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 46 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 (lb/size) 1=70/15-0-10, 8=143/15-0-10, 9=390/15-0-10, 10=362/15-0-10, 11=328/15-0-10
Max Horiz 1=251 (LC 5)
Max Uplift 8=-38 (LC 5), 9=-115 (LC 8), 10=-58 (LC 8), 11=-136 (LC 8)
Max Grav 1=135 (LC 16), 8=183 (LC 15), 9=438 (LC 2), 10=366 (LC 2), 11=347 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-225/64, 2-3=-151/28, 3-4=-121/20, 4-5=-159/69, 5-6=-158/72, 6-7=-137/65, 7-8=-110/47
BOT CHORD 1-11=-86/65, 10-11=-86/65, 9-10=-86/65, 8-9=-86/65
WEBS 6-9=-303/155, 5-10=-282/109, 2-11=-254/179

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 8, 115 lb uplift at joint 9, 58 lb uplift at joint 10 and 136 lb uplift at joint 11.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	I49010999
W258	V22	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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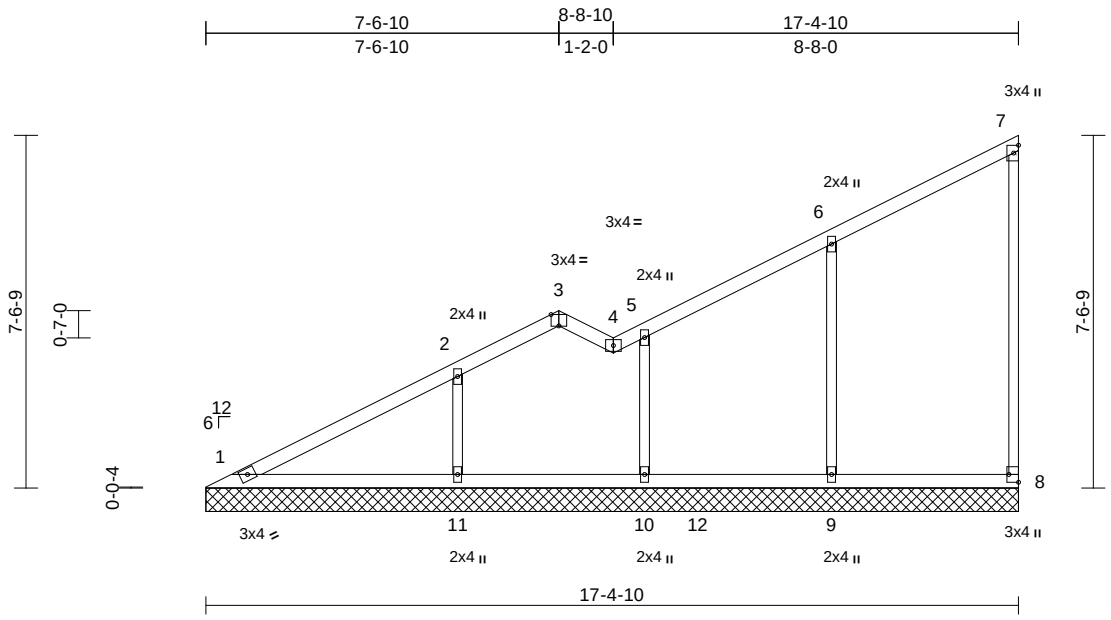

Scale = 1:49.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	8	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	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 (lb/size) 1=174/17-4-10, 8=140/17-4-10, 9=402/17-4-10, 10=321/17-4-10, 11=465/17-4-10
Max Horiz 1=299 (LC 5)
Max Uplift 8=-43 (LC 5), 9=-119 (LC 8), 10=-52 (LC 8), 11=-165 (LC 8)
Max Grav 1=234 (LC 16), 8=180 (LC 15), 9=481 (LC 2), 10=342 (LC 2), 11=483 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-251/98, 2-3=-170/31, 3-4=-132/28, 4-5=-168/67, 5-6=-172/81, 6-7=-149/76, 7-8=-109/48
BOT CHORD	1-11=-102/78, 10-11=-102/78, 9-10=-102/78, 8-9=-102/78
WEBS	6-9=-312/153, 5-10=-254/102, 2-11=-350/216

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Provide adequate drainage to prevent water ponding.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 8, 119 lb uplift at joint 9, 52 lb uplift at joint 10 and 165 lb uplift at joint 11.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

November 30,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 58 W2	
W258	V23	Valley	1	1	Job Reference (optional)	I49011000

Wheeler Lumber, Waverly, KS - 66871,

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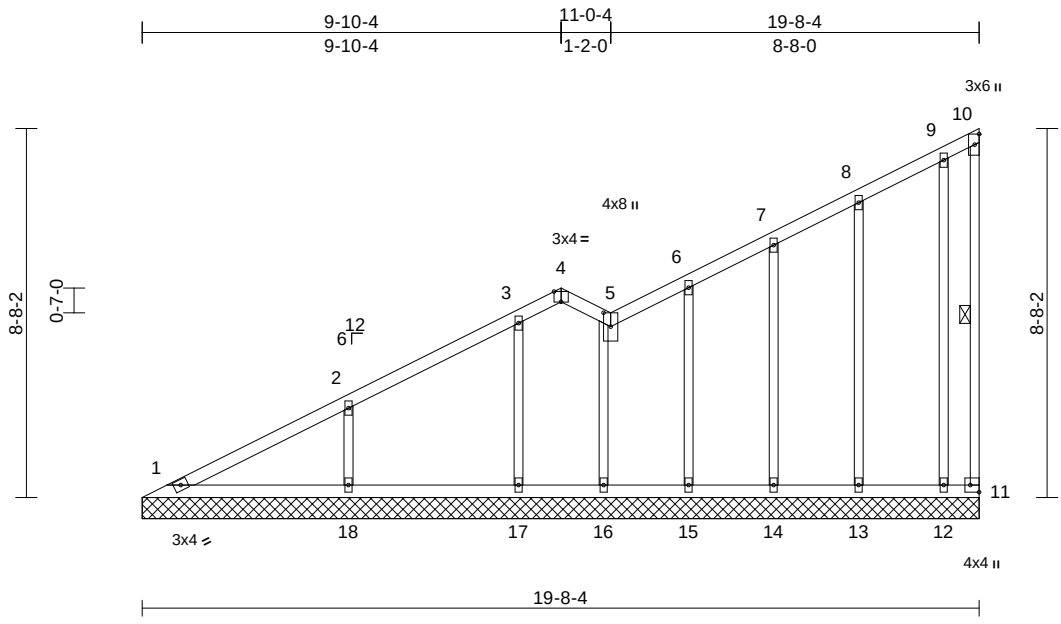


Scale = 1:54.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.00	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 82 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

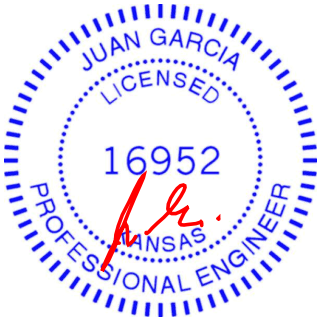
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 10-11

REACTIONS (lb/size) 1=148/19-8-4, 11=14/19-8-4, 12=133/19-8-4, 13=190/19-8-4, 14=178/19-8-4, 15=182/19-8-4, 16=144/19-8-4, 17=282/19-8-4, 18=435/19-8-4
Max Horiz 1=346 (LC 5)
Max Uplift 11=-102 (LC 7), 12=-77 (LC 8), 13=-40 (LC 8), 14=-61 (LC 8), 15=-43 (LC 8), 17=-126 (LC 8), 18=-126 (LC 8)
Max Grav 1=190 (LC 16), 11=77 (LC 4), 12=145 (LC 16), 13=190 (LC 1), 14=178 (LC 1), 15=182 (LC 1), 16=164 (LC 16), 17=282 (LC 1), 18=435 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-290/99, 2-3=-232/82, 3-4=-152/39, 4-5=-159/40, 5-6=-188/57, 6-7=-184/67, 7-8=-169/80, 8-9=-149/91, 9-10=-81/57, 10-11=-67/55
BOT CHORD 1-18=-122/91, 17-18=-122/91, 16-17=-122/91, 15-16=-119/90, 14-15=-119/90, 13-14=-119/90, 12-13=-119/90, 11-12=-119/90
WEBS 2-18=-330/176, 3-17=-225/166, 5-16=-131/17, 6-15=-141/69, 7-14=-139/82, 8-13=-149/74, 9-12=-112/111

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 102 lb uplift at joint 11, 126 lb uplift at joint 18, 126 lb uplift at joint 17, 43 lb uplift at joint 15, 61 lb uplift at joint 14, 40 lb uplift at joint 13 and 77 lb uplift at joint 12.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

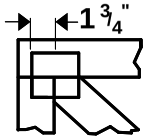


November 30,2021

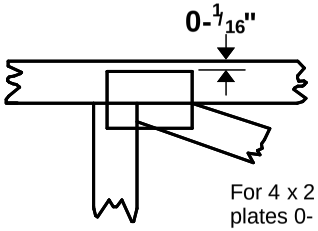
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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.

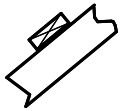
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

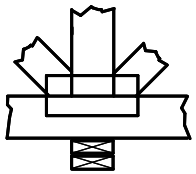
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

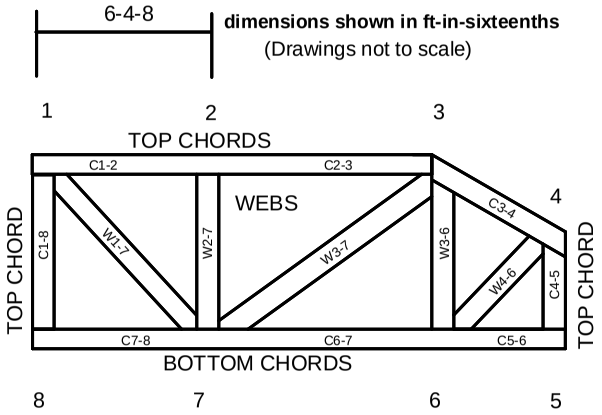


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.

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.